### Session Information

**Oral Sessions**
Sessions are being held in the *Convention Center (CC)* and *Marriott Marquis (MM)*

**Poster Sessions**
Posters are on display in the following venue throughout the week: *Hall A-C (Poster Hall)*

### Session & Paper Numbering

Paper Numbers - A paper number designates the section, or other sponsoring group, and chronology of the presentation. Example: A21A-01 = Atmospheric Sciences, Tuesday, AM, concurrent session A, first paper in that session.

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The program is current as of 05 December 2018. An omitted abstract ID number in the presentation order indicates that the abstract has been withdrawn by the presenter from the session. Please refer to the online program at https://ags.confex.com/agu/fm18/meetingapp.cgi/Home for updates.

### Thursday A.M.

**DI41A (MM) Archives**

**Thursday 0800h**

**Exploring the Earth’s Core: A Multidisciplinary Approach |**

*Presiding: Marine Lasbleis,* Tokyo Institute of Technology; *Emily Hawkins,* University of California Los Angeles; *Daniele Antonangeli,* Sorbonne Université - MNHN - CNRS - IMPMC; *Arwen Deuss,* Utrecht University;

0800h **DI41A-01** Seismological explorations of Earth’s outer core: *J C E Irving,* S Cottaar, V Lekic, W Wu

0815h **DI41A-02** So, Uh... Why’s My Dynamo Look Like Rotating Convection?: *J M Aurnou,* E M King

0830h **DI41A-03** Transport Properties of Fe at Earth’s Core Conditions: Agreement between Experiment and Theory: *J F Lin,* Y Zhang, M Hou, R E Cohen
0845h **S41A-04** Erosion of a chemically stratified layer at the
top of the Earth’s core: **M Bouffard**, M Landeau, A Goument

0900h **S41A-05** Inner Core Dynamics From Patterns of
Seismic Anisotropy: **D A Frost**, B A Romanowicz, M Lasbleis

0915h **S41A-06** Constraining inner core structure using new
measurements of radial modes: **S Talavera-Soza**, H Karaoglu, A Deuss

0930h **S41A-07** Alfvén waves sustained at the inner core
boundary by the dynamics of the Earth’s surface
atmospheric masses: **S Rosat**

0945h **S41A-08** Detection of PKJKP waves in the Earth’s
correlation wavefield: New constraints on shear properties
of the Earth’s inner core: **H Tkalcic**, T S Pham

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**S41A (MM) Independence E**

**Thursday 0800h**

**Earthquake Source Physics: Unified Perspectives from Kinematic Source Imaging, Physics-Based Modeling, Laboratory Experiments, and Earthquake Geology** *(joint with G, NH, T)*

*Presiding:* Ryo Okuwaki, University of Tsukuba; Wenyuan Fan, Woods Hole Oceanographic Institution; Valere Lambert, California Institute of Technology; Zacharie Duputel, Institut de Physique du Globe de Strasbourg, UMR 7516, Université de Strasbourg/EOST, CNRS;

0800h **S41A-01** Accounting for uncertain fault geometry in
earthquake source inversion: **T Ragon**, A Sladen, M Simons

0815h **S41A-02** Development of an inversion method to extract
information on fault geometry from teleseismic data: **K Shimizu**, Y Yagi, R Okuwaki, Y Fukahaha

0830h **S41A-03** A Bayesian Image of the 2017 Kermanshah

0845h **S41A-04** Multi-fault Rupture of the Mw 6.5, 2016,
October 30th Central Italy Earthquake from Joint
Inversion of Seismic, Geodetic and Satellite Data.: **L Scognamiglio**, E Tinti, E Casarotti, G Pezzo, F Magnoni, A Avallone, M Cocco

0900h **S41A-05** Sensitivity of near-field and far-field datasets to
earthquake rupture segmentation: **A Steinberg**, H Sudhaus, F Krueger, S Heimann, M Isken, H Vasyura-Bathke, S Daout

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0915h **S41A-06** An Evolutive Linear Kinematic Source
Inversion: **H S Sanchez Reyes**, R Brossier, V M Cruz-Atienza, L Métivier, J Tago, J Virieux

0930h **S41A-07** The Weak Determinism of Large Earthquakes:
**D D Melgar**, G P Hayes

0945h **S41A-08** Resolvability of linear backprojection method
for earthquake kinematics: **J Yin**, M Denolle

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**S41B (MM) Independence F-H**

**Thursday 0800h**

**Environmental Seismology: Using Geophysical Tools for Earth Surface Processes Research** *(joint with A, NH, NS, OS)*

*Presiding:* Danica Roth, University of Oregon; Aurélien Mordret, Massachusetts Institute of Technology; Bradley Lipovsky, Harvard University; Michael Dietze, Deutsches GeoForschungsZentrum;

0800h **S41B-01** Environmental seismology: capabilities, challenges and opportunities: **N Hoviis**, J M Turowski

0816h **S41B-02** Relations between the dynamics of granular
flows and the generated seismic signal deduced from
laboratory experiments: **A Mangency**, M Farin, J de Rosny, R Toussaint, P T Trinh

0829h **S41B-03** Characterizing Along-Stream Variability in
Energy Dissipation Using Seismic Observations: **P Goodling**, K L Prestegaard, V Lekic

0842h **S41B-04** Classifying elephant behavior with seismic
detection and modeling: **T Nissen-Meyer**, B Mortimer, W Rees, P Koelmejeer

0855h **S41B-05** Analysis of Regional Seismic Data Reveals
Dominance of Buoyancy-Driven Calving at Greenland
Glaciers: **K Olsen**, M Nettes

0908h **S41B-06** Basal icequake source mechanisms beyond the

0921h **S41B-07** Nocturnal Thermal Fracturing of a Himalayan

0934h **S41B-08** Monitoring Water and Ice Dynamics in
Degrading Permafrost Using Ambient Seismic Noise: **S R James**, B J Minsley, M P Waldrop, J W Mcfarland

0947h **S41B-09** Microseismicity along Major Ross Ice Shelf Rift
Resulting from Tidal Stresses and Thermal Contraction of the Near-Surface Firn Layer: **S Olinger**, D Wiens, R C Aster, P D Bromirski, P Gerstoft, A Nyblade, R A Stephen
Multiscale Interactions Between Foreshocks, Main Shocks, and Aftershocks: Observations and Physical Mechanisms Posters (joint with T)

Presiding: Yihe Huang, University of Michigan Ann Arbor; Ahmed Elbanna, University of Illinois at Urbana Champaign; Zachary Ross, California Institute of Technology;

0800h S41C-0534 PAPER Informative space-time-magnitude-mechanism features of earthquakes in southern California: Y Cheng, Y Ben-Zion, I V Zaliapin

0800h S41C-0535 PAPER Seismicity and two-fault system of the 2018 Osaka earthquake: T E Yano, T Kimura, S Tanaka, T Takeda, S Aoi

0800h S41C-0536 PAPER Combining focal mechanisms into the ETAS model: E Maita, J Zhuang

0800h S41C-0537 PAPER Dynamic triggering of remote, intermediate-depth earthquakes in the Mariana subduction zone following the 2012 Indian Ocean earthquakes: A C Price, D Wiens

0800h S41C-0538 PAPER Did the 2008 Mw 7.9 Wenchuan earthquake trigger the occurrence of the 2017 Mw 6.5 Jiuzhaigou earthquake in Sichuan, China?: K Jia, S Zhou, J Zhuang, C Jiang, Y Guo

0800h S41C-0539 PAPER The December 20, 2016 Earthquake Swarm in the Great Salt Lake, Northern Utah: H Zhang, L Zheng, T Liu, K L Pankow

0800h S41C-0540 PAPER Small Signals from Big Data: Using Repeating Earthquakes to Explore Post-Earthquake Mainshock Rupture Processes: R Clement, I G Main, A F Bell

0800h S41C-0541 PAPER Aftershock locations of the September 2017 Tehuantepec, Mexico (M=8.2) earthquake using a temporary seismic network: A A Velasco, M S Karplus, H Gonzalez-Huizar, A L Husker, X Perez-Campos, S Ayala Cortez, O Dena

0800h S41C-0542 PAPER Automatic hypocenter determination for the aftershocks of the 2015 Gorkha earthquake, Nepal: M Yamada, T Kandel, K Tamaribuchi

0800h S41C-0543 PAPER The largest aftershock of the Wenchuan earthquake: B Liu, M Xie

0800h S41C-0544 PAPER Relocation of the aftershock sequence of the M7.0 Jiuzhaigou earthquake and its seismogenic structure: Y Han, L Meng, Y Zang, Y Wang, L Zhou
Beyond the Earthquake Cycle: Field and Modeling Constraints of Earthquake Rupture Along Complex-Geometry Fault Systems and Implications for Seismic Hazard Assessment

Posters (joint with NH, T)

Presiding: Olaf Zielke, KAUST; Oona Scotti, IRSN Institut de Radioprotection et de Sûreté Nucléaire; Paul Mai, Division of Physical Sciences & Engineering; Laura Peruzza, National Institute of Oceanography and Applied Geophysics OGS;

0800h S41D-0556 POSTER A teleseismic finite-fault rupture analysis of the May 21, 2014 Bay of Bengal earthquake (Mw 6.1) and its tectonic implications.: P Kumar, W K Mohanty

0800h S41D-0557 POSTER Anatomy of the 2017 Ayvacik Earthquake Sequence (NW Turkey) identified by seismology and InSAR: Seismo-geodetic evolution of a listric fault: F Bulut, E Havazli, C Yaltirak, A Dogru, H Ozener

0800h S41D-0558 POSTER Rupture Process Joint Inversion of the 2017 Ms6.6 Jinghe Earthquake, Based on 3-D Grid Search Processes for the Hypocentral Depth and Fault Plane Parameters: P Wang, Y Zhang, W Feng

0800h S41D-0559 POSTER Integrating seismic source inversion, hypocenter relocation, and geodetic data to resolve the source of the Mw 6.1 earthquake near Fariman, Iran on 5 April 2017: D Graybeal, F Deng, S K Hosseini, J Braunmiller, T H Dixon

0800h S41D-0560 POSTER Fault Interactions and Synchronization: Insight from the 1936-1997 NE Lut, Iran, Earthquake Sequence: M Marchandon, M Vergnolle, O Cavalié

0800h S41D-0561 POSTER Seismic source characterization of faults in the Portland and Tualatin Basins and a paleoseismic study of the Gales Creek Fault, OR: A E Horst, A R Streig, R E Wells

0800h S41D-0562 POSTER Analysis of corner frequencies and high-frequency components of seismic waves at near field based on rupture dynamics of complex faults: J Cheng, F Hu, X Chen

0800h S41D-0563 POSTER Dynamic rupture transfer from reverse to strike-slip faults:FDP-BIEM simulation of the 2018, Mw5.5, northern Osaka, Japan, earthquake: R Ando, K Imanishi, T Uchide

0800h S41D-0564 POSTER Physics-based Simulator of Short- and Long-Term Seismicity: application to the Central Apennines Region: M Murr, R Carluccio, R Console, G Falcone, M Taroni, P Vanni

0800h S41D-0565 POSTER Earthquake Scenarios Determined from Dynamic Rupture Simulations on the Xiaojiang Fault System, Yunnan, China: H Yu, Z Zhang, W Zhang, X Chen

0800h S41D-0566 POSTER Effects of geometry and stress field on dynamic ruptures by 3D numerical simulation of BIEM with unstructured meshes: F Qian, X Feng, B Wu, H Zhang

