

# 2015 AGU Fall Meeting OBSIP Related Posters, Talks, and Meetings

MONDAY, 14 DECEMBER 2015

08:00 - 12:20 *Moscone South - Poster Hall*

**DI11B-2587** Shear wave velocity structure in the lithosphere and asthenosphere across the Southern California continent and Pacific plate margin using inversion of Rayleigh wave data from the **ALBACORE** project. **Amanda Caitlyn Price**<sup>1</sup>, *Dayanthie S Weeraratne*<sup>1</sup>, *Monica D Kohler*<sup>2</sup>, *Sampath Rathnayaka*<sup>3</sup> and *Lennin Escobar Sr*<sup>1</sup>, (1)*California State University Northridge, Northridge, CA, United States*, (2)*California Institute of Technology, Pasadena, CA, United States*, (3)*University of Massachusetts Amherst, Amherst, MA, United States*

**DI11B-2593** Evolution of the LAB in Old Oceanic Lithosphere Using Shear Wave Velocities Inverted from Rayleigh Wave Data Recorded By the Marine Seismic PLATE Project for 150 Ma Seafloor **Lexine Black**<sup>1</sup>, *Teodor A Sotirov*<sup>2</sup>, *Dayanthie S Weeraratne*<sup>1</sup> and *Donald W Forsyth*<sup>3</sup>, (1)*California State University Northridge, Northridge, CA, United States*, (2)*CSUN, Van Nuys, CA, United States*, (3)*Brown Univ, Providence, RI, United States*

13:40 - 18:00 *Moscone South - Poster Hall*

**B13B-0604** Characterization of H/V Spectral Ratios for the Assessment of Slope Stability in the Gas Hydrate-rich Area: an Example from Offshore SW Taiwan **Jing-Yi Lin**<sup>1</sup>, *Ching-Hui Tsia*<sup>1</sup>, *Win-Bin Cheng*<sup>2</sup>, *Shao-Jinn Chin*<sup>1</sup>, *Shiao-Shan Lin*<sup>1</sup> and *Chin-Wei Liang*<sup>3</sup>, (1)*NCU National Central University of Taiwan, Jhongli, Taiwan*, (2)*JinWen University of Science and Technology, New Taipei City, Taiwan*, (3)*Department of Earth Sciences, National Central University, Chung-Li, Taiwan*

Talks:

11:20 - 11:35 *Moscone South - 304*

**T12C-05** Teleseismic receiver and transfer function modeling of OBS data: Resolving plate structure in the locked zone of Cascadia **Pascal Audet**, *University of Ottawa, Ottawa, ON, Canada*

12:30 - 13:30 Moscone West - 2003

**TH13B Exploring a Subduction Zone Observatory** **Joan S Gomberg**, USGS Western Regional Offices Seattle, Seattle, WA, United States, **Kerry Sieh**, Nanyang Technological University, Singapore, Singapore, **Susan Y Schwartz**, University of California-Santa Cruz, Santa Cruz, CA, United States, **Shuichi Kodaira**, JAMSTEC Japan Agency for Marine-Earth Science and Technology, Kanagawa, Japan, **Jeffrey Todd Freymueller**, University of Alaska Fairbanks, Fairbanks, AK, United States, **Sergio Eduardo Barrientos**, Universidad de Chile, Centro Simológico Nacional, Santiago, Chile and **Erik H Hauri**, Carnegie Inst Washington, Washington, DC, United States

## TUESDAY, 15 DECEMBER 2015

08:00 - 12:20 Moscone South - Poster Hall

**DI21A-2585 Seismic Anisotropy and Mantle Flow from Ridge to Trench Below the Gorda-Juan de Fuca Plate System** **Robert Martin-Short**<sup>1</sup>, **Richard M Allen**<sup>1</sup>, **Ian D Bastow**<sup>2</sup>, **Mark A Richards**<sup>1</sup> and **Eoghan Joseph Totten**<sup>3</sup>, (1)University of California Berkeley, Berkeley, CA, United States, (2)Imperial College London, London, SW7, United Kingdom, (3)Berkeley Seismological Lab, Berkeley, CA, United States

