

## **SAGE-I Final Report**

### **Publications: (major publications resulting from the work under the award)**

IRIS, a university research consortium dedicated to exploring the Earth's interior and earthquake processes through the collection and distribution of seismological data, plays an important supporting role in scientific research, reflected through citations in publications of research papers and abstracts. IRIS's existing database of publications based on the use of IRIS resources now has more than 11,400 entries.

IRIS has been tracking citations in 11 traditional journals since 2000. To maintain continuity while searching journals and procuring citations, the processes and procedures used in previous years were followed closely and improved upon where applicable. These procedures and data findings are outlined below.

This report has been prepared for the **SAGE-I Final Report**. While it uses the same approach as in previous years and includes nearly all of the IRIS-related citations for 2021, there will be a slightly expanded citations report included with the SAGE-II Annual Report.

### ***Citations Summary – Calendar Year 2021***

Between January 1, 2021 and December 31, 2021, there were 1,176 references to IRIS-related data or products in published scientific literature. This includes 717 references in top journals (Top 11 and 26 others), 227 references in additional journals and books, 166 references in conference proceedings or abstracts, and 66 references in theses.

### ***Introduction***

The aim of this year's project was to continue the 21-year compilation of IRIS-related citations into one database. In order to maintain continuity while searching journals and procuring citations, the processes and procedures used in previous years were followed as closely as possible and improved upon where applicable. These procedures and data findings are outlined below.

### ***Searching for IRIS Citations from 2021***

The 11 most prominent Earth science journals were given priority while searching. These journals are:

- *Bulletin of Seismological Society of America (BSSA)*
- *Journal of Geophysical Research (JGR)*
- *Geophysical Journal International (GJI)*
- *Seismological Research Letters (SRL)*
- *Geophysical Research Letters (GRL)*
- *Earth and Planetary Science Letters (EPSL)*
- *Physics of the Earth and Planetary Interior (PEPI)*
- *Tectonophysics (TP)*
- *Nature and related journals*
- *Science and related journals*
- *Geology*

The journals were searched for the following key words:

- *IRIS*
- *Incorporated Research Institutions for Seismology*
- *PASSCAL*
- *DMC*
- *DMS*
- *Data Management Center*
- *Global Seismographic Network (and Global Seismic Network)*
- *GSN*
- *GDSN*
- *SCARDEC*
- *USArray*
- *EarthScope*
- *Transportable Array (TA)*
- *Magnetotellurics*
- *Flexible Array*
- *Greenland Ice Sheet Monitoring Network (GLISN)*
- *www.iris.edu*

All searches were carried out electronically with different search engines for journals as follows:

- *Journal of Geophysical Research* and *Geophysical Research Letters* were searched using the Wiley search engine.
- *Geophysical Journal International* was searched with the search engine for the journal.
- For Seismological Society of America publications (*Bulletin of Seismological Society of America* and *Seismological Research Letters*), the GeoScienceWorld search engine was used.
- For Elsevier publications, *Earth and Planetary Science Letters*, *Physics of the Earth and Planetary Interiors*, and *Tectonophysics*, the ScienceDirect engine was used.
- *Nature* and *Science* have their own search engines on their respective web pages.
- For the Geological Society of America publication, *Geology*, the GeoScienceWorld engine was used.

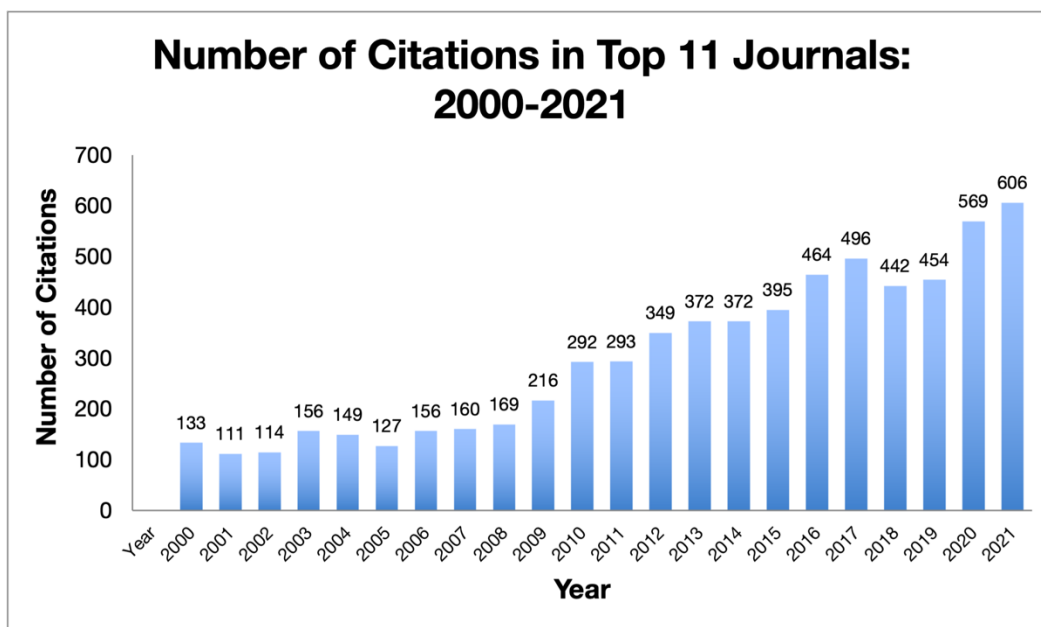
Most of these search engines are capable of an all-text search, which often brings up unrelated documents as well as the intended IRIS research results. To cull unrelated references, the initial search results were individually examined, and the unrelated entries were deleted. For the remaining documents, a manual “find” function was performed for the appropriate keyword in the abstract, primary text, figures, funding sources and/or acknowledgements. If the document was relevant, it was marked and exported into the database as a .ris file.

The distribution of findings are as follows:

*Table 1. Total number of citations in the Top 11 journals.*

No.	Journal	Jan 2021 - Dec 2021
1	Bulletin of the Seismological Society of America	56
2	Journal of Geophysical Research	163
3	Geophysical Journal International	94
4	Geophysical Research Letters	54
5	Earth and Planetary Science Letters	29
6	Seismological Research Letters	120
7	Physics of the Earth and Planetary Interiors	12
8	Tectonophysics	22
9	Science	11
10	Nature	36
11	Geology	9
	<b>TOTAL</b>	<b>606</b>

There was an increase in the total number of citations found in these journals in 2021 compared to calendar year 2020 – there were 569 citations in 2020 and 606 citations in 2021. Since the inception of the IRIS citations database in 2000, the number of IRIS-related citations in these journals has typically increased (Figure 1).



*Figure 1. Total number of IRIS-related citations in the 11 most prominent Earth science journals since the inception of the database in 2000. The number above each bar is the total number of citations in the Top 11 journals for that year.*

This year, there were more IRIS-related publications in every top journal except for *BSSA*, *GRL*, and *PEPI*. The number of publications in *Science* remained the same. Refer to Figure 2 to see a direct comparison of the number of citations in each journal for the last two calendar years.

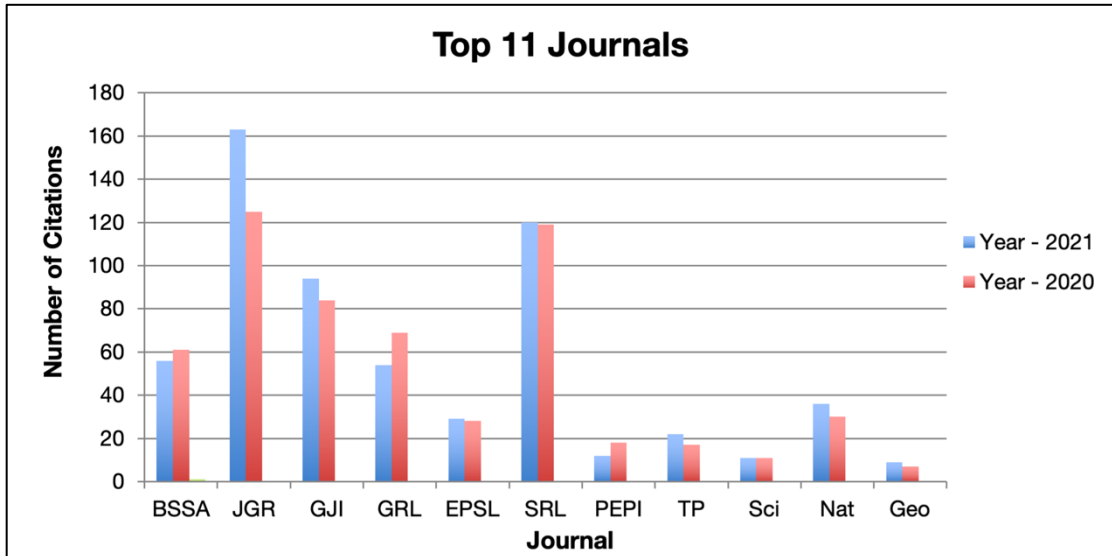


Figure 2. Number of publications in the Top 11 journals during calendar years 2020 and 2021.

### ***Searching for IRIS Citations in Other Important Earth Science Journals***

IRIS promotes continuous conducting of geophysical investigations of seismic sources and Earth properties through its facilities and allows free and unrestricted access to its seismic database, which is one of the largest in the world. Researchers around the world use the IRIS database to explore the lithosphere, cryosphere, atmosphere, hydrosphere, and deep Earth in unprecedented ways. The types of scientific findings aided by IRIS facilities are extremely varied, and this is reflected in the number and type of journals that cite IRIS data, instruments, and facilities. Given the importance of some of these journals, their impact factor and effectiveness citation index, 26 other Earth science publications were selected for expanding the search for IRIS-related citations.

These 26 journals are:

- *Canadian Journal of Earth Sciences*
- *Geophysics*
- *The Leading Edge*
- *Reviews of Geophysics*
- *Tectonics*
- *Polar Science*
- *Journal of Glaciology*
- *Marine Geophysical Research*
- *Lithosphere*
- *Journal of Geodynamics*
- *Geosphere*
- *Journal of Volcanology and Seismology*
- *Seismic Instruments*
- *Natural Hazards and Earth System Sciences*
- *Journal of Structural Geology*
- *Natural Hazards*
- *Geochemistry, Geophysics, Geosystems*
- *Soil Dynamics and Earthquake Engineering*
- *Russian Journal of Pacific Geology*
- *Journal of Volcanology and Geothermal Research*
- *Marine Geology*
- *Geomorphology*
- *Pure and Applied Geophysics*
- *Chinese Journal of Geophysics*
- *Journal of Seismology*
- *EOS*

Note: Due to changes in publishing since the 2019 report, three of the previously searched other journals have been removed from the list.

- *Earth Surface* is part of the Top 11 journal *Journal of Geophysical Research*.
- *Nature Geoscience/Nature Communication* was combined with the Top 11 journal *Nature*.
- *Journal of Earthquake Science* is no longer published and was removed.

The number of citations for each of these other important journals for the calendar years 2015 - 2021 are presented in Table 2.

*Table 2. Number of citations found in 26 (formerly 29) other important journals.*

Journal	2015	2016	2017	2018	2019	2020	2021
Canadian Journal of Earth Sciences	1	3	1	3	0	0	0
Geophysics	1	10	1	1	1	3	1
The Leading Edge	0	1	1	2	0	1	0
Reviews of Geophysics	4	2	2	0	1	1	0
Tectonics	4	3	7	5	7	14	12
Polar Science	0	0	0	2	0	1	0
Journal of Glaciology	0	0	1	2	0	3	1
Marine Geophysical Research	1	0	4	0	0	2	1
Lithosphere	2	0	8	3	2	1	1
Journal of Geodynamics	4	3	1	3	3	1	1
Geosphere	3	7	7	8	9	0	1

Journal of Volcanology and Seismology	0	0	1	1	2	2	1
Seismic Instruments	0	0	2	4	4	3	3
Natural Hazards and Earth System Sciences	0	1	0	1	0	2	3
Journal of Structural Geology	5	2	0	0	0	0	0
Natural Hazards	4	1	1	1	3	5	5
Geochemistry, Geophysics, Geosystems	28	22	12	21	33	34	39
Soil Dynamics and Earthquake Engineering	0	2	1	5	0	0	1
Russian Journal of Pacific Geology	0	0	0	3	0	0	0
Journal of Volcanology and Geothermal Research	8	3	2	7	4	3	9
Marine Geology	2	0	0	1	0	0	1
Geomorphology	1	0	0	0	1	0	0
Pure and Applied Geophysics	12	9	4	13	16	30	15
Chinese Journal of Geophysics	0	6	5	2	0	1	0
Journal of Seismology	0	2	3	13	11	4	11
Eos	4	0	0	5	8	6	5
<b>All 26 Journals</b>	<b>88</b>	<b>85</b>	<b>68</b>	<b>119</b>	<b>105</b>	<b>117</b>	<b>111</b>

The total number of citations found in these journals in 2021 is lower than what was found the previous year (Figure 3). In particular, there were 15 more IRIS-related citations in the journal *Pure and Applied Geophysics* in 2020 compared to 2021.

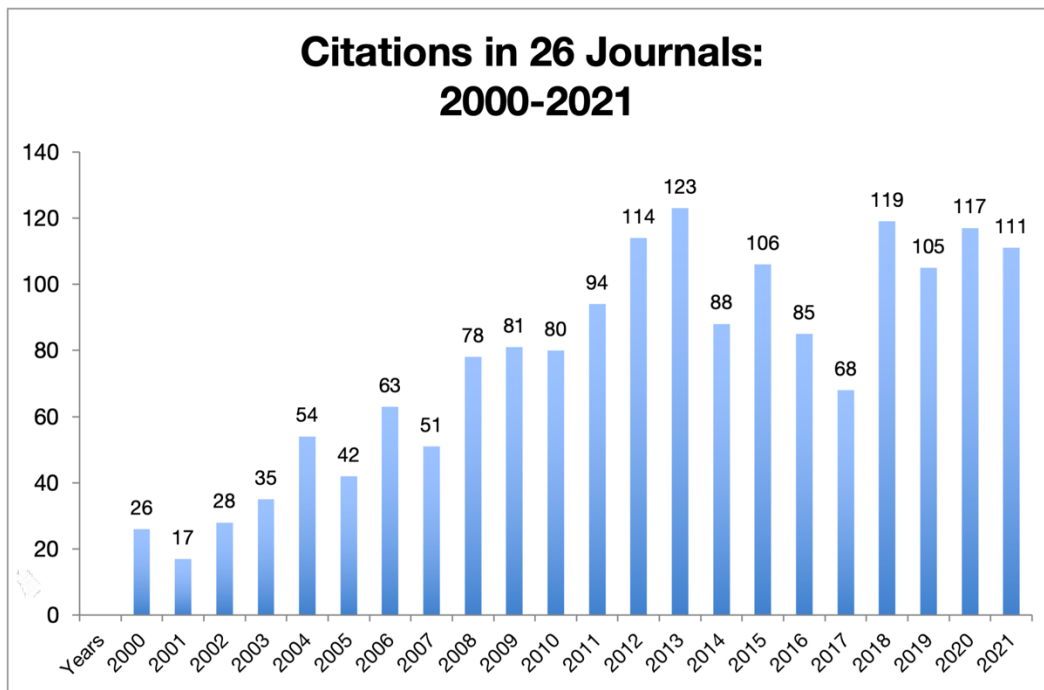


Figure 3. Graph showing the number of citations per year in the 26 other important journals. The number above each bar is the number of citations for that year.

### **Searching for IRIS Citations in Other Journals**

As the application of IRIS facilities expands into new realms (e.g., rapid response, distributed acoustic sensing, and weather-related applications), citations in journals that were previously not relevant to IRIS-related research are expected. Additionally, unexpected and novel uses of the data and facilities are creating an exciting body of work outside of the traditional Earth science journals. Books where IRIS data were used are also included in this section and are marked as such.

In years past, to explore the use of IRIS data and products in journals and books outside of the traditional Earth science sphere and to show the breadth of the data usage, a generalized search was done on the aforementioned search terms using Google Scholar and Web of Science. This functionality became possible for IRIS in 2014. Each year, this search uncovers more journals that did not previously feature IRIS-related research, demonstrating the diverse applications of the data collected and provided by IRIS facilities. These journals cover a diverse range of subjects including acoustics and radio, engineering, computer science, law, planetary science, meteorology, marine science, petroleum geology, and education.

However, as the list of journals grows, this style of search has become inefficient. Instead, we chose to use publisher search engines for each search term. We used Google Scholar when publisher search engines failed to unearth citations.

A complete list of citations in these journals will be provided in the SAGE-II Annual Report. At this time, 227 citations have been found in 95 individual journals outside of the 37 journals that are rigorously searched (11 Top Journals and 26 Other Journals) as well as in five (5) books.

## Searching for Conference Abstracts

The AGU Meeting search was used to search for AGU proceedings. There were 117 AGU abstracts with citations of IRIS or IRIS facilities (Figure 4) that were mentioned in 2021. This is less than the number of citations from 2019 (n=149) and more than in 2020 (n=107).

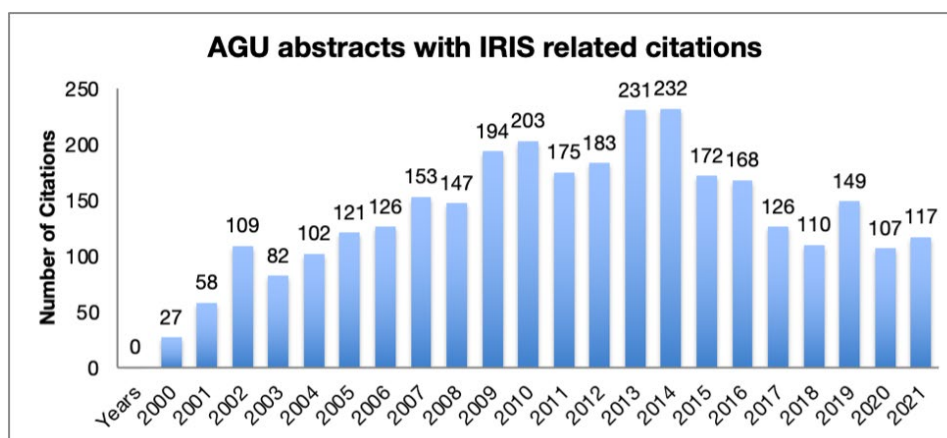


Figure 4. Number of AGU abstracts with IRIS-related citations from 2000-2021.

Because data from the Global Seismographic Network (GSN), the Data Management Center (DMC) and PASSCAL are widely used in studies throughout the world, abstracts of research presented at the Geological Society of America (GSA) Annual Meeting (and associated section meetings), the Seismological Society of America (SSA) Annual Meeting and the European Geosciences Union (EGU) General Assembly were also searched. Google Scholar and the society websites were used to search for GSA, SSA and EGU abstracts that cited IRIS or IRIS facilities. Ten (10) GSA abstracts, 36 SSA abstracts, three (3) EGU abstracts and eight (8) additional abstracts from smaller conferences cite one or more relevant search terms. Thus, there were 166 abstracts that used IRIS-related data or information.

## Theses

In 2018, IRIS started tracking the number of dissertations that use IRIS resources and facilities. In 2021, there were 66 theses that verifiably used IRIS data, resources, or facilities. In 2018, there were 62 theses, 54 theses in 2019, and 44 theses in 2020 that used IRIS data or facilities.

## Books

In 2018, IRIS started tracking the number of books and book chapters that cite IRIS data, resources, or facilities. This year, IRIS was cited in five (5) books. IRIS was cited in six (6) books in 2020, 17 books in 2019 and five (5) books in 2018.

## Findings from 2021

Between January 1, 2021 and December 31, 2021, there were 1,176 references to IRIS-related data or products in published scientific literature. This includes 717 references in top journals (Top 11 and 26 others), 227 references in additional journals and books, 166 references in conference proceedings or abstracts, and 66 references in theses.

The 2021 List of Citations for the SAGE-I Final Report is provided in Appendix A.



## **SAGE-II Annual Report**

### **Publications: (major publications resulting from the work under the award)**

IRIS, a university research consortium dedicated to exploring the Earth's interior and earthquake processes through the collection and distribution of seismological data, plays an important supporting role in scientific research, reflected through citations in publications of research papers and abstracts. IRIS's existing database of publications based on the use of IRIS resources now has more than 11,400 entries.

IRIS has been tracking citations in 11 traditional journals since 2000. To maintain continuity while searching journals and procuring citations, the processes and procedures used in previous years were followed closely and improved upon where applicable. These procedures and data findings are outlined below.

### ***Citations Summary – Calendar Year 2021***

Between January 1, 2021 and December 31, 2021, there were 1,179 references to IRIS-related data or products in published scientific literature. This includes 717 references in top journals (Top 11 and 26 others), 230 references in additional journals and books, 166 references in conference proceedings or abstracts, and 66 references in theses.

### ***Introduction***

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- *Tectonophysics (TP)*
- *Nature and related journals*
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- *Geology*

The journals were searched for the following key words:

- *IRIS*
- *Incorporated Research Institutions for Seismology*
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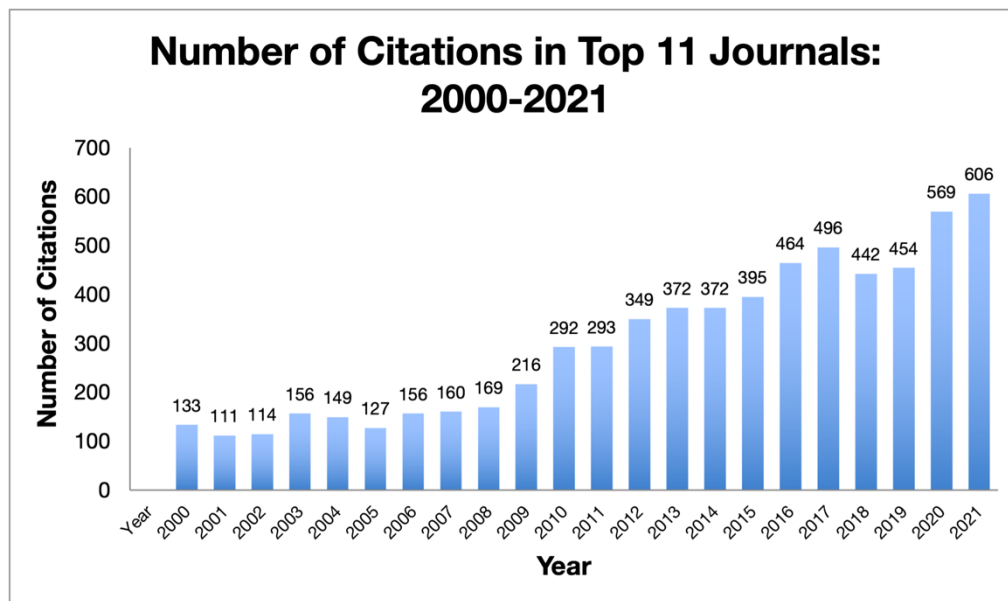
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8	Tectonophysics	22
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10	Nature	36
11	Geology	9
	<b>TOTAL</b>	<b>606</b>

There was an increase in the total number of citations found in these journals in 2021 compared to calendar year 2020 – there were 569 citations in 2020 and 606 citations in 2021. Since the inception of the IRIS citations database in 2000, the number of IRIS-related citations in these journals has typically increased (Figure 1).



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This year, there were more IRIS-related publications in every top journal except for *BSSA*, *GRL*, and *PEPI*. The number of publications in *Science* remained the same. Refer to Figure 2 to see a direct comparison of the number of citations in each journal for the last two calendar years.

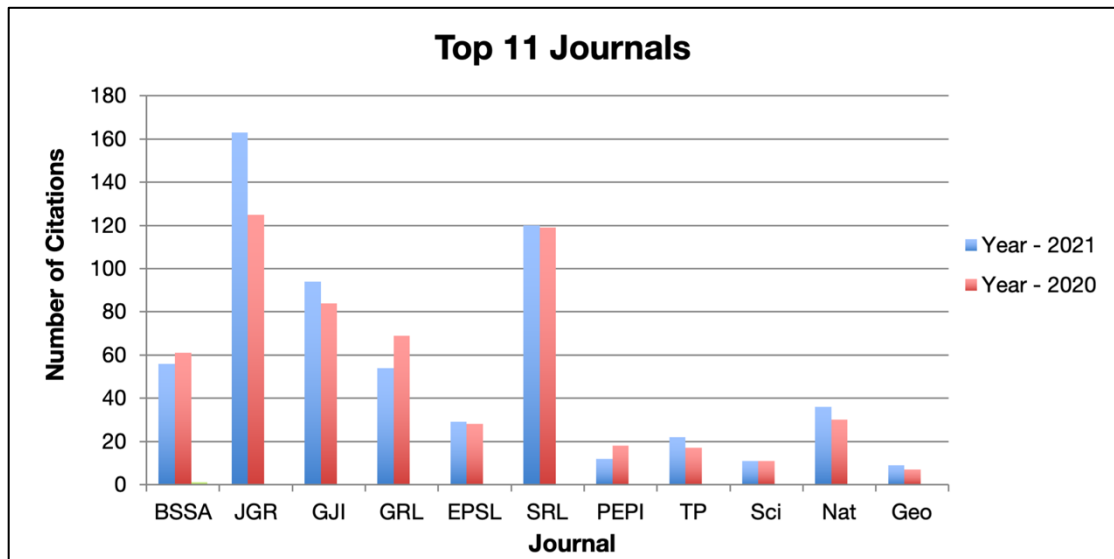


Figure 2. Number of publications in the Top 11 journals during calendar years 2020 and 2021.

The number of search terms found in each of the Top 11 journals is presented in Table 2. It is broken down by search term and individual journal. Some terms, such as “Global Seismographic Network” and “Global Seismic Network,” were searched by the proper term as well as by a commonly used, but incorrect, variation.

Table 2. Number of search terms in the Top 11 journals.

Search Term	Journal										
	JGI	JGR	Geology	GRL	SRL	BSSA	PEPI	TP	EPSL	Science	Nature
<i>IRIS</i>	83	231	8	51	102	46	10	20	23	9	29
<i>Incorporated Research Institutions for Seismology</i>	29	100	7	21	103	49	5	9	13	3	14
<i>PASSCAL</i>	4	22	1	3	10	6	1	1	3	0	0
<i>DMC</i>	31	112	2	24	36	29	4	5	7	4	11
<i>DMS</i>	2	6	0	0	0	1	0	10	0	0	0
<i>Data Management Center</i>	39	120	4	29	64	37	3	0	11	1	18
<i>GSN</i>	13	24	0	3	11	5	1	1	3	1	1
<i>Global Seismographic Network</i>	16	28	0	4	16	5	1	3	2	0	2
<i>Global Seismic Network</i>	9	14	0	3	10	3	0	0	2	3	1
<i>GDSN</i>	1	0	0	0	0	0	0	1	0	0	0
<i>USArray</i>	20	52	1	5	12	6	6	3	7	1	8
<i>EarthScope</i>	21	50	2	0	12	10	3	1	4	0	1
<i>Transportable Array</i>	10	42	0	7	7	9	3	1	5	0	4
<i>Magnetotellurics</i>	0	6	0	2	0	0	2	1	4	0	2
<i>Flexible Array</i>	2	4	0	1	1	2	0	0	0	0	0
<i>GLISN</i>	0	2	0	0	2	0	0	0	0	0	2
<i>Greenland Ice Sheet Monitoring Network</i>	0	2	0	0	0	0	0	0	0	0	1
<i>www.iris.edu</i>	10	31	2	4	28	15	1	2	5	2	3
<i>SCARDEC</i>	3	4	0	1	3	3	0	1	2	0	0
<b>TOTAL</b>	<b>94</b>	<b>850</b>	<b>27</b>	<b>54</b>	<b>120</b>	<b>56</b>	<b>12</b>	<b>22</b>	<b>29</b>	<b>11</b>	<b>97</b>

We also provide new metrics that better highlight how IRIS-curated data or facilities were cited in papers across the Top 11 journals. For each paper, we determined which IRIS data product or facility was used, with many papers citing the use of multiple data products or facilities. Of the 606 citations, 375, or about 62%, cited the use of the IRIS Data Management Center, whereas 119 papers, or nearly 20%, did not specify which IRIS data product or facility was used but instead opted to thank IRIS. It is likely that of those 119 papers, the vast majority used the IRIS Data Management Center to obtain seismic data. This highlights a recurring problem—that many publications do not appropriately cite IRIS data. Thus, 62% is likely an underestimate for how many papers used the IRIS Data Management Center. The same is likely true for the other facilities listed in Table 3.

Table 3. IRIS facility or data product cited in papers from Top 11 journals.

Facility / Product	Times Cited
DMC	375
PASSCAL	46
USArray TA	125
Flexible Array	8
MT	18
GSN	118
GLISN	4
Unspecified	119

### Searching for IRIS Citations in Other Important Earth Science Journals

IRIS promotes continuous conducting of geophysical investigations of seismic sources and Earth properties through its facilities and allows free and unrestricted access to its seismic database, which is one of the largest in the world. Researchers around the world use the IRIS database to explore the lithosphere, cryosphere, atmosphere, hydrosphere and deep Earth in unprecedented ways. The types of scientific findings aided by IRIS facilities are extremely varied, and this is reflected in the number and type of journals that cite IRIS data, instruments, and facilities. Given the importance of some of these journals, their impact factor and effectiveness citation index, 26 other Earth science publications were selected for expanding the search for IRIS-related citations. These journals are:

- *Canadian Journal of Earth Sciences*
- *Geophysics*
- *The Leading Edge*
- *Reviews of Geophysics*
- *Tectonics*
- *Polar Science*
- *Journal of Glaciology*
- *Marine Geophysical Research*
- *Lithosphere*
- *Journal of Geodynamics*
- *Geosphere*
- *Journal of Volcanology and Seismology*
- *Seismic Instruments*
- *Natural Hazards and Earth System Sciences*
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- *Geochemistry, Geophysics, Geosystems*
- *Soil Dynamics and Earthquake Engineering*
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- *Geomorphology*
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Note: Due to changes in publishing since the 2019 report, three of the previously searched other journals have been removed from the list.

- *Earth Surface* is part of the Top 11 journal *Journal of Geophysical Research*.
- *Nature Geoscience/Nature Communication* was combined with the Top 11 journal *Nature*.

- *Journal of Earthquake Science* is no longer published and was removed.

The number of citations for each of these other important journals for the calendar years 2015 - 2021 are presented in Table 4.

*Table 4. Number of citations found in 26 (formerly 29) other important journals.*

<b>Journal</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Canadian Journal of Earth Sciences	1	3	1	3	0	0	0
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Polar Science	0	0	0	2	0	1	0
Journal of Glaciology	0	0	1	2	0	3	1
Marine Geophysical Research	1	0	4	0	0	2	1
Lithosphere	2	0	8	3	2	1	1
Journal of Geodynamics	4	3	1	3	3	1	1
Geosphere	3	7	7	8	9	0	1
Journal of Volcanology and Seismology	0	0	1	1	2	2	1
Seismic Instruments	0	0	2	4	4	3	3
Natural Hazards and Earth System Sciences	0	1	0	1	0	2	3
Journal of Structural Geology	5	2	0	0	0	0	0
Natural Hazards	4	1	1	1	3	5	5
Geochemistry, Geophysics, Geosystems	28	22	12	21	33	34	39
Soil Dynamics and Earthquake Engineering	0	2	1	5	0	0	1
Russian Journal of Pacific Geology	0	0	0	3	0	0	0
Journal of Volcanology and Geothermal Research	8	3	2	7	4	3	9
Marine Geology	2	0	0	1	0	0	1
Geomorphology	1	0	0	0	1	0	0

Pure and Applied Geophysics	12	9	4	13	16	30	15
Chinese Journal of Geophysics	0	6	5	2	0	1	0
Journal of Seismology	0	2	3	13	11	4	11
Eos	4	0	0	5	8	6	5
<b>All 26 Journals</b>	<b>88</b>	<b>85</b>	<b>68</b>	<b>119</b>	<b>105</b>	<b>117</b>	<b>111</b>

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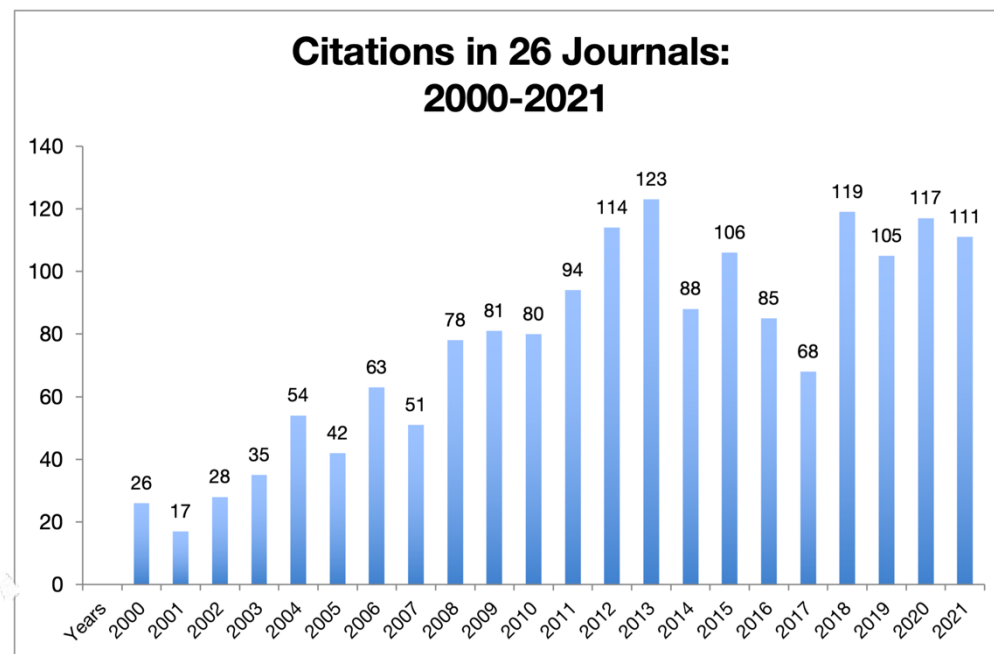


Figure 3. Graph showing the number of citations per year in the 26 other important journals. The number above each bar is the number of citations for that year.

### Searching for IRIS Citations in Other Journals

As the application of IRIS facilities expands into new realms (e.g., rapid response, distributed acoustic sensing, and weather-related applications), citations in journals that were previously not relevant to IRIS-related research are expected. Additionally, unexpected and novel uses of the data and facilities are creating an exciting body of work outside of the traditional Earth science journals. Books where IRIS data were used are also included in this section and are marked as such.

In years past, to explore the use of IRIS data and products in journals and books outside of the traditional Earth science sphere and to show the breadth of the data usage, a generalized search was done on the aforementioned search terms using Google Scholar and Web of Science. This functionality became possible for IRIS in 2014. Each year, this search uncovers



more journals that did not previously feature IRIS-related research, demonstrating the diverse applications of the data collected and provided by IRIS facilities. These journals cover a diverse range of subjects, including acoustics and radio, engineering, computer science, law, planetary science, meteorology, marine science, petroleum geology, and education.

However, as the list of journals grows, this style of search has become inefficient. Instead, we chose to use publisher search engines for each search term. We used Google Scholar when publisher search engines failed to unearth citations. Using this method, we found 230 citations in these miscellaneous journals, which is a significant jump compared to the 189 citations found in 2020 (Table 5). Because citations are not found in every journal every year, we only show the data from 2021.

*Table 5. Additional journals and total number of IRIS-related citations in each.*

<b>Journal</b>	<b>2021</b>
Journal of South American Earth Sciences	7
Computers & Geosciences	1
Geotectonics	3
Geomagnetism and Aeronomy	1
Surveys in Geophysics	2
Journal of African Earth Sciences	3
Journal of Asian Earth Sciences	4
Izvestiya, Physics of the Solid Earth	4
Earth, Planets, and Space	8
Annual Review of Earth and Planetary Sciences	1
Doklady Earth Sciences	2
Geodesy and Geodynamics	1
Arabian Journal of Geosciences	9
Earth and Space Science	14
Space Weather	5
The Science Teacher	1
Geoscience Letters	3
Ore Geology Reviews	2
Acta Geophysica	3
Gondwana Research	2
Remote Sensing of Environment	1
Earthquake Spectra	5
International Journal of Earth Sciences	1

Engineering Geology	1
Elementa: Science of the Anthropocene	1
Journal of Environmental and Engineering Geophysics	1
Journal of Applied Geophysics	3
Geofluids	1
Earth Science Reviews	4
Science of Tsunami Hazards	1
Geosciences Journal	2
Bulletin of Volcanology	3
Solid Earth	12
Frontiers in Earth Science	14
Bulletin of Earthquake Engineering	3
Earth and Planetary Physics	3
Earth Surface Dynamics	1
Russian Geology and Geophysics	3
Geothermics	1
Advances in Civil Engineering	1
Data in Brief	1
Terra Nova	2
Izvestiya, Atmospheric and Oceanic Physics	1
Journal of Mountain Science	1
Sensors	2
Landslides	2
Remote Sensing	2
PLOS One	2
Earth System Science Data	1
AGU Advances	3
Applied Sciences	1
Concurrency and Computation: Practice and Experience	2
Journal of Earthquake Engineering	1
Journal of Geoscience Education	1
Revista Geológica de América Central	1
The VLDB Journal	1

Acta Oceanologica Sinica	1
Artificial Intelligence in Geosciences	1
Basics of Computational Geophysics	2
Bulletin of Engineering Geology and the Environment	1
Basics of Computational Geophysics	1
Chaos, Solitons and Fractals	1
Computational Statistics & Data Analysis	1
Earthquake Geology and Tectonophysics around Eastern Tibet and Taiwan (Book)	1
Economic Record	1
Encyclopedia of Geology (Book)	6
Energies	1
Foundations of Modern Global Seismology (Book)	6
Heliyon	1
Himalayan Geology	1
IEEE Geoscience and Remote Sensing Letters	1
IEE Transactions on Knowledge and Data Engineering	1
IET Signal Processing	2
International Journal of Applied Earth Observation and Geoinformation	1
ISPRS International Journal of Geo-Information	1
Journal of Computational Science	1
Journal of Engineering Geology	1
Journal of King Saud University- Engineering Sciences	1
Journal of the Geological Society of India	3
Journal of the Royal Society Interface	1
Land	1
Malawi Journal of Science & Technology	1
Mantle Convection and Surface Expressions	1
Masonry Construction in Active Seismic Regions	1
Measurement: Sensors	1
Multidimensional Systems and Signal Processing	1
Pollution Assessment for Sustainable Practices in Applied Sciences and Engineering (Book)	1

Preview	4
Procedia Computer Science	1
Publications of the Astronomical Society of Australia	1
Quaternary International	1
Revista de investigación de fisica	1
SN Applied Sciences	1
Structural Safety	1
Sustainability	1
The Planetary Science Journal	1
The Seismic Record	5
Transport in Porous Media	1
Understanding Present and Past Arctic Environments (Book)	1
Geological Society, London, Memoirs	1
Advances in Earth Science	1
Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences	1
<b>TOTAL</b>	<b>230</b>

### Searching for Conference Abstracts

The AGU Meeting search was used to search for AGU proceedings. There were 117 AGU abstracts with citations of IRIS or IRIS facilities (Figure 4) that were mentioned in 2021. This is less than the number of citations from 2019 (n=149) and more than in 2020 (n=107).

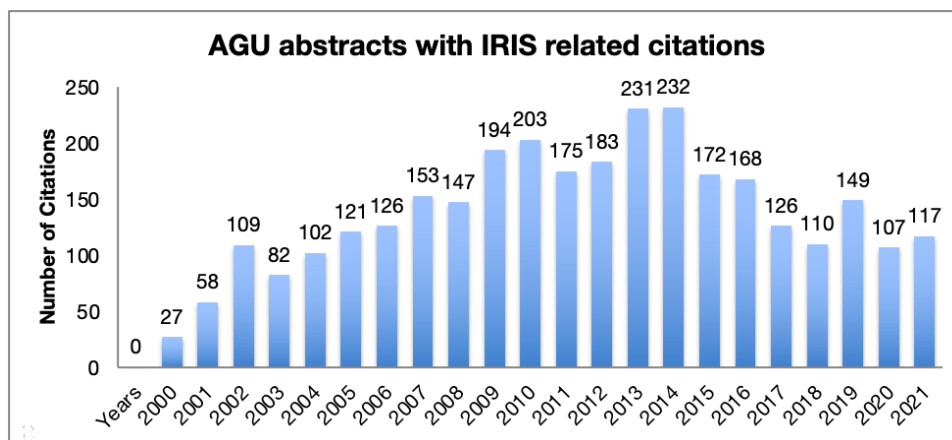


Figure 4. Number of AGU abstracts with IRIS-related citations from 2000-2020.

Because data from the Global Seismographic Network (GSN), the Data Management Center (DMC) and PASSCAL are widely used in studies throughout the world, abstracts of research presented at the Geological Society of America (GSA) Annual Meeting (and associated section meetings), the Seismological Society of America (SSA) Annual Meeting and the European Geosciences Union (EGU) General Assembly were also searched. Google Scholar and the society websites were used to search for GSA, SSA and EGU abstracts that cited IRIS or IRIS facilities. Ten (10) GSA abstracts, 36 SSA abstracts, three (3) EGU abstracts and eight (8) additional abstracts from smaller conferences cite one or more relevant search terms. Thus, there were 166 abstracts that used IRIS-related data or information.

### ***Theses***

In 2018, IRIS started tracking the number of dissertations that use IRIS resources and facilities. In 2021, there were 66 theses that verifiably used IRIS data, resources, or facilities. In 2018, there were 62 these, 54 these in 2019, and 44 theses in 2020 that used IRIS data or facilities.

### ***Books***

In 2018, IRIS started tracking the number of books and book chapters that cite IRIS data, resources, or facilities. This year, IRIS was cited in 27 articles in five (5) books. IRIS was cited in six (6) books in 2020, 17 books in 2019 and five (5) books in 2018.

### ***Findings from 2021***

Between January 1, 2021 and December 31, 2021, there were 1,176 references to IRIS-related data or products in published scientific literature. This includes 717 references in top journals (Top 11 and 26 others), 230 references in additional journals and books, 166 references in conference proceedings or abstracts, and 66 references in theses.

The 2021 List of Citations for the SAGE-II Annual Report is provided in Appendix A.

## 2021 List of Citations

- Abd el-aal, A. K., et al. "Tectonic and Anthropogenic Characteristics of the November 15, 2019 Micro Earthquakes Sequence, Kuwait." *Geotectonics*, vol. 55, no. 1, Jan. 2021, pp. 112–27, <https://doi.org/10.1134/S0016852121010039>.
- Abercrombie, Rachel E., et al. "Does Earthquake Stress Drop Increase With Depth in the Crust?" *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 10, Oct. 2021, p. e2021JB022314, <https://doi.org/10.1029/2021JB022314>.
- Abubakirov, I. R., and V. M. Pavlov. "Determining the Double Couple Moment Tensor for Kamchatka Earthquakes from Regional Seismic Waveforms." *Izvestiya, Physics of the Solid Earth*, vol. 57, no. 3, May 2021, pp. 332–47, <https://doi.org/10.1134/S1069351321030010>.
- Adam, C., et al. "Lithosphere Destabilization and Small-Scale Convection Constrained From Geophysical Data and Analogical Models." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 3, Mar. 2021, p. e2020GC009462, <https://doi.org/10.1029/2020GC009462>.
- Aderhold, K., et al. *Justice, Equity, Diversity and Inclusion at Incorporated Research Institutions for Seismology*. 2021.
- Aderhold, Kasey, et al. *Groundswell Anti-Racism Action in the Geosciences*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/991212>.
- Aderhold, Kasey, and (URGE) IRIS/UNAVCO+ Pod. *IRIS/UNAVCO+: Joining Forces for Unlearning Racism in Geoscience*. 2021, <https://doi.org/10.1130/abs/2021AM-371381>.
- Aderoju, Adeolu Olutosin, et al. *Documenting SmKS Slowness, Back Azimuth, and Travel Time Anomalies Using Seismic Array Methodologies*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/929329>.
- Aggarwal, Kanchan, et al. "A Prediction Framework with Time-Frequency Localization Feature for Detecting the Onset of Seismic Events." *PLOS One*, vol. 16, no. 4, 2021, pp. e0250008–e0250008, <https://doi.org/10.1371/journal.pone.0250008>.
- Agius, Matthew R., et al. "A Thin Mantle Transition Zone beneath the Equatorial Mid-Atlantic Ridge." *Nature*, vol. 589, no. 7843, Jan. 2021, pp. 562–66, <https://doi.org/10.1038/s41586-020-03139-x>.
- Ahlert, Alexis. *Coseismic Pore Pressure Changes Linked to Local, Induced Earthquakes*. 2021. University of Kansas, M.S., <https://www.proquest.com/dissertations-theses/coseismic-pore-pressure-changes-linked-local/docview/2630636557/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2630636557.
- Ai, Sanxi, et al. "Joint Inversion of Rayleigh Wave Ellipticity and Phase Velocity for Crustal Structure in Taiwan." *Tectonophysics*, vol. 814, 2021, p. 228946, <https://doi.org/10.1016/j.tecto.2021.228946>.
- Akinci, A., et al. "The 30 October 2020, M7.0 Samos Island (Eastern Aegean Sea) Earthquake: Effects of Source Rupture, Path and Local-Site Conditions on the Observed and Simulated Ground Motions." *Bulletin of Earthquake Engineering*, vol. 19, no. 12, Sept. 2021, pp. 4745–71, <https://doi.org/10.1007/s10518-021-01146-5>.
- Alder, C., et al. "Evidence for Radial Anisotropy in the Lower Crust of the Apennines from Bayesian Ambient Noise Tomography in Europe." *Geophysical Journal International*, vol. 226, no. 2, 2021, pp. 941–67, <https://doi.org/10.1093/gji/ggab066>.