0800h S41D-0567 POSTER Stress-Field and Yielding Around Faults with Multiscale Roughness: A Sagi, V Lyakhovsky

0800h S41D-0568 POSTER What is the effect of asymmetric topography on rupture propagation across the Cajon pass?: C Kyriakopoulos, D D Oglesby, B Wu, G Funning

0800h S41D-0569 POSTER Probabilities of Earthquakes in the San Andreas Fault System: Estimations from RQSlsim Simulations: J J Gilchrist, T H Jordan, K R Milner

0800h S41D-0570 POSTER Earthquake cycle modeling of curvilinear non-planar faults: 1992, Landers earthquake sequence.: G Galyvez, D B Peter, P M Mai

0800h S41D-0571 POSTER What Stops Earthquake Rupture: D D Jackson

0800h S41D-0572 POSTER Magnitude-Frequency Distribution of Simulated Earthquake Cycles in Damaged Fault Zones: P Thakur, Y Huang

0800h S41D-0573 POSTER Earthquake cycling simulations by a Curved Grid Finite Difference Method: W Zhang, F Hu, Z Zhang, X Chen

0800h S41D-0574 POSTER Three-dimensional modeling of megathrust earthquakes on a subduction fault plane with large-scale geometrical complexity: B Luo, B Duan


0800h S41D-0576 POSTER Recent Paleoseismic and Tectonic Geomorphic Studies of the Meers Fault, Oklahoma Reveal Longer Rupture Lengths and More Surface Deforming Earthquakes in the Last 6,000 years: A R Streig, S E K Bennett, K T Hornsby, J C Chang, S Mahan

0800h S41D-0577 POSTER Magnitude of the 1920 Haiyuan (China) Earthquake Re-estimated Using a Combined Geological and Seismological Approach: Q Ou, J Yu, G Kulikova, B Parsons, R T Walker
S41D-0578 POSTER Correlating long-term uplift pattern with single earthquake rupture of a sub-parallel fault system based on stream profile analysis: An example from the 2016 Kumamoto, Japan, earthquake rupture zone: N Takahashi

S41D-0579 POSTER Submarine expression of the earthquake cycle: morphotectonics analysis of the normal Roseau fault (Lesser Antilles, France) from high resolution bathymetry and 3D photogrammetric models to reconstruct its slip history: J Billant, F Leclerc, J Escartin, N Gracias, K Istenic, A Arnaubec, F Nathalie, C Deplus

S41D-0580 POSTER Deformation On Parallel Fault Strands Associated With The Fault Tip Zone Of The South Alkyonides Normal Fault, Greece, Quantified Using Combined $^{36}$Cl Exposure Dating Of Wave-Cut Platforms, $^{234}$U/$^{230}$Th Coral Dating, And Detailed Mapping.: J Robertson, G Roberts, F Iezzi, M Meschis, D M Gheorghiu


S41D-0582 POSTER 3D-Geological Model of the Superficial Faults Reactivated During the 2016 Central Italy Seismic Sequence: T Volatili, T Emanuele, G Pasquini, P P Pierantoni, R Teloni, M Zambrano

S41D-0583 POSTER Coseismic Throw Variation Across Along-Strike Bends on Active Normal Faults: Implications for Displacement/Length Scaling of Earthquake Ruptures.: F Iezzi, Z K Meldon, J Faure Walker, G Roberts, H Goodall, M Wilkinson, J Robertson

S41D-0584 POSTER The distribution of slip on the Hebron Fault, Namibia: Implications for earthquakes in stable continental regions.: A Sloan, G Salomon, R I. Kahle, B Shaw-Kahle

S41D-0585 POSTER Relationship between Vs30 and fault displacement attenuation relation of PFDHA: N Inoue, N Kitada, T Takahama, M Tonagi

S41D-0586 POSTER Challenges Facing Fault-based PSHA – The FAULT2SHA ESC WG strategy: O Scotti, L Peruzza

S41D-0587 POSTER Seismic hazard estimation based on active faults data for Georgia (Sakartvelo): N S Tsereteli, O Varazanashvili, Z Gogoladze


S41D-0589 POSTER Probabilistic tsunami hazard analysis of the southern Pacific coast of Mexico: E F Salazar Monroy, D D Melgar, L Ramirez-Guzman

S41E (CC) Hall A-C (Poster Hall)

Thursday 0800h

The Role of Slow Slip Events in the Earthquake Cycle: Stressing, Triggering, and Hazard Posters (joint with G, NG, NH, T)

Presiding: Bill Fry, GNS Science; Matt Gerstenberger, GNS Science-Institute of Geological and Nuclear Sciences Ltd; Yoshihiro Kaneko, GNS Science;

S41E-0591 POSTER Earthquakes Swarms and Their Relation to Slow Slip in Interior Alaska Revealed Through Relative Earthquake Relocation: N E Sims, S G Holtkamp

S41E-0592 POSTER Effect of slow slip on uplift across the Olympic Peninsula and implications for the downwarp extent of locking on the Cascadia Subduction Zone: J P Saux, J P Loveless

S41E-0593 POSTER Periodic Slow Slip Events and Their Interactions with Megathrust Earthquakes on Northeast Japan Subduction Zone: M Khoshmanesh, M Shirzaei, J M Weston, N Uchida

S41E-0594 POSTER Rate-and-state modeling of recurrent slow slip pattern change and response to stress perturbation: Z Liu, Y Luo

S41E-0595 POSTER Slow slip transient before the Mainshock of the 2015 Kumamoto earthquake sequence: H Yue, J Geng

S41E-0596 POSTER Study on Dynamic triggering in Arunachal, Himalaya: A R Bansal, R Pasricha, N P Rao, G Singh, V V

S41E-0597 POSTER What is the role of SSE in triggering future earthquakes? An example from the 2016 Kaikoura Mw 7.8 earthquake: M Gerstenberger, B Fry, L M Wallace, Y Kaneko, D A Rhoades, I J Hamling, A Christophersen, C A Williams Jr
Interplay Between Seismic and Aseismic Slip: Implications for Fault Physics I (joint with G, S)

Presiding: Valere Lambert, California Institute of Technology; Kathryn Materna, University of California Berkeley; Tomoaki Nishikawa, Disaster Prevention Research Institute, Kyoto University; Yohei Hamada, JAMSTEC;

0800h T41B-01 Very Low Frequency Earthquakes (VLFEs) between episodic tremor and slip (ETS) events in Cascadia: A Ghosh, A A Hutchison

0815h T41B-02 Induced Stresses on the Cascadia Megathrust during ETS Events and Implications for the Triggering of Tremor: K Hall, D A Schmidt, H Houston

0830h T41B-03 Low-frequency earthquakes describe the slow slip that drives them: W B Frank, E E Brodsky

0845h T41B-04 Event size distribution of shallow tectonic tremor in the Nankai trough: M Nakano, S Yabe, H Sugioka, S Ide

0900h T41B-05 Frequent activity of shallow tectonic tremors in the southern margin of the 2011 Tohoku-Oki earthquake rupture area: K Ohta, Y Ito, S Ohyanagi, R Hino, Y Ohta, R Azuma, M Shinohara, K Mochizuki, T Sato, Y Murai

0915h T41B-06 What does a tremorgenic rock look like?: J D Kirkpatrick, A Fagereng

0930h T41B-07 Investigate episodic tremor and slow slip variability due to stress variation: Y Luo, Z Liu

0945h T41B-08 What are Low-Frequency "Earthquakes"?: A M Rubin, M G Bostock

T41G (CC) Hall A-C (Poster Hall)

Thursday 0800h

Shallow Subduction Zone Structure and Dynamics III Posters (joint with G, S, V)

Presiding: Hongfeng Yang, Chinese University of Hong Kong; Yan Hu, USTC University of Science and Technology of China; Shuichi Kodaira, Yokohama National University; Douglas Wiens, Washington University in St Louis;

0800h T41G-0371 POSTER Seismic refraction velocity structure in the vicinity of the Suruga Trough axial region revealed by OBS observations.: N Nakao, H Baba, K Imamura, K Tsuruga, Y Sekino, T Hayashi, T Aikawa, K Nakata, T Nishiimiya, Y Sawada, K Kasahara, Y Panayotopoulos, S Abe, H Sato

0800h T41G-0372 POSTER Shallow subduction zone structures of Suruga Trough, central Japan, by means of 2-D seismic reflection and refraction surveys by Tokyo University of Marine Science and Technology: K Tsuruga, Y Sekino, T Hayashi, H Baba, H Sato, R Hagita, T Aikawa, H Kondo, C Aoyama, J Kanda

0800h T41G-0373 POSTER Seismic structure of the off Fukushima, southern Japan Trench region: K Nakahigashi, T Sato, G Fujiie, T Takahashi, S Miura, S Kodaira

0800h T41G-0374 POSTER Subduction geometry and seismic structure around northern Ryukyu subduction zone: Y Yamamoto, T Takahashi, Y Ishihara, K Obana, S Miura, S Kodaira, Y Kaneda

0800h T41G-0375 POSTER Anisotropic Feature Within the Oceanic Crust and its Relationship with Low-Frequency Earthquake Activity Beneath Western Shikoku, Southwest Japan: K Shiomi, T Takeda, T Ueno

0800h T41G-0376 POSTER Plate boundary geometry resulting from lithospheric tearing at active STEPs: an analogue model approach: T Broerce, R M A Govers, D Sokoutis, E Willingshofer

0800h T41G-0377 POSTER How Shallowing Slab Dip Could Produce Extensional Upper Plate Earthquakes after a Megathrust Earthquake?: W R Buck, B Oryan

0800h T41G-0378 POSTER Vertical tectonic stress of the Lithosphere revealed by dense gravity observations around the Tsangpo Gorge, Tibet of China: G Fu

0800h T41G-0379 POSTER Geologic History of the New Caledonia Trough from Potential Fields Modeling and Tectonic Reconstruction: C Richardson, C M Burberry, I Filina

0800h T41G-0380 POSTER Tectonic Partitioning at Poorly-Coupled subduction zones: the Example of the Northern Lesser Antilles Margin.: M Laurencin, B Marcaillou, M Boucard, F Klingelhoefer, J F Lebrun, M Laigle, D Grandorge

0800h T41G-0381 POSTER Variations in Plate Curvature of the Incoming Lithosphere at the Japan Trench and Seismicity at the Trench Outer Slope: E S M Garcia, Y Ito

0800h T41G-0382 POSTER Origin of fluids involved in palo-plate-boundary décollement in the Kodiak accretionary complex: T Ishikawa, A Yamaguchi
0800h **T41G-0383 POSTER** Delimitation of segments of the Nazca and Caribbean Plates beneath Colombia using P-wave travel time residuals: **G Posada**, G Monsalve, A Cardona

0800h **T41G-0384 POSTER** Both Upper and Lower Plates Controlled the Great 2011 Tohoku-oki Earthquake: **D Zhao**, X Liu

0800h **T41G-0385 POSTER** Deformation of the oceanic asthenosphere and mantle wedge following the 2010 Mw 8.8 Maule earthquake: **Q Qiu**, J R Weiss, S Barbot, J H Foster, T J Wright, A Saunders, M G Bevis, R Smalley Jr, S Cimbaro, L E Lenzano, J Barón, J C Baez Sr, A Echalar, J Avery

0800h **T41G-0386 POSTER** Crustal Magmatism and Deformation Fabrics in Northeastern Japan Constrained by Ambient Seismic Noise: **K X Chen**, Y Gung, B Y Kuo, T Y Huang