13:40 - 18:00 Moscone South - Poster Hall

**NH23A-1856 First application of tsunami back-projection and source inversion for the 2012 Haida Gwaii earthquake using tsunami data recorded on a dense array of seafloor pressure gauges** **Aditya Riadi Gusman**<sup>1</sup>, **Kenji Satake**<sup>2</sup>, **Anne F Sheehan**<sup>3</sup>, **Iyan Eka Mulia**<sup>4</sup>, **Mohammad Heidarzadeh**<sup>2</sup> and **Takuto Maeda**<sup>1</sup>, (1)Earthquake Research Institute, University of Tokyo, Tokyo, Japan, (2)University of Tokyo, Bunkyo-ku, Japan, (3)University of Colorado at Boulder, Boulder, CO, United States, (4)Kagoshima University, Kagoshima, Japan

Talks:

13:40 - 13:55 Moscone South - 305

**V23C-01 Imaging segmentation along the Cascadia subduction zone** **Richard M Allen**<sup>1</sup>, **William Bythewood Hawley**<sup>2</sup> and **Robert Martin-Short**<sup>2</sup>, (1)UC Berkeley Seismological Laboratory, Berkeley, CA, United States, (2)University of California Berkeley, Berkeley, CA, United States

17:15 - 17:30 Moscone South - 303

**DI24A-06** The Electrical Structure of the 70Ma Pacific LAB

Constrained by the NoMelt Experiment **Emily K Sarafian**<sup>1</sup>, Robert L Evans<sup>1</sup>, John A Collins<sup>2</sup>, James Elsenbeck<sup>1</sup>, Glenn A Gaetani<sup>1</sup>, James B Gaherty<sup>3</sup>, Greg Hirth<sup>4</sup> and Daniel Lizarralde<sup>1</sup>, (1)Woods Hole Oceanographic Institution, Woods Hole, MA, United States, (2)WHOI, Woods Hole, MA, United States, (3)Organization Not Listed, Washington, DC, United States, (4)Brown Univeristy, Providence, RI, United States

Special Interest Group Meeting:

16:00 - 17:30 Hotel Zelos - MOMA Room - 9th Floor

International Ocean Bottom Seismometer Special Interest Group Meeting

**WEDNESDAY, 16 DECEMBER 2015**

08:00 - 12:20 Moscone South - Poster Hall

**S31A-2714** Tectonic tremor and microseismicity associated with shallow slow slip along the northern Hikurangi Margin, New Zealand

**Erin K Todd**, University of California Santa Cruz, Santa Cruz, CA, United States and Susan Y Schwartz, University of California-Santa Cruz, Santa Cruz, CA, United States

**T33C-2955** Local Seismicity Recorded by ChilePEPPER: Implications for Dynamic Accretionary Prism Response and Long-term Prism Evolution

**Alexander de Moor**<sup>1</sup>, Anne M Trehu<sup>1</sup> and Michael D Tryon<sup>2</sup>, (1)Oregon State University, Corvallis, OR, United States, (2)Scripps Inst Oceanography, La Jolla, CA, United States

**S33C-2795** Determining OBS Instrument Orientations: A Comparison of Algorithms

**Adrian K Doran**, Scripps Institution of Oceanography, La Jolla, CA, United States and Gabi Laske, University of California San Diego, La Jolla, CA, United States

**S33D-2811** OBSIP: An Evolving Facility for the Future of

Geoscience **Brent Evers**, IRIS Consortium, Washington, DC, United States and Kasey Aderhold, Incorporated Research Institutions for Seismology, Seattle,

WA, United States

## Talks:

14:55 - 15:10 Moscone South - 305

**S33E-06** Seafloor Geodetic and Ocean Bottom Seismometer Investigation of Shallow Slow Slip Events at the Hikurangi Subduction Margin, New Zealand **Laura M Wallace**<sup>1</sup>, Spahr C Webb<sup>2</sup>, Yoshihiro Ito<sup>3</sup>, Kimihiro Mochizuki<sup>4</sup>, Susan Y Schwartz<sup>5</sup>, Anne F Sheehan<sup>6</sup>, Ryota Hino<sup>7</sup>, Stuart A Henrys<sup>8</sup>, Erin K Todd<sup>9</sup>, Bill Fry<sup>8</sup>, Stephen C Bannisters<sup>8</sup>, Justin Scott Ball<sup>6</sup> and Steven Plescia<sup>6</sup>, (1)University of Texas at Austin, Institute for Geophysics, Austin, TX, United States, (2)Lamont Doherty Earth Observ, Palisades, NY, United States, (3)Disaster Prevention Research Institute, Kyoto University, Kyoto, Japan, (4)University of Tokyo, Bunkyo-ku, Japan, (5)University of California-Santa Cruz, Santa Cruz, CA, United States, (6)University of Colorado at Boulder, Boulder, CO, United States, (7)Tohoku University, Sendai, Japan, (8)GNS Science-Institute of Geological and Nuclear Sciences Ltd, Lower Hutt, New Zealand, (9)University of California Santa Cruz, Santa Cruz, CA, United States