- Alfaro-Diaz, R. A., et al. *Dynamic Triggering and the State of Stress in Oklahoma (SSA 2021)*. 2021, <https://doi.org/10.1785/0220210025>.
- Alfaro-Diaz, Richard Alexander, et al. *Dynamic Triggering and the State of Stress in Oklahoma (AGU 2021)*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/821367>.
- Alfaro-Diaz, Richard, and Ting Chen. "Imaging the Shallow Structure of the Yucca Flat at the Source Physics Experiment Phase II Site with Horizontal-to-Vertical Spectral Ratio Inversion and a Large-N Seismic Array." *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 2952–60, <https://doi.org/10.1785/0220200381>.
- Alongi, T., et al. "Probing the Southern Cascadia Plate Interface With the Dense Amphibious Cascadia Initiative Seismic Array." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 7, July 2021, p. e2021JB022180, <https://doi.org/10.1029/2021JB022180>.
- Alvizuri, Celso R., et al. "Earthquake Collapse Mechanisms and Periodic, Migrating Seismicity during the 2018 Summit Collapse at Kīlauea Caldera." *Earth and Planetary Science Letters*, vol. 562, 2021, p. 116819, <https://doi.org/10.1016/j.epsl.2021.116819>.
- Amato, Alessandro, et al. "From Seismic Monitoring to Tsunami Warning in the Mediterranean Sea." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1796–816, <https://doi.org/10.1785/0220200437>.
- Amemoutou, Amandine, et al. "Earthquake Source Mechanisms and Stress Field Variations Associated With Wastewater-Induced Seismicity in Southern Kansas, USA." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 7, July 2021, p. e2020JB021625, <https://doi.org/10.1029/2020JB021625>.
- Ammon, Charles J., et al. "Chapter 1 - An Overview of Global Seismology." *Foundations of Modern Global Seismology (Second Edition)*, edited by Charles J. Ammon et al., Academic Press, 2021, pp. 3–37, <https://doi.org/10.1016/B978-0-12-815679-7.00008-2>.
- . "Chapter 4 - Earth Motions & Seismometry." *Foundations of Modern Global Seismology (Second Edition)*, edited by Charles J. Ammon et al., Academic Press, 2021, pp. 105–39, <https://doi.org/10.1016/B978-0-12-815679-7.00011-2>.
- . "Chapter 5 - Seismogram Interpretation and Processing." *Foundations of Modern Global Seismology (Second Edition)*, edited by Charles J. Ammon et al., Academic Press, 2021, pp. 141–67, <https://doi.org/10.1016/B978-0-12-815679-7.00012-4>.
- . "Chapter 10 - Earth Structure." *Foundations of Modern Global Seismology (Second Edition)*, edited by Charles J. Ammon et al., Academic Press, 2021, pp. 269–301, <https://doi.org/10.1016/B978-0-12-815679-7.00017-3>.
- . "Chapter 14 - Surface Waves." *Foundations of Modern Global Seismology (Second Edition)*, edited by Charles J. Ammon et al., Academic Press, 2021, pp. 391–420, <https://doi.org/10.1016/B978-0-12-815679-7.00022-7>.
- . "Chapter 20 - Imaging Earth's Interior." *Foundations of Modern Global Seismology (Second Edition)*, edited by Charles J. Ammon et al., Academic Press, 2021, pp. 537–58, <https://doi.org/10.1016/B978-0-12-815679-7.00028-8>.
- Anchivilca Valentín, Renzo Isaac, and César Omar Jiménez Tintaya. "Estimación de La Magnitud Sísmica a Partir de Registros y Parámetros Hipocentrales Para La Estación de Ñaña." *Revista*

*de Investigación de Física*, vol. 24, no. 3, 2021, pp. 6–11,  
<https://doi.org/10.15381/rif.v24i3.21050>.

Anderson, Jacob, et al. *Whitewater Acoustic Sources and Wavefields*. 2021,  
<https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/915043>.

Andrews, John T., and Wesley LeMasurier. “Resolving the Argument about Volcanic Bedrock under the West Antarctic Ice Sheet and Implications for Ice Sheet Stability and Sea Level Change.” *Earth and Planetary Science Letters*, vol. 568, 2021, p. 117035,  
<https://doi.org/10.1016/j.epsl.2021.117035>.

Andriampenomanana, Fenitra, et al. “Shear Wave Splitting Measurements in Northeastern Uganda and Southeastern Tanzania: Corroborating Evidence for Sublithospheric Mantle Flow beneath East Africa.” *Geophysical Journal International*, vol. 226, no. 3, 2021, pp. 1696–704,  
<https://doi.org/10.1093/gji/ggab167>.

Anthony, R., et al. *The Influence of Geography and Geology in Seismic Background Noise Levels Across the United States as Revealed by the Transportable Array*. 2021.

Anthony, Robert E., Adam T. Ringler, and David Wilson. *Seismic Background Noise Levels across the Continental United States from USArray Transportable Array: The Influence of Geology and Geography (AGU 2021)*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/823824>.

Anthony, Robert E., Adam T. Ringler, Michael DuVernois, et al. “Six Decades of Seismology at South Pole, Antarctica: Current Limitations and Future Opportunities to Facilitate New Geophysical Observations.” *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 2718–35, <https://doi.org/10.1785/0220200448>.

Aptikaeva, O. I. “Some Results of Studying the S-Wave Attenuation Field in the Caucasus Using the Short-Period Coda Method.” *Seismic Instruments*, vol. 57, no. 1, Jan. 2021, pp. 97–114,  
<https://doi.org/10.3103/S0747923921010047>.

Arce, Roberto Masis, et al. *Structure of the Crust in the Northern Appalachian Mountains: Detailing the Abrupt Change in Crustal Thickness in North-Western Massachusetts*. 2021,  
<https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/920128>.

Arimuko, Abraham, and Dimas Sianipar. “Source Study of the 1996 MW 8.2 Biak (Papua, Indonesia) Earthquake: Relations to Regional Tectonics and Directivity Effect.” *Arabian Journal of Geosciences*, vol. 14, no. 20, Oct. 2021, p. 2151, <https://doi.org/10.1007/s12517-021-08560-8>.

Arnaiz-Rodríguez, Mariano S., et al. “Crustal and Upper-Mantle Structure of the Eastern Caribbean and Northern Venezuela from Passive Rayleigh Wave Tomography.” *Tectonophysics*, vol. 804, 2021, p. 228711, <https://doi.org/10.1016/j.tecto.2020.228711>.

Arroucau, P., et al. “PRISM3D: A 3-D Reference Seismic Model for Iberia and Adjacent Areas.” *Geophysical Journal International*, vol. 225, no. 2, 2021, pp. 789–810,  
<https://doi.org/10.1093/gji/ggab005>.

Arrowsmith, Stephen, et al. “Bolide Energetics and Infrasound Propagation: Exploring the 18 December 2018 Bering Sea Event to Identify Limitations of Empirical and Numerical Models.” *The Seismic Record*, vol. 1, no. 3, 2021, pp. 164–71, <https://doi.org/10.1785/0320210034>.

Arroyo-Solórzano, M., et al. “COVID-19 Lockdown Effects on the Seismic Recordings in Central America.” *Solid Earth*, vol. 12, no. 10, 2021, pp. 2127–44, <https://doi.org/10.5194/se-12-2127-2021>.



- Asefa, Jima, and Atalay Ayele. "Rupture Process of the April 2017 Mw 6.5 Botswana Earthquake: Deepest Earthquake Observed in Continental Africa." *Arabian Journal of Geosciences*, vol. 14, no. 10, 2021, <https://doi.org/10.1007/s12517-021-06890-1>.
- . "Seismicity of the East African Rift System for the Period 2013 to 2016." *Journal of African Earth Sciences*, vol. 183, Nov. 2021, p. 104315, <https://doi.org/10.1016/j.jafrearsci.2021.104315>.
- Aster, Richard C., et al. "Swell-Triggered Seismicity at the Near-Front Damage Zone of the Ross Ice Shelf." *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 2768–92, <https://doi.org/10.1785/0220200478>.
- Aswini, Karanam Kattil, et al. "Seismotectonic Evaluation of off Nicobar Earthquake Swarms, Andaman Sea." *Journal of Asian Earth Sciences*, vol. 221, Nov. 2021, p. 104948, <https://doi.org/10.1016/j.jseaes.2021.104948>.
- Audet, Pascal, et al. *Constraints on Crust and Upper Mantle Structure of the Northern Canadian Cordillera From a Compilation of Recent Broadband Seismic Studies*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/898983>.
- Aur, Katherine Anderson, et al. "Pycheron: A Python-Based Seismic Waveform Data Quality Control Software Package." *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 3165–78, <https://doi.org/10.1785/0220200418>.
- Austermann, Jacqueline, et al. "The Effect of Lateral Variations in Earth Structure on Last Interglacial Sea Level." *Geophysical Journal International*, vol. 227, no. 3, 2021, pp. 1938–60, <https://doi.org/10.1093/gji/ggab289>.
- Ba, Kailun. *Receiver Function Imaging of the 410 and 660 Km Discontinuities and Seismic Azimuthal Anisotropy Revealed by Shear Wave Splitting Beneath the Australian Continent*. 2021. Missouri University of Science and Technology, Ph.D., <https://www.proquest.com/dissertations-theses/receiver-function-imaging-410-660-km/docview/2580679888/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2580679888.
- Baba, Satoru, et al. "Shallow Slow Earthquake Episodes Near the Trench Axis off Costa Rica." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 9, Sept. 2021, p. e2021JB021706, <https://doi.org/10.1029/2021JB021706>.
- Bagherpur Mojaver, Omid, et al. "Lithospheric Structure and Flat-Slab Subduction in the Northern Appalachians: Evidence From Rayleigh Wave Tomography." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 4, Apr. 2021, p. e2020JB020924, <https://doi.org/10.1029/2020JB020924>.
- Bahavar, Manochehr, et al. *Enhancements to Derivative Data Products at the IRIS DMC*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/901247>.
- Bai, Tong, et al. "Ambient Noise Tomography of the Katmai Volcanic Area, Alaska." *Journal of Volcanology and Geothermal Research*, vol. 419, Nov. 2021, p. 107373, <https://doi.org/10.1016/j.jvolgeores.2021.107373>.
- Bai, Yiming, et al. "Seismic Structure across Central Myanmar from Joint Inversion of Receiver Functions and Rayleigh Wave Dispersion." *Tectonophysics*, vol. 818, 2021, p. 229068, <https://doi.org/10.1016/j.tecto.2021.229068>.

- Baker, Ben, et al. "Monitoring the 2020 Magna, Utah, Earthquake Sequence with Nodal Seismometers and Machine Learning." *Seismological Research Letters*, vol. 92, no. 2A, Nov. 2021, pp. 787–801, <https://doi.org/10.1785/0220200316>.
- Baker, Michael G., et al. "Teleseismic Earthquake Wavefields Observed on the Ross Ice Shelf." *Journal of Glaciology*, vol. 67, no. 261, 2021, pp. 58–74, <https://doi.org/10.1017/jog.2020.83>.
- Baldwin, Dare, et al. *Video Analysis of Earthquake-Related Behavior: Understanding Influences of Social and Physical Context*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/936639>.
- Banerjee, Rupak, et al. *Intraplate Strike-Slip Earthquakes in NE India: A Kinematic Model*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/927006>.
- Bansal, Brijesh K., et al. "National Seismological Network in India for Real-Time Earthquake Monitoring." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2255–69, <https://doi.org/10.1785/0220200327>.
- Bao, Xueyang, et al. "Compositional Variation in the Crust of Peninsular Ranges and Surrounding Regions, Southern California, Revealed by Full-Wave Seismic and Gravity Joint Inversion." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 12, Dec. 2021, p. e2021JB022723, <https://doi.org/10.1029/2021JB022723>.
- Baranov, A., et al. "Updated Antarctic Crustal Model." *Gondwana Research*, vol. 89, Jan. 2021, pp. 1–18, <https://doi.org/10.1016/j.gr.2020.08.010>.
- Barbour, Andrew J., et al. "Earthquake Magnitudes from Dynamic Strain." *Bulletin of the Seismological Society of America*, vol. 111, no. 3, Oct. 2021, pp. 1325–46, <https://doi.org/10.1785/0120200360>.
- Barbour, Andrew J., and Nicholas M. Beeler. "Teleseismic Waves Reveal Anisotropic Poroelastic Response of Wastewater Disposal Reservoir." *Earth and Planetary Physics*, vol. 5, no. 6, 2021, pp. 547–58, <https://doi.org/10.26464/epp2021034>.
- Barcheck, G., et al. "Migratory Earthquake Precursors Are Dominant on an Ice Stream Fault." *Science Advances*, vol. 7, no. 6, 2021, p. eabd0105, <https://doi.org/10.1126/sciadv.abd0105>.
- Barkaoui, Salma, et al. "Anatomy of Continuous Mars SEIS and Pressure Data from Unsupervised Learning." *Bulletin of the Seismological Society of America*, vol. 111, no. 6, 2021, pp. 2964–81, <https://doi.org/10.1785/0120210095>.
- Barlow, Mike. "Update on Geophysical Survey Progress from Geoscience Australia and the Geological Surveys of Western Australia, South Australia, Northern Territory, Queensland, New South Wales, Victoria and Tasmania (Information Current July 2021)." *Preview*, vol. 2021, no. 213, July 2021, pp. 13–16, <https://doi.org/10.1080/14432471.2021.1958522>.
- . "Update on Geophysical Survey Progress from Geoscience Australia and the Geological Surveys of Western Australia, South Australia, Northern Territory, Queensland, New South Wales, Victoria and Tasmania (Information Current on 12 March 2021)." *Preview*, vol. 2021, no. 211, Mar. 2021, pp. 15–17, <https://doi.org/10.1080/14432471.2021.1906520>.
- . "Update on Geophysical Survey Progress from Geoscience Australia and the Geological Surveys of Western Australia, South Australia, Northern Territory, Queensland, New South Wales, Victoria and Tasmania (Information Current September 2021)." *Preview*, vol. 2021, no. 214, Sept. 2021, pp. 20–23, <https://doi.org/10.1080/14432471.2021.1986978>.

- Barrientos, Sergio Eduardo, et al. "Operational Capabilities during Crisis: The Chilean Seismographic Network." *Seismological Research Letters*, vol. 92, no. 1, Apr. 2021, pp. 119–26, <https://doi.org/10.1785/0220200294>.
- Baruah, Santanu, et al. "An International Virtual Workshop on Global Seismology and Tectonics (IVWGST-2020)." *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 3231–37, <https://doi.org/10.1785/0220200402>.
- Basu, Urbi, and Christine A. Powell. "Velocity and Azimuthal Anisotropy Structure underneath the Reelfoot Rift Region from Rayleigh Wave Phase Velocity Dispersion Curves." *Geophysical Journal International*, vol. 228, no. 1, 2021, pp. 291–307, <https://doi.org/10.1093/gji/ggab337>.
- Bayless, Jeff. "Regional Attenuation Models in Central and Eastern North America Using the NGA-East Database." *Earthquake Spectra*, vol. 37, no. 1\_suppl, Aug. 2021, pp. 1460–86, <https://doi.org/10.1177/87552930211018704>.
- Bebout, Gray E. "Insights Into Subduction Zone Dynamics." *Encyclopedia of Geology (Second Edition)*, edited by David Alderton and Scott A. Elias, Academic Press, 2021, pp. 233–47, <https://doi.org/10.1016/B978-0-08-102908-4.00150-8>.
- Becker, Thorsten W., and Sergei Lebedev. "Dynamics of the Upper Mantle in Light of Seismic Anisotropy." *Mantle Convection and Surface Expressions*, July 2021, pp. 257–82, <https://doi.org/10.1002/9781119528609.ch10>.
- Bedle, H., et al. "Nature Versus Nurture: Preservation and Destruction of Archean Cratons." *Tectonics*, vol. 40, no. 9, Sept. 2021, p. e2021TC006714, <https://doi.org/10.1029/2021TC006714>.
- Bedle, Heather, et al. "Continental Tectonics Inferred From High-Resolution Imaging of the Mantle Beneath the United States, Through the Combination of USArray Data Types." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 10, Oct. 2021, p. e2021GC009674, <https://doi.org/10.1029/2021GC009674>.
- Bedrosian, Paul A., and Carol A. Finn. "When Wyoming Became Superior: Oblique Convergence Along the Southern Trans-Hudson Orogen." *Geophysical Research Letters*, vol. 48, no. 13, Nov. 2021, p. e2021GL092970, <https://doi.org/10.1029/2021GL092970>.
- Begnaud, Michael L., et al. "Correction to: Updates to the Regional Seismic Travel Time (RSTT) Model: 2. Path-Dependent Travel-Time Uncertainty." *Pure and Applied Geophysics*, vol. 178, no. 7, 2021, pp. 2499–525, <https://doi.org/10.1007/s00024-021-02696-0>.
- . "Updates to the Regional Seismic Travel Time (RSTT) Model: 2. Path-Dependent Travel-Time Uncertainty." *Pure and Applied Geophysics*, vol. 178, no. 2, 2021, pp. 313–39, <https://doi.org/10.1007/s00024-021-02657-7>.
- Bell, Andrew F., et al. "Caldera Resurgence during the 2018 Eruption of Sierra Negra Volcano, Galápagos Islands." *Nature Communications*, vol. 12, no. 1, Mar. 2021, p. 1397, <https://doi.org/10.1038/s41467-021-21596-4>.
- Bell, Andrew Forbes, et al. "Uplift and Seismicity Driven by Magmatic Inflation at Sierra Negra Volcano, Galápagos Islands." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 7, July 2021, p. e2021JB022244, <https://doi.org/10.1029/2021JB022244>.

- Bello, Mohammed, et al. "Crustal Structure of Southeast Australia from Teleseismic Receiver Functions." *Solid Earth*, vol. 12, no. 2, 2021, pp. 463–81, <https://doi.org/10.5194/se-12-463-2021>.
- Benavente, Carlos, et al. "Paleoseismic Evidence of an Mw 7 Pre-Hispanic Earthquake in the Peruvian Forearc." *Tectonics*, vol. 40, no. 6, 2021, p. n/a, <https://doi.org/10.1029/2020TC006479>.
- Benyshek, Elizabeth K., and Brian Taylor. "Tectonics of the Papua-Woodlark Region." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 1, 2021, p. n/a, <https://doi.org/10.1029/2020GC009209>.
- Berg, Elizabeth M., et al. "Shallow Crustal Shear Velocity and Vp/Vs Across Southern California: Joint Inversion of Short-Period Rayleigh Wave Ellipticity, Phase Velocity, and Teleseismic Receiver Functions." *Geophysical Research Letters*, vol. 48, no. 15, Nov. 2021, p. e2021GL092626, <https://doi.org/10.1029/2021GL092626>.
- Bezada, Maximiliano, and Ozan Karayazi. *Seismic Attenuation, Lithospheric Structure and Intracontinental Deformation in Alaska*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/981935>.
- Bianchi, Marcelo Belentani, et al. "Effect of the Cold Nazca Slab on the Depth of the 660 Km Discontinuity in South America." *Journal of South American Earth Sciences*, vol. 112, Dec. 2021, p. 103607, <https://doi.org/10.1016/j.jsames.2021.103607>.
- Bindi, Dino, Riccardo Zaccarelli, et al. "Local and Moment Magnitude Analysis in the Ridgecrest Region, California: Impact on Interevent Ground-Motion Variability." *Bulletin of the Seismological Society of America*, vol. 111, no. 1, Feb. 2021, pp. 339–55, <https://doi.org/10.1785/0120200227>.
- Bindi, Dino, Hoby N. T. Razafindrakoto, et al. "Stress Drop Derived from Spectral Analysis Considering the Hypocentral Depth in the Attenuation Model: Application to the Ridgecrest Region, California." *Bulletin of the Seismological Society of America*, vol. 111, no. 6, Oct. 2021, pp. 3175–88, <https://doi.org/10.1785/0120210039>.
- Birkey, Andrew, Heather A. Ford, Maximiliano Bezada, et al. *Seismic Anisotropy and Lithospheric Structure Across the Eastern Margin of the Wyoming Craton*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/990845>.
- Birkey, Andrew, Heather A. Ford, Page Dabney, et al. "The Lithospheric Architecture of Australia From Seismic Receiver Functions." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 4, Apr. 2021, p. e2020JB020999, <https://doi.org/10.1029/2020JB020999>.
- Bissig, Felix, et al. "Multifrequency Inversion of Ps and Sp Receiver Functions: Methodology and Application to USArray Data." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 2, Apr. 2021, p. e2020JB020350, <https://doi.org/10.1029/2020JB020350>.
- Boggs, Katherine Janet Elizabeth, et al. *Canadian EON-ROSE: Induced Seismicity, Mineral Exploration and Critical Zone Observatories*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/984668>.
- Bogolub, Kyren Rix. *Geophysical Characteristics of the High Plains of Colorado and the Sierra Nevada, California*. 2021. University of Colorado at Boulder, Ph.D., <https://www.proquest.com/dissertations-theses/geophysical-characteristics-high-plains->

colorado/docview/2572580390/se-2?accountid=4485. ProQuest Dissertations & Theses Global, 2572580390.

Bohon, Wendy. *New Faces in Familiar Spaces: Utilizing Online Technology to Complement Formal and Informal Education*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/860734>.

---. *Women in Geoscience Video Series*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/793562>.

Bolarinwa, Oluwaseyi J., and Charles A. Langston. "Calibrating the 2016 IRIS Wavefields Experiment Nodal Sensors for Amplitude Statics and Orientation Errors." *Bulletin of the Seismological Society of America*, vol. 111, no. 3, Oct. 2021, pp. 1303–24, <https://doi.org/10.1785/0120200275>.

Bolton, Andrew R. *Evidence for a Rotation in Asthenospheric Flow in Northwest Canada: Insights from Shear Wave Splitting*. 2021. Colorado State University, M.S., <https://www.proquest.com/dissertations-theses/evidence-rotation-asthenospheric-flow-northwest/docview/2547507945/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2547507945.

---. "Evidence for Asthenospheric Flow Rotation in Northwest Canada: Insights from Shear Wave Splitting." *Geophysical Journal International*, vol. 228, no. 3, 2021, pp. 1780–92, <https://doi.org/10.1093/gji/ggab396>.

Bonadio, Raffaele, et al. "Optimal Resolution Tomography with Error Tracking and the Structure of the Crust and Upper Mantle beneath Ireland and Britain." *Geophysical Journal International*, vol. 226, no. 3, 2021, pp. 2158–88, <https://doi.org/10.1093/gji/ggab169>.

Bonnieux, Sebastien, et al. *Mobile Earthquake Recording in Marine Areas by Independent Divers: Now Landing on the Ocean Bottom*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/938310>.

Bora, Dipok K., et al. "Crustal Structure Beneath the Indo-Burma Ranges from the Teleseismic Receiver Function and Its Implications for Dehydration of the Subducting Indian Slab." *Pure and Applied Geophysics*, vol. 179, no. 1, 2021, pp. 197–216, <https://doi.org/10.1007/s00024-021-02897-7>.

Borgeaud, Anselme F. E., and Frédéric Deschamps. "Seismic Attenuation and S-Velocity Structures in Beneath Central America Using 1-D Full-Waveform Inversion." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 7, July 2021, p. e2020JB021356, <https://doi.org/10.1029/2020JB021356>.

Bormann, Jayne M., et al. "Nevada Seismological Laboratory Rapid Seismic Monitoring Deployment and Data Availability for the 2020 M<sub>w</sub> 6.5 Monte Cristo Range, Nevada, Earthquake Sequence." *Seismological Research Letters*, vol. 92, no. 2A, Nov. 2021, pp. 810–22, <https://doi.org/10.1785/0220200344>.

Bornyakov, S. A., et al. "The Bystrinskii Earthquake in the Southern Baikal Region (Sep. 21, 2020, M<sub>w</sub> = 5.4): General Characteristics, Basic Parameters, and Deformation Signs of the Transition of the Focus to the Meta-Unstable State." *Doklady Earth Sciences*, vol. 498, no. 1, May 2021, pp. 427–31, <https://doi.org/10.1134/S1028334X21050044>.

- Boschelli, Joshua, et al. "Temporal Seismic Velocity Variations: Recovery Following From the 2019 Mw 7.1 Ridgecrest, California Earthquake." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 4, Apr. 2021, p. e2020JB021465, <https://doi.org/10.1029/2020JB021465>.
- Boschelli, Joshua Dakota. *Applications of High-Frequency Ambient Seismic Noise Studies of the Shallow Crust of the Earth*. 2021. Saint Louis University, Ph.D., <https://www.proquest.com/dissertations-theses/applications-high-frequency-ambient-seismic-noise/docview/2640409275/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2640409275.
- Böse, Maren, et al. "Magnitude Scales for Marsquakes Calibrated from InSight Data." *Bulletin of the Seismological Society of America*, vol. 111, no. 6, Oct. 2021, pp. 3003–15, <https://doi.org/10.1785/0120210045>.
- Bowman, Daniel C., and Siddharth Krishnamoorthy. "Infrasound From a Buried Chemical Explosion Recorded on a Balloon in the Lower Stratosphere." *Geophysical Research Letters*, vol. 48, no. 21, Nov. 2021, p. e2021GL094861, <https://doi.org/10.1029/2021GL094861>.
- Boyce, A., et al. "AFRP20: New P-Wavespeed Model for the African Mantle Reveals Two Whole-Mantle Plumes Below East Africa and Neoproterozoic Modification of the Tanzania Craton." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 3, Mar. 2021, p. e2020GC009302, <https://doi.org/10.1029/2020GC009302>.
- Boyce, A., and S. Cottaar. "Insights Into Deep Mantle Thermochemical Contributions to African Magmatism From Converted Seismic Phases." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 3, 2021, p. n/a, <https://doi.org/10.1029/2020GC009478>.
- Brantley, Susan L., et al. "The Future Low-Temperature Geochemical Data-Scape as Envisioned by the U.S. Geochemical Community." *Computers & Geosciences*, vol. 157, Dec. 2021, p. 104933, <https://doi.org/10.1016/j.cageo.2021.104933>.
- Braszus, Benedikt, et al. "Subduction History of the Caribbean from Upper-Mantle Seismic Imaging and Plate Reconstruction." *Nature Communications*, vol. 12, no. 1, July 2021, p. 4211, <https://doi.org/10.1038/s41467-021-24413-0>.
- Braunmiller, J., and P. Wetmore. *The March 2020, Mw6.5 Stanley, Idaho Earthquake— Complex Faulting at the Northern End of the Basin and Range Province From Earthquake Relocation and Source Mechanisms*. 2021.
- Brinkman, Nienke, et al. "First Focal Mechanisms of Marsquakes." *Journal of Geophysical Research: Planets*, vol. 126, no. 4, Apr. 2021, p. e2020JE006546, <https://doi.org/10.1029/2020JE006546>.
- Broermann, James, et al. "Geodetic Extension Across the Southern Basin and Range and Colorado Plateau." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 6, June 2021, p. e2020JB021355, <https://doi.org/10.1029/2020JB021355>.
- Brooks, Benjamin A., et al. "Robust Earthquake Early Warning at a Fraction of the Cost: ASTUTI Costa Rica." *AGU Advances*, vol. 2, no. 3, Sept. 2021, p. e2021AV000407, <https://doi.org/10.1029/2021AV000407>.
- Brown, Megan R. M., et al. *Induced Seismicity Coulomb Static Stress Transfer in Raton Basin, Colorado and New Mexico*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/922502>.

- Brudzinski, M. R., et al. *Learning in a Crisis: Online Skill Building Workshop Addresses Immediate Pandemic Needs and Offers Possibilities for More Inclusive Trainings*. 2021.
- Brudzinski, Michael, et al. "Learning in a Crisis: Online Skill Building Workshop Addresses Immediate Pandemic Needs and Offers Possibilities for Future Trainings." *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 3215–30, <https://doi.org/10.1785/0220200472>.
- Brunsvik, B. R., et al. *Anisotropic S-Wave Tomography at the Eastern North American Margin: Constraints on Mantle Structure and Dynamics*. 2021.
- Brunsvik, Brennan, et al. *Mantle Structure and Flow Across the Continent-Ocean Transition of the Eastern North American Margin Revealed by Anisotropic Tomography*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/819374>.
- Brunsvik, Brennan R., et al. "Mantle Structure and Flow Across the Continent-Ocean Transition of the Eastern North American Margin: Anisotropic S-Wave Tomography." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 12, Dec. 2021, p. e2021GC010084, <https://doi.org/10.1029/2021GC010084>.
- Burdick, Scott, et al. *Mantle Structure and Uncertainty from Transdimensional Bayesian P-Wave Tomography in Alaska*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/951132>.
- Burgess, Matthew K., and Diana C. Roman. "Ongoing (2015-) Magma Surge in the Upper Mantle Beneath the Island of Hawai'i." *Geophysical Research Letters*, vol. 48, no. 7, Nov. 2021, p. e2020GL091096, <https://doi.org/10.1029/2020GL091096>.
- Burky, Alexander, et al. *Receiver Function Imaging of the Mantle Transition Zone beneath Eastern North America*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/887330>.
- Burky, Alexander L., et al. "Instrument Response Removal and the 2020 MLg 3.1 Marlboro, New Jersey, Earthquake." *Seismological Research Letters*, vol. 92, no. 6, Nov. 2021, pp. 3865–72, <https://doi.org/10.1785/0220210118>.
- . "Mantle Transition Zone Receiver Functions for Bermuda: Automation, Quality Control, and Interpretation." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 3, Apr. 2021, p. e2020JB020177, <https://doi.org/10.1029/2020JB020177>.
- Burton, Carlene, et al. *Unlearning Racism in Geoscience-URGE-Ing with Our Black, Indigenous, and People of Color (BIPOC) Participants*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/1005886>.
- Busby, R. W., et al. *The Alaska Transportable Array: Technical Advances Among Challenges*. 2021.
- Butler, Rhett, and Seiji Tsuboi. "Antipodal Seismic Reflections upon Shear Wave Velocity Structures within Earth's Inner Core." *Physics of the Earth and Planetary Interiors*, vol. 321, 2021, p. 106802, <https://doi.org/10.1016/j.pepi.2021.106802>.
- Büyükakpınar, Pınar, et al. "Orientations of Broadband Stations of the KOERI Seismic Network (Turkey) from Two Independent Methods: P- and Rayleigh-Wave Polarization." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1512–21, <https://doi.org/10.1785/0220200362>.
- Byrnes, Joseph S., et al. *Joint Inversion of Surface-Wave and S-to-p Receiver Function Constraints for Shear-Wave Velocity in the Western United States: Evidence for Melt in the Asthenosphere*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/843746>.

- Caballero, Emmanuel, et al. "Seismic and Aseismic Fault Slip During the Initiation Phase of the 2017 MW = 6.9 Valparaíso Earthquake." *Geophysical Research Letters*, vol. 48, no. 6, Nov. 2021, p. e2020GL091916, <https://doi.org/10.1029/2020GL091916>.
- Cabrera, Leoncio, et al. "Northern Chile Intermediate-Depth Earthquakes Controlled by Plate Hydration." *Geophysical Journal International*, vol. 226, no. 1, 2021, pp. 78–90, <https://doi.org/10.1093/gji/ggaa565>.
- Cai, Yan, et al. "S Wave Velocity Structure of the Crust and Upper Mantle Beneath Shanxi Rift, Central North China Craton and Its Tectonic Implications." *Tectonics*, vol. 40, no. 4, Apr. 2021, p. e2020TC006239, <https://doi.org/10.1029/2020TC006239>.
- Calderoni, Giovanna, et al. "Strike-Slip Earthquakes at the Northern Edge of the Calabrian Arc Subduction Zone." *Seismological Research Letters*, vol. 92, no. 2A, Apr. 2021, pp. 1023–35, <https://doi.org/10.1785/0220200251>.
- Calle Gardella, Daniela Teresa, et al. *Stuoragurra Fault: A Review and Update of the Historical Seismicity Catalog*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/873268>.
- Cambaz, Musavver Didem, et al. "Evolution of the Kandilli Observatory and Earthquake Research Institute (KOERI) Seismic Network and the Data Center Facilities as a Primary Node of EIDA." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1571–80, <https://doi.org/10.1785/0220200367>.
- Cao, Lingmin, et al. "Mantle Flow Patterns Beneath the Junction of Multiple Subduction Systems Between the Pacific and Tethys Domains, SE Asia: Constraints From SKS-Wave Splitting Measurements." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 9, 2021, p. n/a, <https://doi.org/10.1029/2021GC009700>.
- Cao, Xiaoyue, et al. "3D MT Anisotropic Inversion Based on Unstructured Finite-Element Method." *Journal of Environmental and Engineering Geophysics*, vol. 26, no. 1, 2021, pp. 49–60, <https://doi.org/10.32389/JEEG20-006>.
- Carbotte, S. M., et al. "A Vital Resource Supporting Antarctic Research." *Eos*, vol. 102, 2021, <https://doi.org/10.1029/2021EO156633>.
- Cardona, Sebastian, et al. *HEWG: A New AGU Working Group for Hazard Equity*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/982495>.
- Carpenter, S., et al. *Site Response in the Illinois Basin From S-Wave H/V and Spectral-Element Modeling*. 2021.
- Carr, Chris G. *Blood Falls, Taylor Glacier, Antarctica: Subglacially-Sourced Outflow at the Surface of a Cold Polar Glacier as Recorded by Time-Lapse Photography, Seismic Data, and Historical Observations*. 2021. University of Alaska Fairbanks, Ph.D., <https://www.proquest.com/dissertations-theses/blood-falls-taylor-glacier-antarctica/docview/2504856734/se-2>. ProQuest Dissertations & Theses Global, 2504856734.
- Carrero Mustelier, Emily, and William Menke. "Seismic Anomalies in the Southeastern North American Asthenosphere as Characterized with Body Wave Travel Times from High-Quality Teleseisms." *Tectonophysics*, vol. 809, 2021, p. 228853, <https://doi.org/10.1016/j.tecto.2021.228853>.



- Carrilho, Fernando, et al. "The Portuguese National Seismic Network—Products and Services." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1541–70, <https://doi.org/10.1785/0220200407>.
- Castro-Cruz, David, et al. "High-Fidelity Broadband Prediction of Regional Seismic Response: A Hybrid Coupling of Physics-Based Synthetic Simulation and Empirical Green Functions." *Natural Hazards*, vol. 108, no. 2, Sept. 2021, pp. 1997–2031, <https://doi.org/10.1007/s11069-021-04766-x>.
- Cauzzi, Carlo, et al. "Preface to the Focus Section on European Seismic Networks and Associated Services and Products." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1483–90, <https://doi.org/10.1785/0220210055>.
- Celli, Nicolas Luca, et al. "The Tilted Iceland Plume and Its Effect on the North Atlantic Evolution and Magmatism." *Earth and Planetary Science Letters*, vol. 569, 2021, p. 117048, <https://doi.org/10.1016/j.epsl.2021.117048>.
- Cesca, Simone, et al. "The 2014 Juan Fernández Microplate Earthquake Doublet: Evidence for Large Thrust Faulting Driven by Microplate Rotation." *Tectonophysics*, vol. 801, 2021, p. 228720, <https://doi.org/10.1016/j.tecto.2021.228720>.
- Ceylan, Savas, et al. "Companion Guide to the Marsquake Catalog from InSight, Sols 0–478: Data Content and Non-Seismic Events." *Physics of the Earth and Planetary Interiors*, vol. 310, 2021, p. 106597, <https://doi.org/10.1016/j.pepi.2020.106597>.
- Chai, Chengping, et al. "A 3D Full Stress Tensor Model for Oklahoma." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 4, Apr. 2021, p. e2020JB021113, <https://doi.org/10.1029/2020JB021113>.
- Chai, Yi, and Shuanggen Jin. "Two-Azimuth Co-Seismic Ionospheric Disturbances Following the 2020 Jamaica Earthquake From GPS Observations." *Journal of Geophysical Research: Space Physics*, vol. 126, no. 9, Sept. 2021, p. e2020JA028995, <https://doi.org/10.1029/2020JA028995>.
- Chalumeau, Caroline, et al. "Repeating Earthquakes at the Edge of the Afterslip of the 2016 Ecuadorian MW 7.8 Pedernales Earthquake." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 5, May 2021, p. e2021JB021746, <https://doi.org/10.1029/2021JB021746>.
- Chamberlain, C. J., et al. "Illuminating the Pre-, Co-, and Post-Seismic Phases of the 2016 M7.8 Kaikōura Earthquake With 10 Years of Seismicity." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 8, Aug. 2021, p. e2021JB022304, <https://doi.org/10.1029/2021JB022304>.
- Chambers, Emma L., et al. "Variations in Melt Emplacement beneath the Northern East African Rift from Radial Anisotropy." *Earth and Planetary Science Letters*, vol. 573, 2021, p. 117150, <https://doi.org/10.1016/j.epsl.2021.117150>.
- Chapman, Martin C., and Zhen Guo. "A Response Spectral Ratio Model to Account for Amplification and Attenuation Effects in the Atlantic and Gulf Coastal Plain." *Bulletin of the Seismological Society of America*, vol. 111, no. 4, Oct. 2021, pp. 1849–67, <https://doi.org/10.1785/0120200322>.
- Charalambous, C., A. E. Stott, et al. "A Comodulation Analysis of Atmospheric Energy Injection Into the Ground Motion at InSight, Mars." *Journal of Geophysical Research: Planets*, vol. 126, no. 4, Apr. 2021, p. e2020JE006538, <https://doi.org/10.1029/2020JE006538>.
- Charalambous, C., J. B. McClean, et al. "Vortex-Dominated Aeolian Activity at InSight's Landing Site, Part 1: Multi-Instrument Observations, Analysis, and Implications." *Journal of Geophysical*

*Research: Planets*, vol. 126, no. 6, June 2021, p. e2020JE006757,  
<https://doi.org/10.1029/2020JE006757>.

Chatain, A., et al. "Seasonal Variability of the Daytime and Nighttime Atmospheric Turbulence Experienced by InSight on Mars." *Geophysical Research Letters*, vol. 48, no. 22, Nov. 2021, p. e2021GL095453, <https://doi.org/10.1029/2021GL095453>.

Chaudhury, Jashodhara, et al. "Hales Discontinuity in the Southern Indian Continental Lithosphere: Seismological and Petrological Models." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 2, Feb. 2021, p. e2020JB020564, <https://doi.org/10.1029/2020JB020564>.

Che, Il-Young, et al. "Illuminating the North Korean Nuclear Explosion Test in 2017 Using Remote Infrasound Observations." *Geophysical Journal International*, vol. 228, no. 1, 2021, pp. 308–15, <https://doi.org/10.1093/gji/ggab338>.

Chen, Chieh-Hung, et al. "Large Air Pressure Changes Triggered by P-SV Ground Motion in a Cave in Northern Taiwan." *Scientific Reports*, vol. 11, no. 1, June 2021, p. 12850, <https://doi.org/10.1038/s41598-021-92216-w>.

Chen, Han, Xiaohui He, Hongfeng Yang, et al. "Fault-Plane Determination of the 4 January 2020 Offshore Pearl River Delta Earthquake and Its Implication for Seismic Hazard Assessment." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1913–25, <https://doi.org/10.1785/0220200232>.

Chen, Haopeng, Zhiwei Li, Zhicai Luo, et al. "Crust and Upper Mantle Structure of the South China Sea and Adjacent Areas From the Joint Inversion of Ambient Noise and Earthquake Surface Wave Dispersions." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 3, Mar. 2021, p. e2020GC009356, <https://doi.org/10.1029/2020GC009356>.

Chen, Jui-Chun Freya, Wu-Cheng Chi, and Chu-Fang Yang. "Seismically Derived Ground Tilts Related to the 2010 Chilean Tsunami." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2172–81, <https://doi.org/10.1785/0220200288>.

Chen, Tianbo, et al. "A Semi-Parametric Estimation Method for the Quantile Spectrum with an Application to Earthquake Classification Using Convolutional Neural Network." *Computational Statistics & Data Analysis*, vol. 154, Feb. 2021, p. 107069, <https://doi.org/10.1016/j.csda.2020.107069>.

Chen, Xiaoran, Vadim Levin, Huaiyu Yuan, et al. "Seismic Anisotropic Layering in the Yilgarn and Superior Cratonic Lithosphere." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 8, Aug. 2021, p. e2020JB021575, <https://doi.org/10.1029/2020JB021575>.

---. "Small Shear Wave Splitting Delays Suggest Weak Anisotropy in Cratonic Mantle Lithosphere." *Geophysical Research Letters*, vol. 48, no. 16, Nov. 2021, p. e2021GL093861, <https://doi.org/10.1029/2021GL093861>.

Chen, Ying, Yinshuang Ai, Mingming Jiang, et al. "New Insights Into Potassic Intraplate Volcanism in Northeast China From Joint Tomography of Ambient Noise and Teleseismic Surface Waves." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 8, Aug. 2021, p. e2021JB021856, <https://doi.org/10.1029/2021JB021856>.

Chen, Yunfeng, Yu Jeffrey Gu, Farhanah Mohammed, et al. "Crustal Attenuation beneath Western North America: Implications for Slab Subduction, Terrane Accretion and Arc Magmatism of the Cascades." *Earth and Planetary Science Letters*, vol. 560, 2021, p. 116783, <https://doi.org/10.1016/j.epsl.2021.116783>.

- Cheng, Shihua, et al. "Crustal Thickness and Vp/Vs Variation beneath Continental China Revealed by Receiver Function Analysis." *Geophysical Journal International*, vol. 228, no. 3, 2021, pp. 1731–49, <https://doi.org/10.1093/gji/ggab433>.
- Cheng, W., et al. "Anisotropy Gradients in the Middle of the Ross Sea Embayment, West Antarctica: Evidence From QL Scattered Surface Waves." *Geophysical Research Letters*, vol. 48, no. 6, Nov. 2021, p. e2020GL091232, <https://doi.org/10.1029/2020GL091232>.
- Cheng, Wei, et al. "Infrasound Detection and Altitude Estimation Associated with the December 22, 2020 Yushu Fireball." *Geoscience Letters*, vol. 8, no. 1, 2021, pp. 1–6, <https://doi.org/10.1186/s40562-021-00196-6>.
- Chèze, Jérôme, et al. "METEOR: Online Seismic Metadata Builder." *Seismological Research Letters*, vol. 92, no. 2A, Apr. 2021, pp. 1141–47, <https://doi.org/10.1785/0220200217>.
- Chhangte, Ricky L., et al. "Ground-Motion Model for Deep Intralab Subduction Zone Earthquakes of Northeastern India (NEI) and Adjacent Regions." *Bulletin of the Seismological Society of America*, vol. 111, no. 2, Feb. 2021, pp. 36–49, <https://doi.org/10.1785/0120200050>.
- Chiang, Andrea, et al. "Seismic Source Characterization of the Arabian Peninsula and Zagros Mountains from Regional Moment Tensor and Coda Envelopes." *Arabian Journal of Geosciences*, vol. 14, no. 1, 2021, <https://doi.org/10.1007/s12517-020-06266-x>.
- Chiesa, Daniela Dalla, et al. "Simultaneous Simulation of the Three Components of Seismic Accelerograms at Locations around Seismological Stations." *Journal of Seismology*, vol. 25, no. 6, Dec. 2021, pp. 1361–84, <https://doi.org/10.1007/s10950-021-10050-z>.
- Chiu, Hsin, et al. "Crustal Underplating and Overriding across the Collision-Subduction Transition in the Northern Manila Subduction Zone Offshore Southwestern Taiwan." *Marine Geophysical Research*, vol. 42, no. 3, July 2021, p. 22, <https://doi.org/10.1007/s11001-021-09444-y>.
- Choi, Minhee, et al. "Is the Eastern Denali Fault Still Active?" *Geology*, vol. 49, no. 6, Oct. 2021, pp. 662–66, <https://doi.org/10.1130/G48461.1>.
- Chong, Jiajun, et al. *Upper Mantle Vs Structure of East Asia Using Full Waveform Tomography*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/933982>.
- Chousianitis, Konstantinos, and A. Ozgun Konca. "Rupture Process of the 2020 Mw7.0 Samos Earthquake and Its Effect on Surrounding Active Faults." *Geophysical Research Letters*, vol. 48, no. 14, Nov. 2021, p. e2021GL094162, <https://doi.org/10.1029/2021GL094162>.
- Cianetti, S., et al. "Comparison of Deep Learning Techniques for the Investigation of a Seismic Sequence: An Application to the 2019, Mw 4.5 Mugello (Italy) Earthquake." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 12, Dec. 2021, p. e2021JB023405, <https://doi.org/10.1029/2021JB023405>.
- Civiero, Chiara, et al. "The Role of the Seismically Slow Central-East Atlantic Anomaly in the Genesis of the Canary and Madeira Volcanic Provinces." *Geophysical Research Letters*, vol. 48, no. 13, Nov. 2021, p. e2021GL092874, <https://doi.org/10.1029/2021GL092874>.
- Civilini, F., et al. "Detecting Moonquakes Using Convolutional Neural Networks, a Non-Local Training Set, and Transfer Learning." *Geophysical Journal International*, vol. 225, no. 3, 2021, pp. 2120–34, <https://doi.org/10.1093/gji/ggab083>.
- Clements, Timothy. *Tracking Groundwater with the Ambient Seismic Field*. 2021. Harvard University, Ph.D., <https://www.proquest.com/dissertations-theses/tracking-groundwater-with->

ambient-seismic-field/docview/2607665842/se-2?accountid=4485. ProQuest Dissertations & Theses Global, 2607665842.