0800h **T41G-0387 POSTER** A Decade of Seismicity in the Shallow Subduction Zone of Nicaragua-Costa Rica: **A Aguilar**, M Denolle, G A Prieto, H DeShon

0800h **T41G-0388 POSTER** Using Receiver Functions to Understand a Seismic Anomaly in Central Chile: **E Chaves**, J Domino, A Nikulin

0800h **T41G-0389 POSTER** Under-thrusting sediment velocity structure and its tectonic implications in the southernmost Ryukyu subduction system: **C F Kao**, Y C Yeh, J Y Lin, S K Hsu

0800h **T41G-0390 POSTER** 3D velocity model and receiver functions highlight forearc deformation induced by subducting bathymetric features (Central Vanuatu): **O Foix**, W C Crawford, I Koulakov, M M Regnier, A Galve, C Baillard, B Pelletier, E Garaebiti

0800h **T41G-0391 POSTER** Analysis of the tectonic deformations in the Japanese island arc following the 2011 Tohoku earthquake based on satellite geodetic data: **G M Steblow**, I S Vladimirova, Y V Gabsatarov, L I Lobkovsky

0800h **T41G-0392 POSTER** Analysis of postseismic deformations after the 2010 Maule earthquake based on GPS data: **G M Steblow**, Y V Gabsatarov, I S Vladimirova, L I Lobkovsky

**T41H (CC Hall A-C (Poster Hall))**

**Thursday 0800h**

**Shallow Subduction Zone Structure and Dynamics IV Posters (joint with G, S, V)**

**Presiding:** **Hongfeng Yang**, Chinese University of Hong Kong; **Yan Hu**,USTC University of Science and Technology of China; **Shuichi Kodaira**, Yokohama National University; **Douglas Wiens**, Washington University in St Louis;

0800h **T41H-0393 POSTER** Assessing the Generation of the 1964 Great Alaska Earthquake in Terms of the Dynamics of a Fore-arc Sliver System: **K L Haynie**, M A Jadamec

0800h **T41H-0394 POSTER** Model of Viscoelastic Relaxation of Shallow Crustal Material for Seismically Induced Tension Cracks in the Chile-Peru Forearc: **H Luo**, K Wang, J He

0800h **T41H-0395 POSTER** Reveal of the pre-seismic phase of the seismic cycle from space geodetic observations over the area of Tohoku earthquake 2011: **G M Steblow**, I A Sdelnikova, L I Lobkovsky

0800h **T41H-0396 POSTER** Rupture characteristics of outer-rise earthquakes following the 2004 Mw 9.2 Sumatra-Andaman earthquake: **S K**, A Earnest, S C

0800h **T41H-0399 POSTER** Hydro-mechanical controls on the geometry of active accretionary wedges: **I Song**

0800h **T41H-0400 POSTER** Paleo-thermal anomaly along with the decollement off the Cape of Muroto, Japan: controlled by subduction: **N Kamiya**, T Hirose, Y Yamamoto, Y Hamada, S Bowden, M Y Tsang, K Yang, S Tonai, W Lin

0800h **T41H-0401 POSTER** Initial data observed by LTBMS sensors installed in the IODP C0006G observatory: **T Kimura**, E Araki, Y Machida, K Becker, M Kinoshita, S Toczko, E Davis, M Kyo

0800h **T41H-0402 POSTER** Temperature distribution of the toe of Nankai Trough off Muroto revealed from IODP Exp370 borehole observatory: **M Kinoshita**, F Inagaki, Y Morono, V Heuer

0800h **T41H-0403 POSTER** OBS survey and preliminary results on the deep crustal structure across the Challenger Deep: **E He**, X Qiu, C Chen, Y Wang

0800h **T41H-0404 POSTER** Investigating seismogenesis of the southern Mariana subduction zone through ocean bottom seismic experiments: **G Zhu**, H Yang, J Lin

0800h **T41H-0405 POSTER** Seismicity of the Incoming Plate and Forearc at the Mariana Trench Recorded by Ocean Bottom Seismographs: **M O Eimer**, D Wiens, C Cai, D Lizaralde, H A Jasperson
0800h T41H-0406 POSTER Stress Drop Analysis of Cascadia Rupture Scenarios: M C R Sypus, K Wang, D Gao, T L Insua, S E Engelhart, A Hawkes, J S Padgett

0800h T41H-0407 POSTER Determination of coseismic frictional effects on the megathrust during the 2012 M7.6 Nicoya earthquake: S Yao, H Yang

0800h T41H-0408 POSTER Geometrical and frictional effects on incomplete rupture and shallow slip deficit in ramp-flat structures: S Li, W D Barnhart, M Moreno

0800h T41H-0409 POSTER Crustal and Upper Mantle Velocity Structure of the Northwestern South American-Caribbean Subduction Zone Revealed by the CARMAarray: J Cornthwaite, W Miao, A Levander, F Niu, M Schmitz, V Dionicio, M F Nader-Nieto, M Bezada

0800h T41H-0410 POSTER Small repeating earthquakes beneath the Tokai region, around the The Fujikawa-kako Fault Zone, central Japan, from 1979 to 2017 derived from NIED Kanto-Tokai seismic network and the NIED Hi-net.: M Matsubara, H Sato

0800h T41H-0421 POSTER Far-field Viscoelastic Postseismic Deformation of the 2011 Mw9 Tohoku Earthquake and Implications to Spatial Variations in Mantle Viscosity: Y Hu, M Wang, B Zhao, K Wang

0800h T41H-0412 POSTER A comparison of lower plate structure and morphology in subduction-zone segments affected by tsunami earthquakes: J Geersen

0800h T41H-0413 POSTER Influence of elastic properties around the shallow megathrust on tsunami earthquake rupture characteristics: V Sallares, C R Ranero

0800h T41H-0414 POSTER Dynamics of Subduction-induced Overriding Lithosphere Thinning: Numerical Modeling: Y Shi, P Huangfu, Z H Li, D Wei, F Niu

0800h T41H-0415 POSTER 2D numerical modeling of compressional buckling with vertical loading by thick sediment: Implications for the onset of subduction initiation along the western margin of East Sea (Japan Sea): B D So, S Do, J Lee, S S Kim, G B Kim

1020h NS42A-01 Combined near-surface geophysical measurements to characterize a firm aquifer in the southeastern part of the Greenland ice sheet: R R Forster, C Miège, A Legchenko, N C Schmerr, L Montgomery, O L Miller, L Koenig, D K Solomon, S Litgenberg


1050h NS42A-03 How dynamic are ice-stream beds?: R G Bingham, D Davies, E C King, A Smith, A Brisbane, M Spagnolo, A G C Graham, A Hogg, D G Vaughan


1120h NS42A-05 Permafrost characterization near Teller, Alaska, using petrophysical joint inversion of seismic and geoelectrical data: F M Wagner, S Uhlemann, B Dafflon, C Ulrich, J Peterson, H Akins, A Kemna, S Hubbard

1135h NS42A-06 Spatiotemporal changes of frozen soils in the Tibetan Plateau estimated by a processes-based model and satellite data: G Zheng, D Yang

1150h NS42A-07 Time-lapse imaging of a controlled permafrost thaw experiment with strongly non-stationary vehicle noise and a 4,000 component distributed acoustic sensing (DAS) array: N Lindsey, E R Martin, H P Lisabeth, A M Wagner, V Rodriguez Tribaldos, A Tittov, I Ekblaw, C Ulrich, S Dou, S R James, A Gelvin, S Saari, J B Ajo Franklin

1205h NS42A-08 Trends in Bedfast Lake Ice Extent on the Arctic Coastal Plain of Alaska: A Creighton, A Parsekian, M J Engram, B M Jones, C D Arp

S42A (MM) Independence E

Thursday 1020h

Earthquake Source Physics: Unified Perspectives from Kinematic Source Imaging, Physics-Based Modeling, Laboratory Experiments, and Earthquake Geology II (joint with G, NH, T)

Presiding: Ryo Okuwaki, University of Tsukuba; Wenyuan Fan, Woods Hole Oceanographic Institution; Valere Lambert, California Institute of Technology; Zacharie Duputel, Institut de Physique du Globe de Strasbourg, UMR 7516, Université de Strasbourg/EOST, CNRS;
1020h **S42A-01** High-frequency Seismic Radiation and Earthquake Rupture Complexity: Insights from Back Projection Analysis: **M Corradini**, C Satriano, P Bernard

1035h **S42A-02** Rupture Complexity in Conjugate Fault Systems: Case Studies of the Mw 7.8 Kaikoura Earthquake and the Mw 7.9 Kodiak earthquake: **A Zhang**, L Meng, B Wu, C Kyriakopoulos, D D Oglesby, N A Ruppert

1050h **S42A-03** Scaling Fossil Earthquakes from the Lab to the Field: **T P Ferrand**, A Schubnel, S B Nielsen, N Hilairet, L Labrousse

1105h **S42A-04** Criticality of Self-similar Earthquake Rupture Propagation against Energetic Barrier: **K Uemura**, S Ide, H Aochi

1120h **S42A-05** Stability of pulse-like earthquake ruptures: **N Brantut**, H Noda, D Garagash

1135h **S42A-06** Dynamics of Self-Healing Slip Pulses on Strong Velocity-Weakening Frictional Interfaces: Formation, Steady Propagation, and Interaction with Stress Heterogeneity: **A E Elbanna**, X Ma, N Lapusta

1150h **S42A-07** Stochasticity representing heterogeneity and reproducing various earthquakes: **N Aso**, R Ando, S Ide

1205h **S42A-08** Kinematic rupture processes constrained by observation-driven simulations: **Y Huang**

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**S42B (MM) Independence F-H**

**Thursday 1020h**

**Environmental Seismology: Using Geophysical Tools for Earth Surface Processes Research II (joint with A, NH, NS, OS)**

*Presiding:* **Danica Roth**, University of Oregon; **Aurélien Mordret**, Massachusetts Institute of Technology; **Bradley Lipovsky**, Harvard University; **Michael Dietze**, Deutsches GeoForschungsZentrum;

1020h **S42B-01** Primary microseisms: global-scale modeling and the importance of distant sources: **L Gualtieri**, E Stutzmann, C Juretzek, C Hadzioannou, F Ardhuin

1036h **S42B-02** Tracking tropical cyclones over their entire life cycle using seismic ambient noise: the case study of typhoon Ioke: **L Retailleau**, L Gualtieri

1049h **S42B-03** Distribution of long period seismic “hum” sources following a large storm in the north Pacific and their relation to Infragravity Waves: **B A Romanowicz**, S Maurya, T Taira

1102h **S42B-04** Seismic observation of tsunami at island broadband stations: **K Nishida**, T Maeda, Y Fukao

1115h **S42B-05** Seismic Detection of Internal Gravity Waves at the Dongsha Atoll, South China Sea: **H R Shadrox**, E E Brodsky, K A Davis

1128h **S42B-06** The Sorrells Process, Retrieval of Layered Shallow Structure and Comparison to the V530 Model: **T Tanimoto**, J Wang

1141h **S42B-07** Probing groundwater using Rayleigh wave ellipticity measurements in southern California: **E M Syracuse**, A Delorey, H S Goldberg, J B Muir

1154h **S42B-08** Hydro-seismology: Monitoring groundwater with changes in seismic velocity: **T Clements**, M Denolle, G Garven