16:45 - 17:00 Moscone South - 306

**T34B-04** The Cascadia Paradox: Understanding Mantle Flow in the Cascadia Subduction System **Maureen D Long**, Yale University, New Haven, CT, United States

## THURSDAY, 17 DECEMBER 2015

08:00 - 12:20 Moscone South - Poster Hall

**S41B-2761** Microseism Directivity from Noise Cross-correlation **Zhao Chen**<sup>1</sup>, Peter Gerstoft<sup>2</sup> and Peter D Bromirski<sup>2</sup>, (1)Scripps Institution of Oceanography, La Jolla, CA, United States, (2)University of California San Diego, La Jolla, CA, United States

**T41D-2925** Constraints on Flow Dynamics within the Oceanic Asthenosphere from a High-Resolution Estimate of Seismic Anisotropy **James B Gaherty**<sup>1</sup>, Pei-Ying Lin<sup>2</sup>, Ge Jin<sup>2</sup>, John A Collins<sup>3</sup>, Daniel Lizarralde<sup>4</sup>, Robert L Evans<sup>4</sup>, Greg Hirth<sup>5</sup> and Hannah Friendly Mark<sup>6</sup>, (1)Organization Not Listed, Washington, DC, United States, (2)LDEO, Columbia Univ., Palisades, NY, United States, (3)WHOI, Woods Hole, MA, United States, (4)Woods Hole Oceanographic Institution, Woods Hole, MA, United States, (5)Brown Univeristy, Providence, RI, United States, (6)Massachusetts Institute of Technology, Cambridge, MA, United States

**S41B-2727** A 3D Seismic Velocity Model Offshore Southern California from Ambient Noise Tomography of the ALBACORE OBS Array **Monica D Kohler**<sup>1</sup>, Daniel C Bowden<sup>1</sup>, Victor C Tsai<sup>1</sup> and Dayanthie S Weeraratne<sup>2</sup>, (1)California Institute of Technology, Pasadena, CA, United States, (2)California State University Northridge, Northridge, CA, United States

**T41D-2929** Lithospheric Shear Velocity Structure of South Island, New Zealand from Rayleigh Wave Tomography of Amphibious Array Data **Justin Scott Ball**<sup>1</sup>, Anne F Sheehan<sup>1</sup>, Josh C Stachnik<sup>2</sup>, Fan-Chi Lin<sup>3</sup> and John A Collins<sup>4</sup>, (1)University of Colorado at Boulder, Boulder, CO, United States, (2)Lehigh University, Department of Earth and Environmental Sciences, Bethlehem, PA, United States, (3)University of Utah, Salt Lake City, UT, United States, (4)WHOI, Woods Hole, MA, United States

13:40 - 18:00 Moscone South - Poster Hall

**T43A-2977** The crustal structures from Wuyi-Yunkai orogen to Taiwan orogen: the onshore-offshore wide-angle seismic experiment of TAIGER and ATSEE projects **Hao Kuo**<sup>1</sup>, Nick Yao-Wen Kuo<sup>1</sup>, Chien-Ying Wang<sup>1</sup>, Xin Jin<sup>2</sup>, Hui-Teng Cai<sup>2</sup>, Jing Yi Lin<sup>1</sup>, Francis T Wu<sup>3</sup>, Horng-Yuan Yen<sup>1</sup>, Bor-Shouh Huang<sup>4</sup>, Wen-Tzong Liang<sup>4</sup>, David A Okaya<sup>5</sup>, Larry D Brown<sup>6</sup> and Across Taiwan Strait Explosion Experiment (ATSEE) and Taiwan Integrated Geodynamics Research project (TAIGER), (1)Department of Earth Sciences, National Central University, Jhongli, Taiwan, (2)Earthquake Administration of Fujian Province, Fuzhou, China, (3)SUNY at Binghamton, Binghamton, NY, United States, (4)Institute of Earth Sciences, Academia Sinica, Taipei, Taiwan, (5)University of Southern California, Los Angeles, CA, United States, (6)Cornell University, Ithaca, NY, United States

**OS43A-2000** Analysis of microearthquakes at the non-transform offset of the Mid-Atlantic Ridge hosting the Rainbow hydrothermal system (36°14'N) **Greg Horning**<sup>1</sup>, Juan Pablo Canales<sup>2</sup>, Robert A Sohn<sup>2</sup> and Robert A Dunn<sup>3</sup>, (1)Woods Hole Oceanographic Institution, Woods Hole, MA, United States, (2)Woods Hole Oceanographic Institution, Geology & Geophysics, Woods Hole, MA, United States, (3)University of Hawaii at Manoa, Geology and Geophysics, Honolulu, HI, United States