Clements, Timothy, and Marine A. Denolle. "SeisNoise.Jl: Ambient Seismic Noise Cross Correlation on the CPU and GPU in Julia." *Seismological Research Letters*, vol. 92, no. 1, Apr. 2021, pp. 517–27, <https://doi.org/10.1785/0220200192>.

Clifford, Thomas Matthew. *Investigations of Velocity Variations Via Ambient Noise Interferometry in a Region of Wastewater Injection and Induced Seismicity*. 2021. University of Colorado at Boulder, M.S., <https://www.proquest.com/dissertations-theses/investigations-velocity-variations-via-ambient/docview/2553853806/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2553853806.

Clinton, John F., et al. "The Marsquake Catalogue from InSight, Sols 0–478." *Physics of the Earth and Planetary Interiors*, vol. 310, 2021, p. 106595, <https://doi.org/10.1016/j.pepi.2020.106595>.

Clyne, Elisabeth. *Geophysical Investigation of Basal and Hydrologic Conditions in Glaciers and Ice Shelves*. 2021. The Pennsylvania State University, Ph.D., <https://www.proquest.com/dissertations-theses/geophysical-investigation-basal-hydrologic/docview/2577509708/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2577509708.

Coffey, Juliann Rose, et al. *Data Quality Control of Diverse IMS Seismo-Acoustic Station Channels*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/899876>.

Compaire, N., L. Margerin, R. F. Garcia, et al. "Autocorrelation of the Ground Vibrations Recorded by the SEIS-InSight Seismometer on Mars." *Journal of Geophysical Research: Planets*, vol. 126, no. 4, Apr. 2021, p. e2020JE006498, <https://doi.org/10.1029/2020JE006498>.

Compaire, N., L. Margerin, M. Monnereau, et al. "Seasonal Variations of Subsurface Seismic Velocities Monitored by the SEIS-InSight Seismometer on Mars." *Geophysical Journal International*, vol. 229, no. 2, 2021, pp. 776–99, <https://doi.org/10.1093/gji/ggab499>.

Condori, Cristobal, et al. "Variable Seismic Anisotropy across the Peruvian Flat-Slab Subduction Zone with Implications for Upper Plate Deformation." *Journal of South American Earth Sciences*, vol. 106, Mar. 2021, p. 103053, <https://doi.org/10.1016/j.jsames.2020.103053>.

Constaratas, Alexandra N. "Fin Whale Acoustic Populations Present in New Zealand Waters: Description of Song Types, Occurrence and Seasonality Using Passive Acoustic Monitoring." *PLOS One*, vol. 16, no. 7, 2021, pp. e0253737–e0253737, <https://doi.org/10.1371/journal.pone.0253737>.

Cooper, Ian Philip. *Coherence as a Measure of Body-Wave Signal to Noise Ratio in the Northeastern United States and Southeastern Canada*. 2021. Boston College, M.S., <https://www.proquest.com/dissertations-theses/coherence-as-measure-body-wave-signal-noise-ratio/docview/2572626229/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2572626229.

Cordell, Darcy, et al. "Estimating the Geoelectric Field and Electric Power Transmission Line Voltage During a Geomagnetic Storm in Alberta, Canada Using Measured Magnetotelluric Impedance Data: The Influence of Three-Dimensional Electrical Structures in the Lithosphere." *Space Weather*, vol. 19, no. 10, Oct. 2021, p. e2021SW002803, <https://doi.org/10.1029/2021SW002803>.

- Cornthwaite, John, et al. "Caribbean Slab Segmentation Beneath Northwest South America Revealed by 3-D Finite Frequency Teleseismic P-Wave Tomography." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 4, 2021, p. n/a, <https://doi.org/10.1029/2020GC009431>.
- Costanzo, Antonio, et al. "A Technological System for Post-earthquake Damage Scenarios Based on the Monitoring by Means of an Urban Seismic Network." *Sensors*, vol. 21, no. 23, 2021, p. 7887, <https://doi.org/10.3390/s21237887>.
- Coulibaly, Aicha, and Jay Pulliam. *Joint Teleseismic P, Regional Pn, and Local Pg Tomography of Texas, Oklahoma, and Eastern New Mexico*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/898817>.
- Coulson, Sophie. *Geodynamic Insights on Critical Climate Events in Earth History*. 2021. Harvard University, Ph.D., <https://www.proquest.com/dissertations-theses/geodynamic-insights-on-critical-climate-events/docview/2564445657/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2564445657.
- Craig, T. J., and J. A. Jackson. "Variations in the Seismogenic Thickness of East Africa." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 3, Mar. 2021, p. e2020JB020754, <https://doi.org/10.1029/2020JB020754>.
- Crayne, Jenny, Danielle F. Sumy, et al. *Engaging the Public: Education and Outreach to Support ShakeAlert®, the Earthquake Early Warning System for the West Coast of the United States*. 2021, <https://doi.org/10.1130/abs/2021AM-369710>.
- Crayne, Jenny, Kimberly Deras, et al. *Interactive Approaches to Earthquake Education: Resources and Strategies From ShakeAlert® Earthquake Early Warning*. 2021, <https://doi.org/10.1130/abs/2021AM-369656>.
- Creasy, Neala, et al. "Modeling of Seismic Anisotropy Observations Reveals Plausible Lowermost Mantle Flow Directions Beneath Siberia." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 10, Oct. 2021, p. e2021GC009924, <https://doi.org/10.1029/2021GC009924>.
- Cremen, Gemma, et al. "Accuracy and Uncertainty Analysis of Selected Methodological Approaches to Earthquake Early Warning in Europe." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2321–32, <https://doi.org/10.1785/0220200414>.
- Crosbie, Kayla, et al. *Data Marathon: Continually Processing Magnetotelluric Data for the Ongoing National Scale Survey, USMTArray-CONUS South*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/841121>.
- Crowell, Brendan W. "Near-Field Strong Ground Motions from GPS-Derived Velocities for 2020 Intermountain Western United States Earthquakes." *Seismological Research Letters*, vol. 92, no. 2A, Nov. 2021, pp. 840–48, <https://doi.org/10.1785/0220200325>.
- Crozier, Josh, and Leif Karlstrom. "Wavelet-Based Characterization of Very-Long-Period Seismicity Reveals Temporal Evolution of Shallow Magma System Over the 2008–2018 Eruption of Kilauea Volcano." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 6, June 2021, p. e2020JB020837, <https://doi.org/10.1029/2020JB020837>.
- Crozier, Joshua. *Using Spectral Analysis and Fluid Dynamics to Understand Supraglacial Stream Networks on the Greenland Ice Sheet and Seismicity at Kilauea Volcano*. 2021. University of Oregon, Ph.D., <https://www.proquest.com/dissertations-theses/using-spectral-analysis-fluid-dynamics-understand/docview/2572550141/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2572550141.

- Cui, Xin, et al. "Subdivision of Seismicity Beneath the Summit Region of Kilauea Volcano: Implications for the Preparation Process of the 2018 Eruption." *Geophysical Research Letters*, vol. 48, no. 20, Nov. 2021, p. e2021GL094698, <https://doi.org/10.1029/2021GL094698>.
- Czanik, Csenge, et al. "Identification of Quarry Blasts Aided by Infrasound Data." *Pure and Applied Geophysics*, vol. 178, no. 6, June 2021, pp. 2287–300, <https://doi.org/10.1007/s00024-021-02748-5>.
- da Silva, Sérgio Luiz E. F. " $\kappa$ -Generalised Gutenberg–Richter Law and the Self-Similarity of Earthquakes." *Chaos, Solitons and Fractals*, vol. 143, 2021, p. 110622, <https://doi.org/10.1016/j.chaos.2020.110622>.
- Dahmen, Nikolaj L., Géraldine Zenhäusern, et al. "Resonances and Lander Modes Observed by InSight on Mars (1–9 Hz)." *Bulletin of the Seismological Society of America*, vol. 111, no. 6, Oct. 2021, pp. 2924–50, <https://doi.org/10.1785/0120210056>.
- Dahmen, Nikolaj L., John F. Clinton, et al. "Super High Frequency Events: A New Class of Events Recorded by the InSight Seismometers on Mars." *Journal of Geophysical Research: Planets*, vol. 126, no. 2, Apr. 2021, p. e2020JE006599, <https://doi.org/10.1029/2020JE006599>.
- D'Ajello Caracciolo, Francesca, and Rodolfo Console. "Earthquake Location in Tectonic Structures of the Alpine Chain: The Case of the Constance Lake (Central Europe) Seismic Sequence." *Acta Geophysica*, vol. 69, no. 4, Aug. 2021, pp. 1163–75, <https://doi.org/10.1007/s11600-021-00594-6>.
- Dalai, Bijayananda, et al. "De-Noising Receiver Function Data Using the Unsupervised Deep Learning Approach." *Geophysical Journal International*, vol. 229, no. 2, 2021, pp. 737–49, <https://doi.org/10.1093/gji/ggab494>.
- Dalton, Colleen A., and Jordyn C. Babikovv. *Rayleigh Wave Amplification: Sensitivity to Elastic Structure and Application to Alaskan Crust and Upper Mantle*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/851703>.
- Daly, Kiara A., et al. "Subduction of an Oceanic Plateau Across Southcentral Alaska: High-Resolution Seismicity." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 11, Nov. 2021, p. e2021JB022809, <https://doi.org/10.1029/2021JB022809>.
- Danecek, Peter, et al. "The Italian Node of the European Integrated Data Archive." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1726–37, <https://doi.org/10.1785/0220200409>.
- Dangwal, Deepankar, and Michael Behm. "Interferometric Body-Wave Retrieval from Ambient Noise after Polarization Filtering: Application to Shallow Reflectivity Imaging." *Geophysics*, vol. 86, no. 6, 2021, pp. Q47–58, <https://doi.org/10.1190/geo2020-0768.1>.
- Dannemann Dugick, Fransiska K., et al. "ROSES: Remote Online Sessions for Emerging Seismologists." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2657–67, <https://doi.org/10.1785/0220200421>.
- Davis, Earl E., and Joseph J. Farrugia. "Amplification and Tuning of Ground Motion at the Outer Cascadia Accretionary Prism." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 5, May 2021, p. e2020JB020950, <https://doi.org/10.1029/2020JB020950>.
- De Angelis, S., et al. "Introduction to a Community Dataset from an Infrasound Array Experiment at Mt. Etna, Italy." *Scientific Data*, vol. 8, no. 1, Sept. 2021, p. 247, <https://doi.org/10.1038/s41597-021-01030-6>.

- de Viron, O., et al. "Comparing Global Seismic Tomography Models Using Varimax Principal Component Analysis." *Solid Earth*, vol. 12, no. 7, 2021, pp. 1601–34, <https://doi.org/10.5194/se-12-1601-2021>.
- DeFelipe, Irene, et al. "Reassessing the Lithosphere: SeisDARE, an Open-Access Seismic Data Repository." *Earth System Science Data*, vol. 13, no. 3, 2021, pp. 1053–71, <https://doi.org/10.5194/essd-13-1053-2021>.
- Della-Giustina, Daniella. *Signal Processing of Seismic and Image Data for Planetary Exploration*. 2021. The University of Arizona, Ph.D., <https://www.proquest.com/dissertations-theses/signal-processing-seismic-image-data-planetary/docview/2607587973/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2607587973.
- Delorey, Andrew A., et al. "Estimation of the Orientation of Stress in the Earth's Crust without Earthquake or Borehole Data." *Communications Earth & Environment*, vol. 2, no. 1, Sept. 2021, p. 190, <https://doi.org/10.1038/s43247-021-00244-1>.
- Delph, Jonathan R., et al. "Subcretionary Tectonics: Linking Variability in the Expression of Subduction along the Cascadia Forearc." *Earth and Planetary Science Letters*, vol. 556, 2021, p. 116724, <https://doi.org/10.1016/j.epsl.2020.116724>.
- Deshcherevskii, A. V., et al. "Seasonal Periodicity and Noise Discrimination of Microearthquakes at the Garm Test Area." *Seismic Instruments*, vol. 57, no. 5, Sept. 2021, pp. 552–71, <https://doi.org/10.3103/S0747923921050029>.
- Devey, C. W., et al. "How Volcanically Active Is an Abyssal Plain? Evidence for Recent Volcanism on 20 Ma Nazca Plate Seafloor." *Marine Geology*, vol. 440, Oct. 2021, p. 106548, <https://doi.org/10.1016/j.margeo.2021.106548>.
- Di Giovanni, Matteo, et al. "A Seismological Study of the Sos Enattos Area—the Sardinia Candidate Site for the Einstein Telescope." *Seismological Research Letters*, vol. 92, no. 1, Apr. 2021, pp. 352–64, <https://doi.org/10.1785/0220200186>.
- Diaz, J., M. Torne, et al. "Four Decades of Geophysical Research on Iberia and Adjacent Margins." *Earth-Science Reviews*, vol. 222, Nov. 2021, p. 103841, <https://doi.org/10.1016/j.earscirev.2021.103841>.
- Diaz, J., M. Ruiz, et al. "Seismic Monitoring of Urban Activity in Barcelona during the COVID-19 Lockdown." *Solid Earth*, vol. 12, no. 3, 2021, pp. 725–39, <https://doi.org/10.5194/se-12-725-2021>.
- Ding, Hao, et al. "Array Processing Techniques for Analyzing Global Geophysical Observation Networks: Comprehensive Analysis and Typical Applications." *Earth-Science Reviews*, vol. 221, 2021, p. 103807, <https://doi.org/10.1016/j.earscirev.2021.103807>.
- Domino, Jessica Rose. *Missing Magmas: An Interdisciplinary Study Investigating the Fate of Fluids in the Flat Slab Region of Central Chile*. 2021. State University of New York at Binghamton, Ph.D., <https://www.proquest.com/dissertations-theses/missing-magmas-interdisciplinary-study/docview/2563768943/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2563768943.
- Dong, Jie, et al. "Treatment of Discontinuities inside Earth Models: Effects on Computed Coseismic Deformations." *Earth and Planetary Physics*, vol. 5, no. 1, Jan. 2021, p. eep2021010, <https://doi.org/10.26464/epp2021010>.

- Dong, Sheng, et al. "DisperNet: An Effective Method of Extracting and Classifying the Dispersion Curves in the Frequency–Bessel Dispersion Spectrum." *Bulletin of the Seismological Society of America*, vol. 111, no. 6, Oct. 2021, pp. 3420–31, <https://doi.org/10.1785/0120210033>.
- Dreger, Douglas S., et al. "Path Calibration of the Democratic People's Republic of Korea 3 September 2017 Nuclear Test." *Seismological Research Letters*, vol. 92, no. 6, Nov. 2021, pp. 3375–85, <https://doi.org/10.1785/0220210105>.
- Drooff, Connor, and Jeffrey Todd Freymueller. *An Enhanced Earthquake Catalogue for Northern Cordillera Using EQTransformer Event Detection*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/996108>.
- Du, Hailin. "Estimating Rupture Front of Large Earthquakes Using a Novel Multi-Array Back-Projection Method." *Frontiers in Earth Science*, vol. 9, June 2021, <https://doi.org/10.3389/feart.2021.680163>.
- Duan, Jingming, et al. "Metadata Standards for Magnetotelluric Time-Series Data." *Preview*, vol. 2021, no. 215, Nov. 2021, pp. 61–63, <https://doi.org/10.1080/14432471.2021.2012035>.
- Duran, Gabriel, et al. *Designing and Developing the Unlearning Racism in Geoscience (URGE) Curriculum*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/1009190>.
- Durmuş, Hatice, and Murat Utkucu. "Coseismic Slip Distributions and Stress Interactions of the November 12, 2017, Sarpole-Zahab (Western Iran) Earthquake (MW=7.3) and Its Aftershocks: Seismotectonic Implications." *Arabian Journal of Geosciences*, vol. 14, no. 12, June 2021, p. 1188, <https://doi.org/10.1007/s12517-021-07509-1>.
- Eakin, Caroline M. "Quasi-Love Wave Scattering Reveals Tectonic History of Australia and Its Margins Reflected by Mantle Anisotropy." *Communications Earth & Environment*, vol. 2, no. 1, Oct. 2021, p. 210, <https://doi.org/10.1038/s43247-021-00276-7>.
- . "Seismic Anisotropy beneath Central Australia: A Record of Ancient Lithospheric Deformation." *Tectonophysics*, vol. 820, Dec. 2021, p. 229123, <https://doi.org/10.1016/j.tecto.2021.229123>.
- Earle, Paul S., et al. "Seismic Monitoring during Crises at the NEIC in Support of the ANSS." *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 2905–14, <https://doi.org/10.1785/0220200289>.
- Eberhart-Phillips, Donna, et al. "Heterogeneous Material Properties—as Inferred from Seismic Attenuation—Influenced Multiple Fault Rupture and Ductile Creep of the Kaikoura Mw 7.8 Earthquake, New Zealand." *Geophysical Journal International*, vol. 227, no. 2, 2021, pp. 1204–27, <https://doi.org/10.1093/gji/ggab272>.
- Eddy, Celia. *Constraining the Earth's Elastic Structure with Surface Waves: Seismic Anisotropy in the Pacific Upper Mantle and Local Amplification Across the Contiguous United States*. 2021. Columbia.
- Eken, Tuna, et al. "New Insights Into Crustal Properties of Anatolia and Its Surroundings Inferred From P-Coda Autocorrelation Inversions." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 12, Dec. 2021, p. e2021JB023184, <https://doi.org/10.1029/2021JB023184>.
- El-Sharkawy, A., et al. "Lithospheric Structure of the Eastern Mediterranean Sea: Inferences from Surface Wave Tomography and Stochastic Inversions Constrained by Wide-Angle Refraction Measurements." *Tectonophysics*, vol. 821, Dec. 2021, p. 229159, <https://doi.org/10.1016/j.tecto.2021.229159>.



- Ermert, L. A., et al. "Multifrequency Inversion of Global Ambient Seismic Sources." *Geophysical Journal International*, vol. 225, no. 3, 2021, pp. 1616–23, <https://doi.org/10.1093/gji/ggab050>.
- Ertuncay, Deniz, et al. "Identification of Near-Fault Impulsive Signals and Their Initiation and Termination Positions with Convolutional Neural Networks." *Geosciences*, vol. 11, no. 9, 2021, p. 388, <https://doi.org/10.3390/geosciences11090388>.
- Ertuncay, Deniz, and Giovanni Costa. "Determination of Near-Fault Impulsive Signals with Multivariate Naïve Bayes Method." *Natural Hazards*, vol. 108, no. 2, 2021, pp. 1763–80, <https://doi.org/10.1007/s11069-021-04755-0>.
- Erwin, Andrew, et al. "Brownian Noise and Temperature Sensitivity of Long-Period Lunar Seismometers." *Bulletin of the Seismological Society of America*, vol. 111, no. 6, 2021, pp. 3065–75, <https://doi.org/10.1785/0120210072>.
- Eshetu, Addis, et al. "Imaging the Ethiopian Rift Region Using Transdimensional Hierarchical Seismic Noise Tomography." *Pure and Applied Geophysics*, vol. 178, no. 11, Nov. 2021, pp. 4367–88, <https://doi.org/10.1007/s00024-021-02880-2>.
- Espindola-Carmona, A., et al. "Crustal and Upper-Mantle Structure Below Central and Southern Mexico." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 6, June 2021, p. e2020JB020906, <https://doi.org/10.1029/2020JB020906>.
- Essing, David, et al. "Characteristics of Current-Induced Harmonic Tremor Signals in Ocean-Bottom Seismometer Records." *Seismological Research Letters*, vol. 92, no. 5, 2021, pp. 3100–12, <https://doi.org/10.1785/0220200397>.
- Estève, C., et al. "Surface-Wave Tomography of the Northern Canadian Cordillera Using Earthquake Rayleigh Wave Group Velocities." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 8, Aug. 2021, p. e2021JB021960, <https://doi.org/10.1029/2021JB021960>.
- Fadil, Wardah, et al. "The January 11, 2018, Mw 6.0 Bago-Yoma, Myanmar Earthquake: A Shallow Thrust Event Within the Deforming Bago-Yoma Range." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 7, July 2021, p. e2020JB021313, <https://doi.org/10.1029/2020JB021313>.
- Fan, Wenyuan, et al. "Characteristics of Frequent Dynamic Triggering of Microearthquakes in Southern California." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 1, Apr. 2021, p. e2020JB020820, <https://doi.org/10.1029/2020JB020820>.
- Fan, Xingli, et al. "Quaternary Sodic and Potassic Intraplate Volcanism in Northeast China Controlled by the Underlying Heterogeneous Lithospheric Structures." *Geology*, vol. 49, no. 10, Oct. 2021, pp. 1260–64, <https://doi.org/10.1130/G48932.1>.
- Farajpour, Zoya. *A Ground-Motion Prediction Model for Small-to-Moderate Induced Earthquakes for Central and Eastern United States and Ground Motion Model Ranking*. 2021. The University of Memphis, Ph.D., <https://www.proquest.com/dissertations-theses/ground-motion-prediction-model-small-moderate/docview/2562848775/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2562848775.
- Farrell, Alexandra K. *Seismic Attenuation, Time Delays and Raypath Bending of Teleseisms Beneath Uturuncu Volcano, Bolivia*. 2021. University of South Florida.

- Fee, David, Liam Toney, et al. "Local Explosion Detection and Infrasound Localization by Reverse Time Migration Using 3-D Finite-Difference Wave Propagation." *Frontiers in Earth Science*, vol. 9, Feb. 2021, <https://doi.org/10.3389/feart.2021.620813>.
- Fee, David, Kenneth A. Macpherson, et al. *Using Large Earthquakes to Characterize Infrasound Station Performance with Colocated Seismometers*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/892482>.
- Feng, Lili. "Amphibious Shear Wave Structure Beneath the Alaska-Aleutian Subduction Zone From Ambient Noise Tomography." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 5, 2021, p. n/a, <https://doi.org/10.1029/2020GC009438>.
- . "High-Resolution Crustal and Uppermost Mantle Structure Beneath Central Mongolia From Rayleigh Waves and Receiver Functions." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 4, Apr. 2021, p. e2020JB021161, <https://doi.org/10.1029/2020JB021161>.
- Feng, Zhenjie. "Seismic Random Noise Attenuation Using Effective and Efficient Dictionary Learning." *Journal of Applied Geophysics*, vol. 186, Mar. 2021, p. 104258, <https://doi.org/10.1016/j.jappgeo.2021.104258>.
- Férot, A. "A Successful Model for Interdisciplinary Research." *Eos*, vol. 102, 2021, <https://doi.org/10.1029/2021EO155883>.
- Ferragut, Gabriel C. *Legacy Active-Source Seismic Data for Modern 3D Tomography: Integrating Data from the Mendocino Triple Junction for Multiscale Imaging*. 2021. University of Oregon, M.S., <https://www.proquest.com/dissertations-theses/legacy-active-source-seismic-data-modern-3d/docview/2629385980/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2629385980.
- Festa, Gaetano, et al. "Earthquake Seismology." *Encyclopedia of Geology (Second Edition)*, edited by David Alderton and Scott A. Elias, Academic Press, 2021, pp. 575–86, <https://doi.org/10.1016/B978-0-08-102908-4.00155-7>.
- Filippova, A. I., and O. A. Solovey. "Deep Velocity Structure of Southeast Asia from Rayleigh Wave Group Velocities: 3D Isotropic Model of the S-Wave Velocity Distribution in the Upper Mantle." *Geotectonics*, vol. 55, no. 4, July 2021, pp. 531–42, <https://doi.org/10.1134/S0016852121040063>.
- . "Surface Wave Tomography of Southeast Asia." *Izvestiya, Atmospheric and Oceanic Physics*, vol. 57, no. 7, Dec. 2021, pp. 729–38, <https://doi.org/10.1134/S0001433821070057>.
- Finnegan, R., et al. "Vibration of Natural Rock Arches and Towers Excited by Helicopter-Sourced Infrasound." *Earth Surface Dynamics*, vol. 9, no. 6, 2021, pp. 1459–79, <https://doi.org/10.5194/esurf-9-1459-2021>.
- Forbriger, Thomas, et al. "Challenges and Perspectives for Lowering the Vertical-Component Long-Period Detection Level." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2498–512, <https://doi.org/10.1785/0220200399>.
- Ford, Sean R., and William R. Walter. "Source Separation and Medium Change of Contained Chemical Explosions from Coda Wave Interferometry." *The Seismic Record*, vol. 1, no. 1, 2021, pp. 3–10, <https://doi.org/10.1785/0320210002>.

- Förster, M. W., and K. Selway. "Melting of Subducted Sediments Reconciles Geophysical Images of Subduction Zones." *Nature Communications*, vol. 12, no. 1, Feb. 2021, p. 1320, <https://doi.org/10.1038/s41467-021-21657-8>.
- Frankel, Arthur, and Alex Grant. "Site Response, Basin Amplification, and Earthquake Stress Drops in the Portland, Oregon Area." *Bulletin of the Seismological Society of America*, vol. 111, no. 2, Feb. 2021, pp. 671–85, <https://doi.org/10.1785/0120200269>.
- Frassetto, Andrew, et al. *New NSF-Sponsored Resources to Support Portable Magnetotelluric Instrument Experiments and Data Processing*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/825014>.
- Frazer, William D., and Jeffrey Park. "Seismic Evidence of Mid-Mantle Water Transport Beneath the Yellowstone Region." *Geophysical Research Letters*, vol. 48, no. 20, Nov. 2021, p. e2021GL095838, <https://doi.org/10.1029/2021GL095838>.
- Frazer, William, and Jeffrey J. Park. *Searching for Mid-Mantle Water with Multitaper-Correlation SS Precursors*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/968924>.
- Frederiksen, A. W., et al. "Altered Mantle Fabric Beneath the Mid-Continent Rift." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 9, 2021, p. n/a, <https://doi.org/10.1029/2021GC010012>.
- Frietsch, Michael, et al. "Data-Driven Two-Fault Modeling of the Mw 6.0 2008 Wells, Nevada Earthquake Suggests a Listric Fault Rupture." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 4, Apr. 2021, p. e2020JB020263, <https://doi.org/10.1029/2020JB020263>.
- Frost, Daniel A., et al. "Dynamic History of the Inner Core Constrained by Seismic Anisotropy." *Nature Geoscience*, vol. 14, no. 7, July 2021, pp. 531–35, <https://doi.org/10.1038/s41561-021-00761-w>.
- Frost, Daniel A., and Barbara Romanowicz. "Effects of Upper Mantle Structure beneath Alaska on Core-Sensitive Seismic Wave Absolute and Differential Measurements: Implications for Estimates of Inner Core Anisotropy." *Physics of the Earth and Planetary Interiors*, vol. 315, 2021, p. 106713, <https://doi.org/10.1016/j.pepi.2021.106713>.
- Frothingham, Michael Geoffrey, et al. *East-Dipping Seismically Anisotropic Foliation Above the Appalachian Décollement Inferred From Azimuthally Varying Ps Receiver Functions at SESAME Stations in the Blue Ridge and Piedmont Terranes: Implications for Alleghanian Deformation Patterns in the Appalachian Orogen, U.S.A.* 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/976360>.
- Fu, Lei, et al. "Retrieving S-Wave Velocity from Surface Wave Multimode Dispersion Curves with DispNet." *Journal of Applied Geophysics*, vol. 193, Oct. 2021, p. 104430, <https://doi.org/10.1016/j.jappgeo.2021.104430>.
- Fuji, Nobuaki, et al. "A Possible Roll-Over Slab Geometry Under the Caroline Plate Imaged by Monte Carlo Finite-Frequency Traveltime Inversion of Teleseismic SS Phases." *Frontiers in Earth Science*, vol. 9, Mar. 2021, <https://doi.org/10.3389/feart.2021.593947>.
- Fullea, J., et al. "WINTERC-G: Mapping the Upper Mantle Thermochemical Heterogeneity from Coupled Geophysical–Petrological Inversion of Seismic Waveforms, Heat Flow, Surface Elevation and Gravity Satellite Data." *Geophysical Journal International*, vol. 226, no. 1, 2021, pp. 146–91, <https://doi.org/10.1093/gji/ggab094>.

- Galea, Pauline, et al. "A First National Seismic Network for the Maltese Islands—The Malta Seismic Network." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1817–31, <https://doi.org/10.1785/0220200387>.
- Gama, I., et al. *Imaging the Upper Plate Lithosphere and Asthenosphere Beneath Alaska With Sp Converted Waves*. 2021.
- Gama, Isabella, Karen M. Fischer, Zachary Eilon, Hannah Elaine Krueger, et al. *Imaging the Lithosphere and Asthenosphere Beneath Alaska with a Bayesian Inversion of Sp and Ps Phases and Rayleigh Waves*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/939444>.
- Gama, Isabella, Karen M. Fischer, Zachary Eilon, Hannah E. Krueger, et al. "Shear-Wave Velocity Structure beneath Alaska from a Bayesian Joint Inversion of Sp Receiver Functions and Rayleigh Wave Phase Velocities." *Earth and Planetary Science Letters*, vol. 560, 2021, p. 116785, <https://doi.org/10.1016/j.epsl.2021.116785>.
- Gao, Haiying, and Cong Li. "Lithospheric Formation and Evolution of Eastern North American Continent." *Geophysical Research Letters*, vol. 48, no. 5, Nov. 2021, p. e2020GL091074, <https://doi.org/10.1029/2020GL091074>.
- Gao, Lina, et al. "Extraction of Multimodal Dispersion Curves From Ambient Noise With Compressed Sensing." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 6, June 2021, p. e2020JB021472, <https://doi.org/10.1029/2020JB021472>.
- Gao, Yajian, Frederik Tilmann, et al. "Full Waveform Inversion Beneath the Central Andes: Insight Into the Dehydration of the Nazca Slab and Delamination of the Back-Arc Lithosphere." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 7, July 2021, p. e2021JB021984, <https://doi.org/10.1029/2021JB021984>.
- Gao, Yajian, Xiaohui Yuan, et al. "Impact of the Juan Fernandez Ridge on the Pampean Flat Subduction Inferred From Full Waveform Inversion." *Geophysical Research Letters*, vol. 48, no. 21, Nov. 2021, p. e2021GL095509, <https://doi.org/10.1029/2021GL095509>.
- Gao, Dawei, et al. "Misconception of Waveform Similarity in the Identification of Repeating Earthquakes." *Geophysical Research Letters*, vol. 48, no. 13, Nov. 2021, p. e2021GL092815, <https://doi.org/10.1029/2021GL092815>.
- Garcia, J. A., et al. "Automatic Identification of Mantle Seismic Phases Using a Convolutional Neural Network." *Geophysical Research Letters*, vol. 48, no. 18, Nov. 2021, p. e2020GL091658, <https://doi.org/10.1029/2020GL091658>.
- Garcia, Raphael F., et al. "Search for Infrasound Signals in InSight Data Using Coupled Pressure/Ground Deformation Methods." *Bulletin of the Seismological Society of America*, vol. 111, no. 6, Oct. 2021, pp. 3055–64, <https://doi.org/10.1785/0120210079>.
- Garza-Giron, Ricardo. *A Geophysical Study of Active Volcanic Regions and Subduction Zones*. 2021. University of California, Santa Cruz, Ph.D., <https://www.proquest.com/dissertations-theses/geophysical-study-active-volcanic-regions/docview/2597833525/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2597833525.
- Gase, Andrew C., et al. "Crustal Structure of the Northern Hikurangi Margin, New Zealand: Variable Accretion and Overthrusting Plate Strength Influenced by Rough Subduction." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 5, May 2021, p. e2020JB021176, <https://doi.org/10.1029/2020JB021176>.

- Gaudot, I., et al. "3-D Crustal VS Model of Western France and the Surrounding Regions Using Monte Carlo Inversion of Seismic Noise Cross-Correlation Dispersion Diagrams." *Geophysical Journal International*, vol. 224, no. 3, 2021, pp. 2173–88, <https://doi.org/10.1093/gji/ggaa552>.
- Gavrilov, B. G., et al. "Geomagnetic Effects of Remote Earthquakes." *Geomagnetism and Aeronomy*, vol. 61, no. 1, 2021, pp. 108–16, <https://doi.org/10.1134/S0016793221010047>.
- Geng, Y., C. A. Powell, et al. *Joint Local and Teleseismic Tomography in the Central United States and Implications for the Origin of Intraplate Seismicity (SSA 2021)*. 2021.
- Geng, Y., U. Basu, et al. "Shear Velocity Structure Beneath the Central United States From the Inversion of Rayleigh Wave Phase Velocities." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 11, Nov. 2021, p. e2021JB022632, <https://doi.org/10.1029/2021JB022632>.
- Geng, Yu. *An Investigation of Upper Mantle Velocity Structure below the Northern Mississippi Embayment and the Southern Illinois Basin Using Teleseismic Earthquake Tomography and Inversion of Rayleigh Wave Phase Velocities*. 2021. The University of Memphis, Ph.D., <https://www.proquest.com/dissertations-theses/investigation-upper-mantle-velocity-structure/docview/2564136540/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2564136540.
- Gestrich, J. E., et al. "Fitting Jet Noise Similarity Spectra to Volcano Infrasound Data." *Earth and Space Science*, vol. 8, no. 11, Nov. 2021, p. e2021EA001894, <https://doi.org/10.1029/2021EA001894>.
- Ghasemi, H., and T. I. Allen. *Towards an Earthquake Ground-Motion Database for Western and Central Australia*. 2021.
- Ghasemi, Seyed Hooman, and Ji Yun Lee. "Reliability-Based Indicator for Post-Earthquake Traffic Flow Capacity of a Highway Bridge." *Structural Safety*, vol. 89, Mar. 2021, p. 102039, <https://doi.org/10.1016/j.strusafe.2020.102039>.
- Ghorbani, Ali, and Amin Eslami. "Probabilistic Seismic Hazard and Deaggregation Analysis of Guilan Region, South of Caspian Sea, Iran." *Pure and Applied Geophysics*, vol. 178, no. 10, Oct. 2021, pp. 3793–816, <https://doi.org/10.1007/s00024-021-02873-1>.
- Giannone, M., et al. *Assessing the Temporal Coherency of Infrasound Generated by Repeated Explosions in McAlester, Oklahoma*. 2021.
- Gibbons, Steven J. "The Optimal Correlation Detector?" *Geophysical Journal International*, vol. 228, no. 1, 2021, pp. 355–65, <https://doi.org/10.1093/gji/ggab344>.
- Gibson, Emily M., and Michelle T. Bensi. "Spatial Correlation in Ground Motion Prediction Errors in Central and Eastern North America." *Earthquake Spectra*, Aug. 2021, p. 87552930211034880, <https://doi.org/10.1177/87552930211034886>.
- Gibson, F. M., and M. T. Bensi. *Spatial Correlation in Ground Motion Prediction Errors in Central and Eastern North America (SSA 2021)*. 2021.
- Gillfeather-Clark, Tasman, et al. "A Comparative Study of Neural Network Methods for First Break Detection Using Seismic Refraction Data over a Detrital Iron Ore Deposit." *Ore Geology Reviews*, vol. 137, Oct. 2021, p. 104201, <https://doi.org/10.1016/j.oregeorev.2021.104201>.
- Gkogkas, Konstantinos, et al. "Shallow Damage Zone Structure of the Wasatch Fault in Salt Lake City from Ambient-Noise Double Beamforming with a Temporary Linear Array." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2453–63, <https://doi.org/10.1785/0220200404>.

- Glane, Sebastian. *Variations in the Length of Day of the Earth Due to Topographic Core-Mantle Coupling in a Stratified Layer*. 2021. Technische Universitaet Berlin (Germany), Ph.D., <https://doi.org/10.14279/depositonce-11112>. ProQuest Dissertations & Theses Global, 2564172281.
- Glasgow, M., et al. "Raton Basin Induced Seismicity Is Hosted by Networks of Short Basement Faults and Mimics Tectonic Earthquake Statistics." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 11, Nov. 2021, p. e2021JB022839, <https://doi.org/10.1029/2021JB022839>.
- Glubokovskikh, Stanislav, et al. "Downhole Distributed Acoustic Sensing Provides Insights Into the Structure of Short-Period Ocean-Generated Seismic Wavefield." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 12, Dec. 2021, p. e2020JB021463, <https://doi.org/10.1029/2020JB021463>.
- Gnutti, Alessandro, et al. "A Wavelet Filter Comparison on Multiple Datasets for Signal Compression and Denoising." *Multidimensional Systems and Signal Processing*, vol. 32, no. 2, 2021, pp. 791–820, <https://doi.org/10.1007/s11045-020-00753-w>.
- Gok, Rengin, et al. *Seismic Network Expansion in the Caucasus and Central Asia (SNECCA)*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/872017>.
- Gola, G., et al. "A Novel Multidisciplinary Approach for the Thermo-Rheological Study of Volcanic Areas: The Case Study of Long Valley Caldera." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 2, Apr. 2021, p. e2020JB020331, <https://doi.org/10.1029/2020JB020331>.
- Golriz, Dorian, et al. "Defining the Coseismic Phase of the Crustal Deformation Cycle With Seismogeodesy." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 10, Oct. 2021, p. e2021JB022002, <https://doi.org/10.1029/2021JB022002>.
- Gomes, José Richarles Almeida, and Aderson F. do Nascimento. "Monitoring Seismic Velocity Changes in the Saint Peter and Saint Paul Archipelago-Equatorial Atlantic Using Ambient Noise Interferometry." *Journal of South American Earth Sciences*, vol. 109, 2021, p. 103251, <https://doi.org/10.1016/j.jsames.2021.103251>.
- Gong, Jianhua, and Jeffrey J. McGuire. "Constraints on the Geometry of the Subducted Gorda Plate From Converted Phases Generated by Local Earthquakes." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 2, Feb. 2021, p. e2020JB019962, <https://doi.org/10.1029/2020JB019962>.
- González Álvarez, Itahisa N., et al. "Small-Scale Lithospheric Heterogeneity Characterization Using Bayesian Inference and Energy Flux Models." *Geophysical Journal International*, vol. 227, no. 3, 2021, pp. 1682–99, <https://doi.org/10.1093/gji/ggab291>.
- González-Fernández, Antonio. "Application of the Stacked Refraction Convolution Section to 2D Ocean Bottom Seismometer Wide-Angle Seismic Data Along the Tamayo Through Basin, Gulf of California." *Frontiers in Earth Science*, vol. 9, Aug. 2021, <https://doi.org/10.3389/feart.2021.660970>.
- Goodwillie, Andrew M., and The GeoMapApp Team. *GeoMapApp: A Geoscience Tool for Educators*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/869742>.
- Goulet, Christine A., Yousef Bozorgnia, et al. "NGA-East Ground-Motion Characterization Model Part I: Summary of Products and Model Development." *Earthquake Spectra*, vol. 37, no. 1\_suppl, Aug. 2021, pp. 1231–82, <https://doi.org/10.1177/87552930211018723>.

- Goulet, Christine A., Tadahiro Kishida, et al. "PEER NGA-East Database." *Earthquake Spectra*, vol. 37, no. 1\_suppl, Aug. 2021, pp. 1331–53, <https://doi.org/10.1177/87552930211015695>.
- Gounon, Alisson, et al. "Improving Depth Estimations of African Earthquakes Using Teleseismic Data, and Influence for the East-African Rift Seismic Hazard Characterization." *Geophysical Journal International*, vol. 228, no. 1, 2021, pp. 447–60, <https://doi.org/10.1093/gji/ggab348>.
- Goyal, Ayush, and Shu-Huei Hung. "Lateral Variations of Moho Depth and Average Crustal Properties Across the Taiwan Orogen From H-V Stacking of P and S Receiver Functions." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 3, 2021, p. n/a, <https://doi.org/10.1029/2020GC009527>.
- Grawe, Matthew A., and Jonathan J. Makela. "Predictability of Geomagnetically Induced Currents as a Function of Available Magnetic Field Information." *Space Weather*, vol. 19, no. 8, 2021, p. e2021SW002747, <https://doi.org/10.1029/2021SW002747>.
- Grayver, Alexander V. "Global 3-D Electrical Conductivity Model of the World Ocean and Marine Sediments." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 9, 2021, p. n/a, <https://doi.org/10.1029/2021GC009950>.
- Greenfield, T., et al. "Crustal Deformation and Fault Strength of the Sulawesi Subduction Zone." *Tectonics*, vol. 40, no. 3, 2021, p. n/a, <https://doi.org/10.1029/2020TC006573>.
- Grossman, Julia, et al. *A New Metric for Improving the Quality of Rayleigh Wave Phase-Velocity Measurements*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/871107>.
- Guajardo, Anthony. *Seismic Imaging of the Lithospheric Structure Beneath the Upper Midwestern United States*. 2021. Northern Illinois University, M.S., <https://www.proquest.com/dissertations-theses/seismic-imaging-lithospheric-structure-beneath/docview/2575941049/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2575941049.
- Gualtieri, Lucia, et al. "Generation of Secondary Microseism Love Waves: Effects of Bathymetry, 3-D Structure and Source Seasonality." *Geophysical Journal International*, vol. 226, no. 1, 2021, pp. 192–219, <https://doi.org/10.1093/gji/ggab095>.
- Guenaga, David L. *An Exploration of Passive Seismology: Applying Seismic Methods for Traditional and Exotic Source Characterization*. 2021. The University of Texas at El Paso, Ph.D., <https://www.proquest.com/dissertations-theses/exploration-passive-seismology-applying-seismic/docview/2572927808/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2572927808.
- . "The Silencing of U.S. Campuses Following the COVID-19 Response: Evaluating Root Mean Square Seismic Amplitudes Using Power Spectral Density Data." *Seismological Research Letters*, vol. 92, no. 2A, Nov. 2021, pp. 941–50, <https://doi.org/10.1785/0220200391>.
- Guerin, Gauthier, et al. "Frictional Origin of Slip Events of the Whillans Ice Stream, Antarctica." *Geophysical Research Letters*, vol. 48, no. 11, Nov. 2021, p. e2021GL092950, <https://doi.org/10.1029/2021GL092950>.
- Guerriero, Luigi, et al. "Clay Landslide Movement Triggered by Artificial Vibrations: New Insights from Monitoring Data." *Landslides*, vol. 18, no. 8, 2021, pp. 2949–57, <https://doi.org/10.1007/s10346-021-01685-7>.

