

## Fall 2011 AGU Meeting – San Francisco 5-9 December

### EarthScope Relevant Sessions

**Abstract deadline:** August 4

**Discounted registration deadline:** November 1

Complete session list at <http://sites.agu.org/fallmeeting/scientific-program/session-search/>

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#### **G13: New Science Results from the EarthScope Plate Boundary Observatory** (<http://sites.agu.org/fallmeeting/scientific-program/session-search/314>)

**Sponsor:** Geodesy (G)

**Co-Sponsor(s):** Seismology (S), Tectonophysics (T), Volcanology, Geochemistry, and Petrology (V)

**Conveners:** M. Brudzinski, R. Burgmann, W. Hammond

Description: EarthScope is an ambitious, multifaceted program to investigate the structure, history, and dynamics of the North American continent. Its geodetic component, the Plate Boundary Observatory (PBO), has collected rich new datasets from its GPS stations, borehole instruments, laser strainmeters, tiltmeters, InSAR and LIDAR acquisitions. We invite contributions highlighting new discoveries based on analysis or modeling of PBO data that further the science objectives of EarthScope. Topics may include the seismic cycle; deformation of the western U.S. interior; time-dependent, aseismic, and volcanic/magmatic processes; innovative analyses and techniques; and integration with complementary geologic or geophysical data.

#### **T07: Alaska Region Tectonic, Sedimentary, and Climatic Processes** (<http://sites.agu.org/fallmeeting/scientific-program/session-search/798>)

**Sponsor:** Tectonophysics (T)

**Co-Sponsor(s):** Earth and Planetary Surface Processes (EP), Ocean Sciences (OS)

**Conveners:** G. Christeson, W. Wood, D. Shillington, G. Barth

Description: We invite submissions addressing the tectonic, sedimentary, climatic and oceanographic processes in Alaska and the offshore seas - Bering Sea, Beaufort Sea, and Gulf of Alaska. Alaska presents a timely target for a multidisciplinary session: multiple onshore and marine field efforts have recently targeted Alaska, and US programs such as GeoPRISMS and Earthscope are formulating plans for major future scientific endeavors here. Alaska and its margins present an excellent locality to examine fundamental questions regarding deformation and magmatism in subduction zones and other active

tectonic environments, interactions between tectonics and climate, marine geohazards, and processes associated with major oceanographic boundaries.

**T20: Geologic, Tectonic, and Geodynamic Processes of the Eastern North America of the U.S.: EarthScope-GeoPRISMS Opportunities**

[\(<http://sites.agu.org/fallmeeting/scientific-program/session-search/811>\)](http://sites.agu.org/fallmeeting/scientific-program/session-search/811)

**Sponsor:** Tectonophysics (T)

**Co-Sponsor(s):** Earth and Planetary Surface Processes (EP), Seismology (S), Volcanology, Geochemistry, and Petrology (V)

**Conveners:** B. Tikoff, M. Williams, F. Pazzaglia, M. Benoit

Description: The goal of this session is to bring together researchers focused on both offshore and onshore sections of Eastern North America to discuss advances in our tectonic understanding of this region. This region encompasses the Appalachian foreland and hinterland, the Mesozoic rifted margin, and the shelf-slope basins. Eastern North America is the archetypal example of the Wilson cycle, including the development of a post-orogenic passive margin. The session will also emphasize opportunities that are possible by combining work between different communities (EarthScope, GeoPRISMS, regional geologists, etc.) and different methodologies.

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**More EarthScope Relevant Sessions:**

**U12: Composition, Structure and Heat Budget of the Earth**

[\(<http://sites.agu.org/fallmeeting/scientific-program/session-search/21>\)](http://sites.agu.org/fallmeeting/scientific-program/session-search/21)

**U32: Physical and Chemical State of Subducting Slabs and the Slab-Mantle**

**Interface: Forearc, Subarc, and Beyond** ([\(<http://sites.agu.org/fallmeeting/scientific-program/session-search/29>\)](http://sites.agu.org/fallmeeting/scientific-program/session-search/29))

**U47: The Great 11 March 2011 Tohoku-Oki Earthquake**

[\(<http://sites.agu.org/fallmeeting/scientific-program/session-search/34>\)](http://sites.agu.org/fallmeeting/scientific-program/session-search/34)

**A11: Advances in Atmospheric Infrasound**

[\(<http://sites.agu.org/fallmeeting/scientific-program/session-search/46>\)](http://sites.agu.org/fallmeeting/scientific-program/session-search/46)

**DI05: Understanding the Electrical Conductivity of Earth's Mantle: Insights from Imaging, Experiments and Joint Interpretation**

[\(<http://sites.agu.org/fallmeeting/scientific-program/session-search/208>\)](http://sites.agu.org/fallmeeting/scientific-program/session-search/208)