Talks:

08:15 - 08:30 Moscone South - 304

**T41F-02** Early-stage rifting in the southwest East African Rift: Insights

from new reflection seismic data from Lakes Tanganyika and Malawi (Nyasa)**Christopher A Scholz**<sup>1</sup>, Douglas A Wood<sup>1</sup>, Donna J Shillington<sup>2</sup>, Tannis McCartney<sup>1</sup> and Natalie J Accardo<sup>3</sup>, (1)Syracuse University, Syracuse, NY, United States, (2)Lamont -Doherty Earth Observatory, Palisades, NY, United States, (3)Columbia University of New York, Palisades, NY, United States

09:00 - 09:15 Moscone South - 306

**T41G-05** Existing Instrumentation and Scientific Drivers for a Subduction Zone Observatory in Latin America**Andrew Frassetto**, Robert Woodward and Robert S Detrick, Incorporated Research Institutions for Seismology (IRIS), Washington, DC, United States

13:55 - 14:10 Moscone South - 305

**S43E-02** Multi-scale comparison of source parameter estimation using empirical Green's function approach**Xiaowei Chen**, University of Oklahoma Norman Campus, School of Geology and Geophysics, Norman, OK, United States and Yifang Cheng, University of Oklahoma Norman Campus, Norman, OK, United States

13:55 - 14:10 Moscone South - 304

**T43H-02** Active-source seismic imaging below Lake Malawi (Nyasa) from the SEGMeNT project**Donna J Shillington**<sup>1</sup>, Christopher A Scholz<sup>2</sup>, James B Gaherty<sup>3</sup>, Natalie J Accardo<sup>1</sup>, Tannis McCartney<sup>2</sup>, Patrick R.N. Chindandali<sup>4</sup>, Godson Kamihanda<sup>5</sup>, Per Trinhammer<sup>6</sup>, Douglas A Wood<sup>2</sup>, Mtelega Khalfan<sup>7</sup>, Cynthia J Ebingers<sup>8</sup>, Andrew Nyblade<sup>9</sup>, Gabriel John Mbogonis<sup>5</sup>, Abdul H Mruma<sup>5</sup>, Jalf Salima<sup>4</sup> and Richard Ferdinand-Wambura<sup>7</sup>, (1)Columbia University of New York, Palisades, NY, United States, (2)Syracuse University, Syracuse, NY, United States, (3)Organization Not Listed, Washington, DC, United States, (4)Geological Survey of Malawi, Zomba, Malawi, (5)Geological Survey of Tanzania, Dodoma, Tanzania, (6)Aarhus University, Aarhus C, Denmark, (7)University of Dar es Salaam, Dar es Salaam, Tanzania, (8)University of Rochester, Rochester, NY, United States, (9)Penn St Univ, University Park, PA, United States

16:30 - 16:45 Moscone South - 104

**T44B-03** Surface-Wave Imaging of the Juan de Fuca Plate and Cascadia Subduction Zone**Helen A Janiszewski**, Columbia University of New York, Palisades, NY, United States, James B Gaherty, Organization Not Listed, Washington, DC, United States and Geoffrey A Abers, Cornell University, Ithaca, NY, United States

17:00 - 17:15 Moscone South - 307

**S44B-05** A tale of two seafloor eruptions: Comparing seismic data from the 2006 East Pacific Rise and 2015 Axial Seamount eruptions **Maya Tolstoy**, LDEO-Columbia Univ, Palisades, NY, United States, **William S D Wilcock**, University of Washington Seattle Campus, Seattle, WA, United States, **Yen Joe Tan**, Columbia University of New York, Palisades, NY, United States and **Felix Waldhauser**, Columbia University, Lamont-Doherty Earth Observatory, Palisades, NY, United States

17:15 - 17:30 Moscone South - 104

**T44B-06** Cascadia Initiative Reveals Accumulation of Buoyant Material Beneath the Subducting Juan de Fuca Plate **William Bythewood Hawley**<sup>1</sup>, **Richard M Allen**<sup>2</sup> and **Mark A Richards**<sup>2</sup>, (1)Berkeley Seismological Laboratory, Berkeley, CA, United States, (2)University of California Berkeley, Berkeley, CA, United States