1207h **S42B-09** Subsurface Damage after Large Earthquakes: a Story of Aftershocks, Hydrology and Dynamic Strain: **L Illien**, O Marc, F Gimbert, C Sens-Schönfelder, C Andermann, N Hovius

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**T42C (MM) Liberty N-P**

**Thursday 1020h**

**Interplay Between Seismic and Aseismic Slip: Implications for Fault Physics II (joint with G, S)**

*Presiding:* **Valere Lambert**, California Institute of Technology; **Kathryn Materna**, University of California Berkeley; **Tomoaki Nishikawa**, Disaster Prevention Research Institute, Kyoto University; **Yohei Hamada**, JAMSTEC;

1020h **T42C-01** Two-dimensional probabilistic cell automaton model for broadband slow earthquakes: **S Ide**, S Yabe

1035h **T42C-02** Slow Slip Events in Cascadia: Evidence of Chaotic Behavior from Geodetic Position Time Series: **A Gualandi**, S Michel, J P Avouac

1050h **T42C-03** Seafloor detection of multiple aseismic transients with an intervening seismic shock at the Izu-Bonin Trench: **Y Fukao**, H Sugioka, A Ito, M Yamashita, T Tonegawa, H Shiobara

1105h **T42C-04** Bimodal depth distribution of slow slip events detected using GNSS data in the Hikurangi subduction zone, New Zealand: **T Nishimura**

1120h **T42C-05** Temporal evolution of fault coupling associated with the occurrence of slow slip events in central Japan: **L Bruhat**, J Fukuda

1135h **T42C-06** Dynamic Earthquake Sequence Simulations of a Fault in a Viscoelastic Material with a SBIEM: **Y Miyake**, H Noda

1150h **T42C-07** RHEOLOGIC CONTROL ON SLIP DYNAMICS IN SEMI-BRITTLE ANALOG EXPERIMENTS: **T Birren**, J E Reber

1205h **T42C-08** Aseismic to seismic transition at the brittle to ductile transition: insights from hydrothermal ring shear experiments and a microphysical model: **A R Niemeijer**, C J Boulton, J Chen, M van den Ende, A Fagereng, N Hellebrekers, B Verberne
Thursday P.M.

**DI43B** (CC) Hall A-C (Poster Hall)

**Thursday 1340h**

**Exploring the Earth's Core: A Multidisciplinary Approach II Posters**

*Presiding: Marine Lasbleis, Tokyo Institute of Technology; Emily Hawkins, University of California Los Angeles; Daniele Antonangeli, Sorbonne Université - MNHN - CNRS - IMPMC; Arwen Deuss, Utrecht University;*

- **1340h DI43B-0016 POSTER** Refining the Velocity Gradient and Small-Scale Heterogeneity Structure of the Lowermost Outer Core: S de Silva, V F Cornier
- **1340h DI43B-0017 POSTER** Heterogeneities of the Earth’s inner core boundary by pre-critically reflected phases of PKiKP and PcP: D Krasnoshchekov, O Votchnikov, O Polishchuk
- **1340h DI43B-0018 POSTER** Thermal conductivity of iron in Earth’s core is low enough to support thermal convection: R E Cohen, J Xu, P Driscoll
- **1340h DI43B-0019 POSTER** P-V-T equation-of-state of liquid Fe from *ab-initio* simulations to the TPa regime: G Steinle-Neumann, F Wagle
- **1340h DI43B-0020 POSTER** Silicon Abundance in the Earth’s Core Constrained by a Multi-Technique Approach: D Antonangeli, D Andraut, S Ayrinhac, F Decremps, E Edmund, Y Fei, F Fiquet, M Gauthier, G Morard
- **1340h DI43B-0021 POSTER** Laboratory measurements of heat and momentum transfer in core-style convection: E K Hawkins, J M Amrou
- **1340h DI43B-0022 POSTER** Compaction of a mushy inner core: the fate of liquid trapped by fast growth.: M Lasbleis, M Kervazo
- **1340h DI43B-0023 POSTER** Normal modes constraints on inner core 1D elastic structure and density using a forward modeling Monte Carlo approach: A Robson, B A Romanowicz
- **1340h DI43B-0024 POSTER** Anisotropy heterogeneity of the top inner core in the Pacific region: X Sun, J Qin
- **1340h DI43B-0025 POSTER** Temporal Changes of Upper Part of the Earth’s Inner Core from Globally Distributed Repeating Earthquakes: Y Yang, X Song
- **1340h DI43B-0026 POSTER** Simulations of Pre-critical PKiKP Coda Waves with Implications for Small-Wavelength Heterogeneity in Earth’s Inner Core: G Pang, S M Wu, K D Koper, N J Mancinelli, G G Euler

1340h **DI43B-0027 POSTER** A Test of Hemisphericity in the Fine-Scale Structure of Earth’s Inner Core: S M Wu, G Pang, K D Koper, G G Euler

1340h **DI43B-0028 POSTER** Seismic structure near the inner-outer core boundary inferred from waveform modeling of HiNet data: P Nelson, S P Grand

1340h **DI43B-0029 POSTER** The Seismically Constrained Elastic Constants of the Earth’s Transversely Isotropic Inner Core: B G Delbridge, M Ishii

**NH43E** (CC) Hall A-C (Poster Hall)

**Thursday 1340h**

**Tsunami Research and Early Warning Posters** *(joint with G, OS, S)*

*Presiding: Y Tony Song, Jet Propulsion Laboratory; Sergio Barrientos, Universidad de Chile; Kenji Satake, University of Tokyo;*

- **1340h NH43E-1089 POSTER** Development of real-time tsunami prediction system using ocean-floor network system and its future plan: N Takahashi, K Imai, K Sueki, R Obayashi, K Emoto, T Tanabe, T Baba, Y Kaneda
- **1340h NH43E-1090 POSTER** Speeding up and boosting tsunami warning in Chile: M Fuente, S Arriola, S Riquelme, B Delouis, J A Campos
- **1340h NH43E-1091 POSTER** Automatic finite earthquake source inversion using real-time GNSS and teleseismic data for tsunami early warning: K Chen, Z Liu, Y T Song
- **1340h NH43E-1092 POSTER** Towards tsunami-safe communities in the New Zealand: Evaluating real events, exercises, drills and awareness programs.: D M Johnston
- **1340h NH43E-1093 POSTER** Tsunami Data Assimilation of OBS data around New Zealand: Y Wang, T Maeda, K Satake, M Heidarakadeh, H Su, A F Sheehan, A R Gusman
- **1340h NH43E-1094 POSTER** Ensemble Kalman Filter Outperforms Optimal Interpolation in Tsunami Waveform Assimilation: Y Yang, E M Dunham, G Barnier, M Almquist
- **1340h NH43E-1095 POSTER** Modeling the Potential Tsunami Effects on Patong Beach, Phuket, Thailand: K Veeranantawat, P Panontong, K Furlong
- **1340h NH43E-1096 POSTER** Large eddy simulation of tsunami-induced turbulent coherent structures in a 3D wave basin: Y Kim, N Kalligeris, T J Hsu, P J Lynett
1340h  **NH43E-1097** POSTER Seismogeodesy for Local Tsunami Warnings: Case Studies from the Mexico Subduction Zone: D Golriz, D Goldberg, Y Bock, X Perez-Campos, S K Singh

1340h  **NH43E-1099** POSTER Comparison of initial-analysis performance of earthquake early warning using observations near epicenters: E H Hwang, M Park, D I Seo, E Jo, D Lee, J Lee

1340h  **NH43E-1100** POSTER Determination of geotechnical and rheological properties of clay-rich soils in the Ullung Basin, East Sea: S W Jeong

1340h  **NH43E-1101** POSTER Efficient new scheme solving the linear and nonlinear dispersive wave equations for near- and far-field tsunamis: S Hata, H Takenaka, M Komatsu, T Nakamura

1340h  **NH43E-1102** POSTER Multi-array back-projection and Tsunami Early Warning: Application to 2011 Mw 9.0 Tohoku earthquake: Y Xie, L Meng

1340h  **NH43E-1103** POSTER First Tsunami Height and Waveform Inversion from Ionospheric GNSS Data and Tsunami Early Warning perspectives for Local and Distant Tsunamis.: P H Lognonne, V Rakoto, L Rolland, P Coisson, K Khelfi, D Komatitsch, E Astafyeva, M Drilleau, G Occhipinti

1340h  **NH43E-1104** POSTER Platform Testing of Real-Time Station-Based GNSS Positioning, Accelerometer & Ensemble Streams for Early Warning Applications: J A Henton, P Collins, A Rosenberger, E Ferguson, Y Lu, M Caissy

1340h  **NH43E-1105** POSTER Simulated Kinematic Ruptures and Source Inversions for Near-Shore Tsunami Early Warning of Mw8 Megathrust Earthquakes: J K Saunders, J S Haase

1340h  **NH43E-1106** POSTER The impact of fault-bend folding on models of tsunami generation and inundation: R Felix, J Hubbard, K E Bradley, L Li, A D Switzer

1340h  **NH43E-1107** POSTER Advanced Tsunami Simulations of two Hypothetical Submarine Landslides north of Puerto Rico help estimate Tsunami threat to the San Juan Coastal Area: L M Feliciano, A M Lopez

1340h  **NH43E-1108** POSTER Mathematical modeling analysis of 1755 tsunami propagation in Pernambuco and Paraiba states coast – Brazil, for present days: F Dourado, A P Cezario, R Omira, M A Baptista

1340h  **NH43E-1109** POSTER Implications on Tsunami Run-up due to Slow Ruptures Velocities.: S Riquelme, M Fuentes, J A Campos, H Schwarze

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**NS43B  (CC) Hall A-C (Poster Hall)**

**Thursday  1340h**

**Advances and Revelations from Geophysical Exploration and Observation in the Cryosphere Posters**

**Presiding: Andy Parsekian, University of Wyoming; Atsuhiro Muto, Temple University; Stephanie James, USGS Crustal Geophysics and Geochemistry Science Center Denver; Daniel McGrath, Colorado State University;**


1340h  **NS43B-0839** POSTER A Numerical Toolbox to Guide Radar and Seismic Field Campaign Planning: S Bernsen, C C Gerbi, S W Campbell, S S Vel, K A Christianson

1340h  **NS43B-0840** POSTER Broadband seismic response of the Ross Ice Shelf to tidal forcing observed by stations near grounded ice margins: J Chaput, R C Aster, P D Bromirski, P Gerstoft, R A Stephen, A Nyblade, D A Wiens

1340h  **NS43B-0841** POSTER Characterizing Meltwater Within a Firn Aquifer on the Greenland Ice Sheet using Active Source Seismology: J Guadique, N C Schmerr, C Gao, L Montgomery, S Burdick, R R Forster, L Koenig, A Legchenko, S Ligenberg, C Mige, O L Miller, D K Solomon

1340h  **NS43B-0842** POSTER Extracting the glacier snowline altitude in the Southeast Tibetan Plateau using SAR images: Z Guo, B Shen, N Wang, Y Wu, A Chen

1340h  **NS43B-0843** POSTER Aerogeophysical Analysis of Crustal Structures under the Ross Ice Shelf: M Tankersley, C S Siddoway, K J Tinto, J A Wilner, R E Bell

1340h  **NS43B-0844** POSTER Modeling of time-varying gravity signals on an alpine glacier: towards using ground-based time-lapse microgravity method to determine glacier mass balance: A Muto, E V Young