**DI12: Seismic Anisotropy from the Core Mantle Boundary to the Lithosphere**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/212>)

**DI17: The Mantle Transition Zone: a Window into the Deep Earth**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/216>)

**ED17: Communicating Research and its Impacts: Research Geoscientists**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/236>)

**ED46: Teaching in the Classroom with Seismic Waves**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/265>)

**ED52: Using-Sharing Online Education Resources in the Modern Geoscience Classroom** (<http://sites.agu.org/fallmeeting/scientific-program/session-search/271>)

**EP13: High-Resolution Topographic Data Processing, Analysis, and Visualization: Emerging Techniques and Applications** (<http://sites.agu.org/fallmeeting/scientific-program/session-search/283>)

**G09: InSAR Applications for the Detection of Crustal Deformation**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/310>)

**G14: Plate Motion and Continental Tectonics**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/315>)

**G15: Real-Time GNSS Data Applications and Techniques: GPS Seismology and Beyond** (<http://sites.agu.org/fallmeeting/scientific-program/session-search/316>)

**GP04: Crustal Imaging with Potential Fields: Applications to Tectonics, Hazards, and Resources** (<http://sites.agu.org/fallmeeting/scientific-program/session-search/387>)

**S02: 3D Seismic Imaging** (<http://sites.agu.org/fallmeeting/scientific-program/session-search/718>)

**S05: Advances in Signal Processing Methods for Seismology**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/721>)

**S13: Lessons Learned From the 2010, Maule Earthquake**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/727>)

**S14: Monitoring Temporal Changes of Earth's Properties with Seismic Waves**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/728>)

**S16: Observations and Modeling of Tremor and Slow Slip and Implications for Plate Boundaries** (<http://sites.agu.org/fallmeeting/scientific-program/session-search/730>)

**S17: Progress in Understanding Intraplate Faulting**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/731>)

**S22: The Future of Structural Seismology** (<http://sites.agu.org/fallmeeting/scientific-program/session-search/735>)

**S23: The Static vs. Dynamic Earthquake Triggering Debate: What's New and What's Next?** (<http://sites.agu.org/fallmeeting/scientific-program/session-search/736>)

**S24: Toward Seismic Rupture Models with Constraints from Experimental and Seismological Observations** (<http://sites.agu.org/fallmeeting/scientific-program/session-search/737>)

**T03: Linking Plate Tectonic and Surface Processes to the Deep Earth**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/794>)

**T09: Breaking by Shearing: the Role of Transtension in Rupturing Continental Lithosphere** (<http://sites.agu.org/fallmeeting/scientific-program/session-search/800>)

**T10: Characterization of Fault Zones by Geophysical Imaging**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/801>)

**T11: Deformation Processes: Microstructure, Rheology, and the Effects of Fluids**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/802>)

**T16: Fault Slip Rate Variability: New Constraints on Temporal and Spatial Patterns** (<http://sites.agu.org/fallmeeting/scientific-program/session-search/807>)

**T25: Insights into the Megathrust: Offshore Studies at Accretionary and Erosive Subduction Margins** (<http://sites.agu.org/fallmeeting/scientific-program/session-search/815>)

- T31: Magnitude of Stress in the Continental Lithosphere**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/821>)
- T34: Mechanics of the Lithospheric Deformation During the Earthquake Cycle**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/824>)
- T36: New Constraints on Active Fault Zones from Integration of Laser Scanning, Satellite Interferometry and other Earth Imaging Methods**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/826>)
- T38: Physico-chemical Properties of Fault Rocks from the Frictional-Viscous Transition to the Shallow Crust** (<http://sites.agu.org/fallmeeting/scientific-program/session-search/828>)
- T39: Properties and Physics of Fault Zone Damage**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/829>)
- T43: Rift-to-drift Geology of the Atlantic: Insights from the US East-coast**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/833>)
- T44: Rock Physical Properties in Fault Zones through the Seismic Cycle and Implications for Earthquake Dynamics** (<http://sites.agu.org/fallmeeting/scientific-program/session-search/834>)
- T46: Sedimentation, Basin Development, and Vertical Motions along Distributed Transform Fault Systems** (<http://sites.agu.org/fallmeeting/scientific-program/session-search/836>)
- T48: Source to Subduction: The Interplay of Sedimentation and Deformation at Subduction Zones** (<http://sites.agu.org/fallmeeting/scientific-program/session-search/838>)
- T53: The Character and Evolution of Fracture Systems in Crystalline Rocks**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/843>)
- T57: What Can Fault Rocks Tell Us About Earthquake Mechanics?**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/847>)
- V10: Geophysical Observations of Stress-Strain Changes at Active Volcanoes**  
(<http://sites.agu.org/fallmeeting/scientific-program/session-search/859>)