- Guimarães, Antonio, et al. "High-Performance IO for Seismic Processing on the Cloud." *Concurrency and Computation: Practice and Experience*, vol. 33, no. 18, Sept. 2021, p. e6250, <https://doi.org/10.1002/cpe.6250>.
- Guo, Di, et al. "Low-rank and Sparse Reconstruction for Fast Diffusion Nuclear Magnetic Resonance Spectroscopy." *IET Signal Processing*, vol. 15, no. 2, 2021, pp. 88–97, <https://doi.org/10.1049/sil2.12022>.
- Guo, Hao, et al. "Correlation of Porosity Variations and Rheological Transitions on the Southern Cascadia Megathrust." *Nature Geoscience*, vol. 14, no. 5, May 2021, pp. 341–48, <https://doi.org/10.1038/s41561-021-00740-1>.
- Guo, Rumeng, et al. "Narrow Rupture of the 2020 Mw 7.4 La Crucecita, Mexico, Earthquake." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1891–99, <https://doi.org/10.1785/0220200328>.
- Guo, Zhen, et al. "Polarization Characteristics of Rayleigh Waves to Improve Seismic Site Effects Analysis by HVSr Method." *Engineering Geology*, vol. 292, Oct. 2021, p. 106274, <https://doi.org/10.1016/j.enggeo.2021.106274>.
- Guo, Zhen, and Ying Zhou. "Stagnant Slabs and Their Return Flows From Finite-Frequency Tomography of the 410-Km and 660-Km Discontinuities." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 5, May 2021, p. e2020JB021099, <https://doi.org/10.1029/2020JB021099>.
- Gutiérrez, Adolfo Antonio, et al. "Piedmont Deposits as Seismic Energy Dissipators, Sierras Pampeanas of Argentina." *SN Applied Sciences*, vol. 3, no. 12, 2021, pp. 1–20, <https://doi.org/10.1007/s42452-021-04874-0>.
- Habermann, Ted, et al. *Common Data and Metadata Models for Geophysical Data in the Cloud*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/892020>.
- Hafner, K., et al. *Keeping the Global Seismographic Network (GSN) Operational During Covid*. 2021.
- Hafner, Katrin, et al. *Continuous Improvement in the Performance and Operations of the Global Seismographic Network (GSN)*. 2021, <https://doi.org/10.5194/egusphere-egu21-263>.
- Halpaap, Felix, et al. "Toward Waveform-Based Characterization of Slab & Mantle Wedge (SAM) Earthquakes." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 9, Sept. 2021, p. e2020JB021573, <https://doi.org/10.1029/2020JB021573>.
- Han, Guangjie, et al. "Pervasive Low-Velocity Layer atop the 410-Km Discontinuity beneath the Northwest Pacific Subduction Zone: Implications for Rheology and Geodynamics." *Earth and Planetary Science Letters*, vol. 554, 2021, p. 116642, <https://doi.org/10.1016/j.epsl.2020.116642>.
- Haney, Matthew M., et al. "Monochromatic Long-Period Seismicity Prior to the 2012 Earthquake Swarm at Little Sitkin Volcano, Alaska." *Frontiers in Earth Science*, vol. 9, June 2021, <https://doi.org/10.3389/feart.2021.689651>.
- Hansen, Samantha E., et al. "Historical Interstation Pattern Referencing (HIPR): An Application to PcP Waves Recorded in the Antarctic for ULVZ Imaging." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 10, Oct. 2021, p. e2021JB022741, <https://doi.org/10.1029/2021JB022741>.



- Hao, Lei, et al. "Denoising Method Based on Spectral Subtraction in Time-Frequency Domain." *Advances in Civil Engineering*, vol. 2021, 2021, p. 6621596, <https://doi.org/10.1155/2021/6621596>.
- Hao, Shangqin, et al. *Imaging Lithospheric and Transition Zone Discontinuities Beneath Alaska Using Long-Period Teleseismic S-Reflections from USArray*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/826535>.
- Hao, Shijie, et al. "Layered Crustal Azimuthal Anisotropy beneath the Northeastern Tibetan Plateau Revealed by Rayleigh-Wave Eikonal Tomography." *Earth and Planetary Science Letters*, vol. 563, 2021, p. 116891, <https://doi.org/10.1016/j.epsl.2021.116891>.
- Hariharan, Anant, et al. "Controls on Surface Wave Overtone Interference." *Geophysical Journal International*, vol. 228, no. 3, 2021, pp. 1665–83, <https://doi.org/10.1093/gji/ggab424>.
- Harmon, Nicholas, Shunguo Wang, et al. "Shear Velocity Inversion Guided by Resistivity Structure From the PI-LAB Experiment for Integrated Estimates of Partial Melt in the Mantle." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 8, Aug. 2021, p. e2021JB022202, <https://doi.org/10.1029/2021JB022202>.
- Harmon, Nicholas, Catherine A. Rychert, et al. "Widespread Hydration of the Back Arc and the Link to Variable Hydration of the Incoming Plate in the Lesser Antilles From Rayleigh Wave Imaging." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 7, July 2021, p. e2021GC009707, <https://doi.org/10.1029/2021GC009707>.
- Hason, Mahir M., et al. "Particle Swarm Optimization Technique Based Prediction of Peak Ground Acceleration of Iraq's Tectonic Regions." *Journal of King Saud University - Engineering Sciences*, June 2021, <https://doi.org/10.1016/j.jksues.2021.06.004>.
- Hassan, Abubakr, et al. "Coulomb Stress and Gravity Changes Associated with the 2016 Mw 7.8 Kaikoura Earthquake, New Zealand: Application for Aftershock Triggering and Fault Interaction Process Analysis." *Journal of Mountain Science*, vol. 18, no. 2, Feb. 2021, pp. 510–27, <https://doi.org/10.1007/s11629-019-5531-7>.
- Havlin, Christopher, et al. "Inference of Thermodynamic State in the Asthenosphere from Anelastic Properties, with Applications to North American Upper Mantle." *Physics of the Earth and Planetary Interiors*, vol. 314, 2021, p. 106639, <https://doi.org/10.1016/j.pepi.2020.106639>.
- He, Bin, et al. *Lithospheric Structures beneath Mid-Continent Rift Revealed by Full-Waveform Joint Inversion of Ambient-Noise Data and Teleseismic P Waves*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/954759>.
- He, Chuansong. "The Structure of the Upper Mantle Transition Zone Beneath Northeast China Associated With Mantle Plume Migration." *Earth and Space Science*, vol. 8, no. 9, 2021, p. e2021EA001874, <https://doi.org/10.1029/2021EA001874>.
- He, Chuansong, and M. Santosh. "Mantle Upwelling Beneath the Cathaysia Block, South China." *Tectonics*, vol. 40, no. 4, 2021, p. e2020TC006447, <https://doi.org/10.1029/2020TC006447>.
- He, Lipeng, et al. "Detailed 3D Seismic Velocity Structure of the Prague, Oklahoma Fault Zone and the Implications for Induced Seismicity." *Geophysical Research Letters*, vol. 48, no. 24, Dec. 2021, p. e2021GL096137, <https://doi.org/10.1029/2021GL096137>.
- He, Xi, et al. "Weak Crust in Southeast Tibetan Plateau Revealed by Lg-Wave Attenuation Tomography: Implications for Crustal Material Escape." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 3, Mar. 2021, p. e2020JB020748, <https://doi.org/10.1029/2020JB020748>.

- He, YuMei, et al. "Morphology and Possible Origins of the Perm Anomaly in the Lowermost Mantle of Earth." *Earth and Planetary Physics*, vol. 5, no. 1, 2021, pp. 105–16, <https://doi.org/10.26464/epp2021009>.
- Heath, B. A., et al. "Relationship Between Active Faulting/Fracturing and Magmatism Around Santorini: Seismic Anisotropy From an Active Source Tomography Experiment." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 8, Aug. 2021, p. e2021JB021898, <https://doi.org/10.1029/2021JB021898>.
- Heesemann, M., et al. *Cabling a Tectonic Plate—A Decade of Geophysical Monitoring Enabled Through Ocean Networks Canada's Neptune Observatory*. 2021.
- Heidarzadeh, Mohammad, Takeo Ishibe, et al. "High Potential for Splay Faulting in the Molucca Sea, Indonesia: November 2019 Mw 7.2 Earthquake and Tsunami." *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 2915–26, <https://doi.org/10.1785/0220200442>.
- Heidarzadeh, Mohammad, Ignatius Ryan Pranantyo, et al. "Long Tsunami Oscillations Following the 30 October 2020 Mw 7.0 Aegean Sea Earthquake: Observations and Modelling." *Pure and Applied Geophysics*, vol. 178, no. 5, May 2021, pp. 1531–48, <https://doi.org/10.1007/s00024-021-02761-8>.
- Hering, Philip, et al. "Tectonic Controls on Magmatic Systems: Evidence from a Three-Dimensional Anisotropic Electrical Resistivity Model of Ceboruco Volcano." *Journal of Volcanology and Geothermal Research*, Aug. 2021, p. 107382, <https://doi.org/10.1016/j.jvolgeores.2021.107382>.
- Herman Matthew, W., and P. Furlong Kevin. "Triggering an Unexpected Earthquake in an Uncoupled Subduction Zone." *Science Advances*, vol. 7, no. 13, 2021, p. eabf7590, <https://doi.org/10.1126/sciadv.abf7590>.
- Hernandez-Padilla, Flor, and Marisol Angles. "Earthquake Waste Management, Is It Possible in Developing Countries? Case Study: 2017 Mexico City Seism." *Sustainability*, vol. 13, no. 5, 2021, p. 2431, <https://doi.org/10.3390/su13052431>.
- Herrera, Carlos, et al. "The Crustal Stress Field Inferred From Focal Mechanisms in Northern Chile." *Geophysical Research Letters*, vol. 48, no. 8, Nov. 2021, p. e2021GL092889, <https://doi.org/10.1029/2021GL092889>.
- Herrmann, Robert B., et al. "Short-Period Surface-Wave Tomography in the Continental United States—A Resource for Research." *Seismological Research Letters*, vol. 92, no. 6, Nov. 2021, pp. 3642–56, <https://doi.org/10.1785/0220200462>.
- Heyns, M. J., et al. "Geomagnetic Pulsations Driving Geomagnetically Induced Currents." *Space Weather*, vol. 19, no. 2, 2021, p. e2020SW002557, <https://doi.org/10.1029/2020SW002557>.
- Higgins, M., et al. "Strain Partitioning and Interseismic Fault Behavior Along the Caribbean-South American Transform Plate Boundary." *Tectonics*, vol. 40, no. 8, 2021, p. n/a, <https://doi.org/10.1029/2021TC006740>.
- Hijrah, Saputra, et al. "The Waveform Inversion of Mainshock and Aftershock Data of the 2006 M6.3 Yogyakarta Earthquake." *Geoscience Letters*, vol. 8, no. 9, 2021, pp. 1–22, <https://doi.org/10.21203/rs.3.rs-36861/v2>.

- Hill, G. J., et al. "On Archean Craton Growth and Stabilisation: Insights from Lithospheric Resistivity Structure of the Superior Province." *Earth and Planetary Science Letters*, vol. 562, 2021, p. 116853, <https://doi.org/10.1016/j.epsl.2021.116853>.
- Hirsch, Aaron C. *Seismological Investigation of the Ontong Java Plateau and Surrounding Pacific Upper Mantle*. 2021. University of Rhode Island.
- Ho, Tung-Cheng, et al. "Tsunami Induced by the Strike-Slip Fault of the 2018 Palu Earthquake (Mw = 7.5), Sulawesi Island, Indonesia." *Earth and Space Science*, vol. 8, no. 6, 2021, p. e2020EA001400, <https://doi.org/10.1029/2020EA001400>.
- Hobiger, M., et al. "The Shallow Structure of Mars at the InSight Landing Site from Inversion of Ambient Vibrations." *Nature Communications*, vol. 12, no. 1, Nov. 2021, p. 6756, <https://doi.org/10.1038/s41467-021-26957-7>.
- Holt, James, et al. "Toward Robust and Routine Determination of Mw for Small Earthquakes: Application to the 2020 Mw 5.7 Magna, Utah, Seismic Sequence." *Seismological Research Letters*, vol. 92, no. 2A, Nov. 2021, pp. 725–40, <https://doi.org/10.1785/0220200320>.
- Hone, Samuel, and Tieyuan Zhu. "Seismic Observations of Four Thunderstorms Using an Underground Fiber-Optic Array." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2389–98, <https://doi.org/10.1785/0220200264>.
- Hoskins, Mariah C., et al. "Triggered Crustal Earthquake Swarm across Subduction Segment Boundary after the 2016 Pedernales, Ecuador Megathrust Earthquake." *Earth and Planetary Science Letters*, vol. 553, 2021, p. 116620, <https://doi.org/10.1016/j.epsl.2020.116620>.
- Hoult, Ryan, et al. "Source and Attenuation Properties of the 2012 Moe, Southeastern Australia, Earthquake Sequence." *Seismological Research Letters*, vol. 92, no. 2A, Nov. 2021, pp. 1112–28, <https://doi.org/10.1785/0220200234>.
- Houlton, Heather, et al. *Unearth Your Future: An Online Module About Geoscience Careers Using Diversity, Equity and Inclusion by Design*. 2021, <https://doi.org/10.1130/abs/2021AM-369295>.
- Hu, Shaoqian, et al. "The Azimuthal Dependence of Rayleigh Wave Ellipticity in a Slightly Anisotropic Medium." *Geophysical Journal International*, vol. 225, no. 2, 2021, pp. 1359–74, <https://doi.org/10.1093/gji/ggab029>.
- Hu, Yaping, et al. "Back-Propagating Rupture Evolution within a Curved Slab during the 2019 Mw 8.0 Peru Intraslab Earthquake." *Geophysical Journal International*, vol. 227, no. 3, 2021, pp. 1602–11, <https://doi.org/10.1093/gji/ggab303>.
- Huang, Bor-Shouh, and Chung-Pai Chang. "Complicated Source Rupture Process and Induced Coseismic Surface Deformation of the Wenchuan Mw 7.9 Earthquake and Their Tectonic Implications." *Earthquake Geology and Tectonophysics around Eastern Tibet and Taiwan*, Springer Singapore, 2021, pp. 1–23, [https://doi.org/10.1007/978-981-15-6210-5\\_1](https://doi.org/10.1007/978-981-15-6210-5_1). Huang2021.
- Hubenthal, Michael, and Elizabeth Hubenthal. *Accounting for Mental Health When Preparing for Internships, Field Camps, Field Trips and Other Student Programs*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/989106>.
- Hubenthal, M., and J. Taber. *IRIS's Inclusive Research Opportunities Contribute to a Diverse Seismology Community*. 2021.

- Huda, Md Monsurul, and Charles A. Langston. "Coherence and Variability of Ground Motion in New Madrid Seismic Zone Using an Array of 600 m." *Journal of Seismology*, vol. 25, no. 2, 2021, pp. 433–48, <https://doi.org/10.1007/s10950-020-09970-z>.
- Hudson, T. S., et al. "Distributed Acoustic Sensing (DAS) for Natural Microseismicity Studies: A Case Study From Antarctica." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 7, July 2021, p. e2020JB021493, <https://doi.org/10.1029/2020JB021493>.
- Hurst, Kenneth, et al. "Resonances of the InSight Seismometer on Mars." *Bulletin of the Seismological Society of America*, vol. 111, no. 6, 2021, pp. 2951–63, <https://doi.org/10.1785/0120210137>.
- Hushchyn, Mikhail, and Andrey Ustyuzhanin. "Generalization of Change-Point Detection in Time Series Data Based on Direct Density Ratio Estimation." *Journal of Computational Science*, vol. 53, 2021, p. 101385, <https://doi.org/10.1016/j.jocs.2021.101385>.
- Husker, Allen, et al. "Crust and Upper-Mantle Seismic Anisotropy Variations from the Coast to Inland in Central and Southern Mexico (2): Correlations with Tectonic Tremor." *Geophysical Journal International*, vol. 228, no. 3, 2021, pp. 1713–23, <https://doi.org/10.1093/gji/ggab429>.
- Hyndman, Roy D., and Dante Canil. "Geophysical and Geochemical Constraints on Neogene-Recent Volcanism in the North American Cordillera." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 5, 2021, p. n/a, <https://doi.org/10.1029/2021GC009637>.
- Ichinose, G. A., et al. "Preliminary Analysis of Source Physics Experiment Explosion-Triggered Microseismicity Using the Back-Projection Method." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 5, May 2021, p. e2020JB021312, <https://doi.org/10.1029/2020JB021312>.
- Ichinose, Gene A., et al. "Regional Moment Tensor Inversion Using Rotational Observations." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 2, Apr. 2021, p. e2020JB020827, <https://doi.org/10.1029/2020JB020827>.
- Igel, Jonas K. H., et al. "Rapid Finite-Frequency Microseismic Noise Source Inversion at Regional to Global Scales." *Geophysical Journal International*, vol. 227, no. 1, 2021, pp. 169–83, <https://doi.org/10.1093/gji/ggab210>.
- Igonin, Nadine, et al. "Large-Scale Fracture Systems Are Permeable Pathways for Fault Activation During Hydraulic Fracturing." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 3, Mar. 2021, p. e2020JB020311, <https://doi.org/10.1029/2020JB020311>.
- Imaeva, L. P., et al. "Seismotectonic Deformation of Active Segments of the Junction Zone of the Kolyma–Omolon Superterrane and South Anui Suture (Southeastern Russia)." *Geotectonics*, vol. 55, no. 1, Jan. 2021, pp. 20–35, <https://doi.org/10.1134/S0016852121010064>.
- Inbal, A., et al. "Complex Migration of Tremor Near Cholame, CA, Resolved by Seismic Array Analysis." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 9, Sept. 2021, p. e2021JB022174, <https://doi.org/10.1029/2021JB022174>.
- Inoue, Tomohiro, et al. "Water Depth Dependence of Long-Range Correlation in Nontidal Variations in Seafloor Pressure." *Geophysical Research Letters*, vol. 48, no. 8, Nov. 2021, p. e2020GL092173, <https://doi.org/10.1029/2020GL092173>.
- Irmak, Tahir Serkan, et al. "Source Characteristics and Seismotectonic Implications of the 26 September 2019 Mw 5.7 Silivri High-Kumburgaz Basin Earthquake and Evaluation of Its Aftershocks at the North Anatolian Fault Zone (Central Marmara Sea, NW Turkey)."

*Geophysical Journal International*, vol. 227, no. 1, 2021, pp. 383–402,  
<https://doi.org/10.1093/gji/ggab233>.

Isik, Veysel, et al. “November 08, 2019 Turkmanchay Earthquake (Mw: 5.9) in NW Iran: An Assessment of the Earthquake Using DInSAR Time-Series and Field Evidence.” *Natural Hazards*, vol. 105, no. 3, Feb. 2021, pp. 3013–37, <https://doi.org/10.1007/s11069-020-04439-1>.

Isse, Takehi, et al. “Seismic Evidence for a Thermochemical Mantle Plume Underplating the Lithosphere of the Ontong Java Plateau.” *Communications Earth & Environment*, vol. 2, no. 1, May 2021, p. 98, <https://doi.org/10.1038/s43247-021-00169-9>.

Iwamori, Hikaru, et al. “Simultaneous Analysis of Seismic Velocity and Electrical Conductivity in the Crust and the Uppermost Mantle: A Forward Model and Inversion Test Based on Grid Search.” *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 9, Sept. 2021, p. e2021JB022307, <https://doi.org/10.1029/2021JB022307>.

Jackson, James, et al. “Relations between Earthquake Distributions, Geological History, Tectonics and Rheology on the Continents.” *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, vol. 379, no. 2193, 2021, p. 20190412, <https://doi.org/10.1098/rsta.2019.0412>.

Jacobsen, Lif Lund, et al. “The Seismograph as a Diplomatic Object: The Soviet–American Exchange of Instruments, 1958–1964.” *Centaurus*, vol. 63, no. 2, 2021, pp. 277–95, <https://doi.org/10.1111/1600-0498.12393>.

Jagt, Lisanne, and Arwen Deuss. “Comparing One-Step Full-Spectrum Inversion with Two-Step Splitting Function Inversion in Normal Mode Tomography.” *Geophysical Journal International*, vol. 227, no. 1, 2021, pp. 559–75, <https://doi.org/10.1093/gji/ggab240>.

Jakovlev, A. V., et al. “Seismic Network on Drifted Ice Floes: A Case Study in North Barents Sea.” *Doklady Earth Sciences*, vol. 496, no. 2, Feb. 2021, pp. 155–59, <https://doi.org/10.1134/S1028334X21020215>.

Jamalreyhani, Mohammadreza, et al. “The 2019–2020 Khalili (Iran) Earthquake Sequence—Anthropogenic Seismicity in the Zagros Simply Folded Belt?” *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 12, Dec. 2021, p. e2021JB022797, <https://doi.org/10.1029/2021JB022797>.

James, S. R., et al. “The Biophysical Role of Water and Ice Within Permafrost Nearing Collapse: Insights From Novel Geophysical Observations.” *Journal of Geophysical Research: Earth Surface*, vol. 126, no. 6, June 2021, p. e2021JF006104, <https://doi.org/10.1029/2021JF006104>.

Jeddi, Zeinab, et al. “Improved Seismic Monitoring with OBS Deployment in the Arctic: A Pilot Study from Offshore Western Svalbard.” *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 2705–17, <https://doi.org/10.1785/0220200471>.

Jenkins Ii, William F., et al. “Unsupervised Deep Clustering of Seismic Data: Monitoring the Ross Ice Shelf, Antarctica.” *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 9, Sept. 2021, p. e2021JB021716, <https://doi.org/10.1029/2021JB021716>.

Jenkins, Jennifer, et al. “A High-Resolution Map of Hawaiian ULVZ Morphology from ScS Phases.” *Earth and Planetary Science Letters*, vol. 563, 2021, p. 116885, <https://doi.org/10.1016/j.epsl.2021.116885>.

Jenkins, M. R., et al. *The Importance of Earthquake Education in Free Choice Learning Environments*. 2021.

- Jenkins, Mariah, et al. *The Importance of Earthquake Early Warning Education in Free-Choice Learning Environments*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/914912>.
- Jeong, Seong Ju, et al. "Stress-Drop Estimates for Induced Seismic Events in the Fort Worth Basin, Texas." *Bulletin of the Seismological Society of America*, vol. 111, no. 3, Oct. 2021, pp. 1405–21, <https://doi.org/10.1785/0120200268>.
- Ji, Chen, and Ralph J. Archuleta. "Two Empirical Double-Corner-Frequency Source Spectra and Their Physical Implications." *Bulletin of the Seismological Society of America*, vol. 111, no. 2, Feb. 2021, pp. 737–61, <https://doi.org/10.1785/0120200238>.
- Ji, Yingfeng, et al. "Slab Dehydration in Sumatra: Implications for Fast and Slow Earthquakes and Arc Magmatism." *Geophysical Research Letters*, vol. 48, no. 3, Nov. 2021, p. e2020GL090576, <https://doi.org/10.1029/2020GL090576>.
- Jia, Xinghua, and Daoyuan Sun. "Imaging the Crustal Interfaces Along the Ryukyu Arc-Trough System Using Precursors to Teleseismic SP and PP." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 2, Apr. 2021, p. e2020JB020413, <https://doi.org/10.1029/2020JB020413>.
- Jia, Yan, et al. "A Systematic Investigation of Piercing-Point-Dependent Seismic Azimuthal Anisotropy." *Geophysical Journal International*, vol. 227, no. 3, 2021, pp. 1496–511, <https://doi.org/10.1093/gji/ggab285>.
- Jiang, Enyuan, et al. "Spatial Variations of Upper Crustal Anisotropy Along the San Jacinto Fault Zone in Southern California: Constraints From Shear Wave Splitting Analysis." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 4, Apr. 2021, p. e2020JB020876, <https://doi.org/10.1029/2020JB020876>.
- . *Spatiotemporal Variations of Upper Crustal Anisotropy along the San Jacinto Fault Zone in Southern California and the Fairview Region in Central Oklahoma*. 2021. Missouri University of Science and Technology, Ph.D., <https://www.proquest.com/dissertations-theses/spatiotemporal-variations-upper-crustal/docview/2562253976/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2562253976.
- Jiménez, César, Miguel Saavedra J, et al. "Seismic Source Characteristics of the 2016 Pedernales-Ecuador Earthquake (Mw 7.8)." *Physics of the Earth and Planetary Interiors*, vol. 312, 2021, p. 106670, <https://doi.org/10.1016/j.pepi.2021.106670>.
- Jiménez, César, Nestor Luna, et al. "Seismic Source Characteristics of the Intermediate-Depth and Intralab 2019 Northern Peru Earthquake (Mw 8.0)." *Journal of Seismology*, vol. 25, no. 3, 2021, pp. 863–74, <https://doi.org/10.1007/s10950-021-09996-x>.
- Jiménez, César, Martín Calvo, et al. "Source Characteristics of Peruvian Deep Focus Seismic Doublet of November 24, 2015." *Journal of South American Earth Sciences*, vol. 105, Jan. 2021, p. 102919, <https://doi.org/10.1016/j.jsames.2020.102919>.
- Jin, Wei, et al. "Preliminary Results of Spatial Distribution of Tidal Factors Measured by Recent Continuous Gravity Stations in Mainland China." *Advances in Earth Science*, vol. 36, 2021, pp. 490–99, <https://doi.org/10.11867/j.issn.1001-8166.2021.052>.
- Johnson, A., et al. *Accessing the Seismic Event Catalog from the Insight Mission to Mars*. 2021.
- Johnson, Autumn, et al. *Stewarding the Mars InSight Seismic Event Catalog: Using RDF to Provide Semantic Context To Complex Datasets*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/1003688>.

- Jones, Craig, et al. *The Peculiar Case of Deep Sierran Earthquakes*. 2021, <https://doi.org/10.1130/abs/2021CD-363204>.
- Jones, G. A., et al. "Uppermost Crustal Structure Regulates the Flow of the Greenland Ice Sheet." *Nature Communications*, vol. 12, no. 1, Dec. 2021, p. 7307, <https://doi.org/10.1038/s41467-021-27537-5>.
- Kalmár, Dániel, et al. "Crustal Thinning From Orogen to Back-Arc Basin: The Structure of the Pannonian Basin Region Revealed by P-to-S Converted Seismic Waves." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 7, July 2021, p. e2020JB021309, <https://doi.org/10.1029/2020JB021309>.
- Kamruzzaman, Md. *Normal Modes of Realistic Earth Models: An Advanced Treatment of Elasticity, Rotation and Fluid Core Compressibility*. 2021. University of Lethbridge (Canada), Ph.D., <https://www.proquest.com/dissertations-theses/normal-modes-realistic-earth-models-advanced/docview/2593055071/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2593055071.
- Kanamori, Hiroo, et al. "Reply to 'Comment on "Evidence for a Large Strike-Slip Component during the 1960 Chilean Earthquake" by H. Kanamori, L. Rivera and S. Lambotte' by J. C. Savage." *Geophysical Journal International*, vol. 228, no. 2, 2021, pp. 1184–90, <https://doi.org/10.1093/gji/ggab365>.
- Kar, Aditya, Tiffani Holmes, John S. Taber, et al. *Geoscience On-Ramps for HBCU STEM Majors*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/928783>.
- Kar, Aditya, Tiffani Holmes, John Taber, et al. *Training of African Americans Involving Ground Penetrating Radar - A Successful Collaboration Between Fort Valley State University (HBCU) and IRIS*. 2021, <https://doi.org/10.1130/abs/2021AM-370724>.
- Karakostas, Foivos, et al. "Scattering Attenuation of the Martian Interior through Coda-Wave Analysis." *Bulletin of the Seismological Society of America*, vol. 111, no. 6, Oct. 2021, pp. 3035–54, <https://doi.org/10.1785/0120210253>.
- Karakostas, V., et al. "Seismotectonic Implications of the 2020 Samos, Greece, Mw 7.0 Mainshock Based on High-Resolution Aftershock Relocation and Source Slip Model." *Acta Geophysica*, vol. 69, no. 3, 2021, pp. 979–96, <https://doi.org/10.1007/s11600-021-00580-y>.
- Karkowska, Kamila, et al. *Phase- and Group-Velocity Maps from Gravimetric and Seismometric Recordings of Earthquakes*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/959402>.
- Karłowska, E., et al. "The Development of Seismic Anisotropy below South-Central Alaska: Evidence from Local Earthquake Shear Wave Splitting." *Geophysical Journal International*, vol. 225, no. 1, 2021, pp. 548–54, <https://doi.org/10.1093/gji/ggaa603>.
- Karłowska, Eliza, et al. *The Development of Seismic Anisotropy Below South-Central Alaska: Evidence From Shear Wave Splitting*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/899447>.
- Kästle, E. D., et al. "Azimuthal Anisotropy from Eikonal Tomography: Example from Ambient-Noise Measurements in the AlpArray Network." *Geophysical Journal International*, vol. 229, no. 1, 2021, pp. 151–70, <https://doi.org/10.1093/gji/ggab453>.

- Katsumata, Akio, et al. "Rapid Estimation of Tsunami Earthquake Magnitudes at Local Distance." *Earth, Planets, and Space*, vol. 73, no. 1, 2021, pp. 1–15, <https://doi.org/10.1186/s40623-021-01391-7>.
- Katsumata, Kei, and Masao Nakatani. "Testing the Seismic Quiescence Hypothesis through Retrospective Trials of Alarm-Based Earthquake Prediction in the Kurile–Japan Subduction Zone." *Earth, Planets and Space*, vol. 73, no. 1, Apr. 2021, p. 100, <https://doi.org/10.1186/s40623-021-01418-z>.
- Kaub, C., et al. "Is the Machecoul Fault the Source of the ~M6 1799 Vendée Earthquake (France)?" *Geophysical Journal International*, vol. 225, no. 3, 2021, pp. 2035–59, <https://doi.org/10.1093/gji/ggab076>.
- Kaviani, Ayoub, et al. "Mantle-Flow Diversion beneath the Iranian Plateau Induced by Zagros' Lithospheric Keel." *Scientific Reports*, vol. 11, no. 1, Feb. 2021, p. 2848, <https://doi.org/10.1038/s41598-021-81541-9>.
- Kazemi, Roxana, et al. "Investigating Methane Emissions from Geologic Microseepage in Western New York State, United States." *Elementa: Science of the Anthropocene*, vol. 9, no. 1, 2021, <https://doi.org/10.1525/elementa.2020.00066>.
- Kedar, Sharon, et al. "Analyzing Low Frequency Seismic Events at Cerberus Fossae as Long Period Volcanic Quakes." *Journal of Geophysical Research: Planets*, vol. 126, no. 4, Apr. 2021, p. e2020JE006518, <https://doi.org/10.1029/2020JE006518>.
- Kelly, Susan Meabh. "Digging for Data: Mining Geoscience Databases to Deepen and Expand STEM Learning Opportunities." *The Science Teacher*, vol. 88, no. 5, 2021, p. 24.
- Kendall, E., et al. "Constraints on the Upper Mantle Structure Beneath the Pacific From 3-D Anisotropic Waveform Modeling." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 4, Apr. 2021, p. e2020JB020003, <https://doi.org/10.1029/2020JB020003>.
- Khan, Amir, et al. "Upper Mantle Structure of Mars from InSight Seismic Data." *Science*, vol. 373, no. 6553, July 2021, pp. 434–38, <https://doi.org/10.1126/science.abf2966>.
- Kilb, D., et al. "The PLUM Earthquake Early Warning Algorithm: A Retrospective Case Study of West Coast, USA, Data." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 7, July 2021, p. e2020JB021053, <https://doi.org/10.1029/2020JB021053>.
- Kim, D., et al. "Improving Constraints on Planetary Interiors With PPs Receiver Functions." *Journal of Geophysical Research: Planets*, vol. 126, no. 11, Nov. 2021, p. e2021JE006983, <https://doi.org/10.1029/2021JE006983>.
- Kim, Doyeon, et al. "Potential Pitfalls in the Analysis and Structural Interpretation of Seismic Data from the Mars InSight Mission." *Bulletin of the Seismological Society of America*, vol. 111, no. 6, Oct. 2021, pp. 2982–3002, <https://doi.org/10.1785/0120210123>.
- Kim, Yong-Woo, et al. "S-Velocity Mantle Structure of East Asia From Teleseismic Traveltime Tomography: Inferred Mechanisms for the Cenozoic Intraplate Volcanoes." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 3, Mar. 2021, p. e2020JB020345, <https://doi.org/10.1029/2020JB020345>.
- Kind, R., et al. "Moho and Uppermost Mantle Structure in the Alpine Area from S-to-P Converted Waves." *Solid Earth*, vol. 12, no. 11, 2021, pp. 2503–21, <https://doi.org/10.5194/se-12-2503-2021>.



- Kintner, Jonas A., et al. "Local-Distance Seismic Event Relocation and Relative Magnitude Estimation, Applications to Mining Related Seismicity in the Powder River Basin, Wyoming." *Bulletin of the Seismological Society of America*, vol. 111, no. 3, Oct. 2021, pp. 1347–64, <https://doi.org/10.1785/0120200369>.
- Kiser, Eric, et al. "Seismic Evidence of Bottom-Up Crustal Control on Volcanism and Magma Storage Near Mount St. Helens." *Geophysical Research Letters*, vol. 48, no. 5, Nov. 2021, p. e2020GL090612, <https://doi.org/10.1029/2020GL090612>.
- Kiser, Eric, and Haiyang Kehoe. "The Hazard of Coseismic Gaps: The 2021 Fukushima Earthquake." *Geophysical Journal International*, vol. 227, no. 1, 2021, pp. 54–57, <https://doi.org/10.1093/gji/ggab208>.
- Kishida, Tadahiro, and Chi-Chin Tsai. "Wave Velocities Depending on Shear Strain, Directionality, and Excess Pore Water Pressure from Wildlife Liquefaction Array." *Bulletin of Earthquake Engineering*, vol. 19, no. 6, Apr. 2021, pp. 2371–88, <https://doi.org/10.1007/s10518-021-01074-4>.
- Klein, E., et al. "Interplay of Seismic and A-Seismic Deformation during the 2020 Sequence of Atacama, Chile." *Earth and Planetary Science Letters*, vol. 570, 2021, p. 117081, <https://doi.org/10.1016/j.epsl.2021.117081>.
- Klimasewski, Alexis, et al. "Comparing Artificial Neural Networks with Traditional Ground-Motion Models for Small-Magnitude Earthquakes in Southern California." *Bulletin of the Seismological Society of America*, vol. 111, no. 3, Oct. 2021, pp. 1577–89, <https://doi.org/10.1785/0120200200>.
- Knapmeyer, M., et al. "Seasonal Seismic Activity on Mars." *Earth and Planetary Science Letters*, vol. 576, Dec. 2021, p. 117171, <https://doi.org/10.1016/j.epsl.2021.117171>.
- Knapmeyer-Endrun, Brigitte, et al. "Thickness and Structure of the Martian Crust from InSight Seismic Data." *Science*, vol. 373, no. 6553, July 2021, pp. 438–43, <https://doi.org/10.1126/science.abf8966>.
- Knight, Lizzie, et al. "Links between Foreland Rheology and the Growth and Evolution of a Young Mountain Belt in New Guinea." *Geophysical Journal International*, vol. 228, no. 3, 2021, pp. 1684–712, <https://doi.org/10.1093/gji/ggab427>.
- Kobayashi, Hiroaki, et al. "Similarities and Differences in the Rupture Processes of the 1952 and 2003 Tokachi-Oki Earthquakes." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 1, Apr. 2021, p. e2020JB020585, <https://doi.org/10.1029/2020JB020585>.
- Koch, Clinton D., et al. "Crustal Thickness and Magma Storage beneath the Ecuadorian Arc." *Journal of South American Earth Sciences*, vol. 110, Oct. 2021, p. 103331, <https://doi.org/10.1016/j.jsames.2021.103331>.
- Koch, Clinton Daniel. *Lithospheric Structure of the Ecuadorian Orogenic System and Event Location Using the Seismoacoustic Wave Field*. 2021. The University of Arizona, Ph.D., <https://www.proquest.com/dissertations-theses/lithospheric-structure-ecuadorian-orogenic-system/docview/2494886604/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2494886604.
- Kohli, Arjun, et al. "Oceanic Transform Fault Seismicity and Slip Mode Influenced by Seawater Infiltration." *Nature Geoscience*, vol. 14, no. 8, Aug. 2021, pp. 606–11, <https://doi.org/10.1038/s41561-021-00778-1>.

- Konca, A. Özgün, et al. "From Interseismic Deformation With Near-Repeating Earthquakes to Co-Seismic Rupture: A Unified View of the 2020 Mw6.8 Sivrice (Elazığ) Eastern Turkey Earthquake." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 10, Oct. 2021, p. e2021JB021830, <https://doi.org/10.1029/2021JB021830>.
- Kong, Qingkai, et al. "Deep Convolutional Autoencoders as Generic Feature Extractors in Seismological Applications." *Artificial Intelligence in Geosciences*, vol. 2, Dec. 2021, pp. 96–106, <https://doi.org/10.1016/j.aiig.2021.12.002>.
- Koper, Keith D., et al. "Discrimination of Small Earthquakes and Buried Single-Fired Chemical Explosions at Local Distances (<150 Km) in the Western United States from Comparison of Local Magnitude (ML) and Coda Duration Magnitude (MC)." *Bulletin of the Seismological Society of America*, vol. 111, no. 1, Jan. 2021, pp. 558–70, <https://doi.org/10.1785/0120200188>.
- Koppers, Anthony A. P., et al. "Mantle Plumes and Their Role in Earth Processes." *Nature Reviews Earth & Environment*, vol. 2, no. 6, June 2021, pp. 382–401, <https://doi.org/10.1038/s43017-021-00168-6>.
- Korzhennikov, A. M., et al. "Active Tectonics and Paleoseismicity of the Eastern Issyk-Kul Basin (Kyrgyzstan, Tien Shan)." *Russian Geology and Geophysics*, vol. 62, no. 03, 2021, pp. 263–77, <https://doi.org/10.2113/RGG20194125>.
- Kostka, Filip, et al. "Assessing the Role of Selected Constraints in Bayesian Dynamic Source Inversion: Application to the 2017 Mw 6.3 Lesvos Earthquake." *Geophysical Journal International*, vol. 228, no. 1, 2021, pp. 711–27, <https://doi.org/10.1093/gji/ggab359>.
- Kounoudis, R., et al. "Body-Wave Tomographic Imaging of the Turkana Depression: Implications for Rift Development and Plume-Lithosphere Interactions." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 8, Aug. 2021, p. e2021GC009782, <https://doi.org/10.1029/2021GC009782>.
- Koymans, M. R., et al. "Performance Assessment of Geophysical Instrumentation Through the Automated Analysis of Power Spectral Density Estimates." *Earth and Space Science*, vol. 8, no. 9, Sept. 2021, p. e2021EA001675, <https://doi.org/10.1029/2021EA001675>.
- Křížová, Dana, and Jiří Málek. "Focal Mechanisms of West Bohemia, Central Europe, Earthquakes—End of May 2014: Evidence of Volume Changes." *Seismological Research Letters*, vol. 92, no. 6, Nov. 2021, pp. 3398–415, <https://doi.org/10.1785/0220200389>.
- Krueger, Hannah E., et al. "Global Patterns in Cratonic Mid-Lithospheric Discontinuities From Sp Receiver Functions." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 6, 2021, p. n/a, <https://doi.org/10.1029/2021GC009819>.
- Ktenidou, Olga-Joan, et al. "The Search for Hard-Rock Kappa ( $\kappa$ ) in NGA-East; a Semi-Automated Method for Large, Challenging Datasets in Stable Continental Regions." *Earthquake Spectra*, vol. 37, no. 1\_suppl, 2021, pp. 1391–419, <https://doi.org/10.1177/87552930211019763>.
- Ku, B., et al. "Earthquake Event Classification Using Multitasking Deep Learning." *IEEE Geoscience and Remote Sensing Letters*, vol. 18, no. 7, 2021, pp. 1149–53, <https://doi.org/10.1109/LGRS.2020.2996640>.
- Kufner, Sofia-Katerina, Alex M. Bourne, et al. "Not All Icequakes Are Created Equal: Basal Icequakes Suggest Diverse Bed Deformation Mechanisms at Rutford Ice Stream, West Antarctica." *Journal of Geophysical Research: Earth Surface*, vol. 126, no. 3, Mar. 2021, p. e2020JF006001, <https://doi.org/10.1029/2020JF006001>.

- Kufner, Sofia-Katerina, Najibullah Kakar, et al. "The Hindu Kush Slab Break-off as Revealed by Deep Structure and Crustal Deformation." *Nature Communications*, vol. 12, no. 1, Mar. 2021, p. 1685, <https://doi.org/10.1038/s41467-021-21760-w>.
- Kumar, Ashish. *Investigating Tectonic Structures in East Antarctica Using Full Waveform Ambient Noise Tomography*. 2021. The University of Alabama, M.S., <https://www.proquest.com/dissertations-theses/investigating-tectonic-structures-east-antarctica/docview/2572533802/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2572533802.
- Kumar, Naresh, et al. "Chapter 4 - Earthquakes: Basics of Seismology and Computational Techniques." *Basics of Computational Geophysics*, edited by Pijush Samui et al., Elsevier, 2021, pp. 47–80, <https://doi.org/10.1016/B978-0-12-820513-6.00023-0>.
- Kumar, Parveen, and Sandeep. "Chapter 6 - A Review on Geophysical Parameters Comparison in Garhwal and Kumaun Himalaya Region, India." *Basics of Computational Geophysics*, edited by Pijush Samui et al., Elsevier, 2021, pp. 95–103, <https://doi.org/10.1016/B978-0-12-820513-6.00017-5>.
- Kumar, U., et al. "Crustal Structure and Upper Mantle Anisotropy of the Afar Triple Junction." *Earth, Planets and Space*, vol. 73, no. 1, Aug. 2021, p. 166, <https://doi.org/10.1186/s40623-021-01495-0>.
- Kumar, Rohtash, et al. "ESOPA: A GUI-Based MATLAB Platform for Estimation of Earthquake Spectral Source Parameters, Inelastic Attenuation, High-Frequency Decay Kappa, and Fmax-Model." *Arabian Journal of Geosciences*, vol. 14, no. 23, 2021, <https://doi.org/10.1007/s12517-021-08739-z>.
- Kuna Václav, M., and L. Nábělek John. "Seismic Crustal Imaging Using Fin Whale Songs." *Science*, vol. 371, no. 6530, Feb. 2021, pp. 731–35, <https://doi.org/10.1126/science.abf3962>.
- Kuvshinov, Alexey, et al. "Probing 3-D Electrical Conductivity of the Mantle Using 6 Years of Swarm, CryoSat-2 and Observatory Magnetic Data and Exploiting Matrix Q-Responses Approach." *Earth, Planets and Space*, vol. 73, no. 1, Mar. 2021, p. 67, <https://doi.org/10.1186/s40623-020-01341-9>.
- La Rosa, Alessandro, Derek Keir, et al. "Lower Crustal Earthquakes in the March 2018 Sequence Along the Western Margin of Afar." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 4, 2021, p. n/a, <https://doi.org/10.1029/2020GC009614>.
- La Rosa, Alessandro, Carolina Pagli, et al. "Plate-Boundary Kinematics of the Afrera Linkage Zone (Afar) From InSAR and Seismicity." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 5, May 2021, p. e2020JB021387, <https://doi.org/10.1029/2020JB021387>.
- Lai, Voon Hui, Zhongwen Zhan, et al. "Inflation and Asymmetric Collapse at Kīlauea Summit During the 2018 Eruption From Seismic and Infrasound Analyses." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 10, Oct. 2021, p. e2021JB022139, <https://doi.org/10.1029/2021JB022139>.
- Lai, Voon Hui, Vasilije V. Dobrosavljevic, et al. *Seismic and Mineralogical Modeling of ULVZ-Slab Interaction at the Northeastern Edge of Pacific Large Low Shear Velocity Province*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/922314>.
- Langston, C. A. *Using Empirical Source Templates as Mother Wavelets in the Continuous Wavelet Transform*. 2021.

- Langston, Charles A. "Phased Array Analysis Incorporating the Continuous Wavelet Transform." *Bulletin of the Seismological Society of America*, vol. 111, no. 5, Oct. 2021, pp. 2780–98, <https://doi.org/10.1785/0120210001>.
- Lanzano, Giovanni, et al. "Accessing European Strong-Motion Data: An Update on ORFEUS Coordinated Services." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1642–58, <https://doi.org/10.1785/0220200398>.
- Lapins, Sacha, et al. "A Little Data Goes a Long Way: Automating Seismic Phase Arrival Picking at Nabro Volcano With Transfer Learning." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 7, July 2021, p. e2021JB021910, <https://doi.org/10.1029/2021JB021910>.
- Larson, Kristine M., et al. "Dynamic Sea Level Variation From GNSS: 2020 Shumagin Earthquake Tsunami Resonance and Hurricane Laura." *Geophysical Research Letters*, vol. 48, no. 4, Dec. 2021, p. e2020GL091378, <https://doi.org/10.1029/2020GL091378>.
- Laske, Gabi. "Observations of Earth's Normal Modes on Broadband Ocean Bottom Seismometers." *Frontiers in Earth Science*, vol. 9, June 2021, <https://doi.org/10.3389/feart.2021.679958>.
- Lavrentiadis, Grigorios. *Non-Ergodic Ground-Motion Models for California, Ground-Motion Embedment Factors for the Seattle Region, and Global Fault Displacement Model*. 2021. University of California, Berkeley, Ph.D., <https://www.proquest.com/dissertations-theses/non-ergodic-ground-motion-models-california/docview/2572619748/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2572619748.
- Le Pichon, A., et al. "Using Dense Seismo-Acoustic Network to Provide Timely Warning of the 2019 Paroxysmal Stromboli Eruptions." *Scientific Reports*, vol. 11, no. 1, July 2021, p. 14464, <https://doi.org/10.1038/s41598-021-93942-x>.
- Leaman, Amanda, et al. *Comparing Lithospheric Thermal Models from Seismic Fields*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/875212>.
- Lee, Hwaju. *An Exploration of the Effect of Anisotropy on Seismic Tomography in Different Geological Settings*. 2021. University of Minnesota, Ph.D., <https://www.proquest.com/dissertations-theses/exploration-effect-anisotropy-on-seismic/docview/2572599456/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2572599456.
- Lee, Sungho, et al. "Contributions from Lithospheric and Upper-Mantle Heterogeneities to Upper Crustal Seismicity in the Korean Peninsula." *Geophysical Journal International*, vol. 229, no. 2, 2021, pp. 1175–92, <https://doi.org/10.1093/gji/ggab527>.
- Legendre, Cédric P., et al. "Large-Scale Variation in Seismic Anisotropy in the Crust and Upper Mantle beneath Anatolia, Turkey." *Communications Earth & Environment*, vol. 2, no. 1, Apr. 2021, p. 73, <https://doi.org/10.1038/s43247-021-00142-6>.
- Lei, Dongning, Wei Dan, et al. "Coulomb Stress Change in the Neighboring Region and Faults Impacted by Anchorage Mw7.0 Earthquake in Alaska." *International Journal of Earth Sciences*, vol. 110, no. 4, June 2021, pp. 1169–80, <https://doi.org/10.1007/s00531-021-02010-2>.
- Lei, Dongning, Gang Yang, et al. "The 2019 Ridgecrest Earthquake Sequence: Stress Triggered by Historical Earthquakes and Impacted Stress on Surrounding Fault Systems." *Terra Nova*, vol. 33, no. 2, 2021, pp. 208–23, <https://doi.org/10.1111/ter.12506>.