1340h  **NS43B-0845** POSTER Observations of Long-term Subsidence in an Induced Permafrost Warming Experiment Using Distributed Acoustic Sensing (DAS): V Rodriguez Tribaldos, N Lindsey, A Titov, A M Wagner, A Gelvin, I Ekblaw, C Ulrich, B M Freifeld, J B Ajo Franklin
Beyond the Earthquake Cycle: Field and Modeling Constraints of Earthquake Rupture Along Complex-Geometry Fault Systems and Implications for Seismic Hazard Assessment

Presiding: Olaf Zielke, KAUST; Paul Mai, Division of Physical Sciences & Engineering; Laura Peruzza, National Institute of Oceanography and Applied Geophysics OGS;

3D Dynamic Rupture on Fractally Rough Faults in Random Heterogeneous Media: M C B Williams, K Duru, A A Gabriel, E M Dunham
Modeling Dynamic Ruptures with High Resolution Fault Zone Physics.: X Ma, A E Elbanna
Off-fault inelastic deformation and orientations of microcracks induced by dynamic ruptures on a 3D strike-slip fault with a bend: D Liu, B Duan
Dynamic rupture simulation of the 2017 Jiuzhaigou Earthquake with the stress parameters estimated from empirical relations: F Hu, Y Zhang, X Chen
A new approach to forecasting aftershocks via Coulomb stress transfer in large, complex plate-boundary earthquakes: The 2016 M=7.8 Kaikoura, New Zealand, and 2017-2018 M≤8.2 Mexico earthquakes: S Toda, R S Stein
The Role of Viscoelastic Stress Transfer in Long-Term Earthquake Cascades: Insights After the Central Italy 2016-2017 Seismic Sequence: A Veredicchia, B Pace, F Visini, O Scotti, L Peruzza, L C Benedetti
Fault Segmentation Across The Metropolitan Chilean Megathrust: Large Tsunamigenic Potential For The Next Great Earthquake: M Carvajal, M A Cisternas, A Gubler, M Moreno, D J Meneses
1340h S43C-0598 POSTER A convenient method for a joint use of direct and indirect prior information in inversion analyses: Y Fukahata, Y Yagi

1340h S43C-0599 POSTER Automatic and routine inversion of earthquake source rupture process: X Zheng, Y Zhang, R Wang

1340h S43C-0600 POSTER Regional W-phase source inversion for moderate to large earthquakes in China and neighboring areas: X Zhao, Z Duputel, Z Yao

1340h S43C-0601 POSTER The August 3, 2014 Mw 6.1 Ludian Earthquake: Application of GPS and RADARSAT-2 SAR interferometry on a Complex Conjugated Ruptured Event in the Northwestern Yunnan Rift Zone, SW China: Y Niu, S Wang, Q Zhang, W Zhu, C Zhao, Z Lu

1340h S43C-0602 POSTER Rupture Process of the 2018 Northern Osaka Earthquake (Mw 5.6), an Earthquake Involving Both Thrust and Strike-slip Faults Near a Junction of Major Active Fault Systems Surrounding the Osaka Basin, Japan: K Asano, T Iwata, M Hallo

1340h S43C-0603 POSTER Mw6.0 Myanmar Earthquake Ruptured a Previously Undiscovered Thrust Fault: Using Aftershock Relocations, Seismic and Geodetic Inversions to infer Fault Geometry: W S B M Fadil, S Wei, X Wang, E O Lindsey, Y Wang, H Luo

1340h S43C-0604 POSTER Complex Faulting and Triggered Rupture During the 2018 Mw7.9 Offshore Kodiak, Alaska Earthquake: N A Ruppert, C Rollins, A Zhang, L Meng, S G Holtkamp, M E West, J T Freymueller

1340h S43C-0605 POSTER The 2018 Mw6.4 Hualien earthquake: Complex rupture process of a moderate event: Y C Lo, H Yue, J Sun, L Zhao

1340h S43C-0606 POSTER Using Dynamic and Kinematic models to Evaluate the Back Projection Results: B Li, B Wu, A Ghosh, D D Oglesby

1340h S43C-0607 POSTER How Does Frequency-band-limited Backprojection Image Relate to Actual Slip Behavior?: R Okuwaki, Y Yagi

1340h S43C-0608 POSTER Relationship Between High-frequency Coseismic Radiation and Fault Complexities: Inferences from the 2001 Mw 7.8 Kokoxili Earthquake and the 2008 Mw 7.9 Wenchuan Earthquake: T Huang, H Yao

1340h S43C-0609 POSTER Considering Green’s Functions and Multiple Seismic Arrays in Back-projection: D Wang

1340h S43C-0610 POSTER Unpredictability of the Final Slip Amount based on Uncertainty of the Initial Fluid Pressure and the Porosity Evolution Law: T Suzuki

1340h S43C-0611 POSTER Joint theory of friction and fracturing for earthquake rupture modelling: E Bolotskaya, B H Hager

1340h S43C-0612 POSTER State evolution laws and earthquake nucleation: R C Viesca

1340h S43C-0613 POSTER A dynamic rupture model of the 2016 Kaikoura, New Zealand Earthquake: geometrical complexity, step-overs, and slow rupture propagation.: B Wu, D D Oglesby, C Kyriakopoulos, A Zhang, L Meng

1340h S43C-0614 POSTER The Great 2004 Sumatra-Andaman Earthquake: Insights from dynamic rupture modeling: T Ulrich, E Madden, S Wollherr, T Gunawan, A A Gabriel

1340h S43C-0615 POSTER Theoretical Insights on the Evolution of Earthquake Rupture Speed on Long Faults: H Weng, J P Ampuero

1340h S43C-0616 POSTER Broadband Ground Motion and Variability from 3D Dynamic Rupture Simulations along the Wasatch Fault, Utah, incorporating both Stochastic Fault Roughness and Deterministic Long-wavelength Geometry: K Withers, M P Moschetti, K Duru

1340h S43C-0617 POSTER Verification of the corrected empirical Green’s function method– Effects of free surface on near-fault permanent displacement –: W Shuanglan, A Nozu, Y Nagasaka
1340h S43D-0619 POSTER The seismic safety evaluation of the site of interest assuming the maximum earthquake potential on the causative fault of the Gyeyangju earthquake with $M_w$ 5.8 occurring on September 12, 2016, in South Korea: H Choi, S Park, J Yang, M Noh, H M Rhee

1340h S43D-0620 POSTER Site-specific Effects on damages of 2017 Pohang earthquake $M_w$ 5.4 in Korea: J S Shin, H S Kim, C Cho, J H Park

1340h S43D-0621 POSTER Microzonation of Seismic Hazard Potential in New Taipei City, Taiwan: K S Liu, M R Yan

1340h S43D-0622 POSTER Preliminary study on construction of stochastic ground motion simulation with 1D site correction in Taiwan: J Y Huang

1340h S43D-0623 POSTER Shear-Wave Velocities and Site-Effect in Beijing, China Area: Y Peng, Z Wang, S Carpenter, Y Lyu, Y Fang, S Huang

1340h S43D-0624 POSTER Broadband Ground Motion Simulation in Taiyuan Basin by Hybrid Method: C FU, M Gao, J Wu

1340h S43D-0625 POSTER Regional three-dimensional lithospheric seismic velocity model of the South Yellow Sea and surroundings from joint inversion of gravity and surface-wave data: H Yu, Y Wen, F Chen, C Li

1340h S43D-0626 POSTER Ground-Motion Prediction Equations for the Geometric mean of Horizontal Component of Peak Ground Acceleration, and 5%-Damped Pseudo-Spectral Acceleration at Spectral Periods between 0.01 s and 8.0 s for Indo-Gangetic Plains, India: C K Keshri, W K Mohanty

1340h S43D-0627 POSTER 3D-SEM Ground Response Analysis of Kathmandu Valley during the 2015 Nepal Earthquake: R C Tiwari, N P Bhandary

1340h S43D-0628 POSTER Understanding and Predicting Nonlinear Basin Effects in Kathmandu During the 2015 $M_w$ 7.8 Gorkha Earthquake: P Ayoubi, D Asimaki

1340h S43D-0629 POSTER Temporal velocity changes in the crust associated with the 2007 South Sumatra great earthquake doublet: W C Yu, J T Lin, J Su, T R A Song, C C Kang

1340h S43D-0630 POSTER The First Strong Motion Database and GMPEs for Sumatra: S Wei, M Muzli, A Rudyanto

1340h S43D-0631 POSTER Ocean-bottom strong-motion observations at a moderate-sized offshore earthquake by the DONET real-time monitoring system: T Nakamura, N Takahashi, K Suzuki

1340h S43D-0632 POSTER Preliminary estimation of source parameters and site amplifications for the 2018 Mw 5.5 north Osaka earthquake in southwest Japan: Y P Dhakal, T Kunugi, W Suzuki, T Kimura, S Aoi

1340h S43D-0633 POSTER Strong Ground Motion Simulation for the Northern Osaka Earthquake of June 18, 2018: Y Nagasaka, A Nozu

1340h S43D-0634 POSTER Evaluation on Influence of Shallow Subsurface Structures to Earthquake Ground Motions in the Kumamoto Plain, Using the Borehole Seismic Data and P-S Logging Data: M Korenaga, S Tsuno

1340h S43D-0635 POSTER Consideration of liquefaction occurrence rate based on liquefaction damage in recent years: S Senna

1340h S43D-0637 POSTER Ground-Motion Characterization and Modeling of the 2016 Central Italy Earthquake Sequence: A Akinci, L Malagnini, I Munafò

1340h S43D-0638 POSTER Ground Motion Prediction Equations for Western Saudi Arabia and Application to Seismic Hazard Assessment: R Kiuchi, W D Mooney, H M Zahran

1340h S43D-0639 POSTER 2018 Update of the National Seismic Hazard Models for the United States: M D Petersen, A Shumway, P Powers, C S Mueller, S Rezaeian, M P Moschetti, D E McNamara, A D Frankel, K S Rukstales, O S Boyd, E Thompson, S M Hoover, N Luco, B Clayton, Y Zeng, E H Field, P Okubo

1340h S43D-0640 POSTER Moment magnitude calculation of small-to moderate-size earthquakes in the Utah region from $S_g/L_g$ spectra: J Holt, J C Pechmann, B Edwards, K D Koper, R Burlacu

1340h S43D-0641 POSTER Fully Nonergodic Ground Motion Models in Central California Using NGA-West2 and SCEC CyberShake Datasets: X Meng, C A Goulet, K R Milner, S Callaghan


1340h S43D-0643 POSTER Assessing the potential for ground-motion correction factors for the Atlantic Coastal Plain strata of the southeastern U.S.: T L Pratt

1340h S43D-0644 POSTER Evaluating the adequacy of horizontal-to-vertical spectral ratios to estimate site response from relatively thick (up to 1800 m) unconsolidated sedimentary sequences: L S Schleicher, T L Pratt

1340h S43D-0645 POSTER Modeling Long Period Ground Motion in Thick Sediments: Y Li, Y Yu

1340h S43D-0646 POSTER Real-time correction of frequency-dependent site amplification factor in time domain for earthquake early warning: Amplitude and phase delay: M Hoshiba
1340h **S43E-0647 POSTER** New Insights into Peak Ground Displacements Recorded with High-Rate GNSS: B Crowell, D D Melgar, D Goldberg, Y Bock

1340h **S43D-0648 POSTER** Uncertainties in Probabilistic Seismic Hazard Analysis for a Poisson Earthquake Occurrence Model: Y Zeng, M D Petersen