## FRIDAY, 18 DECEMBER 2015

08:00 - 12:20 Moscone South - Poster Hall

**T51D-2904** Ocean Bottom Seismograph Performance during the Cascadia Initiative **Kasey Aderhold**, Incorporated Research Institutions for Seismology, Seattle, WA, United States and **Brent Evers**, IRIS Consortium, Washington, DC, United States

**T51G-3000** Rayleigh-wave imaging of upper-mantle shear velocities beneath the Malawi Rift; Preliminary results from the SEGMeNT experiment **Natalie J Accardo**<sup>1</sup>, **James B Gaherty**<sup>2</sup>, **Donna J Shillington**<sup>3</sup>, **Andrew Nyblade**<sup>4</sup>, **Cynthia J Ebinger**<sup>5</sup>, **Gabriel John Mbogoni**<sup>6</sup>, **Patrick R.N. Chindandaliz**<sup>7</sup>, **Gabriel Daudi Mulibo**<sup>8</sup>, **Richard Ferdinand-Wambura**<sup>8</sup> and **Godson Kamihanda**<sup>6</sup>, (1)Columbia University, New York, NY, United States, (2)Organization Not Listed, Washington, DC, United States, (3)Columbia University of New York, Palisades, NY, United States, (4)Penn St Univ, University Park, PA, United States, (5)University of Rochester, Rochester, NY, United States, (6)Geological Survey of Tanzania, Dodoma, Tanzania, (7)Geological Survey of Malawi, Zomba, Malawi, (8)University of Dar es Salaam, Dar es Salaam, Tanzania

**T51D-2900** Seismic velocity structure of the sediment seaward of Cascadia Subduction Zone deformation front **Shuoshuo Han**, Lamont - Doherty Earth Observatory, Palisades, NY, United States; **University of Texas Institute for Geophysics**, Austin, TX, United States, **James C Gibson**, Columbia University, New York, NY, United States, **Suzanne M Carbotte**, Lamont-Doherty Earth Obs, Palisades, NY, United States, **Juan Pablo Canales**, Woods Hole

*Oceanographic Institution, Woods Hole, MA, United States, Mladen R Nedimovic, Dalhousie University, Halifax, NS, Canada and Helene Delphine Carton, Institut de Physique du Globe de Paris, Paris, France*

**T51D-2903** Seismic Attenuation of Teleseismic Body Waves in Cascadia, Measured on the Amphibious Array **Zach Eilon**, Lamont - Doherty Earth Observatory, Palisades, NY, United States and **Geoffrey A Abers**, Cornell University, Ithaca, NY, United States

**T51D-2902** Event Detection and Location of Earthquakes Using the Cascadia Initiative Dataset **Emily Morton**, New Mexico Institute of Mining and Technology, Earth and Environmental Science, Socorro, NM, United States, **Susan L Bilek**, New Mexico Tech, Socorro, NM, United States and **Charlotte A Rowe**, Los Alamos National Laboratory, Earth and Environmental Sciences, Los Alamos, NM, United States

**S51A-2635** Constraining Earthquake Source Parameters in Rupture Patches and Rupture Barriers on Gofar Transform Fault, East Pacific Rise from Ocean Bottom Seismic Data **Pamela A Moyer**<sup>1</sup>, **Margaret S Boettcher**<sup>1</sup>, **Jeffrey Joseph McGuire**<sup>2</sup> and **John A Collins**<sup>3</sup>, (1)University of New Hampshire Main Campus, Durham, NH, United States, (2)Woods Hole Oceanographic Ins, Geology and Geophysics, Woods Hole, MA, United States, (3)WHOI, Woods Hole, MA, United States

13:40 - 18:00 Moscone South - Poster Hall

**S53A-2778** Applying a New Event Detection Algorithm to an Ocean Bottom Seismometer Dataset Recorded Offshore Southern California **Jordan Bishop**<sup>1</sup>, **Monica D Kohler**<sup>2</sup>, **Julian Bunn**<sup>2</sup> and **K. Mani Chandry**<sup>2</sup>, (1)University of North Carolina at Chapel Hill, Chapel Hill, NC, United States, (2)California Institute of Technology, Pasadena, CA, United States

**S53A-2748** Multiscale 2D Inversions of Active-source First-arrival Times in Taiwan **Li Zhao**, Institute of Earth Sciences Academia Sinica, Taipei, Taiwan, **Yu-Pin Lin**, University of Southern California, Earth Sciences, Los Angeles, CA, United States and **Shu-Huei Hung**, NTU National Taiwan University, Taipei, Taiwan