- Leinss, S., et al. "Glacier Detachments and Rock-Ice Avalanches in the Petra Pervogo Range, Tajikistan (1973–2019)." *Natural Hazards and Earth System Sciences*, vol. 21, no. 5, 2021, pp. 1409–29, <https://doi.org/10.5194/nhess-21-1409-2021>.
- Lellouch, A., et al. "Low-Magnitude Seismicity With a Downhole Distributed Acoustic Sensing Array—Examples From the FORGE Geothermal Experiment." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 1, Apr. 2021, p. e2020JB020462, <https://doi.org/10.1029/2020JB020462>.
- Lemenkova, Polina. "Mapping Earthquakes in Malawi Using Incorporated Research Institutions for Seismology (IRIS) Catalogue for 1972–2021." *Malawi Journal of Science & Technology*, vol. 13, no. 2, 2021, pp. 32–51, <https://doi.org/10.5281/zenodo.5771582>.
- Lengliné, Olivier, et al. "Tracking Dike Propagation Leading to the 2018 Kīlauea Eruption." *Earth and Planetary Science Letters*, vol. 553, 2021, p. 116653, <https://doi.org/10.1016/j.epsl.2020.116653>.
- Lentas, K. "Indications of Seismic Station Phase Reversals Detected from Parametric Data in the ISC Bulletin." *Journal of Seismology*, vol. 25, no. 1, 2021, pp. 1–23, <https://doi.org/10.1007/s10950-020-09960-1>.
- León-Ríos, Sergio, et al. "3D Local Earthquake Tomography of the Ecuadorian Margin in the Source Area of the 2016 Mw 7.8 Pedernales Earthquake." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 3, Mar. 2021, p. e2020JB020701, <https://doi.org/10.1029/2020JB020701>.
- León Soto, Gerardo, et al. "Teleseismic Measurements of Upper Mantle Shear Wave Anisotropy in the Isthmus of Tehuantepec, Mexico." *Geophysical Journal International*, vol. 227, no. 3, 2021, pp. 1784–94, <https://doi.org/10.1093/gji/ggab301>.
- Leptokaropoulos, K., et al. "Tidal Triggering of Microseismicity at the Equatorial Mid-Atlantic Ridge, Inferred From the PI-LAB Experiment." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 9, Sept. 2021, p. e2021JB022251, <https://doi.org/10.1029/2021JB022251>.
- Levandowski, Will, et al. "Crustal Seismic Attenuation of the Central United States and Intermountain West." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 12, Dec. 2021, p. e2021JB022097, <https://doi.org/10.1029/2021JB022097>.
- Levin, Vadim, et al. "Seismic Anisotropy in Southern Costa Rica Confirms Upper Mantle Flow from the Pacific to the Caribbean." *Geology*, vol. 49, no. 1, Feb. 2021, pp. 8–12, <https://doi.org/10.1130/G47826.1>.
- Lewerissa, Richard, et al. "Completeness Magnitude (Mc) and b-Value Characteristics as Important Parameters for Future Seismic Hazard Assessment in the West Papua Province Indonesia." *Arabian Journal of Geosciences*, vol. 14, no. 23, Nov. 2021, p. 2588, <https://doi.org/10.1007/s12517-021-08885-4>.
- Li Bing, Q., et al. "Basal Nucleation and the Prevalence of Ascending Swarms in Long Valley Caldera." *Science Advances*, vol. 7, no. 35, 2021, p. eabi8368, <https://doi.org/10.1126/sciadv.abi8368>.
- Li, Chenyu, Zhigang Peng, Julien A. Chaput, et al. "Remote Triggering of Icequakes at Mt. Erebus, Antarctica by Large Teleseismic Earthquakes." *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 2866–75, <https://doi.org/10.1785/0220210027>.

- Li, Cong, and Haiying Gao. "Modification of Crust and Mantle Lithosphere Beneath the Southern Part of the Eastern North American Passive Margin." *Geophysical Research Letters*, vol. 48, no. 16, Nov. 2021, p. e2020GL090555, <https://doi.org/10.1029/2020GL090555>.
- Li, Guoliang, Yingjie Yang, Fenglin Niu, et al. "3-D Sedimentary Structures Beneath Southeastern Australia Constrained by Passive Seismic Array Data." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 2, Apr. 2021, p. e2020JB019998, <https://doi.org/10.1029/2020JB019998>.
- Li, Hongqiang, Rui Gao, Wenhui Li, et al. "The Mabja Dome Structure in Southern Tibet Revealed by Deep Seismic Reflection Data and Its Tectonic Implications." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 4, Apr. 2021, p. e2020JB020265, <https://doi.org/10.1029/2020JB020265>.
- Li, Huailiang, Kai Qu, Wenzheng Rong, et al. "PolarGUI: A MATLAB-Based Tool for Polarization Analysis of the Three-Component Seismic Data Using Different Algorithms." *Seismological Research Letters*, vol. 92, no. 6, Nov. 2021, pp. 3821–31, <https://doi.org/10.1785/0220200439>.
- Li, Jiaqi, Min Chen, Jieyuan Ning, et al. "Constraining the 410-Km Discontinuity and Slab Structure in the Kuril Subduction Zone with Triplication Waveforms." *Geophysical Journal International*, vol. 228, no. 2, 2021, pp. 729–43, <https://doi.org/10.1093/gji/ggab361>.
- Li, Jiaqi, Min Chen, Keith D. Koper, et al. "FastTrip: A Fast MPI-Accelerated 1D Triplication Waveform Inversion Package for Constraining Mantle Transition Zone Discontinuities." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2647–56, <https://doi.org/10.1785/0220200475>.
- Li, Jiewen, and Daoyuan Sun. *Detailed Structure of the Western Edge of the Pacific LLSVP*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/998475>.
- Li, Peng, Guo-Chin D. Huang, Alexandros Savvaidis, et al. "Characteristics of Seismicity in the Eagle Ford Shale Play, Southern Texas, Constrained by Earthquake Relocation and Centroid Moment Tensor Inversion." *Seismological Research Letters*, vol. 92, no. 6, Nov. 2021, pp. 3504–15, <https://doi.org/10.1785/0220210005>.
- Li, Peng, Guo-Chin Dino Huang, and Alexandros Savvaidis. "Seismic Features of the Permian Basin Region from Receiver Function Analysis." *Tectonophysics*, vol. 801, 2021, p. 228718, <https://doi.org/10.1016/j.tecto.2021.228718>.
- Li, Qi, Chengtao Li, Kai Tan, et al. "Slip Model of the 2020 Yutian (Northwestern Tibetan Plateau) Earthquake Derived From Joint Inversion of InSAR and Teleseismic Data." *Earth and Space Science*, vol. 8, no. 6, 2021, p. e2020EA001409, <https://doi.org/10.1029/2020EA001409>.
- Li, Wei, Xiaohui Yuan, Benjamin Heit, et al. "Back-Arc Extension of the Central Bransfield Basin Induced by Ridge–Trench Collision: Implications From Ambient Noise Tomography and Stress Field Inversion." *Geophysical Research Letters*, vol. 48, no. 21, Nov. 2021, p. e2021GL095032, <https://doi.org/10.1029/2021GL095032>.
- Li, Wei, Yun Chen, Xiaofeng Liang, et al. "Lateral Seismic Anisotropy Variations Record Interaction Between Tibetan Mantle Flow and Plume-Strengthened Yangtze Craton." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 4, Apr. 2021, p. e2020JB020841, <https://doi.org/10.1029/2020JB020841>.
- Li, Yiran, Vadim Levin, Alex Nikulin, et al. "Systematic Mapping of Upper Mantle Seismic Discontinuities Beneath Northeastern North America." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 7, July 2021, p. e2021GC009710, <https://doi.org/10.1029/2021GC009710>.

- Li, Yuwei. *Imaging the D" Structure Using Waveform Modelling*. 2021. The Australian National University (Australia), Ph.D., <https://www.proquest.com/dissertations-theses/imaging-d-structure-using-waveform-modelling/docview/2617247614/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2617247614.
- Li, Yuwei, Meghan S. Miller, Hrvoje Tkalčić, et al. "Small-Scale Heterogeneity in the Lowermost Mantle beneath Alaska and Northern Pacific Revealed from Shear-Wave Triplications." *Earth and Planetary Science Letters*, vol. 559, 2021, p. 116768, <https://doi.org/10.1016/j.epsl.2021.116768>.
- Li, Yuwei, and Meghan S. Miller. "Seismic Evidence for Thermal and Chemical Heterogeneities in D" Region Beneath Central America From Grid Search Modeling." *Geophysical Research Letters*, vol. 48, no. 14, Nov. 2021, p. e2021GL092493, <https://doi.org/10.1029/2021GL092493>.
- Li, Z., et al. *Crust and Uppermost Mantle Structure of the Alaska Subduction Zone From Joint Inversion of Rayleigh Wave Dispersion and Receiver Functions (SSA 2021)*. 2021, <https://doi.org/10.1785/0220210025>.
- Li, Zhengbo, Jie Zhou, et al. "CC-FJpy: A Python Package for Extracting Overtone Surface-Wave Dispersion from Seismic Ambient-Noise Cross Correlation." *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 3179–86, <https://doi.org/10.1785/0220210042>.
- Li, Zhengbo, Caiwang Shi, et al. "Constraints on Crustal P Wave Structure With Leaking Mode Dispersion Curves." *Geophysical Research Letters*, vol. 48, no. 20, Nov. 2021, p. e2020GL091782, <https://doi.org/10.1029/2020GL091782>.
- Li, Zongshan, and Douglas Wiens. *Azimuthal Anisotropy along the Alaska Subduction Zone from Earthquake and Ambient Noise Rayleigh Waves*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/969799>.
- Liao, Xin, et al. "Sensitivity of Permeability Changes to Different Earthquakes in a Fault Zone: Possible Evidence of Dependence on the Frequency of Seismic Waves." *Geophysical Research Letters*, vol. 48, no. 9, Nov. 2021, p. e2021GL092553, <https://doi.org/10.1029/2021GL092553>.
- Liberty, Lee M., James St. Clair, and Adam P. McKean. "A Broad, Distributed Active Fault Zone Lies beneath Salt Lake City, Utah." *The Seismic Record*, vol. 1, no. 1, 2021, pp. 35–45, <https://doi.org/10.1785/0320210009>.
- Liberty, Lee M., James St. Clair, T. Dylan Mikesell, et al. "Resonant Frequency Derived from the Rayleigh-Wave Dispersion Image: The High-Impedance Boundary Problem." *Bulletin of the Seismological Society of America*, vol. 111, no. 1, Feb. 2021, pp. 77–86, <https://doi.org/10.1785/0120200230>.
- Liberty, Lee M., Zachery M. Lifton, et al. "The 31 March 2020 Mw 6.5 Stanley, Idaho, Earthquake: Seismotectonics and Preliminary Aftershock Analysis." *Seismological Research Letters*, vol. 92, no. 2A, Apr. 2021, pp. 663–78, <https://doi.org/10.1785/0220200319>.
- Liddell, Mitch Vagn, et al. *The Mantle Seismic Structure below Canada and Alaska Constrained by a New Absolute P-Wavespeed Tomographic Model*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/888616>.
- Lin, Cheng-Horng, et al. "Mantle Wedge Diapirs Detected by a Dense Seismic Array in Northern Taiwan." *Scientific Reports*, vol. 11, no. 1, Jan. 2021, p. 1561, <https://doi.org/10.1038/s41598-021-81357-7>.

- Lin, Guoqing, et al. *Spatiotemporal Seismic Velocity Variations During the 2018 Kilauea Eruption*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/875353>.
- Lin, Xiangdong, et al. "Improved Full Waveform Moment Tensor Inversion of Cratonic Intraplate Earthquakes in Southwest Australia." *Geophysical Journal International*, vol. 227, no. 1, 2021, pp. 123–45, <https://doi.org/10.1093/gji/ggab214>.
- Lin, Xin, et al. "Coseismic Slip Distribution of the 24 January 2020 Mw 6.7 Doganyol Earthquake and in Relation to the Foreshock and Aftershock Activities." *Seismological Research Letters*, vol. 92, no. 1, Apr. 2021, pp. 127–39, <https://doi.org/10.1785/0220200152>.
- Lin, Zhan, et al. "A Theoretical Model for the Self-Noise of a Velocity-Broadband Seismometer." *Bulletin of the Seismological Society of America*, vol. 111, no. 3, Nov. 2021, pp. 1293–302, <https://doi.org/10.1785/0120200387>.
- Lindsey, Nathaniel J., and Eileen R. Martin. "Fiber-Optic Seismology." *Annual Review of Earth and Planetary Sciences*, vol. 49, no. 1, June 2021, pp. 309–36, <https://doi.org/10.1146/annurev-earth-072420-065213>.
- Ling, On Ki Angel, et al. "Visualizing Global Seismic Phases with AlpArray." *Seismological Research Letters*, vol. 92, no. 6, Nov. 2021, pp. 3845–55, <https://doi.org/10.1785/0220210046>.
- Linkimer, Lepol, and Mario Arroyo-Solórzano e Ivonne G. Arroyo. "Seismicity and Seismic Noise in Costa Rica during the Pandemic of 2020." *Revista Geológica de América Central*, no. 64, 2021, p. 1, <https://doi.org/10.15517/rgac.v0i64.46623>.
- Linville, Lisa, et al. "Semisupervised Learning for Seismic Monitoring Applications." *Seismological Research Letters*, vol. 92, no. 1, Apr. 2021, pp. 388–95, <https://doi.org/10.1785/0220200195>.
- Lipp, Alex G., and Gareth G. Roberts. "Scale-Dependent Flow Directions of Rivers and the Importance of Subplate Support." *Geophysical Research Letters*, vol. 48, no. 1, Apr. 2021, p. e2020GL091107, <https://doi.org/10.1029/2020GL091107>.
- Liu, Chengli, et al. "Seismic and Geodetic Analysis of Rupture Characteristics of the 2020 Mw 6.5 Monte Cristo Range, Nevada, Earthquake." *Bulletin of the Seismological Society of America*, vol. 111, no. 6, Oct. 2021, pp. 3226–36, <https://doi.org/10.1785/0120200327>.
- Liu, Gang, et al. "Rupture Kinematics of the 11 January 2021 Mw 6.7 Hovsgol, Mongolia, Earthquake and Implications in the Western Baikal Rift Zone." *Seismological Research Letters*, vol. 92, no. 6, Nov. 2021, pp. 3318–26, <https://doi.org/10.1785/0220210061>.
- Liu, Haitao, et al. "Relating Far-Field Coseismic Ionospheric Disturbances to Geological Structures." *Journal of Geophysical Research: Space Physics*, vol. 126, no. 7, July 2021, p. e2021JA029209, <https://doi.org/10.1029/2021JA029209>.
- Liu, Lin, et al. "Western Gondwana Imaged by S Receiver-Functions (SRF): New Results on Moho, MLD (Mid-Lithospheric Discontinuity) and LAB (Lithosphere-Asthenosphere Boundary)." *Gondwana Research*, vol. 96, Aug. 2021, pp. 206–18, <https://doi.org/10.1016/j.gr.2021.04.009>.
- Liu, Meichen, et al. *An Analysis of Recorded and Simulated SH Wave Reverberations in the Upper Mantle beneath the USArray*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/889709>.
- Liu, Shaolin, et al. "The Geometry of the Subducted Slab Beneath Sumatra Revealed by Regional and Teleseismic Traveltime Tomography." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 1, Apr. 2021, p. e2020JB020169, <https://doi.org/10.1029/2020JB020169>.



- Liu, Shuyu, et al. "Deciphering Fine Electrical Conductivity Structures in the Crust From MT Data Using the Equivalent Conductivity Formula." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 10, Oct. 2021, p. e2021JB022519, <https://doi.org/10.1029/2021JB022519>.
- Liu, T., and P. M. Shearer. *Complicated Lithospheric Structure Beneath the Contiguous United States Revealed by Teleseismic S Reflections*. 2021.
- Liu, Tianshi, et al. *Shear-Velocity and Anisotropic Model of the Alaskan Lithosphere Obtained by Ambient-Noise Adjoint Tomography*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/946919>.
- Liu, Tianze, and Peter M. Shearer. "Complicated Lithospheric Structure Beneath the Contiguous US Revealed by Teleseismic S-Reflections." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 5, May 2021, p. e2020JB021624, <https://doi.org/10.1029/2020JB021624>.
- Liu, Wei, et al. "Frequency-Dependent Rupture Characteristics of the 30 October 2016 Mw 6.5 Norcia, Italy Earthquake Inferred From Joint Multi-Scale Slip Inversion." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 5, May 2021, p. e2020JB020706, <https://doi.org/10.1029/2020JB020706>.
- Liu, Xin, et al. "Ambient Noise Love Wave Attenuation Tomography for the LASSIE Array across the Los Angeles Basin." *Science Advances*, vol. 7, no. 22, 2021, p. eabe1030, <https://doi.org/10.1126/sciadv.abe1030>.
- Liu, Xin, and Dapeng Zhao. "Seismic Evidence for a Plume-Modified Oceanic Lithosphere–Asthenosphere System beneath Cape Verde." *Geophysical Journal International*, vol. 225, no. 2, 2021, pp. 872–86, <https://doi.org/10.1093/gji/ggab012>.
- Liu, Yiduo, et al. "Surface-Wave Tomography of the Emeishan Large Igneous Province (China): Magma Storage System, Hidden Hotspot Track, and Its Impact on the Capitanian Mass Extinction." *Geology*, vol. 49, no. 9, Oct. 2021, pp. 1032–37, <https://doi.org/10.1130/G49055.1>.
- Liu, Yuchen, and Lupei Zhu. "Joint Inversion for 1-D Crustal Seismic S- and P-Wave Velocity Structures with Interfaces and Its Application to the Wabash Valley Seismic Zone." *Geophysical Journal International*, vol. 226, no. 1, 2021, pp. 47–55, <https://doi.org/10.1093/gji/ggab092>.
- Löberich, E., et al. "Constraints on Olivine Deformation From SKS Shear-Wave Splitting Beneath the Southern Cascadia Subduction Zone Back-Arc." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 11, 2021, p. n/a, <https://doi.org/10.1029/2021GC010091>.
- Lognonné, Philippe, et al. "Introduction to the Special Issue on Mars Seismology." *Bulletin of the Seismological Society of America*, vol. 111, no. 6, 2021, pp. 2883–88, <https://doi.org/10.1785/0120210260>.
- Long, Maureen D., et al. "Evaluating Models for Lithospheric Loss and Intraplate Volcanism Beneath the Central Appalachian Mountains." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 10, Oct. 2021, p. e2021JB022571, <https://doi.org/10.1029/2021JB022571>.
- Louie, John N., et al. "Guidelines and Pitfalls of Refraction Microtremor Surveys." *Journal of Seismology*, June 2021, <https://doi.org/10.1007/s10950-021-10020-5>.
- Love, Jeffrey J., et al. "Down to Earth With Nuclear Electromagnetic Pulse: Realistic Surface Impedance Affects Mapping of the E3 Geoelectric Hazard." *Earth and Space Science*, vol. 8, no. 8, Aug. 2021, p. e2021EA001792, <https://doi.org/10.1029/2021EA001792>.

- Lowe, M., et al. "Gravity Effect of Alpine Slab Segments Based on Geophysical and Petrological Modelling." *Solid Earth*, vol. 12, no. 3, 2021, pp. 691–711, <https://doi.org/10.5194/se-12-691-2021>.
- Lowenstern, Jacob B., et al. "Strengthening Local Volcano Observatories through Global Collaborations." *Bulletin of Volcanology*, vol. 84, no. 1, Dec. 2021, p. 10, <https://doi.org/10.1007/s00445-021-01512-w>.
- Lowry, Anthony R., et al. *The Role of Volatiles and Melts in Lithospheric Strength and Long-Term Stability*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/971002>.
- Lu, Y., and Y. Ben-Zion. "Regional Seismic Velocity Changes Following the 2019 Mw 7.1 Ridgecrest, California Earthquake from Autocorrelations and P/S Converted Waves." *Geophysical Journal International*, vol. 228, no. 1, 2021, pp. 620–30, <https://doi.org/10.1093/gji/ggab350>.
- Lu, Yang, et al. "Mapping the Seismic Noise Field in Europe: Spatio-Temporal Variations in Wavefield Composition and Noise Source Contributions." *Geophysical Journal International*, vol. 228, no. 1, 2021, pp. 171–92, <https://doi.org/10.1093/gji/ggab273>.
- Lu, Yin, et al. "A Paleoseismic Record Spanning 2-Myr Reveals Episodic Late Pliocene Deformation in the Western Qaidam Basin, NE Tibet." *Geophysical Research Letters*, vol. 48, no. 5, Mar. 2021, p. e2020GL090530, <https://doi.org/10.1029/2020GL090530>.
- Lü, Ziqiang, et al. "Crustal Deformation of Intermontane Basins beneath Central Tien Shan Revealed by Full-Wave Ambient Noise Tomography." *Tectonophysics*, vol. 821, Dec. 2021, p. 229143, <https://doi.org/10.1016/j.tecto.2021.229143>.
- Lucas, Erica M., et al. "Seismicity and Pn Velocity Structure of Central West Antarctica." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 2, 2021, p. n/a, <https://doi.org/10.1029/2020GC009471>.
- Lumley, David E. *Archiving and Sharing Legacy Exploration Seismic Data: Opportunities and Challenges*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/799076>.
- Lund, Björn, et al. "The Modern Swedish National Seismic Network: Two Decades of Intraplate Microseismic Observation." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1747–58, <https://doi.org/10.1785/0220200435>.
- Luo, Yi, et al. "Crustal Lg-Wave Attenuation in Southeast Asia and Its Implications for Regional Tectonic Evolution." *Geophysical Journal International*, vol. 226, no. 3, 2021, pp. 1873–84, <https://doi.org/10.1093/gji/ggab122>.
- Luo, Song, et al. "Direct Inversion of Surface Wave Dispersion Data with Multiple-Grid Parametrizations and Its Application to a Dense Array in Chao Lake, Eastern China." *Geophysical Journal International*, vol. 225, no. 2, 2021, pp. 1432–52, <https://doi.org/10.1093/gji/ggab036>.
- Luo, Xinyu, et al. *The September 22, 2017 Wrangell Mountains (Alaska) Landslide: Detection, Location, and Failure Dynamics*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/834419>.
- Luo, Yantao, et al. "High-Resolution Ps Receiver Function Imaging of the Crust and Mantle Lithosphere Beneath Southern New England and Tectonic Implications." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 7, July 2021, p. e2021JB022170, <https://doi.org/10.1029/2021JB022170>.

- Lynner, Colton. "Anisotropy-Revealed Change in Hydration along the Alaska Subduction Zone." *Geology*, vol. 49, no. 9, Oct. 2021, pp. 1122–25, <https://doi.org/10.1130/G48860.1>.
- Lyons, John J., et al. "High-Speed Lava Flow Infrasound from Kilauea's Fissure 8 and Its Utility in Monitoring Effusion Rate." *Bulletin of Volcanology*, vol. 83, no. 11, Oct. 2021, p. 66, <https://doi.org/10.1007/s00445-021-01488-7>.
- Lythgoe, Karen, Aidan Loasby, et al. "Seismic Event Detection in Urban Singapore Using a Nodal Array and Frequency Domain Array Detector: Earthquakes, Blasts and Thunderquakes." *Geophysical Journal International*, vol. 226, no. 3, 2021, pp. 1542–57, <https://doi.org/10.1093/gji/ggab135>.
- Lythgoe, Karen, Muzli Muzli, et al. "Thermal Squeezing of the Seismogenic Zone Controlled Rupture of the Volcano-Rooted Flores Thrust." *Science Advances*, vol. 7, no. 5, 2021, p. eabe2348, <https://doi.org/10.1126/sciadv.abe2348>.
- Lyubushin, Alexey. "Global Seismic Noise Wavelet-Based Measure of Nonstationarity." *Pure and Applied Geophysics*, vol. 178, no. 9, Sept. 2021, pp. 3397–413, <https://doi.org/10.1007/s00024-021-02850-8>.
- . "Seismic Noise Wavelet-Based Entropy in Southern California." *Journal of Seismology*, vol. 25, no. 1, 2021, pp. 25–39, <https://doi.org/10.1007/s10950-020-09950-3>.
- Ma, Lisa, et al. "Seismic Imaging of a Shale Landscape Under Compression Shows Limited Influence of Topography-Induced Fracturing." *Geophysical Research Letters*, vol. 48, no. 17, Nov. 2021, p. e2021GL093372, <https://doi.org/10.1029/2021GL093372>.
- Ma, Xiao, et al. "Regional Seismic Characteristics of Chemical Explosions on the Eastern Margin of the Junggar Basin, Northwest China, and of Historical Semipalatinsk Nuclear Tests." *Bulletin of the Seismological Society of America*, vol. 111, no. 1, Jan. 2021, pp. 606–20, <https://doi.org/10.1785/0120200151>.
- Ma, Xiaolong, and Hrvoje Tkalčić. "CCREM: New Reference Earth Model From the Global Coda-Correlation Wavefield." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 9, Sept. 2021, p. e2021JB022515, <https://doi.org/10.1029/2021JB022515>.
- MacPhail, Mason David, et al. "The Effects of Assumed Source Depth and Shear-Wave Velocity on Moment Tensors Estimated for Small, Contained Chemical Explosions in Granite." *Bulletin of the Seismological Society of America*, vol. 111, no. 1, Jan. 2021, pp. 541–57, <https://doi.org/10.1785/0120200163>.
- Macpherson, Kenneth A., et al. *Noise Characteristics of the Alaska Regional Infrasound Network and Implications for General Infrasound Station Performance*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/913085>.
- Mader, S., et al. "Seismicity and Seismotectonics of the Albstadt Shear Zone in the Northern Alpine Foreland." *Solid Earth*, vol. 12, no. 6, 2021, pp. 1389–409, <https://doi.org/10.5194/se-12-1389-2021>.
- Mader, Sarah, and Joachim R. R. Ritter. "The StressTransfer Seismic Network—An Experiment to Monitor Seismically Active Fault Zones in the Northern Alpine Foreland of Southwestern Germany." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1773–87, <https://doi.org/10.1785/0220200357>.

- Madlazim, Madlazim, et al. "Tsunami Faulting Model Analysis for the 30 October 2020 Normal Earthquake Occurred in Izmir-Turkey." *Science of Tsunami Hazards*, vol. 40, no. 3, 2021, pp. 196–209.
- Magrini, Fabrizio, et al. "Rayleigh-Wave Attenuation across the Conterminous United States in the Microseism Frequency Band." *Scientific Reports*, vol. 11, no. 1, May 2021, p. 10149, <https://doi.org/10.1038/s41598-021-89497-6>.
- Magrini, Fabrizio, and Lapo Boschi. "Surface-Wave Attenuation From Seismic Ambient Noise: Numerical Validation and Application." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 1, Apr. 2021, p. e2020JB019865, <https://doi.org/10.1029/2020JB019865>.
- Mahanama, Anuradha, and Chris H. Cramer. *Studying Lateral Variations of Attenuation in the Crust of Alaska Using Lg Tomography*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/868879>.
- Mahoney, Luke, et al. "The 2018 Mw 7.5 Highlands Earthquake in Papua New Guinea: Implications for Structural Style in an Active Fold and Thrust Belt." *Tectonics*, vol. 40, no. 4, 2021, p. n/a, <https://doi.org/10.1029/2020TC006667>.
- Makra, Konstantia, et al. "Amplification Features and Observed Damages in İzmir (Turkey) Due to 2020 Samos (Aegean Sea) Earthquake: Identifying Basin Effects and Design Requirements." *Bulletin of Earthquake Engineering*, vol. 19, no. 12, Sept. 2021, pp. 4773–804, <https://doi.org/10.1007/s10518-021-01148-3>.
- Malagnini, Luca, et al. "On the Heterogeneity of the Earthquake Rupture." *Geophysical Journal International*, vol. 225, no. 3, 2021, pp. 1771–81, <https://doi.org/10.1093/gji/ggaa528>.
- Manassero, M. C., et al. "A Reduced Order Approach for Probabilistic Inversions of 3D Magnetotelluric Data II: Joint Inversion of MT and Surface-Wave Data." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 12, Dec. 2021, p. e2021JB021962, <https://doi.org/10.1029/2021JB021962>.
- Mandal, Prantik. "Lessons Learned from the Occurrences of Major Devastating  $M_w \geq 7.5$  Earthquakes in the Asian Countries during the Last 25 Years." *Journal of the Geological Society of India*, vol. 97, no. 12, Dec. 2021, pp. 1494–97, <https://doi.org/10.1007/s12594-021-1903-z>.
- Mann, Michael E. *Scattered Wave Imaging of the Crust and Uppermost Mantle along Strike in the Alaska and Cascadia Subduction Zones*. 2021. Cornell University, Ph.D., <https://www.proquest.com/dissertations-theses/scattered-wave-imaging-crust-uppermost-mantle/docview/2622299030/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2622299030.
- Manta, Fabio, et al. "Correlation Between GNSS-TEC and Eruption Magnitude Supports the Use of Ionospheric Sensing to Complement Volcanic Hazard Assessment." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 2, Apr. 2021, p. e2020JB020726, <https://doi.org/10.1029/2020JB020726>.
- Marcon, Yann, et al. "Variability of Natural Methane Bubble Release at Southern Hydrate Ridge." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 10, Oct. 2021, p. e2021GC009894, <https://doi.org/10.1029/2021GC009894>.
- Margheriti, Lucia, Paola Baccheschi, et al. "Seismic Anisotropy." *Encyclopedia of Geology (Second Edition)*, edited by David Alderton and Scott A. Elias, Academic Press, 2021, pp. 622–35, <https://doi.org/10.1016/B978-0-08-102908-4.00156-9>.

- Margheriti, Lucia, Concetta Nostro, et al. "Seismic Surveillance and Earthquake Monitoring in Italy." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1659–71, <https://doi.org/10.1785/0220200380>.
- Marimira, K., et al. "Aftershock Sequence of 22 September 2016, Manica-Zinave Earthquake (Mw5.6), Mozambique." *Journal of African Earth Sciences*, vol. 177, May 2021, p. 104146, <https://doi.org/10.1016/j.jafrearsci.2021.104146>.
- Mark, H. F., et al. "Constraints on the Depth, Thickness, and Strength of the G Discontinuity in the Central Pacific From S Receiver Functions." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 4, Apr. 2021, p. e2019JB019256, <https://doi.org/10.1029/2019JB019256>.
- Mărmureanu, Alexandru, et al. "From National to Transnational Seismic Monitoring Products and Services in the Republic of Bulgaria, Republic of Moldova, Romania, and Ukraine." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1685–703, <https://doi.org/10.1785/0220200393>.
- Martin, Carl, et al. *Bayesian Imaging on an Augmented Hawaiian ULVZ Data Set from Sdiff Postcursors*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/898673>.
- Marusiak, Angela G., et al. "The Deployment of the Seismometer to Investigate Ice and Ocean Structure (SIOS) in Northwest Greenland: An Analog Experiment for Icy Ocean World Seismic Deployments." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 2036–49, <https://doi.org/10.1785/0220200291>.
- Marzen, Rachel E., et al. "Shaking in the Southeastern United States: Examining Earthquakes and Blasts in the Central Georgia–South Carolina Seismic Region." *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 3145–64, <https://doi.org/10.1785/0220210029>.
- . *The Role of Tectonic Inheritance: Mountain-Building, Rifting, Magmatism, and Earthquakes in the Southeastern United States*. 2021. Columbia University, Ph.D., <https://www.proquest.com/dissertations-theses/role-tectonic-inheritance-mountain-building/docview/2478765285/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2478765285.
- Matoza, Robin S., et al. "Comprehensive High-Precision Relocation of Seismicity on the Island of Hawai'i 1986–2018." *Earth and Space Science*, vol. 8, no. 1, 2021, p. e2020EA001253, <https://doi.org/10.1029/2020EA001253>.
- Mattmann, Aryana, et al. *Investigating Seismic Anisotropy Beneath Long-Running Seismic Stations in North America*. 2021, <https://doi.org/10.1130/abs/2021NC-362748>.
- Matzel, E., and C. Morency. *Seismic Attenuation Illuminates Fluid Pathways in Glacial Ice (SSA 2021)*. 2021.
- McBride, Sara, Hollie M. Smith, et al. *Developing Evidence-Based Guidelines for Protective Actions and Earthquake Early Warning Systems*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/976054>.
- McBride, Sara, Danielle Sumy, et al. *Latency and Geofence Testing of Wireless Emergency Alerts Intended for the ShakeAlert® Earthquake Early Warning System (West Coast, United States of America)*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/863771>.

- McComas, Sarah, et al. "A Comparison of Mechanical Wind Filters for Infrasound Sensor Noise Reduction." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2295–307, <https://doi.org/10.1785/0220200311>.
- McGrew, Allen J., and Joshua J. Schwartz. "Introduction: Active Margins in Transition—Magmatism and Tectonics through Time: An Issue in Honor of Arthur W. Snoke." *Geosphere*, vol. 17, no. 4, 2021, pp. 981–86, <https://doi.org/10.1130/GES02422.1>.
- McKee, Kathleen, Cassandra M. Smith, Kevin Reath, Eevanjelene Snee, Sean Maher, Robin S. Matoza, Simon Carn, Larry Mastin, et al. "Evaluating the State-of-the-Art in Remote Volcanic Eruption Characterization Part I: Raikoke Volcano, Kuril Islands." *Journal of Volcanology and Geothermal Research*, vol. 419, Nov. 2021, p. 107354, <https://doi.org/10.1016/j.jvolgeores.2021.107354>.
- McKee, Kathleen, Cassandra M. Smith, Kevin Reath, Eevanjelene Snee, Sean Maher, Robin S. Matoza, Simon Carn, Diana C. Roman, et al. "Evaluating the State-of-the-Art in Remote Volcanic Eruption Characterization Part II: Ulawun Volcano, Papua New Guinea." *Journal of Volcanology and Geothermal Research*, vol. 420, Dec. 2021, p. 107381, <https://doi.org/10.1016/j.jvolgeores.2021.107381>.
- McLeod, Lauren Carolyn. *Seismology near and Far: Local Earthquake Monitoring and Teleseismic Reflection Imaging*. 2021. Cornell University, Ph.D., <https://www.proquest.com/dissertations-theses/seismology-near-far-local-earthquake-monitoring/docview/2582049447/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2582049447.
- McNicholas, Callie Jaclyn. *Characterizing Mesoscale Pressure Features with Bias Corrected Smartphone Pressures*. 2021. University of Washington, Ph.D., <https://www.proquest.com/dissertations-theses/characterizing-mesoscale-pressure-features-with/docview/2594572279/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2594572279.
- Meier, Men-Andrin, et al. "Apparent Earthquake Rupture Predictability." *Geophysical Journal International*, vol. 225, no. 1, 2021, pp. 657–63, <https://doi.org/10.1093/gji/ggaa610>.
- Meilano, Irwan, et al. "Source Characteristics of the 2019 Mw 6.5 Ambon, Eastern Indonesia, Earthquake Inferred from Seismic and Geodetic Data." *Seismological Research Letters*, vol. 92, no. 6, Nov. 2021, pp. 3339–48, <https://doi.org/10.1785/0220210021>.
- Melgar, Diego, et al. "Energetic Rupture and Tsunamigenesis during the 2020 Mw 7.4 La Crucecita, Mexico Earthquake." *Seismological Research Letters*, vol. 92, no. 1, Apr. 2021, pp. 140–50, <https://doi.org/10.1785/0220200272>.
- Mellors, Robert J., Kakhramon Kuchkarov, et al. *Initial Results from a Broadband Deployment in Uzbekistan*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/979125>.
- Mellors, Robert J., Robert Abbott, et al. "Modeling Subsurface Explosions Recorded on a Distributed Fiber Optic Sensor." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 12, Dec. 2021, p. e2021JB022690, <https://doi.org/10.1029/2021JB022690>.
- Mendo-Pérez, Gerardo, et al. "Ground-Coupled Airwaves Template Match Detection Using Broadband Seismic Records of Explosive Eruptions at Popocatepetl Volcano, Mexico." *Journal of Volcanology and Geothermal Research*, vol. 419, Nov. 2021, p. 107378, <https://doi.org/10.1016/j.jvolgeores.2021.107378>.

- Mendoza, Carlos, and M. Rosario Martínez-López. "Rupture Models of Recent Mw>7 Thrust Earthquakes in the Guerrero–Oaxaca Region of the Mexico Subduction Zone Using Teleseismic Body Waves." *Seismological Research Letters*, vol. 92, no. 6, Nov. 2021, pp. 3565–76, <https://doi.org/10.1785/0220200423>.
- Mendoza, Kevin Anthony, et al. *Constraining the Deep Geohydrologic Cycle under the Western United States from Electrical Resistivity Structure*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/895862>.
- Mendoza, Manuel Matthew. *The Seismotectonics and Seismogenesis of the Main Himalayan Thrust in Nepal and India*. 2021. University of California, Riverside, Ph.D., <https://www.proquest.com/dissertations-theses/seismotectonics-seismogenesis-main-himalayan/docview/2638779721/se-2>. ProQuest Dissertations & Theses Global; Publicly Available Content Database, 2638779721.
- Meng, Fanchang, et al. "Lithospheric Structure beneath the Boundary Region of North China Craton and Xing Meng Orogenic Belt from S-Receiver Function Analysis." *Tectonophysics*, vol. 818, 2021, p. 229067, <https://doi.org/10.1016/j.tecto.2021.229067>.
- Meng, Haoran, and Wenyuan Fan. "Immediate Foreshocks Indicating Cascading Rupture Developments for 527 M 0.9 to 5.4 Ridgecrest Earthquakes." *Geophysical Research Letters*, vol. 48, no. 19, Nov. 2021, p. e2021GL095704, <https://doi.org/10.1029/2021GL095704>.
- Meng, Qingjun, et al. "Complex Source Behaviors and Spatiotemporal Evolution of Seismicity During the 2015–2016 Earthquake Sequence in Cushing, Oklahoma." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 6, June 2021, p. e2021JB022168, <https://doi.org/10.1029/2021JB022168>.
- Menina, Sabrina, et al. "Energy Envelope and Attenuation Characteristics of High-Frequency (HF) and Very-High-Frequency (VF) Martian Events." *Bulletin of the Seismological Society of America*, vol. 111, no. 6, 2021, pp. 3016–34, <https://doi.org/10.1785/0120210127>.
- Merry, Thomas A. J., et al. "The Influence of the North Anatolian Fault and a Fragmenting Slab Architecture on Upper Mantle Seismic Anisotropy in the Eastern Mediterranean." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 9, Sept. 2021, p. e2021GC009896, <https://doi.org/10.1029/2021GC009896>.
- Mesimeri, Maria, Hao Zhang, et al. "Backprojection Imaging of the 2020 Mw 5.5 Magna, Utah, Earthquake Using a Local Dense Strong-Motion Network." *Seismological Research Letters*, vol. 92, no. 2A, Apr. 2021, pp. 640–46, <https://doi.org/10.1785/0220200326>.
- Mesimeri, Maria, Kristine L. Pankow, Ben Baker, et al. "Episodic Earthquake Swarms in the Mineral Mountains, Utah Driven by the Roosevelt Hydrothermal System." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 6, June 2021, p. e2021JB021659, <https://doi.org/10.1029/2021JB021659>.
- Mesimeri, Maria, Kristine L. Pankow, William D. Barnhart, et al. "Unusual Seismic Signals in the Sevier Desert, Utah Possibly Related to the Black Rock Volcanic Field." *Geophysical Research Letters*, vol. 48, no. 5, Nov. 2021, p. e2020GL090949, <https://doi.org/10.1029/2020GL090949>.
- Meyers, Patrick M., et al. "A Linear Inversion Approach to Measuring the Composition and Directionality of the Seismic Noise Field." *Remote Sensing*, vol. 13, no. 16, 2021, p. 3097, <https://doi.org/10.3390/rs13163097>.

- Mi, Qi, et al. "Pn Anisotropic Tomography and Mantle Dynamics underneath the South China Sea and Surrounding Areas." *Journal of Asian Earth Sciences*, vol. 214, July 2021, p. 104796, <https://doi.org/10.1016/j.jseaes.2021.104796>.
- Michailos, Konstantinos, et al. "Spatio-Temporal Evolution of Intermediate-Depth Seismicity Beneath the Himalayas: Implications for Metamorphism and Tectonics." *Frontiers in Earth Science*, vol. 9, Oct. 2021, <https://doi.org/10.3389/feart.2021.742700>.
- Mickus, Kevin. "Chapter 5 - Geophysical Methods." *Pollution Assessment for Sustainable Practices in Applied Sciences and Engineering*, edited by Abdel-Mohsen O. Mohamed et al., Butterworth-Heinemann, 2021, pp. 199–287, <https://doi.org/10.1016/B978-0-12-809582-9.00005-0>.
- Miller, M. S., et al. "Inherited Lithospheric Structures Control Arc-Continent Collisional Heterogeneity." *Geology*, vol. 49, no. 6, Oct. 2021, pp. 652–56, <https://doi.org/10.1130/G48246.1>.
- Miller, Nathaniel C., et al. "Limited Mantle Hydration by Bending Faults at the Middle America Trench." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 1, Apr. 2021, p. e2020JB020982, <https://doi.org/10.1029/2020JB020982>.
- Mishra, O. P., et al. "Chapter 20 - Glacial Mass Change—Induced Earthquakes in the Himalayan Region of South Asia and Its Bearing to Understand Arctic Glaciers Dynamics: Proxy of Climate Change." *Understanding Present and Past Arctic Environments*, edited by Neloy Khare, Elsevier, 2021, pp. 433–55, <https://doi.org/10.1016/B978-0-12-822869-2.00025-6>.
- Mogren, Saad. "Geo-Hazard Assessment of the NEOM Area, Northwest Saudi Arabia, Using Seismological and Potential Field Data." *Arabian Journal of Geosciences*, vol. 14, no. 2, 2021, <https://doi.org/10.1007/s12517-021-06456-1>.
- . "Spatial Distribution of the Rheological Heterogeneities at Crustal Depths underneath the Harrat Rahat, Western Saudi Arabia and Their Correspondence to Bouguer Anomalies." *Journal of Volcanology and Geothermal Research*, vol. 419, Nov. 2021, p. 107387, <https://doi.org/10.1016/j.jvolgeores.2021.107387>.
- Mohammadzaheri, Afsaneh, et al. "Subducted Lithosphere Under South America From Multifrequency P Wave Tomography." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 6, June 2021, p. e2020JB020704, <https://doi.org/10.1029/2020JB020704>.
- Mondal, Puskar. *A Few Applications of Seismic Waves: Anisotropy Tomography and All That*. 2021. Yale University, Ph.D., <https://www.proquest.com/dissertations-theses/few-applications-seismic-waves-anisotropy/docview/2631904698/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2631904698.
- Morozov, Alexey Nikolaevich, et al. "Low-Magnitude Earthquakes at the Eastern Ultraslow-Spreading Gakkel Ridge, Arctic Ocean." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2221–33, <https://doi.org/10.1785/0220200308>.
- Morra, Gabriele, et al. "Fresh Outlook on Numerical Methods for Geodynamics. Part 2: Big Data, HPC, Education." *Encyclopedia of Geology (Second Edition)*, edited by David Alderton and Scott A. Elias, Academic Press, 2021, pp. 841–55, <https://doi.org/10.1016/B978-0-08-102908-4.00111-9>.