1340h **S43D-0649 POSTER** The SCEC Broadband Platform: Open-Source Software for Strong Motion Simulation and Validation: C A Goulet, F Silva, P J Maechling, J E Vidale

1340h **S43D-0650 POSTER** Recent Enhancements to the UCSB Geotechnical Array Data Portal: J H Steidl, P Hegarty

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**S43E (CC) Hall A-C (Poster Hall)**

**Thursday 1340h**

**Seismology Contributions: Advances in Instrumentation and Installation I Posters**

**Presiding:** Linda Warren, St Louis Uni-Earth & Atmos Sci; Caroline Beghein, UCLA - Earth and Space Sciences;

1340h **S43E-0651 POSTER** Construct Experimental Underwater Seismic Stations in Offshore: Y Kim, I Y Che, G Kim, H M Cho

1340h **S43E-0652 POSTER** Seismic Observations from Permanent Broadband Ocean Bottom Seismometer in Shallow Water, Western Offshore Korea: H M Cho, G Kim, I Y Che, Y Kim, I S Lim

1340h **S43E-0653 POSTER** Deep sea hydrophone calibration and signal compare with seismometer, DPG on sea floor: C R Lin, B Y Kuo, C C Wang, J P Jang, H K Chang, K H Chang, F S Lin

1340h **S43E-0654 POSTER** The First Data of the Autonomous BBOBS-NX (NX-2G) for New Era of Ocean Bottom Broadband Seismology: H Shiobara, A Ito, H Sugioka, M Shinohara

1340h **S43E-0655 POSTER** South Pacific Plume Imaging and Modeling: Y Hello, G Nolet, F Simons, J Chen, M Obayashi, A ALESSIA, S Bonnieux


1340h **S43E-0657 POSTER** A 3-Tier Seismic network for Controlling Hazards and Industrial Applications in Finland: M K Passmore, P E Malin, S G Valenzuela, T Saarno, G Kwiatek, F Blümle

1340h **S43E-0658 POSTER** Calibration of Borehole GTSN Instruments Using Seismic Array Strain for the ANZAPBO Network, California: C A Langston

1340h **S43E-0659 POSTER** A coaxial cable Bragg grating based strainmeter designed to measure the state and activities of geophysical transitional zones: J Fu, Z Li, T Wei, J Wang, Y Shen

1340h **S43E-0660 POSTER** Fibre-optic dynamic strain sensing allows imaging of seismological and structural features: P Jouset, T Reinsch, T Ryberg, H Blanck, A Clarke, R Aghaev, G P Hersir, M H Weber, C M Krawczyk, J Hennings

1340h **S43E-0661 POSTER** Optical to Seismic Signal Processing for the Fiber-Optic Distributed Sensing System: K Miah, N Ha

1340h **S43E-0662 POSTER** The potential of distributed acoustic sensing (DAS) in teleseismic studies from the Goldstone experiment: C Yu, Z Zhan, N J Lindsey, J B Ajo Franklin

1340h **S43E-0663 POSTER** New borehole seismic instruments, installations, and data from 3 different geologic settings: S G Valenzuela, M Bohnhoff, A Hofstetter, G Kwiatek, T Saarno, F Blümle, P E Malin, K Passmore, P R Passmore

1340h **S43E-0664 POSTER** Repeat in-situ measurements of rock properties using distributed acoustic sensors and earthquakes: S Glubokovskikh, R Pevzner, B Gurevich, K Tertyshnikov, A Pirogova

1340h **S43E-0665 POSTER** Distributed Acoustic Sensing Experiments in Crystalline Rock - A Field Study in Switzerland: D A Fichtner, P Paizt, C Schmelzbach, J Doetsch, A Chalar

1340h **S43E-0666 POSTER** Application of a Spectra CS-18 Seismic Calibration System at Sandia National Laboratories: B J Merchant, G W Slad


1340h **S43E-0668 POSTER** Fairfield Geotechnologies ZLand Seismic Nodes: Installing, Testing and Data Analysis at Castle Rock, Antartica: A Mostafanajad, K Arnell, B C Beaudoin, P Carpenter, N Lingutla, B O'Nell, K Nikolaus, A C Seire

1340h **S43E-0669 POSTER** Alaska TA Sensor Emplacement: Overview and Applications in Collaborating Networks: M Enders, R W Busby, J Miner, R Bierma, D Bloomquist, J Thieis

1340h **S43E-0670 POSTER** A Direct Bury Deployment in Alaska of A New Low Noise Broadband Seismometer: T Parker, K Smith, B Townsend
Seismology: AGU Fall Meeting 2018

1340h S43E-0671 POSTER A case study of broadband seismograph self-noise: W Xu, S Yuan

1340h S43E-0672 POSTER The results of the self-noise evaluation of seismometers STS-2.5 and STS-1 in CDSN after upgrading: Z Zheng, W Tong

1340h S43E-0673 POSTER Global Seismographic Network Data Quality from Signal to Noise Measurements at Tidal Frequencies: D Wilson, A T Ringer, S V Moore

1340h S43E-0674 POSTER Quality control measures and analysis of EarthScope’s USArray Transportable Array in the conterminous United States: D F Sumy, A Frassetto, K Aderhold, G Sharer, R W Busby, R S Woodward, K Hafner, F Vernon

1340h S43E-0675 POSTER Checking Data Quality of Co-located Broadband and Strong-motion Sensors in Southern California Seismic Network: Z Li, E Hauksson, T H Heaton, L A Rivera, J R Andrews

1340h S43E-0676 POSTER Detection of Instrument Gain Problems Based on Body-Wave Polarization: Application to the Hi-net Array: S Park, M Ishii


1340h S43E-0678 POSTER SEIS-UK: Delivering NERC’s Onshore Seismic Facility for the UK Earth Science Community: V Lane, D Daly, R W England

1340h S43E-0679 POSTER Comparison of 4.5-Hz Geophones to Broadband Seismometers from a Real Field Deployment: T W Rasmussen, J A Hole, A C Stanciu, K K Davenport, R Russo

1340h S43E-0680 POSTER Ongoing modernization of the Global Seismographic Network: J P Davis, C W Ebeling, K Hafner

1340h S43E-0681 POSTER Recent evolutions of the GEOSCOPE broadband seismic observatory: N Leroy, M Vallée, D Zigone, S Bonaime, F Pesqueira, J Y Thore, D Lombardi, E Stutzmann, A Bernard, C Pardo

1340h S43E-0682 POSTER Standardizing Seismic Networks in Korea: J Kwon, S Y Kang, K H Kim

T43B (MM) Liberty N-P

Thursday 1340h

Interplay Between Seismic and Aseismic Slip: Implications for Fault Physics III (joint with G, S)

Presiding: Valere Lambert, California Institute of Technology; Kathryn Materna, University of California Berkeley; Tomoaki Nishikawa, Disaster Prevention Research Institute, Kyoto University; Yohei Hamada, JAMSTEC;

1340h T43B-01 Spatially complementary tectonic earthquake swarms on a transform plate boundary in North Iceland: E Rivalta, L Passarelli, S Jonsson, S S Jakobsdottir, M Hensch, S Metzger, F Corbi, T Dahm

1345h T43B-02 Episodic creep triggering seismic slip at the Blanco Transform Fault, Blanco Ridge segment, NE Pacific: V M Kuna, J Nabelek, J Braunmiller

1410h T43B-03 Earthquake nucleation and fault slip complexity in the lower crust of central Alaska: C Tape, S G Holtkamp, V Silwal, J Hawthorne, Y Kaneko, J P Ampuero, C Ji, N A Ruppert, K Smith, M E West

1425h T43B-04 A search for longer-duration low frequency earthquakes in tremor near Parkfield, CA: J C Hawthorne

1440h T43B-05 The geodetic signature of slow slip events in the roots of the San Andreas Fault Parkfield segment: B Rousset, R Burgmann, M Campillo

1455h T43B-06 Exploring the Possibility of Dynamic Rupture Through the Creeping Section of the San Andreas Fault in a Simplified 2D Model: O Stephenson, N Lapusta

1510h T43B-07 Dynamic rupture modeling on the Hayward Fault, northern California – estimating coseismic and postseismic hazards of partially creeping faults: J Lozos, G Funning

1525h T43B-08 Slip instability and aseismic slip under multiple length scales of frictional heterogeneity: S Ray, R C Viesca

T43E (CC) Hall A-C (Poster Hall)

Thursday 1340h

Seismotectonic Processes Along Active Latin American Margins: Earthquakes and Aseismic Signatures II Posters

Presiding: Jorge Jara, Ecole Normale Supérieure Paris; Mathilde Radiguet, ISTerre Institute of Earth Sciences; William Frank, University of Southern California; Sergio Ruiz, Universidad de Chile;
1340h **T43E-0435** POSTER Kinematic Rupture of the April 24, 2017, Mw 6.9 Valparaíso earthquake from the joint inversion of teleseismic body waves and near-field data: J A Ruiz, E Contreras Reyes, F H Ortega Culaciati, P M Manriquez

1340h **T43E-0436** POSTER 2017 SSE in Guerrero Interacts with Forearc Crustal Faults, Major Earthquakes and SSE in Oaxaca, Mexico: E Kazachkina, N Cotte, J Jara, V Kostoglodov, M Radiguet, A Walpersdorf

1340h **T43E-0437** POSTER The 2017 Slow slip event in Guerrero (Mexico), seen by spatial geodesy: L Maubant, E Pathier, S Daout, M Radiguet, M P Doin, E Kazachkina, V Kostoglodov, N Cotte

1340h **T43E-0438** POSTER Earthquake Swarms and Slow Slip on a Sliver Fault in the Mexican Subduction Zone: S Fasola, M Brudzinski, S G Holtkamp, S E Graham, E Cabral-Cano

1340h **T43E-0439** POSTER Dynamic rupture simulation of the 2015 Mw 8.3 Illapel (Chile) earthquake: S Ruiz, H Aochi

1340h **T43E-0440** POSTER Dynamic Rupture Analysis of Two Northern Chile Earthquakes Mw 6.3 Located in the Double Seismic Zone in the North Of Chile.: L Cabrera, S Ruiz, C Otarola Sr, R I Madariaga

1340h **T43E-0441** POSTER Strong Motion Simulation of Valparaiso 2017 Mw 6.9 Chile earthquake using a hybrid method.: F A Blaser, S Ruiz, C Otarola Sr, J Ojeda, C Pasten Sr

1340h **T43E-0442** POSTER Seismicity Changes Preceding the September 2017 Intraplate Earthquakes Along the Mexican Subduction Zone.: M Radiguet, J Jara, E Kazachkina, L Maubant, N Cotte, V Kostoglodov

1340h **T43E-0443** POSTER Slip Distribution of the 1960 Chile Earthquake from Joint Inversion of Geodetic and Far-field Tsunami Data: K Satake, T Ho, S Watada, Y Fuji


1340h **T43E-0445** POSTER Analysis of the Tocopilla (Mw 7.7) 2007 earthquake using fully Bayesian Inverse Methods: F Ortega-Culaciati, N P Díaz, J A Ruiz, M Simons, S E Minson

1340h **T43E-0446** POSTER Insights into the tectonic boundaries around the Panama – Choco collision zone from relocation of local seismicity and first order gravity analysis: L Ramirez-Hoyos, G Monsalve, A Cardona, C Ceballos

1340h **T43E-0447** POSTER Updip seismicity streaks and frictional segmentation of the megathrust observed in the 2014 Mw 8.1 Iquique, northern Chile, earthquake sequence: H Soto, C Sippi, B Schurr, J Kummerow, G Asch, F J Tillmann, D Comte, S Ruiz, O Oncken

1340h **T43E-0448** POSTER High frequency sources controls strong motion of Mw 8.8 Maule 2010 earthquake: J Ojeda, S Ruiz, C Otarola Sr, C Pasten Sr

1340h **T43E-0449** POSTER Interseismic transient deformations along southern Peru and northern Chile subduction zone.: J Jara, A Socquet, B Roussel, A Walpersdorf, N Cotte

1340h **T43E-0450** POSTER Comparison between interplate and intraplate intermediate-depth earthquakes using dynamic modeling of the seismic source: C Otarola Sr, S Ruiz, C Herrera Sr, C E Siegel, R I Madariaga

1340h **T43E-0451** POSTER Source model of the 1906 Ecuador-Colombia earthquake (Mw8.4) based on tsunami waveforms and seismic intensity data; Implications for megathrust earthquake potential in Northern South-America: N E Pulido Hernandez, M Yoshimoto, A M Sarabia, T Sagiya, H Mora-Paez, M Arcila

1340h **T43E-0452** POSTER Tsunami source of the 1906 Ecuador-Colombia earthquake revisited: M Yoshimoto, H Kumagai

1340h **T43E-0453** POSTER Fault Slip and Strain Partitioning in Guatemala Measured by SAR Interferometry.: B Cosenza, C Lasserre, C DeMets, J Hollingsworth, K L Feigl, A P Ellis, E Molina, O Flores, H Lyon-Caen, P Briole

1340h **T43E-0454** POSTER Analysis of the 2014 (Mw 8.2) Pisagua Earthquake Sequence from Seismological and Geodetic Observations: F H Ortega Culaciati, J A Ruiz, A Maksymowicz, E Contreras Reyes, L A Rivera, V C Becerra-Carreño

1340h **T43E-0455** POSTER Non-Volcanic Tremor activity in the Chile Triple Junction detected by OBS stations: M Saez, S Ruiz, S Ide, H Sugioka

1340h **T43E-0456** POSTER Patterns in Seismic Energy and Earthquake Hazard in Northern Chile: C Hulbert, B Rouet-Leduc, I W McBrearty, P A Johnson

1340h **T43E-0457** POSTER Finite-fault slip inversion for the Mw 6 Mutata earthquake (2016), Colombia: J B Tary, D F Naranjo Hernández

1340h **T43F-0459 POSTER** Crustal Structure of the Ecuadorian Forearc from the Joint Inversion of Receiver Functions and Ambient Noise Dispersion Data: **C D Koch**, C Lynner, J R Delph, S L Beck, A Meltzer, M Hoskins, L Soto-Cordero, M C Ruiz, A P Alvarado, Y Font, M M Regnier, L Audin, P Charvis, A Rietbrock

1340h **T43F-0460 POSTER** GPS-derived coseismic displacements caused by the 2013 Acari Mw 7.0 earthquake in south Peru: **W Quiroz**, J C Villegas Lanza, A Socquet, N Cotte

1340h **T43F-0461 POSTER** Slow slip and potential earthquake triggering near Guerrero, Mexico from geodetic remote sensing: **J Maurer**, D P Bekkaert, E Tymofyeyeva, M H Huang, P S Agram, H Fattahi, A W Moore

1340h **T43F-0462 POSTER** Spatial b-value change of Intermediate-depth earthquakes in the Cauca cluster, Colombia: **Y Chang**, P Han, X Chen

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**T43F (CC) Hall A-C (Poster Hall)**

**Thursday 1340h**

**Structure and Dynamics of the Upper Mantle: Characterizing the Lithosphere–Asthenosphere System from Crust to Transition Zone IV Posters**

*Joint with DI, MR, S, V*

**Presiding:** Claire Currie, University of Alberta; Vedran Lekic, University of Maryland; Jolante van Wijk, New Mexico Institute of Mining and Technology; Andrew Schaeffer, University of Ottawa;

1340h **T43F-0463 POSTER** Imaging shear wave velocity structure of the lithospheric mantle in southeast Canada and the northeast USA.: **F A Darbyshire**, O Bagherpur Mojaver

1340h **T43F-0464 POSTER** Geophysical constraints on the Cascadia backarc mantle structure, southwestern Canada: **T C Yu**, C A Currie, M J Unsworth

1340h **T43F-0465 POSTER** Regional variations in crustal seismic attenuation across Canada from Lg waveform analysis: **C Perry**, A L Bent

1340h **T43F-0466 POSTER** New Images of upper mantle structure beneath western Canada from teleseismic body-wave tommography: **C Esteve**, A J Schaeffer, P Audet

1340h **T43F-0467 POSTER** Mapping multi-mode phase speeds of surface waves in North America with array-based dispersion analysis using USArray: **H Matsuzawa**, K Yoshizawa

1340h **T43F-0468 POSTER** Seismic evidence of the lithosphere-asthenosphere boundary in the young Juan de Fuca plate: **Y Qin**, S C Singh, J Grevemeyer

1340h **T43F-0469 POSTER** Evidence for Partial Melt in the Northern Appalachian Anomaly: **M Pirrie**, W H Menke

1340h **T43F-0470 POSTER** Upper Mantle P wave Attenuation Tomography Beneath the Southeastern United States: **A Shrivastava**, K H Liu, S S Gao

1340h **T43F-0471 POSTER** Ps mantle transition zone imaging beneath the Colorado Rocky Mountains: Evidence for an upwelling hydrous mantle: **Z Zhang**, K G Ducker, H H Huang

1340h **T43F-0472 POSTER** Imaging Structure beneath East Central United States Using CCP Stacking and Scattering Kernel Analysis of Ps and Sp Receiver Functions: **S Deng**, A Levander, S Hansen

1340h **T43F-0473 POSTER** The Northern Gulf Anomaly: characterizing asthenospheric upwelling at a continental edge using seismic velocity perturbations: **Z Krauss**, W H Menke

1340h **T43F-0474 POSTER** Toward a joint inversion of Rayleigh wave phase velocity, site amplification, and ellipticity measurements for a 3-D shear-velocity model of the U.S.: **J Cloud**, C A Dalton

1340h **T43F-0475 POSTER** Radially anisotropic shear wave velocity structure beneath eastern North America from surface wave tomography: **Z Tiao**, A Li

1340h **T43F-0476 POSTER** Improved Tomography of the Columbia River Flood Basalts and Central Idaho Regions Reveals New Geometries for the Fast Anomalies in the Upper Mantle: **A C Stanciu**, E Humphreys, R W Clayton

1340h **T43F-0477 POSTER** S-wave Relative Travel Time Tomography for Mantle Structure Beneath East Asia.: **Y W Kim**, S J Chang, J Ning, J Wen

1340h **T43F-0479 POSTER** Crustal rheology of southern Tibet constrained from lake-induced viscoelastic deformation: **M Henriquet**, J P Avouac, B G Bills

1340h **T43F-0480 POSTER** Seismic evidence for craton reworking at Ordos block: **Z Guo**, S Li, Y J Chen

1340h **T43F-0481 POSTER** Lower Crust High Velocity Layer’s Relationship with Magmatic Activity of Nansha block, South China Sea: **K Li**, C Shen, X Xie, Z Zhao, P Xi, Y Zhou
1340h **T43G-0482 POSTER** Upper Mantle Velocity Structure from Rayleigh-wave Phase Velocity Tomography Beneath the Northern Ordos block, North China: Z Yao, C Wang, E A Sandvol

1340h **T43G-0483 POSTER** 3D full waveform inversion for crust velocity in Nanling, South China: C Zhang, G Jiang, G Zhang

1340h **T43G-0484 POSTER** A Study of Crust-mantle Transition Zone Based on Pn Waveforms: Application to Tectonic Affinity Between Eastern China and southern Korean Peninsula: S Ding, S Ni, Y Kim, X He

1340h **T43G-0485 POSTER** Seismic Constraints on Erosion and Breakup of the Continental Lithosphere at the Eastern Margin of Eurasian Plate, and an Implication of Intraplate Volcanism: S Kim, J H Song, B Tazzin, J Rhie, H Tkalcic

1340h **T43G-0486 POSTER** Seismic constraints on the thermal structure of the Italian crust: C Gao, G Diaferia, F Cammarano, N Piana Agostinetti, V Lekic, J Molinari

1340h **T43G-0487 POSTER** High resolution 3-D isotropic Rayleigh wave velocity model across the Alpine-Mediterranean mobile belt: A M M E El-Sharkawy, T M Meier, S Lebedev, M Hamada, L Cristiano, C Weidle, D Koehn

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**T43G (CC) Hall A-C (Poster Hall)**

**Thursday 1340h**

**Structure and Dynamics of the Upper Mantle: Characterizing the Lithosphere–Asthenosphere System from Crust to Transition Zone V Posters (joint with DI, MR, S, V)**

**Presiding:** Claire Currie, University of Alberta; Vedran Lekic, University of Maryland; Jolante van Wijk, New Mexico Institute of Mining and Technology; Andrew Schaeffer, University of Ottawa;

1340h **T43G-0488 POSTER** Absence of Thermal Influence from the African Superswell and Cratonic Keels on the Mantle Transition Zone Beneath Southern Africa: Evidence from Receiver Function Imaging: M Sun, X Fu, K H Liu, S S Gao

1340h **T43G-0489 POSTER** Testing the upper-mantle seismic signature of plume-lithosphere interaction in the northern East-African Rift: J J Armitage, C Civiero, S D B Goes, J Hammond

1340h **T43G-0490 POSTER** Preliminary upper mantle structure beneath the Arabian Peninsula and East Africa from S-wave relative travel time tomography.: J A Lim, S J Chang, P M Mai, H H Mahrzan

1340h **T43G-0491 POSTER** P and S models of upper mantle structure beneath the northern Kenya rift and East African Plateau using new data from northeastern Uganda: C A Bressers, A Nyblade, F Tugume

1340h **T43G-0492 POSTER** Lithospheric structure of Sri Lanka – joint inversion of dispersion curves and receiver functions using a Bayesian approach: J Dreiling, F J Tilmann, X Yuan, C A Haberland, S W M Seneviratne

1340h **T43G-0494 POSTER** Image the crustal structure along the Ryukyu arc using teleseismic $s_mP$ and $p_mP$ underside reflections from the Moho: X Jia, D Sun

1340h **T43G-0495 POSTER** Receiver Function Imaging of the 410 and 660 km Discontinuities Beneath the Australian Continent: K Ba, S S Gao

1340h **T43G-0496 POSTER** Tomography of the La Reunion mantle plume by Full wave-form inversion.: M Dongmo Wamba

1340h **T43G-0497 POSTER** Crustal structure variation across the southwestern Indian Ocean from receiver functions determined at Ocean-Bottom Seismometers: G Barruel, A Dofal, F R Fontaine, L Michon, H Tkalcic

1340h **T43G-0499 POSTER** P and S-wave Velocity Structure Beneath the Equatorial Mid-Atlantic Ridge from the Joint Inversion of Teleseismic and Local Data, Collected with the PI-LAB OBS Experiment.: P Bogiatzis, C Rychert, N Harmon, J M Kendall, D Schlaphorst, S P Hicks

1340h **T43G-0500 POSTER** Lithospheric Structure of Scandinavia derived from Ambient Noise and Surface Waves: A Mauherberger, H Sadeghsorkhani, F J Tilmann, O Gudmundsson, V Maupin