- Moschetti, Morgan P., et al. "Seismic Wave Propagation and Basin Amplification in the Wasatch Front, Utah." *Seismological Research Letters*, vol. 92, no. 6, Nov. 2021, pp. 3626–41, <https://doi.org/10.1785/0220200449>.
- Moschetti, Morgan P., and Stephen H. Hartzell. "Spectral Inversion for Seismic Site Response in Central Oklahoma: Low-Frequency Resonances from the Great Unconformity." *Bulletin of the Seismological Society of America*, vol. 111, no. 1, Jan. 2021, pp. 87–100, <https://doi.org/10.1785/0120200220>.
- Mosher, S. G., et al. "Probabilistic Inversion of Seafloor Compliance for Oceanic Crustal Shear Velocity Structure Using Mixture Density Neural Networks." *Geophysical Journal International*, vol. 227, no. 3, 2021, pp. 1879–92, <https://doi.org/10.1093/gji/ggab315>.
- Mosher, Stephen G., et al. "Shear-Wave Velocity Structure of Sediments on Cascadia's Continental Margin From Probabilistic Inversion of Seafloor Compliance Data." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 9, 2021, p. n/a, <https://doi.org/10.1029/2021GC009720>.
- Moulik, P., et al. "Global Reference Seismological Data Sets: Multimode Surface Wave Dispersion." *Geophysical Journal International*, vol. 228, no. 3, 2021, pp. 1808–49, <https://doi.org/10.1093/gji/ggab418>.
- Mousavi, Sima, et al. "Lowermost Mantle Shear-Velocity Structure From Hierarchical Trans-Dimensional Bayesian Tomography." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 9, Sept. 2021, p. e2020JB021557, <https://doi.org/10.1029/2020JB021557>.
- Movaghari, R., et al. "Crustal Radial Anisotropy of the Iran Plateau Inferred From Ambient Noise Tomography." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 4, Apr. 2021, p. e2020JB020236, <https://doi.org/10.1029/2020JB020236>.
- Muir, Jack B., and Zhongwen Zhan. "Seismic Wavefield Reconstruction Using a Pre-Conditioned Wavelet–Curvelet Compressive Sensing Approach." *Geophysical Journal International*, vol. 227, no. 1, 2021, pp. 303–15, <https://doi.org/10.1093/gji/ggab222>.
- Mukhopadhyay, Manoj, et al. "Crustal Structure beneath the Volcanic Field in the Tihamat Plains, Saudi Arabia: An Integrated Model Constrained by Gravity Modelling and Receiver Function Results." *Journal of Asian Earth Sciences*, vol. 206, Feb. 2021, p. 104614, <https://doi.org/10.1016/j.jseaes.2020.104614>.
- Murdoch, N., et al. "Constraining Martian Regolith and Vortex Parameters From Combined Seismic and Meteorological Measurements." *Journal of Geophysical Research: Planets*, vol. 126, no. 2, Feb. 2021, p. e2020JE006410, <https://doi.org/10.1029/2020JE006410>.
- Murphy, B. S., et al. *Integrating Seismic and Magnetotelluric Constraints on Lithospheric Properties to Explore the Geodynamic Origin of the Southeastern U.S. Stress Field*. 2021.
- Murphy, Benjamin, et al. *The Electrical Signature of Sutures in the Contiguous United States*. 2021, <https://doi.org/10.1130/abs/2021AM-369560>.
- Murphy, Benjamin S., et al. "Magnetotelluric Sampling and Geoelectric Hazard Estimation: Are National-Scale Surveys Sufficient?" *Space Weather*, vol. 19, no. 7, July 2021, p. e2020SW002693, <https://doi.org/10.1029/2020SW002693>.
- Naif, Samer, Kate Selway, et al. "Electrical Conductivity of the Lithosphere-Asthenosphere System." *Physics of the Earth and Planetary Interiors*, vol. 313, 2021, p. 106661, <https://doi.org/10.1016/j.pepi.2021.106661>.

- Naif, Samer, Yinchu Li, et al. *Preliminary Results from the Electromagnetic Alaskan GeoPRISMS Experiment (E-MAGE)*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/994407>.
- Nakahara, Hisashi, et al. "Extending the Formulation of the Spatial Autocorrelation (SPAC) Method to Strain, Rotation and Tilt." *Geophysical Journal International*, vol. 227, no. 1, 2021, pp. 287–302, <https://doi.org/10.1093/gji/ggab217>.
- Nakai, Jenny S., et al. "Near Trench 3D Seismic Attenuation Offshore Northern Hikurangi Subduction Margin, North Island, New Zealand." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 3, Mar. 2021, p. e2020JB020810, <https://doi.org/10.1029/2020JB020810>.
- Nascimento, André Vinícius de Sousa, et al. "Rayleigh Wave Group Velocity Maps at Periods of 10–150 s beneath South America." *Geophysical Journal International*, vol. 228, no. 2, 2021, pp. 958–81, <https://doi.org/10.1093/gji/ggab363>.
- Nathan, Erica M., et al. "Multi-Layer Seismic Anisotropy Beneath Greenland." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 5, 2021, p. n/a, <https://doi.org/10.1029/2020GC009512>.
- Nayak, Srinivas, et al. "Terrestrial Resonant Oscillations During the 11 April 2012 Sumatra Doublet Earthquake." *Journal of Geophysical Research: Space Physics*, vol. 126, no. 12, Dec. 2021, p. e2021JA029169, <https://doi.org/10.1029/2021JA029169>.
- Neely, James S., and Seth Stein. "Why Do Continental Normal Fault Earthquakes Have Smaller Maximum Magnitudes?" *Tectonophysics*, vol. 809, 2021, p. 228854, <https://doi.org/10.1016/j.tecto.2021.228854>.
- Negi, Sanjay S., et al. "An Efficient Approach of Data Adaptive Polarization Filter to Extract Teleseismic Phases from the Ocean-Bottom Seismograms." *Seismological Research Letters*, vol. 92, no. 1, Apr. 2021, pp. 528–42, <https://doi.org/10.1785/0220200034>.
- Neharika, G. N. S., and D. Neelima Satyam. "Earthquake Scenario Selection of Tindharia Landslide in India." *Journal of Engineering Geology*, vol. 46, no. 1, 2021.
- Neidhart, T., et al. "Statistical Analysis of Fireballs: Seismic Signature Survey." *Publications of the Astronomical Society of Australia*, vol. 38, 2021, <https://doi.org/10.1017/pasa.2021.11>.
- Ng, Raymond, et al. *Influence From Wind and Wind Turbine on Seismic Noise Observations in Oklahoma*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/953118>.
- Njiteu Tchoukeu, Cyrille Donald, et al. "Crustal Thickness, Depth to the Bottom of Magnetic Sources and Thermal Structure of the Crust from Cameroon to Central African Republic: Preliminary Results for a Better Understanding of the Origin of the Bangui Magnetic Anomaly." *Journal of African Earth Sciences*, vol. 179, July 2021, p. 104206, <https://doi.org/10.1016/j.jafrearsci.2021.104206>.
- Nolte, Keith A., and George P. Tsoflias. "Identifying Direct SP-Converted Waves Constrains Local Induced Earthquake Depths." *Seismological Research Letters*, vol. 92, no. 6, Nov. 2021, pp. 3801–10, <https://doi.org/10.1785/0220200385>.
- Noskova, N. N. "The Earthquake of September 16, 2020 in the Kirov–Kazhim Aulacogen." *Seismic Instruments*, vol. 57, no. 3, 2021, pp. 360–67, <https://doi.org/10.3103/S0747923921030105>.
- Nunn, Ceri, Yosio Nakamura, et al. *Improving the Accessibility of the Apollo Passive Seismic Data: Archiving at the PDS and IRIS*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/896919>.

- Nunn, Ceri, William T. Pike, et al. "Standing on Apollo's Shoulders: A Microseismometer for the Moon." *The Planetary Science Journal*, vol. 2, no. 1, 2021, p. 36, <https://doi.org/10.3847/psj/abd63b>.
- Oakley, David O. S., et al. "Seismic Ambient Noise Analyses Reveal Changing Temperature and Water Signals to 10s of Meters Depth in the Critical Zone." *Journal of Geophysical Research: Earth Surface*, vol. 126, no. 2, Feb. 2021, p. e2020JF005823, <https://doi.org/10.1029/2020JF005823>.
- Obayashi, Masayuki, et al. "Interrelation of the Stagnant Slab, Ontong Java Plateau, and Intraplate Volcanism as Inferred from Seismic Tomography." *Scientific Reports*, vol. 11, no. 1, Oct. 2021, p. 20966, <https://doi.org/10.1038/s41598-021-99833-5>.
- Ogden, C. S., et al. "Seismicity and Crustal Structure of the Southern Main Ethiopian Rift: New Evidence From Lake Abaya." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 8, Aug. 2021, p. e2021GC009831, <https://doi.org/10.1029/2021GC009831>.
- Ogden, C. S., and I. D. Bastow. "The Crustal Structure of the Anatolian Plate from Receiver Functions and Implications for the Uplift of the Central and Eastern Anatolian Plateaus." *Geophysical Journal International*, vol. 229, no. 2, 2021, pp. 1041–62, <https://doi.org/10.1093/gji/ggab513>.
- Ohtaki, Toshiki, et al. "Seismic Velocity Structure of the Upper Inner Core in the North Polar Region." *Physics of the Earth and Planetary Interiors*, vol. 311, 2021, p. 106636, <https://doi.org/10.1016/j.pepi.2020.106636>.
- Ojeda, Javier, and Sergio Ruiz. "Seismic Noise Variability as an Indicator of Urban Mobility During the COVID-19 Pandemic in the Santiago Metropolitan Region, Chile." *Solid Earth*, vol. 12, no. 5, 2021, pp. 1075–85, <https://doi.org/10.5194/se-12-1075-2021>.
- Ojo, Adebayo Oluwaseun, et al. "Strain Accumulation and Release Rate in Canada: Implications for Long-Term Crustal Deformation and Earthquake Hazards." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 4, Apr. 2021, p. e2020JB020529, <https://doi.org/10.1029/2020JB020529>.
- Okada, Akihisa, and Yoshiyuki Kaneda. "Eigenstate Transition of Multi-Channel Time Series Data around Earthquakes." *Applied Sciences*, vol. 11, no. 23, 2021, p. 11407, <https://doi.org/10.3390/app112311407>.
- Okal, Emile A. "On the Possibility of Seismic Recording of Meteotsunamis." *Natural Hazards*, vol. 106, no. 2, 2021, pp. 1125–47, <https://doi.org/10.1007/s11069-020-04146-x>.
- . "Snell's Law Applied to Tsunamis: Simulations and Observations." *Pure and Applied Geophysics*, vol. 178, no. 12, Dec. 2021, pp. 4969–83, <https://doi.org/10.1007/s00024-021-02703-4>.
- Ökeler, Ahmet. "Application of Iteratively Truncated Singular Value Decomposition to Computation of Teleseismic Receiver Functions." *Pure and Applied Geophysics*, vol. 178, no. 8, Aug. 2021, pp. 2953–67, <https://doi.org/10.1007/s00024-021-02767-2>.
- Okuwaki, Ryo, Wenyan Fan, et al. "Identifying Landslides from Continuous Seismic Surface Waves: A Case Study of Multiple Small-Scale Landslides Triggered by Typhoon Talas, 2011." *Geophysical Journal International*, vol. 226, no. 2, 2021, pp. 729–41, <https://doi.org/10.1093/gji/ggab129>.

- Okuwaki, Ryo, Stephen P. Hicks, et al. "Illuminating a Contorted Slab With a Complex Intraslab Rupture Evolution During the 2021 Mw 7.3 East Cape, New Zealand Earthquake." *Geophysical Research Letters*, vol. 48, no. 24, Dec. 2021, p. e2021GL095117, <https://doi.org/10.1029/2021GL095117>.
- Olds, Shelley E., et al. *Supporting Earthquake Early Warning Response and Learning through ShakeAlert® Educational Resources*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/953722>.
- Oliveira, Rebeca, et al. *The Yellowstone Paradox - Decoupled Seismic Velocity and Attenuation in the Upper Mantle*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/866502>.
- Olsen, Kira G., Meredith Nettles, et al. "Improved Estimation of Glacial-Earthquake Size Through New Modeling of the Seismic Source." *Journal of Geophysical Research: Earth Surface*, vol. 126, no. 12, Dec. 2021, p. e2021JF006384, <https://doi.org/10.1029/2021JF006384>.
- Olsen, Kira G., Terry A. Hurford, et al. "Projected Seismic Activity at the Tiger Stripe Fractures on Enceladus, Saturn, From an Analog Study of Tidally Modulated Icequakes Within the Ross Ice Shelf, Antarctica." *Journal of Geophysical Research: Planets*, vol. 126, no. 6, June 2021, p. e2021JE006862, <https://doi.org/10.1029/2021JE006862>.
- Olugboji, T., et al. "On the Origin of Orphan Tremors and Intraplate Seismicity in Western Africa." *Frontiers in Earth Science*, vol. 9, Sept. 2021, <https://doi.org/10.3389/feart.2021.716630>.
- Onorato, María Romina, et al. "Morphotectonic Characterization along the Eastern Portion of the Main Trace of Magallanes-Fagnano Fault System in Tierra Del Fuego, Argentina." *Journal of South American Earth Sciences*, vol. 112, Dec. 2021, p. 103550, <https://doi.org/10.1016/j.jsames.2021.103550>.
- Onwuemeka, J., et al. "Crustal Velocity Variations and Constraints on Material Properties in the Charlevoix Seismic Zone, Eastern Canada." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 7, July 2021, p. e2020JB020918, <https://doi.org/10.1029/2020JB020918>.
- Onyango, Evans Awere, et al. "Dense Seismic Array Study of a Legacy Underground Nuclear Test at the Nevada National Security Site." *Bulletin of the Seismological Society of America*, vol. 111, no. 1, Jan. 2021, pp. 571–89, <https://doi.org/10.1785/0120200164>.
- Oral, Elif, and Claudio Satriano. "Future Magnitude 7.5 Earthquake Offshore Martinique: Spotlight on the Main Source Features Controlling Ground Motion Prediction." *Geophysical Journal International*, vol. 227, no. 2, 2021, pp. 1076–93, <https://doi.org/10.1093/gji/ggab245>.
- Ormand, Carol, et al. *Making Geoscience Relevant: Using Geophysics to Address Societally-Relevant, Urban and Environmental Questions in Introductory-Level Geoscience Courses*. 2021, <https://doi.org/10.1130/abs/2021AM-369508>.
- Ornthammarath, Teraphan, et al. "Chapter 8 - Seismic Vulnerability of Historical Constructions in Northern Southeast Asia (Indochina): Lessons Learnt from Recent Earthquakes." *Masonry Construction in Active Seismic Regions*, edited by Rajesh Rupakhety and Dipendra Gautam, Woodhead Publishing, 2021, pp. 213–29, <https://doi.org/10.1016/B978-0-12-821087-1.00007-7>.
- Ortega, Roberto, et al. "Insights of the September 2007 Cerralvo Earthquake–Hurricane Henriette Crisis in La Paz, Mexico: Aftershocks Detection with Artificial Neural Networks." *Seismological Research Letters*, vol. 92, no. 1, Apr. 2021, pp. 67–76, <https://doi.org/10.1785/0220200254>.

- Ortega-Romo, Angie D., et al. "Spatially Distinct Tectonic Zones across Oklahoma Inferred from Shear-Wave Splitting." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2551–61, <https://doi.org/10.1785/0220200237>.
- Ortega-Romo, Angie D., and Xiaowei Chen. "Spatiotemporal Clustering of Seismicity During the 2018 Kilauea Volcanic Eruption." *Geophysical Research Letters*, vol. 48, no. 8, Nov. 2021, p. e2020GL090859, <https://doi.org/10.1029/2020GL090859>.
- Ortiz, Hugo D., et al. "Autocorrelation Infrasound Interferometry." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 4, Apr. 2021, p. e2020JB020513, <https://doi.org/10.1029/2020JB020513>.
- Orts, Darío Leandro, et al. "Tectonic Segmentation across Patagonia Controlled by the Subduction of Oceanic Fracture Zones." *Journal of Geodynamics*, vol. 143, Jan. 2021, p. 101806, <https://doi.org/10.1016/j.jog.2020.101806>.
- Osagie, Abel Uyimwen, and Ismail Ahmad Abir. "Seismic Tomographic Imaging of P Wave Velocity Perturbation beneath Sumatra, Java, Malacca Strait, Peninsular Malaysia and Singapore." *Journal of Earth System Science*, vol. 130, no. 1, 2021, <https://doi.org/10.1007/s12040-020-01530-w>.
- Ottmøller, Lars, et al. "UiB-NORSAR EIDA Node: Integration of Seismological Data in Norway." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1491–500, <https://doi.org/10.1785/0220200369>.
- Pacheco, D., et al. "Profiling the Quito Basin (Ecuador) Using Seismic Ambient Noise." *Geophysical Journal International*, vol. 228, no. 2, 2021, pp. 1419–37, <https://doi.org/10.1093/gji/ggab408>.
- Paffrath, M., W. Friederich, S. M. Schmid, et al. "Imaging Structure and Geometry of Slabs in the Greater Alpine Area – a P-Wave Travel-Time Tomography Using AlpArray Seismic Network Data." *Solid Earth*, vol. 12, no. 11, 2021, pp. 2671–702, <https://doi.org/10.5194/se-12-2671-2021>.
- Paffrath, M., W. Friederich, and Swath D. Working Groups the AlpArray and AlpArray. "Teleseismic P Waves at the AlpArray Seismic Network: Wave Fronts, Absolute Travel Times and Travel-Time Residuals." *Solid Earth*, vol. 12, no. 7, 2021, pp. 1635–60, <https://doi.org/10.5194/se-12-1635-2021>.
- Palomeras, Imma, et al. "Seismic Structure and Composition of the Southern Central Iberian Crust: The ALCUDIA Wide Angle Seismic Reflection Transect." *Tectonophysics*, vol. 820, Dec. 2021, p. 229114, <https://doi.org/10.1016/j.tecto.2021.229114>.
- Pankow, Kristine L., et al. "Responding to the 2020 Magna, Utah, Earthquake Sequence during the COVID-19 Pandemic Shutdown." *Seismological Research Letters*, vol. 92, no. 1, Apr. 2021, pp. 6–16, <https://doi.org/10.1785/0220200265>.
- Papadopoulos, Gerassimos A., et al. "Seismic and Geodetic Imaging (DInSAR) Investigation of the March 2021 Strong Earthquake Sequence in Thessaly, Central Greece." *Geosciences*, vol. 11, no. 8, 2021, p. 311, <https://doi.org/10.3390/geosciences11080311>.
- Papathanassiou, George, et al. "Spatial Patterns, Controlling Factors, and Characteristics of Landslides Triggered by Strike-Slip Faulting Earthquakes: Case Study of Lefkada Island, Greece." *Bulletin of Engineering Geology and the Environment*, vol. 80, no. 5, May 2021, pp. 3747–65, <https://doi.org/10.1007/s10064-021-02181-x>.

- Parada, Hugo Enrique Soto. *From Classical Earthquake Location to Deep Learning-Based Phase Detection and Picking Using Seismic Data from the Northern Chile Subduction Zone*. 2021. Freie Universitaet Berlin (Germany), Ph.D., <https://www.proquest.com/dissertations-theses/classical-earthquake-location-deep-learning-based/docview/2564122052/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2564122052.
- Parera-Portell, Joan Antoni, et al. "Structure of the Crust and Upper Mantle beneath the Bransfield Strait (Antarctica) Using P Receiver Functions." *Tectonophysics*, vol. 802, 2021, p. 228744, <https://doi.org/10.1016/j.tecto.2021.228744>.
- Park, Jeffrey J., et al. *The Expression of Lithospheric Anisotropy in Ps and Sp Converted Waves*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/949664>.
- Parker, T., et al. *Fully Integrated OBS Platform for Multi-Use Case Deployments and Future OBS Components for Long-Term Deployments*. 2021.
- Parsekian, A., et al. *Implementing Diversity, Equity and Inclusion (DEI) Best Practices to Design Introductory Undergraduate Modules for Increasing Participation from Students of All Backgrounds into Geophysics*. 2021.
- Pasyanos, Michael E., et al. "Improved Lithospheric Attenuation Structure of the Arabian Peninsula through the Use of National Network Data." *Arabian Journal of Geosciences*, vol. 14, no. 10, May 2021, p. 914, <https://doi.org/10.1007/s12517-021-07294-x>.
- Patro, Prasanta K., et al. "MT/LMT Studies for Crust and Upper Mantle Structure of India and Its Adjoining Regions: Contribution of CSIR-NGRI." *Journal of the Geological Society of India*, vol. 97, no. 10, Oct. 2021, pp. 1251–59, <https://doi.org/10.1007/s12594-021-1854-4>.
- Patterson, Anna, et al. "Seismic Reflection and Electrical Resistivity Imaging Support Pre-Quaternary Glaciation in the Rocky Mountains (Unaweep Canyon, Colorado)." *Geophysical Research Letters*, vol. 48, no. 18, Nov. 2021, p. e2021GL094706, <https://doi.org/10.1029/2021GL094706>.
- Paul, Collin, et al. "Testing an Empirical Green's Function Method for Determining the Rupture Parameters of the 24 April 2014 Vancouver Island Earthquake." *Bulletin of the Seismological Society of America*, vol. 111, no. 2, Feb. 2021, pp. 1043–55, <https://doi.org/10.1785/0120200233>.
- Pearson, D. Graham, et al. "Deep Continental Roots and Cratons." *Nature*, vol. 596, no. 7871, Aug. 2021, pp. 199–210, <https://doi.org/10.1038/s41586-021-03600-5>.
- Peng, B., et al. "ParlS+: Data Series Indexing on Multi-Core Architectures." *IEEE Transactions on Knowledge and Data Engineering*, vol. 33, no. 5, 2021, pp. 2151–64, <https://doi.org/10.1109/TKDE.2020.2975180>.
- Peng, Botao, et al. "Fast Data Series Indexing for In-Memory Data." *The VLDB Journal*, vol. 30, no. 6, 2021, pp. 1041–67, <https://doi.org/10.1007/s00778-021-00677-2>.
- Peng, Cheng-Chien, Ban-Yuan Kuo, et al. "Dual Structure of Poloidal and Toroidal Flow under the Cocos Subduction Zone." *Earth and Planetary Science Letters*, vol. 565, 2021, p. 116911, <https://doi.org/10.1016/j.epsl.2021.116911>.
- Peng, Diandian, Lijun Liu, et al. "Formation of East Asian Stagnant Slabs Due To a Pressure-Driven Cenozoic Mantle Wind Following Mesozoic Subduction." *Geophysical Research Letters*, vol. 48, no. 18, Sept. 2021, p. e2021GL094638, <https://doi.org/10.1029/2021GL094638>.

- Peng, Ye. *Mid-Lithospheric Discontinuity: Assessing the Role of Amphiboles in Metasomatized Cratonic Mantle*. 2021. The Florida State University, Ph.D., <https://www.proquest.com/dissertations-theses/mid-lithospheric-discontinuity-assessing-role/docview/2621206585/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2621206585.
- Pennington, Colin N., et al. "Cross Validation of Stress Drop Estimates and Interpretations for the 2011 Prague, OK, Earthquake Sequence Using Multiple Methods." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 3, Mar. 2021, p. e2020JB020888, <https://doi.org/10.1029/2020JB020888>.
- Péquegnat, Catherine, et al. "RÉSIF-SI: A Distributed Information System for French Seismological Data." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1832–53, <https://doi.org/10.1785/0220200392>.
- Petersen, Sarah E., et al. "Assessing the Role of Water in Alaskan Flat-Slab Subduction." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 5, 2021, p. n/a, <https://doi.org/10.1029/2021GC009734>.
- Petersen, Sarah Elizabeth. *The Effects of Hydration on Low-Angle Subduction Systems*. 2021. Northern Arizona University, Ph.D., <https://www.proquest.com/dissertations-theses/effects-hydration-on-low-angle-subduction-systems/docview/2572554437/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2572554437.
- Peterson, Matt, et al. "Generating Uncertainty Distributions for Seismic Signal Onset Times." *Bulletin of the Seismological Society of America*, vol. 111, no. 1, Jan. 2021, pp. 11–20, <https://doi.org/10.1785/0120200125>.
- Petrin, Christopher E., and Brian R. Elbing. *Atmospheric Infrasound & Seismic Observations during Severe Storms from the IRIS USArray*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/984077>.
- Pezeshk, Shahram, et al. "A Ground-Motion Model for the Gulf Coast Region of the United States." *Bulletin of the Seismological Society of America*, vol. 111, no. 6, Nov. 2021, pp. 3261–77, <https://doi.org/10.1785/0120210023>.
- Phạm, Thanh-Son, and Hrvoje Tkalčić. "Constraining Floating Ice Shelf Structures by Spectral Response of Teleseismic P-Wave Coda: Ross Ice Shelf, Antarctica." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 4, Apr. 2021, p. e2020JB021082, <https://doi.org/10.1029/2020JB021082>.
- Pienkowska, Marta, et al. "High-Frequency Global Wavefields for Local 3-D Structures by Wavefield Injection and Extrapolation." *Geophysical Journal International*, vol. 225, no. 3, 2021, pp. 1782–98, <https://doi.org/10.1093/gji/ggaa563>.
- PILGER, C., et al. *Yield Estimation of the 2020 Beirut Explosion Using Open Access Waveform and Remote Sensing Data (SSA 2021)*. 2021.
- Pilger, Christoph, et al. "Yield Estimation of the 2020 Beirut Explosion Using Open Access Waveform and Remote Sensing Data." *Scientific Reports*, vol. 11, no. 1, July 2021, p. 14144, <https://doi.org/10.1038/s41598-021-93690-y>.
- Pipatprathanporn, Sirawich, and Frederik J. Simons. "One Year of Sound Recorded by a Mermaid Float in the Pacific: Hydroacoustic Earthquake Signals and Infrasonic Ambient Noise."

*Geophysical Journal International*, vol. 228, no. 1, 2021, pp. 193–212,  
<https://doi.org/10.1093/gji/ggab296>.

---. *One Year of Sound Recorded by a MERMAID Float in the Pacific: Infrasonic Noise and Hydroacoustic Signals*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/929396>.

Pitarka, Arben, and Robert Mellors. “Using Dense Array Waveform Correlations to Build a Velocity Model with Stochastic Variability.” *Bulletin of the Seismological Society of America*, vol. 111, no. 4, Oct. 2021, pp. 2021–41, <https://doi.org/10.1785/0120200206>.

Plasencia Linares, Milton Percy, et al. “The Antarctic Seismographic Argentinean Italian Network (ASAIN): Recording Earthquakes in the Scotia Sea Region.” *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 2748–57, <https://doi.org/10.1785/0220200484>.

Plenge, Megan Franks, et al. “The BeAMS Project: Using Inquiry and Modeling to Introduce Students to the Research Process in an Introductory Geology Laboratory.” *Journal of Geoscience Education*, vol. ahead-of-print, no. ahead-of-print, 2021, pp. 1–16, <https://doi.org/10.1080/10899995.2021.1951080>.

Plescia, Steven M., et al. “Teleseismic P-Wave Coda Autocorrelation Imaging of Crustal and Basin Structure, Bighorn Mountains Region, Wyoming, U.S.A.” *Bulletin of the Seismological Society of America*, vol. 111, no. 1, Feb. 2021, pp. 466–75, <https://doi.org/10.1785/0120200177>.

Podolskiy, Evgeny A., et al. “Ocean-Bottom and Surface Seismometers Reveal Continuous Glacial Tremor and Slip.” *Nature Communications*, vol. 12, no. 1, June 2021, p. 3929, <https://doi.org/10.1038/s41467-021-24142-4>.

---. “Ocean-Bottom Seismology of Glacial Earthquakes: The Concept, Lessons Learned, and Mind the Sediments.” *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 2850–65, <https://doi.org/10.1785/0220200465>.

Pollitz, Fred F., Charles W. Wicks, et al. “Coseismic Fault Slip and Afterslip Associated with the 18 March 2020 M 5.7 Magna, Utah, Earthquake.” *Seismological Research Letters*, vol. 92, no. 2A, Nov. 2021, pp. 741–54, <https://doi.org/10.1785/0220200312>.

Pollitz, Fred F., William C. Hammond, et al. “Rupture Process of the M 6.5 Stanley, Idaho, Earthquake Inferred from Seismic Waveform and Geodetic Data.” *Seismological Research Letters*, vol. 92, no. 2A, Apr. 2021, pp. 699–709, <https://doi.org/10.1785/0220200315>.

Porras, Juan, et al. “Preliminary Results of an Earthquake Early Warning System in Costa Rica.” *Frontiers in Earth Science*, vol. 9, Sept. 2021, <https://doi.org/10.3389/feart.2021.700843>.

Porritt, Robert W., et al. “Multiscale, Radially Anisotropic Shear Wave Imaging of the Mantle underneath the Contiguous United States through Joint Inversion of USArray and Global Data Sets.” *Geophysical Journal International*, vol. 226, no. 3, 2021, pp. 1730–46, <https://doi.org/10.1093/gji/ggab185>.

Porter, Ryan, et al. “Seismic Monitoring of Post-Wildfire Debris Flows Following the 2019 Museum Fire, Arizona.” *Frontiers in Earth Science*, vol. 9, Apr. 2021, <https://doi.org/10.3389/feart.2021.649938>.

Porter, Ryan C., et al. “ERRATA: Synthesizing EarthScope Data to Constrain the Thermal Evolution of the Continental U.S. Lithosphere.” *Geosphere*, vol. 17, no. 4, 2021, pp. 1–1, <https://doi.org/10.1130/GES02000e.1>.



- Porter, Ryan, and Mary Reid. "Mapping the Thermal Lithosphere and Melting Across the Continental US." *Geophysical Research Letters*, vol. 48, no. 7, Nov. 2021, p. e2020GL092197, <https://doi.org/10.1029/2020GL092197>.
- Possee, Daniel, et al. "Seismic Discontinuities Across the North American Caribbean Plate Boundary From S-to-P Receiver Functions." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 7, 2021, p. n/a, <https://doi.org/10.1029/2021GC009723>.
- Pou, L., et al. "Forward Modeling of the Phobos Tides and Applications to the First Martian Year of the InSight Mission." *Earth and Space Science*, vol. 8, no. 7, July 2021, p. e2021EA001669, <https://doi.org/10.1029/2021EA001669>.
- Power, J. A., et al. "Volcanic Seismicity beneath Chuginadak Island, Alaska (Cleveland and Tana Volcanoes): Implications for Magma Dynamics and Eruption Forecasting." *Journal of Volcanology and Geothermal Research*, vol. 412, Apr. 2021, p. 107182, <https://doi.org/10.1016/j.jvolgeores.2021.107182>.
- Pratscher, Kristin, et al. *Regional Geoelectric Signatures of Southwest North America; A Magnetotelluric Dimensionality Analysis*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/816167>.
- Pratt, T. L., et al. "Ten Years on from the Quake That Shook the Nation's Capital." *Eos*, vol. 102, 2021, <https://doi.org/10.1029/2021EO162330>.
- Pratt, Thomas L., and Lisa S. Schleicher. "Characterizing Ground-Motion Amplification by Extensive Flat-Lying Sediments: The Seismic Response of the Eastern U.S. Atlantic Coastal Plain Strata." *Bulletin of the Seismological Society of America*, vol. 111, no. 4, Oct. 2021, pp. 1795–823, <https://doi.org/10.1785/0120200328>.
- Priestley, Keith, et al. "The Formation of Continental Roots." *Geology*, vol. 49, no. 2, Feb. 2021, pp. 190–94, <https://doi.org/10.1130/G47696.1>.
- Pugh, Stephen, et al. "Global Receiver Function Observations of the X-Discontinuity Reveal Recycled Basalt beneath Hotspots." *Earth and Planetary Science Letters*, vol. 561, 2021, p. 116813, <https://doi.org/10.1016/j.epsl.2021.116813>.
- Qiao, Qingyu, et al. "Upper Mantle Structure Beneath Mariana: Insights From Rayleigh-Wave Anisotropic Tomography." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 11, Nov. 2021, p. e2021GC009902, <https://doi.org/10.1029/2021GC009902>.
- Qingyun, Di, et al. "Linkage of Deep Lithospheric Structures to Intraplate Earthquakes: A Perspective from Multi-Source and Multi-Scale Geophysical Data in the South China Block." *Earth-Science Reviews*, vol. 214, Mar. 2021, p. 103504, <https://doi.org/10.1016/j.earscirev.2021.103504>.
- Qiu, Hongrui, Fenglin Niu, et al. "Denoising Surface Waves Extracted From Ambient Noise Recorded by 1-D Linear Array Using Three-Station Interferometry of Direct Waves." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 8, Aug. 2021, p. e2021JB021712, <https://doi.org/10.1029/2021JB021712>.
- Qiu, Hongrui, Yehuda Ben-Zion, et al. "Seismic Imaging of the Mw 7.1 Ridgecrest Earthquake Rupture Zone From Data Recorded by Dense Linear Arrays." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 7, July 2021, p. e2021JB022043, <https://doi.org/10.1029/2021JB022043>.

- Quigley, Cade, et al. *Environmental Influences on Seismic Noise Across the U.S. Arctic*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/919468>.
- Quinonez, Sarah Michelle. *Seismic Tomographic Modeling of the Coast Mountains Batholith, British Columbia, Canada*. 2021. The University of Texas at El Paso, M.S., <https://www.proquest.com/dissertations-theses/seismic-tomographic-modeling-coast-mountains/docview/2551369386/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2551369386.
- Quinteros, Javier, Jerry A. Carter, et al. "Exploring Approaches for Large Data in Seismology: User and Data Repository Perspectives." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1531–40, <https://doi.org/10.1785/0220200390>.
- Quinteros, Javier, Angelo Strollo, et al. "The GEOFON Program in 2020." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1610–22, <https://doi.org/10.1785/0220200415>.
- Radaideh, Omar M. A., and Jon Mosar. "Cenozoic Tectonic Deformation Along the Pontarlier Strike-Slip Fault Zone (Swiss and French Jura Fold-and-Thrust Belt): Insights From Paleostress and Geomorphic Analyses." *Tectonics*, vol. 40, no. 5, May 2021, p. e2021TC006758, <https://doi.org/10.1029/2021TC006758>.
- Rahman, Tauhidur, and Ricky L. Chhange. "A New Ground Motion Model (GMM) for Northeast India (NEI) and Its Adjacent Countries for Interface Earthquakes Considering Both Strong Motion Records and Simulated Data." *Pure and Applied Geophysics*, vol. 178, no. 3, 2021, pp. 1021–45, <https://doi.org/10.1007/s00024-021-02677-3>.
- Ramirez, Cristo, et al. *Using Surface Wave Phase Velocity Models to Investigate the Seismic and Volcanic Variation Along the Alaskan Subduction Zone*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/937082>.
- Ramírez, E. E., et al. "Moho Depth of Northern Baja California, Mexico, From Teleseismic Receiver Functions." *Earth and Space Science*, vol. 8, no. 6, 2021, p. e2020EA001463, <https://doi.org/10.1029/2020EA001463>.
- Ramirez Pina, C. R. P., et al. *A Cross-Correlation Algorithm for Detecting Small Earthquakes in Frequency Domain*. 2021.
- Rao, Hao, et al. "Extracting Surface Wave Dispersion Curves from Asynchronous Seismic Stations: Method and Application." *Geophysical Journal International*, vol. 226, no. 2, 2021, pp. 1148–58, <https://doi.org/10.1093/gji/ggab153>.
- Ratre, Pranshu, and Michael Behm. "Imaging the Deep Crustal Structure of Central Oklahoma Using Stacking and Inversion of Local Earthquake Waveforms." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 5, May 2021, p. e2020JB021368, <https://doi.org/10.1029/2020JB021368>.
- Raveloson, A., et al. "Joint Inversion of Surface Wave and Gravity Data Reveals Subbasin Architecture of the Congo Basin." *Geology*, vol. 49, no. 7, Oct. 2021, pp. 810–15, <https://doi.org/10.1130/G48408.1>.
- Razak, Janatul Aziera binti Abd, et al. "Seismic Vulnerability Assessment in Ranau, Sabah, Using Two Different Models." *ISPRS International Journal of Geo-Information*, vol. 10, no. 5, 2021, p. 271, <https://doi.org/10.3390/ijgi10050271>.
- Reath, K., et al. "Quantifying Eruptive and Background Seismicity, Deformation, Degassing, and Thermal Emissions at Volcanoes in the United States During 1978–2020." *Journal of*

*Geophysical Research: Solid Earth*, vol. 126, no. 6, June 2021, p. e2021JB021684, <https://doi.org/10.1029/2021JB021684>.

Reddy, Telluri Ramakrushna, et al. "Possible Linkages between Microseisms in the Andaman-Nicobar Region and Swells in the South Indian Ocean." *Seismological Research Letters*, vol. 92, no. 2A, Apr. 2021, pp. 1052–68, <https://doi.org/10.1785/0220200193>.

Reid, Mark E., et al. "When Hazard Avoidance Is Not an Option: Lessons Learned from Monitoring the Postdisaster Oso Landslide, USA." *Landslides*, vol. 18, no. 9, Sept. 2021, pp. 2993–3009, <https://doi.org/10.1007/s10346-021-01686-6>.

Reinwald, Michael, et al. "Seismic Localization of Elephant Rumbles as a Monitoring Approach." *Journal of the Royal Society Interface*, vol. 18, no. 180, 2021, pp. 20210264–20210264, <https://doi.org/10.1098/rsif.2021.0264>.

Reitman, Nadine G., and Peter Molnar. "Strain and Velocity Across the Great Basin Derived From 15-ka Fault Slip Rates: Implications for Continuous Deformation and Seismic Hazard in the Walker Lane, California-Nevada, USA." *Tectonics*, vol. 40, no. 3, 2021, p. n/a, <https://doi.org/10.1029/2020TC006389>.

Retailleau, Lise, and Gregory C. Beroza. "Towards Structural Imaging Using Seismic Ambient Field Correlation Artefacts." *Geophysical Journal International*, vol. 225, no. 2, 2021, pp. 1453–65, <https://doi.org/10.1093/gji/ggab038>.

Retailleau, Lise, and Lucia Gualtieri. "Multi-Phase Seismic Source Imprint of Tropical Cyclones." *Nature Communications*, vol. 12, no. 1, Apr. 2021, p. 2064, <https://doi.org/10.1038/s41467-021-22231-y>.

Richards, Cole, et al. "Anisotropy Variations in the Alaska Subduction Zone Based on Shear-Wave Splitting From Intralab Earthquakes." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 5, 2021, p. n/a, <https://doi.org/10.1029/2020GC009558>.

Richards, Darryl S. *The Experience and Enactment of Teaching a Culturally Relevant Ecology Curriculum in Urban Science Classrooms*. 2021. Morgan State University, Ed.D., <https://www.proquest.com/dissertations-theses/experience-enactment-teaching-culturally-relevant/docview/2541383120/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2541383120.

Ringler, A., et al. *A Review of Timing Accuracy Across the Global Seismographic Network (SSA)*. 2021, <https://doi.org/DOI> is <https://doi.org/10.1785/0220210025>.

Ringler, A. T., and R. E. Anthony. "Local Variations in Broadband Sensor Installations: Orientations, Sensitivities, and Noise Levels." *Pure and Applied Geophysics*, vol. 179, no. 1, 2021, pp. 217–31, <https://doi.org/10.1007/s00024-021-02895-9>.

Ringler, Adam T., Robert E. Anthony, David C. Wilson, et al. "A Review of Timing Accuracy across the Global Seismographic Network." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2270–81, <https://doi.org/10.1785/0220200394>.

Ringler, Adam T., Robert E. Anthony, Colleen A. Dalton, et al. "Rayleigh-Wave Amplitude Uncertainty across the Global Seismographic Network and Potential Implications for Global Tomography." *Bulletin of the Seismological Society of America*, vol. 111, no. 3, Oct. 2021, pp. 1273–92, <https://doi.org/10.1785/0120200255>.

- Ringler, Adam T., David B. Mason, Gabi Laske, Tyler Storm, et al. "Why Do My Squiggles Look Funny? A Gallery of Compromised Seismic Signals." *Seismological Research Letters*, vol. 92, no. 6, Nov. 2021, pp. 3873–86, <https://doi.org/10.1785/0220210094>.
- Ringler, Adam T., David Barry Mason, Gabi Laske, Tyler L. Storm, et al. *Why Do My Squiggles Look Funny? A Gallery of Compromised Seismic Signals (AGU 2021)*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/817771>.
- Robson, Alexander, et al. "An Analysis of Core–Mantle Boundary Stoneley Mode Sensitivity and Sources of Uncertainty." *Geophysical Journal International*, vol. 228, no. 3, 2021, pp. 1962–74, <https://doi.org/10.1093/gji/ggab448>.
- Rodríguez-Cardozo, Félix, et al. "The 2014–2015 Complex Collapse of the Bárðarbunga Caldera, Iceland, Revealed by Seismic Moment Tensors." *Journal of Volcanology and Geothermal Research*, vol. 416, Aug. 2021, p. 107275, <https://doi.org/10.1016/j.jvolgeores.2021.107275>.
- Roecker, Steven W., et al. *Imaging a Potential Lithospheric Root Trapped Above the Pampean Flat Slab*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/867361>.
- Roger, J., et al. "The Mw-7.5 Tadine (Maré, Loyalty Islands) Earthquake and Related Tsunami of 5 December 2018: Seismotectonic Context and Numerical Modeling." *Natural Hazards and Earth System Sciences*, vol. 21, no. 11, 2021, pp. 3489–508, <https://doi.org/10.5194/nhess-21-3489-2021>.
- Rogers, N. C., et al. "Climatological Statistics of Extreme Geomagnetic Fluctuations With Periods From 1 s to 60 Min." *Space Weather*, vol. 19, no. 11, Nov. 2021, p. e2021SW002824, <https://doi.org/10.1029/2021SW002824>.
- Rojo Limón, G., et al. "A Consistent and High-Quality M4+ Earthquake Catalogue for Turkey 2007–2016 from Two Independent Catalogues." *Geophysical Journal International*, vol. 225, no. 1, 2021, pp. 711–28, <https://doi.org/10.1093/gji/ggaa616>.
- Roman, D. C., et al. "Earthquakes Indicated Magma Viscosity during Kīlauea's 2018 Eruption." *Nature*, vol. 592, no. 7853, Apr. 2021, pp. 237–41, <https://doi.org/10.1038/s41586-021-03400-x>.
- Romano, F., et al. "Tsunami Source of the 2021 MW 8.1 Raoul Island Earthquake From DART and Tide-Gauge Data Inversion." *Geophysical Research Letters*, vol. 48, no. 17, Nov. 2021, p. e2021GL094449, <https://doi.org/10.1029/2021GL094449>.
- Romanowicz, Barbara A. "Seismic Tomography of the Earth's Mantle." *Encyclopedia of Geology (Second Edition)*, edited by David Alderton and Scott A. Elias, Academic Press, 2021, pp. 587–609, <https://doi.org/10.1016/B978-0-08-102908-4.00169-7>.
- Ronan, Tim, et al. *Operational Change within IRIS Data Services*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/951080>.
- Rose, Kaelynn M., and Robin S. Matoza. "Remote Hydroacoustic-Infrasound Detection and Characterization of Anak Krakatau Eruptive Activity Leading to, during, and Following the December 2018 Flank Collapse and Tsunami." *Bulletin of Volcanology*, vol. 83, no. 8, July 2021, p. 50, <https://doi.org/10.1007/s00445-021-01468-x>.
- Rost, S., et al. "Structure of the Northwestern North Anatolian Fault Zone Imaged via Teleseismic Scattering Tomography." *Geophysical Journal International*, vol. 227, no. 2, 2021, pp. 922–40, <https://doi.org/10.1093/gji/ggab265>.

- Rubio, Gonzalo, et al. "3-D and 5-D Reconstruction of P Receiver Functions via Multichannel Singular Spectrum Analysis." *Geophysical Journal International*, vol. 225, no. 2, 2021, pp. 1110–28, <https://doi.org/10.1093/gji/ggaa541>.
- Rudziński, Łukasz, et al. "Integrating Data under the European Plate Observing System from the Regional and Selected Local Seismic Networks in Poland." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1717–25, <https://doi.org/10.1785/0220200354>.
- Ruhl, Christine J., et al. "Complex Fault Geometry of the 2020 Mww 6.5 Monte Cristo Range, Nevada, Earthquake Sequence." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1876–90, <https://doi.org/10.1785/0220200345>.
- Russell, J. B., and J. B. Gaherty. "Lithosphere Structure and Seismic Anisotropy Offshore Eastern North America: Implications for Continental Breakup and Ultra-Slow Spreading Dynamics." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 12, Dec. 2021, p. e2021JB022955, <https://doi.org/10.1029/2021JB022955>.
- Russell, Joshua Berryman. *Structure and Evolution of the Oceanic Lithosphere-Asthenosphere System from High-Resolution Surface-Wave Imaging*. 2021. Columbia University, Ph.D., <https://www.proquest.com/dissertations-theses/structure-evolution-oceanic-lithosphere/docview/2492599842/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2492599842.
- S. de Melo, Guilherme W., et al. "Oceanic Seismotectonics from Regional Earthquake Recordings: The 4–5°N Mid-Atlantic Ridge." *Tectonophysics*, vol. 819, 2021, p. 229063, <https://doi.org/10.1016/j.tecto.2021.229063>.
- Saber, Reza, et al. "Structural Styles of the Aras Fault Zone with Implications for a Transpressive Fault System in NW Iran." *Journal of Asian Earth Sciences*, vol. 207, Mar. 2021, p. 104655, <https://doi.org/10.1016/j.jseaes.2020.104655>.
- Sadeghi, Hossein, and Sadaomi Suzuki. "Observation of the Long-Period Monotonic Seismic Waves of the November 11, 2018, Mayotte Event by Iranian Broadband Seismic Stations." *Earth, Planets, and Space*, vol. 73, no. 1, 2021, pp. 1–12, <https://doi.org/10.1186/s40623-021-01408-1>.
- Sadler, Benjamin, and Jay Pulliam. *Modeling Lithospheric Structure in the Permian Basin by Waveform-Matching Receiver Functions with Particle Swarm Optimization*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/908674>.
- Sager, Korbinian, et al. "Modelling P Waves in Seismic Noise Correlations: Advancing Fault Monitoring Using Train Traffic Sources." *Geophysical Journal International*, vol. 228, no. 3, 2021, pp. 1556–67, <https://doi.org/10.1093/gji/ggab389>.
- Saha, Gokul Kumar, et al. "Distinct Lithospheres in the Bay of Bengal Inferred from Ambient Noise and Earthquake Tomography." *Tectonophysics*, vol. 809, 2021, p. 228855, <https://doi.org/10.1016/j.tecto.2021.228855>.
- Sahara, David P., et al. "2019 Ambon Aftershocks Catalogue Data Compiled Using Local and Regional Seismic Networks." *Data in Brief*, vol. 34, Feb. 2021, p. 106728, <https://doi.org/10.1016/j.dib.2021.106728>.
- Sahoo, Sambit, et al. "Tidal Triggering of Micro-Seismicity Associated with Caldera Dynamics in the Juan de Fuca Ridge." *Journal of Volcanology and Geothermal Research*, vol. 417, Sept. 2021, p. 107319, <https://doi.org/10.1016/j.jvolgeores.2021.107319>.

- Saikia, Utpal, Catherine A. Rychert, et al. "Seismic Attenuation at the Equatorial Mid-Atlantic Ridge Constrained by Local Rayleigh Wave Analysis From the PI-LAB Experiment." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 12, Dec. 2021, p. e2021GC010085, <https://doi.org/10.1029/2021GC010085>.
- Saikia, Utpal, Catherine Rychert, et al. "Upper Mantle Anisotropic Shear Velocity Structure at the Equatorial Mid-Atlantic Ridge Constrained by Rayleigh Wave Group Velocity Analysis From the PI-LAB Experiment." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 3, Mar. 2021, p. e2020GC009495, <https://doi.org/10.1029/2020GC009495>.
- Saki, Morvarid, et al. "Detection and Modelling of Strong Topography of Mid-Mantle Structures beneath the North Atlantic." *Geophysical Journal International*, vol. 229, no. 1, 2021, pp. 219–34, <https://doi.org/10.1093/gji/ggab465>.
- Salah, Parastoo, et al. "Comprehensive Probabilistic Tsunami Hazard Assessment in the Makran Subduction Zone." *Pure and Applied Geophysics*, vol. 178, no. 12, 2021, pp. 5085–107, <https://doi.org/10.1007/s00024-021-02725-y>.
- Salas Pazmiño, Cristhian Paul. *Seismotectonic Interpretation of an Expansive Set of Earthquake Focal Mechanisms from First Motions and Amplitude Ratios on the Yellowstone Plateau*. 2021. Michigan Technological University, M.S., <https://www.proquest.com/dissertations-theses/seismotectonic-interpretation-expansive-set/docview/2583995539/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2583995539.
- Saltanatpouri, Atefeh, et al. "Slip Distribution and Rupture History of the August 11, 2012, Double Earthquakes in Ahar – Varzaghan, Iran, Using Joint Inversion of Teleseismic Broadband and Local Strong Motion Data." *Physics of the Earth and Planetary Interiors*, vol. 313, 2021, p. 106688, <https://doi.org/10.1016/j.pepi.2021.106688>.
- Salvage, R. O., and D. W. Eaton. "Unprecedented Quiescence in Resource Development Area Allows Detection of Long-Lived Latent Seismicity." *Solid Earth*, vol. 12, no. 3, 2021, pp. 765–83, <https://doi.org/10.5194/se-12-765-2021>.
- Samios, Michael, et al. "Assessment of Information Security Vulnerabilities in Common Seismological Equipment." *Seismological Research Letters*, vol. 92, no. 2A, Nov. 2021, pp. 933–40, <https://doi.org/10.1785/0220200151>.
- Sandanbata, Osamu, et al. "Moment Tensors of Ring-Faulting at Active Volcanoes: Insights Into Vertical-CLVD Earthquakes at the Sierra Negra Caldera, Galápagos Islands." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 6, June 2021, p. e2021JB021693, <https://doi.org/10.1029/2021JB021693>.
- Sanderson, Richard W., et al. "A Pilot Experiment on Infrasonic Lahar Detection at Mount Adams, Cascades: Ambient Infrasonic and Wind-Noise Characterization at a Quiescent Stratovolcano." *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 3065–86, <https://doi.org/10.1785/0220200361>.
- . *Remote Detection and Localization of Explosive Volcanic Eruptions, Mass Wasting, and Ambient Noise Sources Using Infrasonic: Applications in Alaska and Washington, USA*. 2021. University of California, Santa Barbara, Ph.D., <https://www.proquest.com/dissertations-theses/remote-detection-localization-explosive-volcanic/docview/2630321264/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2630321264.
- Sarkar, Sukanta, et al. "Source Spectral Studies Using Lg Wave in Western Tibet." *Journal of Seismology*, vol. 25, no. 2, 2021, pp. 625–38, <https://doi.org/10.1007/s10950-020-09971-y>.

- Sarmadi, Mohammad Ali, et al. "A Comprehensive Study of the Kappa Value by Borehole and Surface Strong-Motion Acceleration Records." *Journal of Seismology*, vol. 25, no. 4, Aug. 2021, pp. 1115–25, <https://doi.org/10.1007/s10950-021-10012-5>.
- . "The Improvement of the Earthquake and Microseismic Horizontal-to-Vertical Spectral Ratio (HVSr) in Estimating Site Effects." *Acta Geophysica*, vol. 69, no. 4, Aug. 2021, pp. 1177–88, <https://doi.org/10.1007/s11600-021-00619-0>.
- Saurel, Jean-Marie, et al. "Building a Natural-Hazard-Resilient High-Quality Seismic Network: How WI Network Sustained Hurricanes Maria and Irma." *Seismological Research Letters*, vol. 92, no. 1, Apr. 2021, pp. 77–84, <https://doi.org/10.1785/0220200270>.
- Saurel, Jean-Marie, et al. "Mayotte Seismic Crisis: Building Knowledge in near Real-Time by Combining Land and Ocean-Bottom Seismometers, First Results." *Geophysical Journal International*, vol. 228, no. 2, 2021, pp. 1281–93, <https://doi.org/10.1093/gji/ggab392>.
- Savage, Brian. "Body Wave Speed Structure of Eastern North America." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 1, 2021, p. n/a, <https://doi.org/10.1029/2020GC009002>.
- Savoie, D., et al. "Finding SEIS North on Mars: Comparisons Between SEIS Sundial, Inertial and Imaging Measurements and Consequences for Seismic Analysis." *Earth and Space Science*, vol. 8, no. 3, 2021, p. e2020EA001286, <https://doi.org/10.1029/2020EA001286>.
- Saxena, Arushi, et al. "Seismicity in the Central and Southeastern United States Due to Upper Mantle Heterogeneities." *Geophysical Journal International*, vol. 225, no. 3, 2021, pp. 1624–36, <https://doi.org/10.1093/gji/ggab051>.
- Saxena, Arushi, and Charles Adam Langston. "Detecting Lithospheric Discontinuities beneath the Mississippi Embayment Using S-Wave Receiver Functions." *Geophysical Journal International*, vol. 228, no. 2, 2021, pp. 744–54, <https://doi.org/10.1093/gji/ggab367>.
- Scalise, Michelle, et al. "Effect of Random 3D Correlated Velocity Perturbations on Numerical Modeling of Ground Motion from the Source Physics Experiment." *Bulletin of the Seismological Society of America*, vol. 111, no. 1, Feb. 2021, pp. 139–56, <https://doi.org/10.1785/0120200160>.
- Scalise, Michelle Elyse. *Earthquake Wave Propagation in Nevada Sedimentary Basins*. 2021. University of Nevada, Reno, Ph.D., <https://www.proquest.com/dissertations-theses/earthquake-wave-propagation-nevada-sedimentary/docview/2563669998/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2563669998.
- Schardong, Lewis, et al. "High-Quality Revision of the Israeli Seismic Bulletin." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2668–78, <https://doi.org/10.1785/0220200422>.
- Schepp, Laura L., and Joerg Renner. "Evidence for the Heterogeneity of the Pore Structure of Rocks from Comparing the Results of Various Techniques for Measuring Hydraulic Properties." *Transport in Porous Media*, vol. 136, no. 1, 2021, pp. 217–43, <https://doi.org/10.1007/s11242-020-01508-8>.
- Schiavi, Alessandro, et al. "Dynamic Calibration System for Seismometers: Traceability from 0.03 Hz up to 30 Hz." *Measurement: Sensors*, vol. 18, Dec. 2021, p. 100255, <https://doi.org/10.1016/j.measen.2021.100255>.
- Schiffer, Christian, et al. "Vp/Vs Ratios in the Parnaíba Basin from Joint Active-Passive Seismic Analysis – Implications for Continental Amalgamation and Basin Formation." *Tectonophysics*, vol. 801, Feb. 2021, p. 228715, <https://doi.org/10.1016/j.tecto.2020.228715>.

- Schimmel, Martin, et al. "Seismic Noise Autocorrelations on Mars." *Earth and Space Science*, vol. 8, no. 6, June 2021, p. e2021EA001755, <https://doi.org/10.1029/2021EA001755>.
- Schlaphorst, D., et al. "Variation in Upper Plate Crustal and Lithospheric Mantle Structure in the Greater and Lesser Antilles From Ambient Noise Tomography." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 7, 2021, p. n/a, <https://doi.org/10.1029/2021GC009800>.
- Schleicher, Lisa S., and Thomas L. Pratt. "Characterizing Fundamental Resonance Peaks on Flat-Lying Sediments Using Multiple Spectral Ratio Methods: An Example from the Atlantic Coastal Plain, Eastern United States." *Bulletin of the Seismological Society of America*, vol. 111, no. 4, Oct. 2021, pp. 1824–48, <https://doi.org/10.1785/0120210017>.
- Schlesinger, Angela, et al. "An Earthquake Early Warning System for Southwestern British Columbia." *Frontiers in Earth Science*, vol. 9, Aug. 2021, <https://doi.org/10.3389/feart.2021.684084>.
- Schmitt, Kyle, and Margarete Ann Jadamec. *Modeling Varying Background Viscosity and Its Effects on Mantle Dynamics in Southeastern Alaska*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/994085>.
- Schmitz, Michael, et al. "Moho Depth Map of Northern Venezuela Based on Wide-Angle Seismic Studies." *Journal of South American Earth Sciences*, vol. 107, Apr. 2021, p. 103088, <https://doi.org/10.1016/j.jsames.2020.103088>.
- Schneider, Simon, and Arwen Deuss. "A New Catalogue of Toroidal-Mode Overtone Splitting Function Measurements." *Geophysical Journal International*, vol. 225, no. 1, 2021, pp. 329–41, <https://doi.org/10.1093/gji/ggaa567>.
- Schoettle-Greene, Philip. *Tectonics as Recorded by Thermochronometry, Deformed Datums, and Submarine Landscapes in Western North America*. 2021. University of Washington, Ph.D., <https://www.proquest.com/dissertations-theses/tectonics-as-recorded-thermochronometry-deformed/docview/2566072135/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2566072135.
- Schutt, Derek, et al. *Large Lithospheric Velocity Variations Across the Northern Canadian Cordillera Imaged by Ambient Noise Tomography*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/869669>.
- Schweitzer, Johannes, et al. "A 24-Yr-Long Seismic Bulletin for the European Arctic." *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 2758–67, <https://doi.org/10.1785/0220210018>.
- Selva, J., et al. "Probabilistic Tsunami Forecasting for Early Warning." *Nature Communications*, vol. 12, no. 1, Sept. 2021, p. 5677, <https://doi.org/10.1038/s41467-021-25815-w>.
- Seminsky, K. Zh, et al. "The Bystrinskoe Earthquake in the Southern Baikal Region (21 September 2020, Mw = 5.4): Main Parameters, Precursors, and Accompanying Effects." *Russian Geology and Geophysics*, vol. 62, no. 5, 2021, pp. 589–603, <https://doi.org/10.2113/RGG20204296>.
- Setiawan, Ahmad, et al. "Delineation of Sedimentary Basin Structure beneath the Banyumas Basin, Central Java, Indonesia, Using Ambient Seismic Noise Tomography." *Geoscience Letters*, vol. 8, no. 1, Oct. 2021, p. 31, <https://doi.org/10.1186/s40562-021-00202-x>.
- Sha, Ningyu. *Robust Algorithms on Low-Rank Approximation and Their Applications*. 2021. Michigan State University, Ph.D., <https://www.proquest.com/dissertations-theses/robust->



algorithms-on-low-rank-approximation-their/docview/2572603810/se-2?accountid=4485.  
ProQuest Dissertations & Theses Global, 2572603810.

Shaddox, Heather R., Susan Y. Schwartz, et al. "Afterslip and Spontaneous Aseismic Slip on the Anza Segment of the San Jacinto Fault Zone, Southern California." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 6, June 2021, p. e2020JB020460, <https://doi.org/10.1029/2020JB020460>.

Shaddox, Heather R., Emily E. Brodsky, et al. "Seismic Detection of Oceanic Internal Gravity Waves From Subaerial Seismometers." *AGU Advances*, vol. 2, no. 3, Sept. 2021, p. e2021AV000475, <https://doi.org/10.1029/2021AV000475>.

Shah, Bilal Ahmad, et al. "Assessment of the Seismicity of Peshawar Region in Line with the Historical Data and Modern Building Codes (ASCE-07 & IBC-2006)." *Journal of Earthquake Engineering*, vol. 25, no. 9, July 2021, pp. 1826–50, <https://doi.org/10.1080/13632469.2019.1605315>.

Shani-Kadmiel, Shazar, et al. "The 2010 Haiti Earthquake Revisited: An Acoustic Intensity Map from Remote Atmospheric Infrasound Observations." *Earth and Planetary Science Letters*, vol. 560, 2021, p. 116795, <https://doi.org/10.1016/j.epsl.2021.116795>.

Shea, Hannah Nicole. *Geodetic Solutions of Global Earthquakes with InSar: August 2019-August 2020*. 2021. The University of Iowa, M.S., <https://www.proquest.com/dissertations-theses/geodetic-solutions-global-earthquakes-with-insar/docview/2575848491/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2575848491.

Shearer, Peter M., and Rachel E. Abercrombie. "Calibrating Spectral Decomposition of Local Earthquakes Using Borehole Seismic Records—Results for the 1992 Big Bear Aftershocks in Southern California." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 3, Mar. 2021, p. e2020JB020561, <https://doi.org/10.1029/2020JB020561>.

Shehata, Mohammad, and Hideki Mizunaga. *Geostatistical Joint Interpretation of Gravity and Magnetotelluric Data of the US Cordillera*. 2021, <https://doi.org/10.5194/egusphere-egu21-45>.

Shen, Heather, and Yang Shen. "Array-Based Convolutional Neural Networks for Automatic Detection and 4D Localization of Earthquakes in Hawai'i." *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 2961–71, <https://doi.org/10.1785/0220200419>.

Shen, W., and S. Sui. *Compositional Weakening of the Crust and Intraplate Earthquakes: A Case Study for the Continental U.S. and Its Intermountain West*. 2021.

Shephard, Grace E., et al. "Seismological Expression of the Iron Spin Crossover in Ferropiclsase in the Earth's Lower Mantle." *Nature Communications*, vol. 12, no. 1, Oct. 2021, p. 5905, <https://doi.org/10.1038/s41467-021-26115-z>.

Shiobara, Hajime, et al. "Tilt Observations at the Seafloor by Mobile Ocean Bottom Seismometers." *Frontiers in Earth Science*, vol. 8, 2021, <https://doi.org/10.3389/feart.2020.599810>.

Shiranzai, Ghazaleh, et al. "Moho Depth Variations and Vp/Vs Ratio in the Zagros (Iran) from Teleseismic Converted Waves." *Journal of Seismology*, vol. 25, no. 2, 2021, pp. 671–82, <https://doi.org/10.1007/s10950-021-09986-z>.

- Shirmohammadi, F., et al. "Application of Seismic Interferometry by Multidimensional Deconvolution to Earthquake Data Recorded in Malargüe, Argentina." *Remote Sensing*, vol. 13, no. 23, 2021, p. 4818, <https://doi.org/10.3390/rs13234818>.
- Shiro, Brian. *Geological and Geophysical Investigations on Kīlauea and Mauna Loa Volcanoes, Hawai'i*. 2021. University of Hawai'i at Manoa, Ph.D., <https://www.proquest.com/dissertations-theses/geological-geophysical-investigations-on-kīlauea/docview/2566019975/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2566019975.
- Shiro, Brian R., et al. "Monitoring Network Changes during the 2018 Kīlauea Volcano Eruption." *Seismological Research Letters*, vol. 92, no. 1, Apr. 2021, pp. 102–18, <https://doi.org/10.1785/0220200284>.
- Shrivastava, Ashutosh. *Spatial Variations of Teleseismic P-Wave Attenuation and Scattering Beneath the Southeastern United States and the Malawi and Luangwa Rift Zones in East Africa*. 2021. Missouri University of Science and Technology, Ph.D., <https://www.proquest.com/dissertations-theses/spatial-variations-teleseismic-p-wave-attenuation/docview/2580682798/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2580682798.
- . "Teleseismic P-Wave Attenuation Beneath the Southeastern United States." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 6, 2021, p. n/a, <https://doi.org/10.1029/2021GC009715>.
- Shrivastava, Mahesh N., et al. "Tsunami Detection by GPS-Derived Ionospheric Total Electron Content." *Scientific Reports*, vol. 11, no. 1, June 2021, p. 12978, <https://doi.org/10.1038/s41598-021-92479-3>.
- Silpa, K., and Anil Earnest. "Revisiting the Seismogenic Characteristics of Stable Continental Interiors: The Case of Three Indian Events." *Quaternary International*, vol. 585, May 2021, pp. 152–62, <https://doi.org/10.1016/j.quaint.2020.12.035>.
- Simmons, N. A., et al. "SPiRaL: A Multiresolution Global Tomography Model of Seismic Wave Speeds and Radial Anisotropy Variations in the Crust and Mantle." *Geophysical Journal International*, vol. 227, no. 2, 2021, pp. 1366–91, <https://doi.org/10.1093/gji/ggab277>.
- Simon, Jacob B., et al. "Hydrogeologic Property Estimation in Plate Boundary Observatory Boreholes Using Tidal Response Analysis." *Geofluids*, vol. 2021, 2021, <https://doi.org/10.1155/2021/6697021>.
- Simon, Joel D., Frederik J. Simons, et al. "A MERMAID Miscellany: Seismoacoustic Signals beyond the P Wave." *Seismological Research Letters*, vol. 92, no. 6, Nov. 2021, pp. 3657–67, <https://doi.org/10.1785/0220210052>.
- . "Recording Earthquakes for Tomographic Imaging of the Mantle beneath the South Pacific by Autonomous MERMAID Floats." *Geophysical Journal International*, vol. 228, no. 1, 2021, pp. 147–70, <https://doi.org/10.1093/gji/ggab271>.
- Simon, Joel D., Frederik Simons, et al. *Seismoacoustics in the South Pacific: Exploring the MERMAID Data Set and Its Availability*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/957228>.
- Simon, Joel D., Jessica C. E. Irving, et al. *The 2021 M8.2 Chignik Earthquake as Seen by MERMAID Seismometers in the South Pacific Ocean*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/1009882>.

- Simons, F. J., et al. *Earthscope-Oceans: Closing the Oceanic Coverage Gap for Seismology and Environmental Sensing*. 2021.
- Simpson, Kurt. *Implications of a Newly Discovered Active Fault in the Basin of Mexico*. 2021. Liverpool John Moores University (United Kingdom), Master's, <https://www.proquest.com/dissertations-theses/implications-newly-discovered-active-fault-basin/docview/2617256982/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2617256982.
- Singh, Ankush. *Integrated Analysis of Stress Stratigraphy and Hydraulic Fracture Propagation: Connecting Numerical Models, Laboratory Experiments and Field Studies*. 2021. Stanford University, Ph.D., <https://www.proquest.com/dissertations-theses/integrated-analysis-stress-stratigraphy-hydraulic/docview/2570123450/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2570123450.
- Singh, Arun, et al. "Seismic Imaging of the Crust Beneath Arunachal Himalaya." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 3, Mar. 2021, p. e2020JB020616, <https://doi.org/10.1029/2020JB020616>.
- Siniscalchi, Agata, et al. "Magnetotellurics: An Overview." *Encyclopedia of Geology (Second Edition)*, edited by David Alderton and Scott A. Elias, Academic Press, 2021, pp. 698–705, <https://doi.org/10.1016/B978-0-12-409548-9.09235-6>.
- Sippl, C., et al. "Microseismicity Appears to Outline Highly Coupled Regions on the Central Chile Megathrust." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 11, Nov. 2021, p. e2021JB022252, <https://doi.org/10.1029/2021JB022252>.
- Sivakumar, Ramamoorthy, et al. "Assessment of Active Seismotectonic for Shivah Lalayi Basin, Iraq, Using Remote Sensing and GIS Techniques." *Arabian Journal of Geosciences*, vol. 14, no. 18, Aug. 2021, p. 1837, <https://doi.org/10.1007/s12517-021-08128-6>.
- Skoto, John Sena. *Deep Seismic Structure of Aleutian Subduction Zone Using Teleseismic PdP and SdS Precursor Functions*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/941653>.
- Skoumal, Robert J., Elizabeth S. Cochran, et al. "Characterizing Stress Orientations in Southern Kansas." *Bulletin of the Seismological Society of America*, vol. 111, no. 3, Oct. 2021, pp. 1445–54, <https://doi.org/10.1785/0120200340>.
- Skoumal, Robert J., J. Ole Kaven, et al. "The Induced Mw 5.0 March 2020 West Texas Seismic Sequence." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 1, Apr. 2021, p. e2020JB020693, <https://doi.org/10.1029/2020JB020693>.
- Skoumal, Robert J., and Elizabeth S. Cochran. "Wastewater Disposal Has Not Significantly Altered the Regional Stress State in Southern Kansas." *Seismological Research Letters*, vol. 92, no. 6, Nov. 2021, pp. 3516–25, <https://doi.org/10.1785/0220210079>.
- Skoumal, Robert J., and Daniel T. Trugman. "The Proliferation of Induced Seismicity in the Permian Basin, Texas." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 6, June 2021, p. e2021JB021921, <https://doi.org/10.1029/2021JB021921>.
- Smith, Ellen M., et al. "Microseismic Evidence for Bookshelf Faulting in Western Montana." *Seismological Research Letters*, vol. 92, no. 2A, Nov. 2021, pp. 802–09, <https://doi.org/10.1785/0220200321>.

- Snyder, David B., et al. "Multidisciplinary Modeling of Mantle Lithosphere Structure Within the Superior Craton, North America." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 4, 2021, p. n/a, <https://doi.org/10.1029/2020GC009566>.
- Sobolev, G. A., et al. "Effect of Meteorological Conditions on Tectonic Deformations in Hourly Period Range." *Izvestiya, Physics of the Solid Earth*, vol. 57, no. 6, Nov. 2021, pp. 834–48, <https://doi.org/10.1134/S1069351321060094>.
- . "The Effect of Strong Magnetic Storms on the Occurrence of Large Earthquakes." *Izvestiya, Physics of the Solid Earth*, vol. 57, no. 1, Jan. 2021, pp. 20–36, <https://doi.org/10.1134/S1069351321010080>.
- . "The Influence of a Magnetic Storm on Tectonic Deformations and the Coast Effect." *Journal of Volcanology and Seismology*, vol. 15, no. 2, Mar. 2021, pp. 80–96, <https://doi.org/10.1134/S0742046321020068>.
- Sollberger, David, et al. "A Reconstruction Algorithm for Temporally Aliased Seismic Signals Recorded by the InSight Mars Lander." *Earth and Space Science*, vol. 8, no. 8, 2021, p. e2020EA001234, <https://doi.org/10.1029/2020EA001234>.
- Somala, Surendra Nadh. "Lockdowns and Their Influence on Earth's Hum." *Scientific Reports*, vol. 11, no. 1, Sept. 2021, p. 17838, <https://doi.org/10.1038/s41598-021-97459-1>.
- Song, Weibin, et al. "Convolutional Neural Network, Res-Unet++, -Based Dispersion Curve Picking From Noise Cross-Correlations." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 11, Nov. 2021, p. e2021JB022027, <https://doi.org/10.1029/2021JB022027>.
- Song, Wenkai, et al. "Seismic Anisotropy and Mantle Deformation Beneath the Central Sunda Plate." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 3, Mar. 2021, p. e2020JB021259, <https://doi.org/10.1029/2020JB021259>.
- Song, Yishan, et al. "Seismological Observations on the 2019 March 21 Accidental Explosion at Xiangshui Chemical Plant in Jiangsu, China." *Geophysical Journal International*, vol. 228, no. 1, 2021, pp. 538–50, <https://doi.org/10.1093/gji/ggab356>.
- Soto Castaneda, R. A., et al. "Teleseismic Attenuation, Temperature, and Melt of the Upper Mantle in the Alaska Subduction Zone." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 7, July 2021, p. e2021JB021653, <https://doi.org/10.1029/2021JB021653>.
- Soto, Hugo, and Bernd Schurr. "DeepPhasePick: A Method for Detecting and Picking Seismic Phases from Local Earthquakes Based on Highly Optimized Convolutional and Recurrent Deep Neural Networks." *Geophysical Journal International*, vol. 227, no. 2, 2021, pp. 1268–94, <https://doi.org/10.1093/gji/ggab266>.
- Soubestre, Jean, et al. "Sources of Volcanic Tremor Associated With the Summit Caldera Collapse During the 2018 East Rift Eruption of Kīlauea Volcano, Hawai'i." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 6, June 2021, p. e2020JB021572, <https://doi.org/10.1029/2020JB021572>.
- Spallarossa, D., et al. "An Automatically Generated High-Resolution Earthquake Catalogue for the 2016–2017 Central Italy Seismic Sequence, Including P and S Phase Arrival Times." *Geophysical Journal International*, vol. 225, no. 1, 2021, pp. 555–71, <https://doi.org/10.1093/gji/ggaa604>.
- Spallarossa, Daniele, et al. "The RAMONES Service for Rapid Assessment of Seismic Moment and Radiated Energy in Central Italy: Concepts, Capabilities, and Future Perspectives."

*Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1759–72, <https://doi.org/10.1785/0220200348>.

Spang, A., et al. “A Multiphysics Approach to Constrain the Dynamics of the Altiplano-Puna Magmatic System.” *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 7, 2021, p. e2021JB021725, <https://doi.org/10.1029/2021JB021725>.

Spiga, A., et al. “A Study of Daytime Convective Vortices and Turbulence in the Martian Planetary Boundary Layer Based on Half-a-Year of InSight Atmospheric Measurements and Large-Eddy Simulations.” *Journal of Geophysical Research: Planets*, vol. 126, no. 1, Apr. 2021, p. e2020JE006511, <https://doi.org/10.1029/2020JE006511>.

Srinu, Uppala, et al. “X-Discontinuity Beneath the Indian Shield—Evidence for Remnant Tethyan Oceanic Lithosphere in the Mantle.” *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 8, Aug. 2021, p. e2021JB021890, <https://doi.org/10.1029/2021JB021890>.

Stabile, T. A., et al. “Analysis of the 2016–2018 Fluid-Injection Induced Seismicity in the High Agri Valley (Southern Italy) from Improved Detections Using Template Matching.” *Scientific Reports*, vol. 11, no. 1, Oct. 2021, p. 20630, <https://doi.org/10.1038/s41598-021-00047-6>.

Stähler Simon, C., et al. “Seismic Detection of the Martian Core.” *Science*, vol. 373, no. 6553, July 2021, pp. 443–48, <https://doi.org/10.1126/science.abi7730>.

Stammler, Klaus, et al. “German Seismic and Infrasound Networks Contributing to the European Integrated Data Archive (EIDA).” *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1854–75, <https://doi.org/10.1785/0220200401>.

Stanciu, A. Christian, and Eugene D. Humphreys. “Seismic Architecture of the Upper Mantle Underlying California and Nevada.” *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 12, Dec. 2021, p. e2021JB021880, <https://doi.org/10.1029/2021JB021880>.

Steinberg, Andreas, et al. “Estimation of Seismic Moment Tensors Using Variational Inference Machine Learning.” *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 10, Oct. 2021, p. e2021JB022685, <https://doi.org/10.1029/2021JB022685>.

Stephenson, Joanne. *Cylindrical Anisotropy of Earth's Inner Core Re-Examined Through Robust Parameter Search*. 2020. The Australian National University (Australia), Ph.D., <https://www.proquest.com/dissertations-theses/cylindrical-anisotropy-earths-inner-core-re/docview/2665126683/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2665126683.

Stephenson, William J., et al. “Shear-Wave Velocity Site Characterization in Oklahoma from Joint Inversion of Multimethod Surface Seismic Measurements: Implications for Central U.S. Ground-Motion Prediction.” *Bulletin of the Seismological Society of America*, vol. 111, no. 4, Oct. 2021, pp. 1693–712, <https://doi.org/10.1785/0120200348>.

Stevens, Jeffry L., et al. “Calculation of Hydroacoustic Propagation and Conversion to Seismic Phases at T-Stations.” *Pure and Applied Geophysics*, vol. 178, no. 7, July 2021, pp. 2579–609, <https://doi.org/10.1007/s00024-020-02556-3>.

Stevens, V. L., et al. “The Entire Crust Can Be Seismogenic: Evidence from Southern Malawi.” *Tectonics*, vol. 40, no. 6, June 2021, p. e2020TC006654, <https://doi.org/10.1029/2020TC006654>.

- Stone, Ian, et al. "Structure and QP–QS Relations in the Seattle and Tualatin Basins from Converted Seismic Phases." *Bulletin of the Seismological Society of America*, vol. 111, no. 3, Oct. 2021, pp. 1221–33, <https://doi.org/10.1785/0120200390>.
- Stott, Alexander E., et al. "The Site Tilt and Lander Transfer Function from the Short-Period Seismometer of InSight on Mars." *Bulletin of the Seismological Society of America*, vol. 111, no. 6, Oct. 2021, pp. 2889–908, <https://doi.org/10.1785/0120210058>.
- Strollo, Angelo, et al. "EIDA: The European Integrated Data Archive and Service Infrastructure within ORFEUS." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1788–95, <https://doi.org/10.1785/0220200413>.
- Stubailo, Igor, et al. "Latency of Waveform Data Delivery from the Southern California Seismic Network during the 2019 Ridgecrest Earthquake Sequence and Its Effect on ShakeAlert." *Seismological Research Letters*, vol. 92, no. 1, Apr. 2021, pp. 170–86, <https://doi.org/10.1785/0220200211>.
- Sturgeon, William, et al. *Crustal Structure of the Western U.S. from Rayleigh and Love Wave Amplification*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/952452>.
- Stutzmann, E., et al. "The Polarization of Ambient Noise on Mars." *Journal of Geophysical Research: Planets*, vol. 126, no. 1, Apr. 2021, p. e2020JE006545, <https://doi.org/10.1029/2020JE006545>.
- Sugondo, Rhesa Aditya, and Carmadi Machbub. "P-Wave Detection Using Deep Learning in Time and Frequency Domain for Imbalanced Dataset." *Heliyon*, vol. 7, no. 12, Dec. 2021, p. e08605, <https://doi.org/10.1016/j.heliyon.2021.e08605>.
- Sui, Siyuan, et al. *Towards a Self-Consistent Crustal Thermal Model of the Continental U.S.: A Monte Carlo Approach*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/984648>.
- Sukianto, T., et al. *Expanding Accessibility and Scalability of Ambient Noise Seismic Data Processing Tools Through an Open-Source Cloud-Based Software Application (SSA 2021)*. 2021.
- Sumy, D. F., et al. *Empowered by ShakeAlert: The Development and Assessment of Educational Resources for Earthquake Early Warning in the United States*. 2021.
- Sumy, Danielle F., et al. *Global Earthquake Monitoring and Tsunami Early Warning: Ocean Observing Capabilities, Sustainable Development Requirements, and Case Examples from Japan, Canada, and the Caribbean*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/964338>.
- Sun, Pu, et al. "Eastern China Continental Lithosphere Thinning Is a Consequence of Paleo-Pacific Plate Subduction: A Review and New Perspectives." *Earth-Science Reviews*, vol. 218, July 2021, p. 103680, <https://doi.org/10.1016/j.earscirev.2021.103680>.
- Sun, Shuyang, and Ying Zhou. *Dispersive Melt Spots in the Global Oceanic Asthenosphere*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/820693>.
- Sun, Tianhaozhe, et al. "Seismic Formation Fluid Pressure Observations Reveal High Anisotropy of Oceanic Crust." *Geophysical Research Letters*, vol. 48, no. 20, Nov. 2021, p. e2021GL095347, <https://doi.org/10.1029/2021GL095347>.

- Sun, Wenhan, et al. *Multichannel Sparse Deconvolution of Teleseismic Receiver Functions with Lateral Continuity Regularization*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/911154>.
- Suzuki, Yota, et al. "Thermal Monitoring of the Lithosphere by the Interaction of Deep Low-Frequency and Ordinary High-Frequency Earthquakes in Northeastern Japan." *Energies*, vol. 14, no. 6, 2021, p. 1546, <https://doi.org/10.3390/en14061546>.
- Suzuki, Yuki, et al. "Imaging Paleoslabs and Inferring the Clapeyron Slope in D" beneath the Northern Pacific Based on High-Resolution Inversion of Seismic Waveforms for 3-D Transversely Isotropic Structure." *Physics of the Earth and Planetary Interiors*, 2021, p. 106751, <https://doi.org/10.1016/j.pepi.2021.106751>.
- Sweet, J., et al. *New Community Resource for Rapidly Responding to Geohazards*. 2021.
- Sweet, Justin R., et al. *NSF SAGE Facility Begins Procurement of Rapid Response Instrumentation*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/808503>.
- Swedan, Bill. *A Tomographic Analysis of the Wabash Valley Seismic Zone*. 2021. Southern Illinois University at Carbondale, M.S., <https://www.proquest.com/dissertations-theses/tomographic-analysis-wabash-valley-seismic-zone/docview/2583477363/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2583477363.
- Szanyi, Gyöngyvér, et al. "The Transition Zone between the Eastern Alps and the Pannonian Basin Imaged by Ambient Noise Tomography." *Tectonophysics*, vol. 805, 2021, p. 228770, <https://doi.org/10.1016/j.tecto.2021.228770>.
- Tadapansawut, Tira, et al. "Rupture Process of the 2020 Caribbean Earthquake Along the Oriente Transform Fault, Involving Supershear Rupture and Geometric Complexity of Fault." *Geophysical Research Letters*, vol. 48, no. 1, Apr. 2021, p. e2020GL090899, <https://doi.org/10.1029/2020GL090899>.
- Tamaribuchi, Koji, et al. "Noise Classification for the Unified Earthquake Catalog Using Ensemble Learning: The Enhanced Image of Seismic Activity along the Japan Trench by the S-Net Seafloor Network." *Earth, Planets and Space*, vol. 73, no. 1, Apr. 2021, p. 91, <https://doi.org/10.1186/s40623-021-01411-6>.
- Tan, Jiayan, et al. "Shallow Shear-Wave Velocity Structure in Oklahoma Based on the Joint Inversion of Ambient Noise Dispersion and Teleseismic P-Wave Receiver Functions." *Bulletin of the Seismological Society of America*, vol. 111, no. 2, Feb. 2021, pp. 654–70, <https://doi.org/10.1785/0120200246>.
- Tan, Yen Joe, et al. "Machine-Learning-Based High-Resolution Earthquake Catalog Reveals How Complex Fault Structures Were Activated during the 2016–2017 Central Italy Sequence." *The Seismic Record*, vol. 1, no. 1, 2021, pp. 11–19, <https://doi.org/10.1785/0320210001>.
- Tang, Vivian, et al. "Detections of Directional Dynamic Triggering in Intraplate Regions of the United States." *Bulletin of the Seismological Society of America*, vol. 111, no. 3, Oct. 2021, pp. 1455–72, <https://doi.org/10.1785/0120200352>.
- Tanimoto, Toshiro, and Jiong Wang. *Extreme Seasonal Changes in Shallow Shear-Modulus of the Earth*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/810915>.

- . "Incorporating Wind Information in the Inversion of Co-Located Pressure and Seismic Data for Shallow Elastic Structure." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 5, May 2021, p. e2020JB021162, <https://doi.org/10.1029/2020JB021162>.
- Tao, Zhongmin, et al. "Hotspot Signatures at the North American Passive Margin." *Geology*, vol. 49, no. 5, Oct. 2021, pp. 525–30, <https://doi.org/10.1130/G47994.1>.
- Tape, Carl, et al. "The 1900 Mw 7.6–8.0 Earthquake Offshore of Kodiak Island, Alaska." *Bulletin of the Seismological Society of America*, vol. 111, no. 2, Oct. 2021, pp. 1080–109, <https://doi.org/10.1785/0120200273>.
- Tatum, Taylor, et al. *Sound Dependence on Discharge and Configuration at an Adjustable Hydraulic Jump*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/920176>.
- Tavera, Hernando, et al. "Loreto Intermediate Depth Earthquake of 26 May 2019 (Northeast Peru): Source Parameters by Inversion of Local to Regional Waveforms and Strong-Motion Observations." *Seismological Research Letters*, vol. 92, no. 6, Nov. 2021, pp. 3349–59, <https://doi.org/10.1785/0220200459>.
- Taymaz, Tuncay, et al. "Source Mechanism and Rupture Process of the 24 January 2020 Mw 6.7 Doğanyol–Sivrice Earthquake Obtained from Seismological Waveform Analysis and Space Geodetic Observations on the East Anatolian Fault Zone (Turkey)." *Tectonophysics*, vol. 804, 2021, p. 228745, <https://doi.org/10.1016/j.tecto.2021.228745>.
- Teng, Ganyu. *Short-Term Hazard Analysis in the Presence of Induced Seismicity*. 2021. Stanford University, Ph.D., <https://www.proquest.com/dissertations-theses/short-term-hazard-analysis-presence-induced/docview/2570123133/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2570123133.
- Tepp, Gabrielle, and Robert P. Dziak. "The Seismo-Acoustics of Submarine Volcanic Eruptions." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 4, Apr. 2021, p. e2020JB020912, <https://doi.org/10.1029/2020JB020912>.
- Terry, Rachel, et al. *UNAVCO's Geophysical Event Response as a Containerized Jupyter Notebook*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/947829>.
- Thangraj, Joseph. *Extraction of Body Wave Arrivals from Seismic Interferometry Using Time Series Features and Machine Learning Methods and Their Applications to Seismic Tomography*. 2021. Baylor University, Ph.D., <https://www.proquest.com/dissertations-theses/extraction-body-wave-arrivals-seismic/docview/2623379176/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2623379176.
- Thangraj, Joseph Soloman, and Jay Pulliam. "Towards Real-Time Assessment of Convergence Criteria in Seismic Interferometry: Selective Stacking of Cross-Correlations at the San Emidio Geothermal Field." *Journal of Applied Geophysics*, vol. 193, Oct. 2021, p. 104426, <https://doi.org/10.1016/j.jappgeo.2021.104426>.
- Thomas, Amanda M., et al. "Identification of Low-Frequency Earthquakes on the San Andreas Fault With Deep Learning." *Geophysical Research Letters*, vol. 48, no. 13, Nov. 2021, p. e2021GL093157, <https://doi.org/10.1029/2021GL093157>.
- Thomas, Ann Mariam, et al. *Seismic Event Detection in Suburban Chicago Using a Single Broadband Seismic Station*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/920296>.



- Thorne, Michael S., et al. "The Most Parsimonious Ultralow-Velocity Zone Distribution From Highly Anomalous SPdKS Waveforms." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 1, 2021, p. n/a, <https://doi.org/10.1029/2020GC009467>.
- Thornley, John D., et al. "Evaluation of Horizontal to Vertical Spectral Ratio and Standard Spectral Ratio Methods for Mapping Shear Wave Velocity across Anchorage, Alaska." *Soil Dynamics and Earthquake Engineering*, vol. 150, Nov. 2021, p. 106918, <https://doi.org/10.1016/j.soildyn.2021.106918>.
- . "Nonlinear Site Effects from the 30 November 2018 Anchorage, Alaska, Earthquake." *Bulletin of the Seismological Society of America*, vol. 111, no. 4, Oct. 2021, pp. 2112–20, <https://doi.org/10.1785/0120200347>.
- Thybo, Hans, et al. "ScanArray—A Broadband Seismological Experiment in the Baltic Shield." *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 2811–23, <https://doi.org/10.1785/0220210015>.
- Tian, Dongdong, and Songqiao Shawn Wei. *Source Spectra and Stress Drops of Small-to-Moderate Earthquakes Beneath the Alaska Peninsula*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/966405>.
- Tibi, Rigobert, et al. "Deep Learning Denoising Applied to Regional Distance Seismic Data in Utah." *Bulletin of the Seismological Society of America*, vol. 111, no. 2, Oct. 2021, pp. 775–90, <https://doi.org/10.1785/0120200292>.
- . "Discrimination of Seismic Events (2006–2020) in North Korea Using P/Lg Amplitude Ratios from Regional Stations and a Bivariate Discriminant Function." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2399–409, <https://doi.org/10.1785/0220200432>.
- Tiwari, Ashwani Kant, et al. "Sn Attenuation Tomography of Southeastern Tibet: New Constraints on Lithospheric Mantle Deformation." *Geophysical Journal International*, vol. 228, no. 2, 2021, pp. 1038–53, <https://doi.org/10.1093/gji/ggab380>.
- Toney, Liam, and Kate E. Allstadt. "Lsforce: A Python-Based Single-Force Seismic Inversion Framework for Massive Landslides." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2610–26, <https://doi.org/10.1785/0220210004>.
- Touma, Rita, et al. "A Distortion Matrix Framework for High-Resolution Passive Seismic 3-D Imaging: Application to the San Jacinto Fault Zone, California." *Geophysical Journal International*, vol. 226, no. 2, 2021, pp. 780–94, <https://doi.org/10.1093/gji/ggab133>.
- Toyokuni, Genti, et al. "Estimation of Seismic Attenuation of the Greenland Ice Sheet Using 3-D Waveform Modeling." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 4, Apr. 2021, p. e2021JB021694, <https://doi.org/10.1029/2021JB021694>.
- Toyokuni, Genti, and Dapeng Zhao. "P-Wave Tomography for 3-D Radial and Azimuthal Anisotropy Beneath Greenland and Surrounding Regions." *Earth and Space Science*, vol. 8, no. 12, Dec. 2021, p. e2021EA001800, <https://doi.org/10.1029/2021EA001800>.
- Trabant, C., et al. *Developing a Next Generation Platform for Geophysical Data in the Cloud*. 2021.
- Trabant, Chad, et al. *Developing Next Generation Geophysical Data Services to Support the SAGE and GAGE Communities*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/921921>.

- Trugman, Daniel T., et al. "Earthquake Source Complexity Controls the Frequency Dependence of Near-Source Radiation Patterns." *Geophysical Research Letters*, vol. 48, no. 17, Nov. 2021, p. e2021GL095022, <https://doi.org/10.1029/2021GL095022>.
- Trugman, Daniel T., and Alexandros Savvaidis. "Source Spectral Properties of Earthquakes in the Delaware Basin of West Texas." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2477–89, <https://doi.org/10.1785/0220200461>.
- Tsang-Hin-Sun, E., et al. "Crustal Seismic Structure and Anisotropy of Madagascar and Southeastern Africa Using Receiver Function Harmonics: Interplay of Inherited Local Heterogeneities and Current Regional Stress." *Geophysical Journal International*, vol. 226, no. 1, 2021, pp. 660–75, <https://doi.org/10.1093/gji/ggab118>.
- Tsarsitalidou, Christina, et al. *Seismic Imaging with Focusing Surface Waves Obtained From USArray Noise Correlation Functions*. 2021, <https://doi.org/10.5194/egusphere-egu21-9045>.
- Tsekhmistrenko, Maria, et al. "A Tree of Indo-African Mantle Plumes Imaged by Seismic Tomography." *Nature Geoscience*, vol. 14, no. 8, Aug. 2021, pp. 612–19, <https://doi.org/10.1038/s41561-021-00762-9>.
- Uchida, Naoki, and Roland Burgmann. *Distribution of Creeping Faults Based on a Global Search of Repeating Earthquakes*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/846162>.
- Uma, S. Bhatt, et al. "Emerging Anthropogenic Influences on the Southcentral Alaska Temperature and Precipitation Extremes and Related Fires in 2019." *Land*, vol. 10, no. 82, 2021, p. 82, <https://doi.org/10.3390/land10010082>.
- Utkucu, Murat, et al. "The June 12, 2017 M6.3 Karaburun-Lesvos Earthquake of the Northern Aegean Sea: Aftershock Forecasting and Stress Transfer." *Tectonophysics*, vol. 814, 2021, p. 228945, <https://doi.org/10.1016/j.tecto.2021.228945>.
- Valentine, David, et al. "EarthCube Data Discovery Studio: A Gateway into Geoscience Data Discovery and Exploration with Jupyter Notebooks." *Concurrency and Computation: Practice and Experience*, vol. 33, no. 19, Oct. 2021, p. e6086, <https://doi.org/10.1002/cpe.6086>.
- Valentová, L'ubica, et al. "Near-Source Ground Motions and Their Variability Derived from Dynamic Rupture Simulations Constrained by NGA-West2 GMPEs." *Bulletin of the Seismological Society of America*, vol. 111, no. 5, Nov. 2021, pp. 2559–73, <https://doi.org/10.1785/0120210073>.
- Vallage, A., et al. "Multitechnology Characterization of an Unusual Surface Rupturing Intraplate Earthquake: The ML 5.4 2019 Le Teil Event in France." *Geophysical Journal International*, vol. 226, no. 2, 2021, pp. 803–13, <https://doi.org/10.1093/gji/ggab136>.
- Vallianatos, Filippos, et al. "Estimation of Earthquake Early Warning Parameters for Eastern Gulf of Corinth and Western Attica Region (Greece). First Results." *Sensors*, vol. 21, no. 15, 2021, p. 5084, <https://doi.org/10.3390/s21155084>.
- van der Lee, Suzan, et al. *Listening to the Solid Earth: Authentic Seismic Data Sonification in a Mobile App: Earthtunes*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/985521>.
- van Driel, Martin, et al. "High-Frequency Seismic Events on Mars Observed by InSight." *Journal of Geophysical Research: Planets*, vol. 126, no. 2, Feb. 2021, p. e2020JE006670, <https://doi.org/10.1029/2020JE006670>.

- VanderBeek, Brandon P., and Manuele Faccenda. "Imaging Upper Mantle Anisotropy with Teleseismic P-Wave Delays: Insights from Tomographic Reconstructions of Subduction Simulations." *Geophysical Journal International*, vol. 225, no. 3, 2021, pp. 2097–119, <https://doi.org/10.1093/gji/ggab081>.
- van Driel, M., et al. "On the Modelling of Self-Gravitation for Full 3-D Global Seismic Wave Propagation." *Geophysical Journal International*, vol. 227, no. 1, 2021, pp. 632–43, <https://doi.org/10.1093/gji/ggab237>.
- Vasyura-Bathke, H., et al. "Accounting for Theory Errors with Empirical Bayesian Noise Models in Nonlinear Centroid Moment Tensor Estimation." *Geophysical Journal International*, vol. 225, no. 2, 2021, pp. 1412–31, <https://doi.org/10.1093/gji/ggab034>.
- Vavlas, Nikolaos, et al. "Source Process-Related Delays in Earthquake Early Warning for Example Cases in Greece." *Bulletin of the Seismological Society of America*, vol. 111, no. 6, Nov. 2021, pp. 3076–89, <https://doi.org/10.1785/0120200385>.
- Veikkolainen, Toni, et al. "The Finnish National Seismic Network: Toward Fully Automated Analysis of Low-Magnitude Seismic Events." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1581–91, <https://doi.org/10.1785/0220200352>.
- Velasco, Aaron A., et al. "News and Notes: SSA Task Force on Diversity, Equity, and Inclusion: Toward a Changing, Inclusive Future in Earthquake Science." *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 3267–75, <https://doi.org/10.1785/0220210170>.
- Velínský, Jakub, and Ondřej Knopp. "Lateral Variations of Electrical Conductivity in the Lower Mantle Constrained by Swarm and CryoSat-2 Missions." *Earth, Planets and Space*, vol. 73, no. 1, Jan. 2021, p. 4, <https://doi.org/10.1186/s40623-020-01334-8>.
- Vern Newman, Andrew, and Louisa Barama. *The Slow Then Big South Sandwich Magnitude 8.1 Earthquake from Radiated Energy*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/1021009>.
- Vinnik, L. P., et al. "The Caucasus and the Caspian Basin: Topography of Deep Seismic Boundaries." *Izvestiya, Physics of the Solid Earth*, vol. 57, no. 4, July 2021, pp. 479–91, <https://doi.org/10.1134/S1069351321040108>.
- Volk, Omry, et al. "Oceanic Crustal Flow in Iceland Observed Using Seismic Anisotropy." *Nature Geoscience*, vol. 14, no. 3, Mar. 2021, pp. 168–73, <https://doi.org/10.1038/s41561-021-00702-7>.
- Vysotsky, E. M., et al. "Coseismic Surface Ruptures of the 2003 Chuya Earthquake (Gorny Altai): Slip Geometry and Spatial Patterns." *Russian Geology and Geophysics*, vol. 62, no. 03, 2021, pp. 278–90, <https://doi.org/10.2113/RGG20194133>.
- Wald, D. J., et al. "Amateur Radio Operators Help Fill Earthquake Donut Holes." *Eos*, vol. 102, 2021, <https://doi.org/10.1029/2021EO155013>.
- Waldhauser, Felix, et al. "Fault Planes, Fault Zone Structure and Detachment Fragmentation Resolved With High-Precision Aftershock Locations of the 2016–2017 Central Italy Sequence." *Geophysical Research Letters*, vol. 48, no. 16, Nov. 2021, p. e2021GL092918, <https://doi.org/10.1029/2021GL092918>.
- Walker, R. T., et al. "Slip-Rate on the Main Köpetdag (Kopeh Dagh) Strike-Slip Fault, Turkmenistan, and the Active Tectonics of the South Caspian." *Tectonics*, vol. 40, no. 8, Aug. 2021, p. e2021TC006846, <https://doi.org/10.1029/2021TC006846>.

- Walter, Jacob I., et al. "EasyQuake: Putting Machine Learning to Work for Your Regional Seismic Network or Local Earthquake Study." *Seismological Research Letters*, vol. 92, no. 1, Apr. 2021, pp. 555–63, <https://doi.org/10.1785/0220200226>.
- Wamba, M. D., et al. "Multi-Mode Waveform Tomography of the Indian Ocean Upper and Mid-Mantle Around the Réunion Hotspot." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 8, Aug. 2021, p. e2020JB021490, <https://doi.org/10.1029/2020JB021490>.
- Wang, Bei, Alessandro Verdecchia, Honn Kao, et al. "A Study on the Largest Hydraulic Fracturing Induced Earthquake in Canada: Numerical Modeling and Triggering Mechanism." *Bulletin of the Seismological Society of America*, vol. 111, no. 3, Oct. 2021, pp. 1392–404, <https://doi.org/10.1785/0120200251>.
- Wang, Fan, Songqiao Shawn Wei, Natalia A. Ruppert, et al. *Seismic Imaging of the Alaska Peninsula Using the Body-Wave Double-Difference Tomography*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/903665>.
- Wang, Fei. *High-Pressure Crystal Structure and the Ordering of Hydrogen-Related Defects with Ferric Iron in Silicates of the Mantle Transition Zone*. 2021. Northwestern University, Ph.D., <https://www.proquest.com/dissertations-theses/high-pressure-crystal-structure-ordering-hydrogen/docview/2547050587/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2547050587.
- Wang, Haibo, Dapeng Zhao, Zhouchuan Huang, et al. *Tomography, Seismotectonics, and Mantle Dynamics of Central and Eastern United States*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/937615>.
- Wang, Jiong. *Estimating Near-Surface Elastic Structure from Low-Frequency Seismic Noise*. 2021. University of California, Santa Barbara, Ph.D., <https://www.proquest.com/dissertations-theses/estimating-near-surface-elastic-structure-low/docview/2598648684/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2598648684.
- Wang, Kai, Yingjie Yang, Chengxin Jiang, et al. "Adjoint Tomography of Ambient Noise Data and Teleseismic P Waves: Methodology and Applications to Central California." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 6, Dec. 2021, p. e2021JB021648, <https://doi.org/10.1029/2021JB021648>.
- Wang, Ruijia, Brandon Schmandt, Monique Holt, et al. "Advancing Local Distance Discrimination of Explosions and Earthquakes With Joint P/S and ML-MC Classification." *Geophysical Research Letters*, vol. 48, no. 23, Nov. 2021, p. e2021GL095721, <https://doi.org/10.1029/2021GL095721>.
- Wang, Sheng, and Hrvoje Tkalčić. "Shear-Wave Anisotropy in the Earth's Inner Core." *Geophysical Research Letters*, vol. 48, no. 19, Nov. 2021, p. e2021GL094784, <https://doi.org/10.1029/2021GL094784>.
- Wang, Shiqi, and Simon L. Klemperer. *Continental Mantle Earthquakes in Northwestern Tibet Shown by Amplitude Ratios of  $S_n$  and  $L_g$  – Observations From HiCLIMB Array*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/808955>.
- . "Love-Wave Normal Modes Discriminate between Upper-Mantle and Crustal Earthquakes: Simulation and Demonstration in Tibet." *Earth and Planetary Science Letters*, vol. 571, 2021, p. 117089, <https://doi.org/10.1016/j.epsl.2021.117089>.

- Wang, Shuofan, Xiangfang Zeng, Min Xu, et al. "Rupture Directivity of the 25 November 2018 Taiwan Strait Mw5.8 Earthquake and Its Tectonic Implications." *Tectonophysics*, vol. 809, 2021, p. 228852, <https://doi.org/10.1016/j.tecto.2021.228852>.
- Wang, Sili. *Real-Time Passive Seismic Monitoring and Imaging in Distributed Sensor Networks*. 2021. University of Georgia, Ph.D., <https://www.proquest.com/dissertations-theses/real-time-passive-seismic-monitoring-imaging/docview/2549739665/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2549739665.
- Wang, Tiantong, et al. "SeismoGen: Seismic Waveform Synthesis Using GAN With Application to Seismic Data Augmentation." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 4, Apr. 2021, p. e2020JB020077, <https://doi.org/10.1029/2020JB020077>.
- Wang, Tuo, Stephen S. Gao, et al. "Crustal Structure beneath the Ethiopian Plateau and Adjacent Areas from Receiver Functions: Implications for Partial Melting and Magmatic Underplating." *Tectonophysics*, vol. 809, 2021, p. 228857, <https://doi.org/10.1016/j.tecto.2021.228857>.
- Wang, Tuo, Kelly Hong Liu, et al. *Imaging Crustal and Uppermost Mantle Structure Beneath the South Central United States from a Joint Inversion of Receiver Functions and Surface Wave Dispersion*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/934639>.
- Wang, Wei, Andrew Nyblade, Greg Mount, et al. "3D Seismic Anatomy of a Watershed Reveals Climate-Topography Coupling That Drives Water Flowpaths and Bedrock Weathering." *Journal of Geophysical Research: Earth Surface*, vol. 126, no. 12, Dec. 2021, p. e2021JF006281, <https://doi.org/10.1029/2021JF006281>.
- Wang, Weilai, Guangyao Cai, Guijuan Lai, et al. "Ambient Noise Level in Eastern North China from ChinArray and Its Response to COVID-19." *Seismological Research Letters*, vol. 92, no. 6, Nov. 2021, pp. 3586–601, <https://doi.org/10.1785/0220200261>.
- Wang, Xin, Zhongwen Zhan, Minyan Zhong, et al. "Urban Basin Structure Imaging Based on Dense Arrays and Bayesian Array-Based Coherent Receiver Functions." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 9, Sept. 2021, p. e2021JB022279, <https://doi.org/10.1029/2021JB022279>.
- Wang, Zhenyu, Ziwei Liu, Guangyu Fu, et al. "Observed and Calculated M2 Tidal Gravimetric Factors at 15 Stations in the Mainland of China." *Pure and Applied Geophysics*, vol. 178, no. 8, Aug. 2021, pp. 3069–84, <https://doi.org/10.1007/s00024-021-02777-0>.
- Wang, Ziyang, Fenglin Niu, Jianping Huang, et al. "Distribution of Rayleigh Wave Microseisms Constrained by Multiple Seismic Arrays." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 9, Sept. 2021, p. e2021JB022084, <https://doi.org/10.1029/2021JB022084>.
- Waszek, Lauren, et al. "A Poorly Mixed Mantle Transition Zone and Its Thermal State Inferred from Seismic Waves." *Nature Geoscience*, vol. 14, no. 12, Dec. 2021, pp. 949–55, <https://doi.org/10.1038/s41561-021-00850-w>.
- Wech, Aaron G. "Cataloging Tectonic Tremor Energy Radiation in the Cascadia Subduction Zone." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 10, Oct. 2021, p. e2021JB022523, <https://doi.org/10.1029/2021JB022523>.
- Wei, XiaoZhuo, et al. "An OBS Array to Investigate Offshore Seismicity during the 2018 Kīlauea Eruption." *Seismological Research Letters*, vol. 92, no. 1, Apr. 2021, pp. 603–12, <https://doi.org/10.1785/0220200206>.

- Weidner, Erik, et al. "Upper Mantle Radial Anisotropy under the Indian Ocean from Higher Mode Surface Waves and a Hierarchical Transdimensional Approach." *Geophysical Journal International*, vol. 228, no. 1, 2021, pp. 78–101, <https://doi.org/10.1093/gji/ggab340>.
- Wen, Yangmao, et al. "Source Characteristics of the 2020 Mw 7.4 Oaxaca, Mexico, Earthquake Estimated from GPS, InSAR, and Teleseismic Waveforms." *Seismological Research Letters*, vol. 92, no. 3, Nov. 2021, pp. 1900–12, <https://doi.org/10.1785/0220200313>.
- Westaway, Rob. "Extrapolation of Populations of Small Earthquakes to Predict Consequences of Low- Probability High Impact Events: The Pohang Case Study Revisited." *Geothermics*, vol. 92, 2021, p. 102035, <https://doi.org/10.1016/j.geothermics.2020.102035>.
- White, M. C. A., et al. *Catalog Update: A Detailed Earthquake Catalog for the San Jacinto Fault Zone Region in Southern California*. 2021.
- White, Malcolm C. A., et al. "Detailed Traveltime Tomography and Seismic Catalogue around the 2019 Mw7.1 Ridgecrest, California, Earthquake Using Dense Rapid-Response Seismic Data." *Geophysical Journal International*, vol. 227, no. 1, 2021, pp. 204–27, <https://doi.org/10.1093/gji/ggab224>.
- White-Gaynor, A. L., et al. "Shear-Wave Velocity Structure of the Southern African Upper Mantle: Implications for Craton Structure and Plateau Uplift." *Geophysical Research Letters*, vol. 48, no. 7, Nov. 2021, p. e2020GL091624, <https://doi.org/10.1029/2020GL091624>.
- Wiegmann, M., et al. "Opportunities and Risks of Disaster Data from Social Media: A Systematic Review of Incident Information." *Natural Hazards and Earth System Sciences*, vol. 21, no. 5, 2021, pp. 1431–44, <https://doi.org/10.5194/nhess-21-1431-2021>.
- Wiens, Douglas A., et al. "The Seismic Structure of the Antarctic Upper Mantle." *Geological Society, London, Memoirs*, vol. 56, 2021, pp. M56-2020–18, <https://doi.org/10.1144/M56-2020-18>.
- Wilcock, William. "Illuminating Tremors in the Deep." *Science*, vol. 371, no. 6532, Feb. 2021, pp. 882–84, <https://doi.org/10.1126/science.abg4479>.
- Williams, Brian J., et al. "Multiphenomenology Explosion Monitoring (MultiPEM): A General Framework for Data Interpretation and Yield Estimation." *Geophysical Journal International*, vol. 226, no. 1, 2021, pp. 14–32, <https://doi.org/10.1093/gji/ggab087>.
- Wills, G., et al. *An Analysis of Air-to-Ground Coupled Seismic Arrivals From the Camp Minden, U.S., Explosion, 16 October 2012*. 2021.
- Witek, M., et al. "Radial Anisotropy in East Asia From Multimode Surface Wave Tomography." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 7, July 2021, p. e2020JB021201, <https://doi.org/10.1029/2020JB021201>.
- Withers, Glenn. "Investing in Science: Social Cost Benefit Analysis of Research Infrastructures, by Massimo Florio (MIT Press, Cambridge, Pp. 384, 2019)." *Economic Record*, vol. 97, no. 317, June 2021, pp. 328–30, <https://doi.org/10.1111/1475-4932.12617>.
- Witsil, Alex James Conrad, et al. *Detecting Large Explosions Using Infrasound Data Augmentation and Machine Learning*. <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/797634>.
- Wolf, Jonathan, et al. *Improving Resolution of Mantle Seismic Anisotropy Using Array Techniques: Shear Wave Splitting of Beamformed SmKS Phases*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/901046>.

- Worthington, L. L., et al. "Breaking Up Is Hard to Do, Especially for Continents." *Eos*, vol. 102, 2021, <https://doi.org/10.1029/2021EO155889>.
- Wright, Vanshan, and Matthew Hornbach. "The Effects of 180 Years of Aging on the Physical and Seismic Properties of Partially Saturated Sands." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 6, June 2021, p. e2020JB021341, <https://doi.org/10.1029/2020JB021341>.
- Wright, Vashan Desmond, et al. *An URGEnt Vision*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/1009187>.
- Wu, Baoning, et al. "Monitoring Human Activity at a Very Local Scale with Ground-Motion Records: The Early Stage of COVID-19 Pandemic in California, U.S.A., New York City, U.S.A., and Mexicali, Mexico." *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 3007–23, <https://doi.org/10.1785/0220200257>.
- Wu, Hanting, et al. "Deep Structure beneath the Southwestern Flank of the Baikal Rift Zone and Adjacent Areas." *Physics of the Earth and Planetary Interiors*, vol. 310, 2021, p. 106616, <https://doi.org/10.1016/j.pepi.2020.106616>.
- Wu, Shucheng, et al. "New Insights into the Structural Heterogeneity and Geodynamics of the Indo-Burma Subduction Zone from Ambient Noise Tomography." *Earth and Planetary Science Letters*, vol. 562, 2021, p. 116856, <https://doi.org/10.1016/j.epsl.2021.116856>.
- Wu, Sin-Mei, et al. "Imaging the Subsurface Plumbing Complex of Steamboat Geyser and Cistern Spring With Hydrothermal Tremor Migration Using Seismic Interferometry." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 4, Apr. 2021, p. e2020JB021128, <https://doi.org/10.1029/2020JB021128>.
- Wu, Sizhao. *A Study of Earthquake Source and Nucleation via Laboratory and Field Observations*. 2021. Cornell University, Ph.D., <https://www.proquest.com/dissertations-theses/study-earthquake-source-nucleation-via-laboratory/docview/2580995487/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2580995487.
- Wu, Yih-Min, et al. "Earthquake Early Warning Systems in Taiwan: Current Status." *Journal of the Geological Society of India*, vol. 97, no. 12, Dec. 2021, pp. 1525–32, <https://doi.org/10.1007/s12594-021-1909-6>.
- Xiao, Xiao, et al. "Shallow Seismic Structure beneath the Continental China Revealed by P-Wave Polarization, Rayleigh Wave Ellipticity and Receiver Function." *Geophysical Journal International*, vol. 225, no. 2, 2021, pp. 998–1019, <https://doi.org/10.1093/gji/ggab022>.
- Xiao, Zhuohui, et al. "The Deep Shumagin Gap Filled: Kinematic Rupture Model and Slip Budget Analysis of the 2020 Mw 7.8 Simeonof Earthquake Constrained by GNSS, Global Seismic Waveforms, and Floating InSAR." *Earth and Planetary Science Letters*, vol. 576, Dec. 2021, p. 117241, <https://doi.org/10.1016/j.epsl.2021.117241>.
- Xiao, Zhuowei, et al. "Siamese Earthquake Transformer: A Pair-Input Deep-Learning Model for Earthquake Detection and Phase Picking on a Seismic Array." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 5, May 2021, p. e2020JB021444, <https://doi.org/10.1029/2020JB021444>.
- Xie, Jinyun, et al. "Retrieving PmP Travel Times From a Persistent Localized Microseismic Source." *Geophysical Research Letters*, vol. 48, no. 21, Nov. 2021, p. e2021GL094827, <https://doi.org/10.1029/2021GL094827>.

- Xie, Jun, et al. "Evaluating Global Tomography Models With Antipodal Ambient Noise Cross-Correlation Functions." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 3, Mar. 2021, p. e2020JB020444, <https://doi.org/10.1029/2020JB020444>.
- . *Study of Long Period Surface Waves from Ambient Seismic Noise*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/876706>.
- Xie, Lei, et al. "Surge of Mangla Reservoir Loading Promoted Failure on Active Décollement of Western Himalayas." *International Journal of Applied Earth Observation and Geoinformation*, vol. 102, Oct. 2021, p. 102401, <https://doi.org/10.1016/j.jag.2021.102401>.
- Xie, Y., et al. "Source Imaging With a Multi-Array Local Back-Projection and Its Application to the 2019 Mw 6.4 and Mw 7.1 Ridgecrest Earthquakes." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 10, Oct. 2021, p. e2020JB021396, <https://doi.org/10.1029/2020JB021396>.
- Xie, Zhuo-Juan, et al. "Empirical Relations for Conversion of Surface- and Body-Wave Magnitudes to Moment Magnitudes in China's Seas and Adjacent Areas." *Journal of Seismology*, vol. 25, no. 1, Feb. 2021, pp. 213–33, <https://doi.org/10.1007/s10950-020-09947-y>.
- Xu, Haotian, et al. "Measuring Fundamental and Higher Mode Surface Wave Dispersion on Mars From Seismic Waveforms." *Earth and Space Science*, vol. 8, no. 2, 2021, p. e2020EA001263, <https://doi.org/10.1029/2020EA001263>.
- Xu, Henglei, et al. "Effects of Secondary Sources of Underground Nuclear Explosions on the Mb : Ms Criterion and Implications for Discrimination of the DPRK's Nuclear Tests." *Bulletin of the Seismological Society of America*, vol. 111, no. 1, Feb. 2021, pp. 590–605, <https://doi.org/10.1785/0120200165>.
- Xu, Yueyi, Yong Zhang, et al. "Geometry-Dependent Rupture Process of the 2015 Gorkha, Nepal, Earthquake Determined Using a Dip-Varying Inversion Approach with Teleseismic, High-Rate GPS, Static GPS and InSAR Data." *Geophysical Journal International*, vol. 229, no. 2, 2021, pp. 1408–21, <https://doi.org/10.1093/gji/ggab519>.
- Xu, Zhiguo, Shanshan Liang, et al. "Historical Earthquakes, Tsunamis and Real-Time Earthquake Monitoring for Tsunami Advisory in the South China Sea Region." *Natural Hazards*, vol. 107, no. 1, 2021, pp. 771–93, <https://doi.org/10.1007/s11069-021-04605-z>.
- Yadav, D. K., et al. "Microseismicity Study in the Siang Valley of Arunachal Himalaya: Tectonic Implications of the 2019 Mw 5.9 Mechuka Earthquake." *Himalayan Geology*, vol. 42, 2021, pp. 290–98.
- Yamashita, Shinji, et al. "Consecutive Ruptures on a Complex Conjugate Fault System during the 2018 Gulf of Alaska Earthquake." *Scientific Reports*, vol. 11, no. 1, Mar. 2021, p. 5979, <https://doi.org/10.1038/s41598-021-85522-w>.
- Yang, Bo, et al. "Electrical Resistivity Imaging of Continental United States from Three-Dimensional Inversion of EarthScope USArray Magnetotelluric Data." *Earth and Planetary Science Letters*, vol. 576, Dec. 2021, p. 117244, <https://doi.org/10.1016/j.epsl.2021.117244>.
- Yang, G., et al. "High-Precision Relocation With the Burial Depths of the North Korean Underground Nuclear Explosions by Combining Pn and Pg Differential Traveltimes." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 6, June 2021, p. e2020JB020745, <https://doi.org/10.1029/2020JB020745>.



- Yang, Jidong, et al. "Multifault Opposing-Dip Strike-Slip and Normal-Fault Rupture During the 2020 Mw 6.5 Stanley, Idaho Earthquake." *Geophysical Research Letters*, vol. 48, no. 10, Nov. 2021, p. e2021GL092510, <https://doi.org/10.1029/2021GL092510>.
- Yang, Minghan, et al. "Repeating Infrasound From an Earthquake Doublet in Alaska." *Geophysical Research Letters*, vol. 48, no. 17, Nov. 2021, p. e2021GL094632, <https://doi.org/10.1029/2021GL094632>.
- Yang, Qiuye, et al. "Vertical Leakage Occurred after an Earthquake: Suggestions for Utilizing the Mixed Flow Model." *Lithosphere*, vol. 2021, no. Special 3, 2021, p. 8281428, <https://doi.org/10.2113/2021/8281428>.
- Yang, Qiuyue. *Crustal and Upper Mantle Structure Beneath the Southeastern United States from Joint Inversion of Rayleigh Wave Dispersion and Receiver Functions*. 2021. Missouri University of Science and Technology, Ph.D., <https://www.proquest.com/dissertations-theses/crustal-upper-mantle-structure-beneath/docview/2562259097/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2562259097.
- . "Crustal and Upper Mantle Structure Beneath the Southeastern United States From Joint Inversion of Receiver Functions and Rayleigh Wave Dispersion." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 10, Oct. 2021, p. e2021JB021846, <https://doi.org/10.1029/2021JB021846>.
- Yang, Shaobo, et al. "Simultaneous Earthquake Detection on Multiple Stations via a Convolutional Neural Network." *Seismological Research Letters*, vol. 92, no. 1, Apr. 2021, pp. 246–60, <https://doi.org/10.1785/0220200137>.
- Yang, Xiaotao, et al. *Seismic Constraints on the Structure of Alaska: A Review*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/805781>.
- Yang, Yi, and Xiaodong Song. "Reply to Yao et al.'s Comment on 'Origin of Temporal Changes of Inner-Core Seismic Waves.'" *Earth and Planetary Science Letters*, vol. 553, 2021, p. 116639, <https://doi.org/10.1016/j.epsl.2020.116639>.
- Yang, Yuchen, et al. "Mantle Flow in the Vicinity of the Eastern Edge of the Pacific-Yakutat Slab: Constraints From Shear Wave Splitting Analyses." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 9, Sept. 2021, p. e2021JB022354, <https://doi.org/10.1029/2021JB022354>.
- . *Mantle Flow Systems Associated with Slab Subduction and Absolute Plate Motion in Alaska Constrained by Shear Wave Splitting Analyses*. 2021. Missouri University of Science and Technology, Ph.D., <https://www.proquest.com/dissertations-theses/mantle-flow-systems-associated-with-slab/docview/2580703213/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2580703213.
- Yao, Dongdong, et al. "New Insights into the Lake Erie Fault System from the 2019 ML 4.0 Ohio Earthquake Sequence." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2531–39, <https://doi.org/10.1785/0220200335>.
- Yao, Jiayuan, et al. "Comment on 'Origin of Temporal Changes of Inner-Core Seismic Waves' by Yang and Song (2020)." *Earth and Planetary Science Letters*, vol. 553, 2021, p. 116640, <https://doi.org/10.1016/j.epsl.2020.116640>.
- Yarce, Jefferson, et al. "Seismic Velocity Heterogeneity of the Hikurangi Subduction Margin, New Zealand: Elevated Pore Pressures in a Region With Repeating Slow Slip Events." *Journal of*

*Geophysical Research: Solid Earth*, vol. 126, no. 5, May 2021, p. e2020JB021605, <https://doi.org/10.1029/2020JB021605>.

Yassminh, Rayan, et al. *Seismic Attenuation and Velocity Measurements of the Uppermost Mantle Beneath the Central and Eastern United States and Implications for the Temperature of the North American Lithosphere*. 2021, <https://doi.org/10.1130/abs/2021NC-362936>.

Ye, Lingling, Wenzheng Gong, et al. "Shallow Megathrust Rupture during the 10 February 2021 Mw 7.7 Southeast Loyalty Islands Earthquake Sequence." *The Seismic Record*, vol. 1, no. 3, 2021, pp. 154–63, <https://doi.org/10.1785/0320210035>.

Ye, Lingling, Thorne Lay, Hiroo Kanamori, et al. "The 22 July 2020 MW 7.8 Shumagin Seismic Gap Earthquake: Partial Rupture of a Weakly Coupled Megathrust." *Earth and Planetary Science Letters*, vol. 562, 2021, p. 116879, <https://doi.org/10.1016/j.epsl.2021.116879>.

---. "The 25 March 2020 MW 7.5 Paramushir, Northern Kuril Islands Earthquake and Major (MW  $\geq$  7.0) near-Trench Intraplate Compressional Faulting." *Earth and Planetary Science Letters*, vol. 556, 2021, p. 116728, <https://doi.org/10.1016/j.epsl.2020.116728>.

Yeck, William Luther, et al. "Leveraging Deep Learning in Global 24/7 Real-Time Earthquake Monitoring at the National Earthquake Information Center." *Seismological Research Letters*, vol. 92, no. 1, Apr. 2021, pp. 469–80, <https://doi.org/10.1785/0220200178>.

Yin, Jiuxun, et al. "Source Time Function Clustering Reveals Patterns in Earthquake Dynamics." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2343–53, <https://doi.org/10.1785/0220200403>.

Yin, Jiuxun, and Marine A. Denolle. "The Earth's Surface Controls the Depth-Dependent Seismic Radiation of Megathrust Earthquakes." *AGU Advances*, vol. 2, no. 3, Sept. 2021, p. e2021AV000413, <https://doi.org/10.1029/2021AV000413>.

You, Xiaowen, and Linguo Yuan. "The Sensitivity of Ocean Tide Loading Displacements to the Structure of the Upper Mantle and Crust of Taiwan Island." *Earth, Planets, and Space*, vol. 73, no. 1, 2021, pp. 1–17, <https://doi.org/10.1186/s40623-021-01525-x>.

Yu, Chunquan, et al. "Imaging Strong Lateral Heterogeneities Across the Contiguous US Using Body-To-Surface Wave Scattering." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 1, Apr. 2021, p. e2020JB020798, <https://doi.org/10.1029/2020JB020798>.

Yu, Ellen, et al. "Southern California Earthquake Data Now Available in the AWS Cloud." *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 3238–47, <https://doi.org/10.1785/0220210039>.

Yu, Hongyu, et al. "From Seismic Quiescence to Surged Activity After Decades of Wastewater Disposal: A Case Study in Central-West Alberta, Canada." *Geophysical Research Letters*, vol. 48, no. 22, Nov. 2021, p. e2021GL095074, <https://doi.org/10.1029/2021GL095074>.

Yu, W., et al. "Rayleigh-Love Discrepancy Highlights Temporal Changes in Near-Surface Radial Anisotropy After the 2004 Great Sumatra Earthquake." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 12, Dec. 2021, p. e2021JB022896, <https://doi.org/10.1029/2021JB022896>.

Yu, Youqiang, et al. "Layered Mantle Heterogeneities Associated with Post-Subducted Slab Segments." *Earth and Planetary Science Letters*, vol. 571, 2021, p. 117115, <https://doi.org/10.1016/j.epsl.2021.117115>.

- Yuan, Shichuan, Hengxin Ren, et al. "Refining Higher Modes of Rayleigh Waves Using Seismoelectric Signals Excited by a Weight-Drop Source: Study From Numerical Simulation Aspect." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 5, May 2021, p. e2020JB021336, <https://doi.org/10.1029/2020JB021336>.
- Yuan, Shihao, Kilian Gessele, et al. "Seismic Source Tracking With Six Degree-of-Freedom Ground Motion Observations." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 3, Mar. 2021, p. e2020JB021112, <https://doi.org/10.1029/2020JB021112>.
- Yuan, Y., et al. "Southeastward Dipping Mid-Mantle Heterogeneities beneath the Sea of Okhotsk." *Earth and Planetary Science Letters*, vol. 573, 2021, p. 117151, <https://doi.org/10.1016/j.epsl.2021.117151>.
- Yuan, Yuefeng, et al. "New Methods for Data Stacking and P- and S-Wave Arrival Time Determination Using the Deep Moonquake Apollo Recordings." *Journal of Geophysical Research: Planets*, vol. 126, no. 2, Feb. 2021, p. e2020JE006424, <https://doi.org/10.1029/2020JE006424>.
- Zaccarelli, Riccardo, et al. "Anomaly Detection in Seismic Data–Metadata Using Simple Machine-Learning Models." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2627–39, <https://doi.org/10.1785/0220200339>.
- Zaino, Annie, et al. *Assembling Inclusive Field Safety Tools for Earth Science Research*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/946752>.
- Zali, Zahra, et al. "Volcanic Tremor Extraction and Earthquake Detection Using Music Information Retrieval Algorithms." *Seismological Research Letters*, vol. 92, no. 6, Nov. 2021, pp. 3668–81, <https://doi.org/10.1785/0220210016>.
- Zeng, Qicheng, and Robert L. Nowack. "Analysis of Local Seismic Events near a Large-N Array for Moho Reflections." *Seismological Research Letters*, vol. 92, no. 1, Apr. 2021, pp. 408–20, <https://doi.org/10.1785/0220200087>.
- Zeng, Sijia, et al. "Measurements of Seismometer Orientation of the First Phase CHINArray and Their Implications on Vector-Recording-Based Seismic Studies." *Bulletin of the Seismological Society of America*, vol. 111, no. 1, Feb. 2021, pp. 36–49, <https://doi.org/10.1785/0120200129>.
- Zhan, Zhongwen, et al. "Optical Polarization–Based Seismic and Water Wave Sensing on Transoceanic Cables." *Science*, vol. 371, no. 6532, Feb. 2021, pp. 931–36, <https://doi.org/10.1126/science.abe6648>.
- Zhang, Changrong, Guibin Zhang, et al. "Seismic Pumping for Mineralization in Southern Fujian, Cathaysia Block: New Insights from a Teleseismic Full Waveform Inversion." *Ore Geology Reviews*, vol. 131, Apr. 2021, p. 104036, <https://doi.org/10.1016/j.oregeorev.2021.104036>.
- Zhang, Han, et al. "Localized Anisotropy in the Mantle Transition Zone Due to Flow Through Slab Gaps." *Geophysical Research Letters*, vol. 48, no. 10, Nov. 2021, p. e2021GL092712, <https://doi.org/10.1029/2021GL092712>.
- Zhang, Hao, et al. "Deep Dehydration as a Plausible Mechanism of the 2013 Mw 8.3 Sea of Okhotsk Deep-Focus Earthquake." *Frontiers in Earth Science*, vol. 9, Aug. 2021, <https://doi.org/10.3389/feart.2021.521220>.

- Zhang, Hao, and Kristine L. Pankow. "High-Resolution Bayesian Spatial Autocorrelation (SPAC) Quasi-3-D Vs Model of Utah FORGE Site with a Dense Geophone Array." *Geophysical Journal International*, vol. 225, no. 3, 2021, pp. 1605–15, <https://doi.org/10.1093/gji/ggab049>.
- Zhang, Heng, et al. "Upper Mantle Heterogeneity and Radial Anisotropy Beneath the Western Tibetan Plateau." *Tectonics*, vol. 40, no. 2, Feb. 2021, p. e2020TC006403, <https://doi.org/10.1029/2020TC006403>.
- Zhang, Hongliang, et al. "Inversion for Shear-Tensile Focal Mechanisms Using an Unsupervised Physics-Guided Neural Network." *Seismological Research Letters*, vol. 92, no. 4, Nov. 2021, pp. 2282–94, <https://doi.org/10.1785/0220200420>.
- Zhang, Mel, Danica L. Roth, et al. *The Seismic Signature of Tree-Captured Wind*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/820431>.
- Zhang, Ping, and Meghan S. Miller. "Seismic Imaging of the Subducted Australian Continental Margin Beneath Timor and the Banda Arc Collision Zone." *Geophysical Research Letters*, vol. 48, no. 4, Apr. 2021, p. e2020GL089632, <https://doi.org/10.1029/2020GL089632>.
- Zhang, Shane, Chuanming Liu, et al. *Finite Frequency Effects for Seismic Ambient Noise Three-Station Interferometry*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/946393>.
- Zhang, Shane, Hongda Wang, et al. "Isotropic and Azimuthally Anisotropic Rayleigh Wave Dispersion across the Juan de Fuca and Gorda Plates and U.S. Cascadia from Earthquake Data and Ambient Noise Two- and Three-Station Interferometry." *Geophysical Journal International*, vol. 226, no. 2, 2021, pp. 862–83, <https://doi.org/10.1093/gji/ggab142>.
- Zhang, Siyuan, Zengxi Ge, et al. *Removal of Continuous Topographic Scattering in Dense Array Receiver Functions Imaging*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/878285>.
- Zhang, Xu, Li-Sheng Xu, et al. "Confirmation and Characterization of the Rupture Model of the 2017 Ms 7.0 Jiuzhaigou, China, Earthquake." *Seismological Research Letters*, vol. 92, no. 5, Nov. 2021, pp. 2927–42, <https://doi.org/10.1785/0220200466>.
- Zhang, Yanhao, Caijun Xu, et al. "Focal Mechanism Inversion of the 2018 MW7.1 Anchorage Earthquake Based on High-Rate GPS Observation." *Geodesy and Geodynamics*, vol. 12, no. 6, Nov. 2021, pp. 381–91, <https://doi.org/10.1016/j.geog.2021.09.004>.
- Zhang, Ying, Aibing Li, et al. *Love Wave Tomography with Mode Separation Analysis in Northeastern America*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/873649>.
- Zhang, Ying. *Multimode Interference Problem and Solution in Love Wave Tomography*. 2021. University of Houston, <https://hdl.handle.net/10657/8165>.
- Zhang, Yong, Wanpeng Feng, et al. "Joint Inversion of Rupture across a Fault Stepover during the 8 August 2017 Mw 6.5 Jiuzhaigou, China, Earthquake." *Seismological Research Letters*, vol. 92, no. 6, Nov. 2021, pp. 3386–97, <https://doi.org/10.1785/0220210084>.
- Zhang, Zhen-dong, Erdinc Saygin, et al. "Rayleigh Wave Dispersion Spectrum Inversion Across Scales." *Surveys in Geophysics*, vol. 42, no. 6, 2021, pp. 1281–303, <https://doi.org/10.1007/s10712-021-09667-z>.
- Zhang, Ziqi, and Tolulope Olugboji. "The Signature and Elimination of Sediment Reverberations on Submarine Receiver Functions." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 5, May 2021, p. e2020JB021567, <https://doi.org/10.1029/2020JB021567>.

- Zhao, Dapeng, and Yuanyuan Hua. "Anisotropic Tomography of the Cascadia Subduction Zone." *Physics of the Earth and Planetary Interiors*, vol. 318, 2021, p. 106767, <https://doi.org/10.1016/j.pepi.2021.106767>.
- Zhao, Long, et al. "Mapping the Pacific Slab Edge and Toroidal Mantle Flow Beneath Kamchatka." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 11, Nov. 2021, p. e2021JB022518, <https://doi.org/10.1029/2021JB022518>.
- Zheng, Tuo, et al. "Crustal Azimuthal Anisotropy and Deformation beneath the Northeastern Tibetan Plateau and Adjacent Areas: Insights from Receiver Function Analysis." *Tectonophysics*, vol. 816, 2021, p. 229014, <https://doi.org/10.1016/j.tecto.2021.229014>.
- Zhong, Qiu, et al. "Possible Triggering Relationship of Six Mw > 6 Earthquakes in 2018–2019 at Philippine Archipelago." *Acta Oceanologica Sinica*, vol. 40, no. 7, July 2021, pp. 142–58, <https://doi.org/10.1007/s13131-021-1813-3>.
- Zhou, Changjiang, et al. "Near-Surface Geothermal Reservoir Imaging Based on the Customized Dense Seismic Network." *Surveys in Geophysics*, vol. 42, no. 3, 2021, pp. 673–97, <https://doi.org/10.1007/s10712-021-09642-8>.
- Zhou, Hao. *Vision-Based Control of Unmanned Aerial Vehicles for Automated Structural Monitoring and Geo-Structural Analysis of Civil Infrastructure Systems*. 2021. University of Michigan, Ph.D., <https://www.proquest.com/dissertations-theses/vision-based-control-unmanned-aerial-vehicles/docview/2593211030/se-2?accountid=4485>. ProQuest Dissertations & Theses Global, 2593211030.
- Zhou, Hongyue, and Ying Zhou. *Travel-Time Measurements from Long-Period Empirical Green's Functions at GSN Stations*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/894361>.
- Zhou, Jinju, and Wei Zhang. "Extracting Reliable P-Wave Reflections From Teleseismic P Wave Coda Autocorrelation." *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 11, Nov. 2021, p. e2021JB022064, <https://doi.org/10.1029/2021JB022064>.
- Zhou, Tong, et al. "Assessment of Seismic Tomographic Models of the Contiguous United States Using Intermediate-Period 3-D Wavefield Simulation." *Geophysical Journal International*, vol. 228, no. 2, 2021, pp. 1392–409, <https://doi.org/10.1093/gji/ggab406>.
- Zhou, Yong, et al. "Determining Crustal Attenuation With Seismic T Waves in Southern Africa." *Geophysical Research Letters*, vol. 48, no. 15, Nov. 2021, p. e2021GL094410, <https://doi.org/10.1029/2021GL094410>.
- Zhu, Chuanhua, Chisheng Wang, et al. "Differential Interferometric Synthetic Aperture Radar Data for More Accurate Earthquake Catalogs." *Remote Sensing of Environment*, vol. 266, Dec. 2021, p. 112690, <https://doi.org/10.1016/j.rse.2021.112690>.
- Zhu, T., et al. "Sensing Earth and Environment Dynamics by Telecommunication Fiber-Optic Sensors: An Urban Experiment in Pennsylvania, USA." *Solid Earth*, vol. 12, no. 1, 2021, pp. 219–35, <https://doi.org/10.5194/se-12-219-2021>.
- Zhu, Weiling, Yingfeng Ji, et al. "Thermal Regime and Slab Dehydration beneath the Izu-Bonin Arc: Implications for Fast and Slow Subduction Earthquakes." *Terra Nova*, vol. 34, no. 2, Apr. 2022, pp. 103–12, <https://doi.org/10.1111/ter.12568>.
- Zhu, Weiqiang. *Applications of Deep Learning in Seismology*. 2021. Stanford University, Ph.D., <https://www.proquest.com/dissertations-theses/applications-deep-learning->

seismology/docview/2599012807/se-2?accountid=4485. ProQuest Dissertations & Theses Global, 2599012807.

- Zhu, Yichuan, Zhenming Wang, et al. "Mapping Fundamental-Mode Site Periods and Amplifications from Thick Sediments: An Example from the Jackson Purchase Region of Western Kentucky, Central United States." *Bulletin of the Seismological Society of America*, vol. 111, no. 4, Oct. 2021, pp. 1868–84, <https://doi.org/10.1785/0120200300>.
- Zhu, Zhao, Maximiliano J. Bezada, et al. "Evidence for Stress Localization Caused by Lithospheric Heterogeneity From Seismic Attenuation." *Geochemistry, Geophysics, Geosystems*, vol. 22, no. 11, Nov. 2021, p. e2021GC009987, <https://doi.org/10.1029/2021GC009987>.
- Zhu, Zhao, Maximiliano Bezada, et al. *Revisiting Uplift in the Laramide Orogeny: Evidence for the Localization of Deformation by Variations in Lithospheric Strength from Both Seismic Velocity and Attenuation*. 2021, <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/1001050>.
- Zolotukhina, Elena B., et al. "Cognitive Approach in the Implementation of Local Geodynamic Monitoring." *Procedia Computer Science*, vol. 190, Jan. 2021, pp. 863–68, <https://doi.org/10.1016/j.procs.2021.06.100>.
- Zuccolo, Elisa, et al. "Comparing the Performance of Regional Earthquake Early Warning Algorithms in Europe." *Frontiers in Earth Science*, vol. 9, July 2021, <https://doi.org/10.3389/feart.2021.686272>.
- Zürn, W., et al. "Modelling Tilt Noise Caused by Atmospheric Processes at Long Periods for Several Horizontal Seismometers at BFO—a Reprise." *Geophysical Journal International*, vol. 228, no. 2, 2021, pp. 927–43, <https://doi.org/10.1093/gji/ggab336>.
- Zweifel, Peter, et al. "Seismic High-Resolution Acquisition Electronics for the NASA InSight Mission on Mars." *Bulletin of the Seismological Society of America*, vol. 111, no. 6, Oct. 2021, pp. 2909–23, <https://doi.org/10.1785/0120210071>.