1340h **T43G-0501 POSTER** The Mantle Transition Zone in Scandinavia: A Makushkina, B Tazzin, H Tkalcic, H Thybo

1340h **T43G-0502 POSTER** Lithospheric Structure of the Pantanal Wetlands, an Active Quaternary Basin in Mid-Plate South America: Results of the 3-Basins Project: M Assumpcao, M B Bianchi, M P Rocha, J Julià, J C Rivadeneyra Vera, V Cedraz

1340h **T43G-0503 POSTER** Lithosphere expression of the boundary between the Amazonian and extra-Amazonian domains of the South American Platform from travel-time seismic tomography: M P Rocha, R A Fuck, M Assumpcao, P A D Azevedo, G Affonso, I S L Costa, D Farrapo Albuquerque

1340h **T43G-0504 POSTER** Structure and Shear Velocities of the Costa Rican Subduction Zone through Receiver Function Analysis and Ambient Noise Tomography: C Petersen, R C Porter
V43G  (CC) Hall A-C (Poster Hall)

Thursday  1340h

New Insights into Oceanic Spreading Centers from Seafloor Observatories Posters (joint with B, OS, S, T)

Presiding: Christian Baillard, School of Oceanography, University of Washington; Thibaut Barreyre, K.G.J. Centre for Deep Sea Research, University of Bergen; Marjolaine Matabos, IFREMER; David Butterfield, University of Washington, NOAA/PMEL;

1340h  V43G-0094 POSTER Geological-geochemical exploration methods for hydrothermal deposits prospecting in the Southwest Indian Mid-Ocean Ridge: X Su, S Lv, H Li, C Tao

1340h  V43G-0194 POSTER Low-Velocity Anomaly in the Upper Mantle Beneath Cape Verde Inferred From Shear-Wave Tomography: J Carvalho, R Bonadio, G M Silveira, S Lebedev, J Mata, P Arroucau, T M Meier, N L Celli

1340h  V43G-0096 POSTER Towards Earthquake System Science: Constraining Basal Mantle Stress Partitioning Within the Lithosphere and Crust: R V S Kanda, A R Lowry

1340h  V43G-0057 POSTER Enigmatic Pre-collisional Extensional Tectonics in Microcontinents: E Gün, R Pysklywec, O Gogus, G Topuz, O F Bodur

1340h  V43G-0058 POSTER Dependence of lithospheric slab buoyancy on composition and convergence rate: insights from a thermally-coupled kinematic model: A Kumar, K Boonma, D Garcia-Castellanos, I Jiménez-Munt, M Fernández

1340h  V43G-0059 POSTER A three-dimensional numerical model of tectonic plates that develop due to a stress-history dependent rheology: M Ogawa, T Miyagoshi, M Kameyama

1340h  V43G-0060 POSTER Removing mantle lithosphere under orogens: Delamination versus Convective thinning: T Lei, Z H Li, M Liu

1340h  V43G-0061 POSTER Can grain boundary pre-melting explain the sharp lithosphere-asthenosphere boundary?: H Yamauchi, Y Takei

1340h  V43G-0062 POSTER 3-D Analysis of Lithospheric 'Super-Drips': Insights From High Resolution Analog Models: O Gogus, T N Santimano, N P Stoikopoulos, J Andersen, R Pysklywec, L Harris, J H J Bedard

1340h  V43G-0195 POSTER Hydrothermal plumes from the East Pacific Rise, 1.9°N-6.1°S: Plume distribution and relationship to the apparent magmatic budget: S Chen, C Tao

1340h  V43G-0196 POSTER Geochemical Diversity of Lava flows from the 8°20'N Seamount Chain Provides Insights into Seamount Evolution from a Heterogeneous Mantle: E M Conrad, M R Perfitt, M Anderson, V D Wanless, D J Fornari, P M Gregg

1340h  V43G-0197 POSTER Off-Axis Seamount Chain Lava at 8°20'N Reveal a Spatially Complex, Heterogeneous Mantle Near the East Pacific Rise: V D Wanless, M Anderson, M R Perlitt, P M Gregg, D J Fornari, E E McCully, W I Ridley

1340h  V43G-0198 POSTER Transition from rifting to seafloor spreading behind the tip of the westward propagating Cocos-Nazca spreading center: D K Smith, E M Klein, H Schouten, R Parnell-Turner, J R Cann, C Dunham, G Alodia, I Blasco, B W Wernette, D Zawadzki, E Latypova, S Afshar, S Curry

1340h  V43G-0199 POSTER Initial rifting to seafloor spreading: geochemical and petrologic variations in basalts from the Cocos-Nazca Spreading Center: B W Wernette, E M Klein, D K Smith, H Schouten, R Parnell-Turner, J R Cann, D Zawadzki, S Curry, I Blasco, C Dunham, S Afshar, G Alodia, E Latypova

1340h  V43G-0200 POSTER A Comparison of Viral Populations Inhabiting Atlantic and Pacific Oceanic Crustal Fluids: O D Nigro, B J Tully, S Jungbluth, J A Huber, M S Rappe, G Steward


1340h  V43G-0202 POSTER Near seafloor dynamics of mid-ocean ridge hydrothermal flows and formation of diffuse vents at the Lucky Strike hydrothermal field, mid-Atlantic ridge: B Wheeler, M Cannat, F J Fontaine, V Chavagnac
1340h V43G-0206 POSTER In-situ and Acoustic Observations of Hydrothermal Discharge at ASHES Vent Field: preliminary results from an OOI Cabled Array Case Study: K G Benis, G Xu, L N Germanovich, D R Jackson, A N Ivakin, A Marburg

1340h V43G-0207 POSTER Melt Supply Variations at Slow-Spreading Ridges Control Mode of Upper Crustal Construction: Constraints from Distribution of Volcanic Facies along the Lucky Strike Segment (Mid-Atlantic Ridge): C Gini, J Escartin

1340h V43G-0208 POSTER Morphological characteristics of off-axis volcanism in the vicinity of the easternmost segment of the Australian-Antarctic Ridge: H Choi, S S Kim, S H Park

1340h V43G-0209 POSTER S-Wave Anisotropy under Axial Seamount: C Baillard, W S D Wilcock, M Tolstoy, F Waldhauser

1340h V43G-0210 POSTER New seismic observations of multi-level magma sills beneath the axis of the Juan de Fuca Ridge: S M Carbotte, M Marjanovic, J P Canales, M R Nedimovic


1340h V43G-0212 POSTER Magmatic Source Estimates at Axial Seamount for the 2015 Eruption From Seafloor Deformation and Seismic Data: W Hefner, S L Noon, W Chadwick, D W Caress, D R Bohnenstiehl, J B Paduan, D A Clague

1340h V43G-0213 POSTER Seismo-Tectonic Monitoring of the Endeavour Ridge Segment: Recent and Future Expansion of Ocean Networks Canada’s NEPTUNE Observatory on the Juan de Fuca Ridge: J J Farrugia, M Heesemann, W S D Wilcock, C Baillard, L A Coogan, S F Mihaly, M Scherwath

1340h V43G-0214 POSTER Current Dynamics over a Mid-Ocean Ridge: Observations from Cabled ADCPs at the Endeavour Segment of the Juan de Fuca Ridge: S F Mihaly, M Wang, R Thomson


1340h V43G-0216 POSTER New Long-Term Subseafloor Pressure Records from the IODP Expedition 336 CORKs at North Pond, Western Flank of the Mid-Atlantic Ridge: K Becker, C G Wheat, H W Villinger, E Davis

1340h V43G-0217 POSTER Relationships between Na-Ca exchange, reaction temperature, and Sr isotopes in deep-sea hydrothermal fluids: N J Pester, S T Brown, M A Antonelli, D J DePaolo

V43j (CC) Hall A-C (Poster Hall)

Thursday 1340h

The 2018 Eruptions of Kilauea Volcano, Hawaii, and Fernandina and Sierra Negra Volcanoes, Galapagos V Posters (joint with GH, IN, S, T)

Presiding: Ingrid Johanson, USGS; Matthew Patrick, USGS; Gregory Waite, Michigan Technological University; Claire Horwell, Durham University;

1340h V43J-0254 POSTER 4D full-wave seismic tomography of the Kilauea volcano, Hawai’i: F Deng, Y Shen, N Wang, Q Wu


1340h V43J-0256 POSTER Addressing the Challenges of Ground-Based Monitoring of SO2 Emissions from the Lower East Rift Zone Eruption of Kilauea Volcano with Satellite-Based Thermal Infrared Remote Sensing: V J Realmuto, T Elias, C Kern, N A Krotkov, C Li


1340h V43J-0259 POSTER Analysis of thermal emission from Kilauea’s 2018 Lower East Rift Zone eruption, using satellite remote sensing assets: R G Vaughan, M E Rumpf, D P Mayer, M R Patrick, R L Wessels, J P Griswold

1340h V43J-0260 POSTER Andesite Erupted from Kilauea Volcano During the 2018 Eruption: C A Gansecki, R L Lee

1340h V43J-0261 POSTER Applying insights from the 2018 Kilauea East Rift eruption to modeling scoria and spatter cone formation: K G Benis

1340h V43J-0262 POSTER Assessing lava flow dynamics and rheology using sUAS data: E Lev, J Oppenheimer, B B Carr, R L Perroy, H R Dietterich, A K Diefenbach
1340h **V43J-0263** POSTER Conduit gravity-inertia oscillation, a mechanism for very long period (VLP) seismicity at Kilauea volcano: **C Liang**, J A Crozier, E M Dunham, L Karlstrom

1340h **V43J-0264** POSTER Continuous gravity reveals huge mass changes during the onset of intrusion, eruption, and collapse at Kilauea Volcano, Hawai‘i, April–May 2018: **M P Poland**, D Carbone, M R Patrick

1340h **V43J-0265** POSTER Crustal deformation associated with the 2018 eruption of Kilauea Volcano, Hawaii, revealed by ALOS-2/PALSAR-2: **T Abe**, M Ohki, T Tadono


1340h **V43J-0267** POSTER Did Excessive Rainfall Contribute to the Onset of the 2018 Kilauea Activity?: **J Farquharson**, F Amelung

1340h **V43J-0268** POSTER Episodic Magma Transport Before the Eruption of the 2018 Kilauea Volcano, Hawaii: **H Huang**, L Meng

1340h **V43J-0269** POSTER Evolution of the Pacific Tsunami Warning Center's Operational Procedures for Hawai‘i Local Earthquakes in Response to New Eruptive Activity at Kilauea Volcano: **V Sardina**, K K Koyanagi, S Weinstein, N C Becker, C McCreery

1340h **V43J-0270** POSTER Feedback Between Dike Intrusions, Opening in the Deep Rift Zones, and Flank Motion, Suggested by the Numerical Modeling of Geodetic Data Spanning 1993-1997 at Kilauea Volcano: **C Wauthier**, S Conway, Y Fukushima, M P Poland


1340h **V43J-0273** POSTER Hawaii Island Seismicity High-Precision Relocation 1986–2017: **R S Matoza**, P M Shearer


1340h **V43J-0276** POSTER Imbroglio by an Inferno: The IS-GEO Hawaii Workshop and ad hoc sensor network session: **P Marchetto**, A M Matheny, C Yang, S A Pierce, K E Maull, J Powell, J Chua, J J Leeman, G Jacobs

1340h **V43J-0277** POSTER Implications of Critical Flow Phenomena for Estimating Lava Flux During Recent Activity at Kilauea Volcano: **K V Cashman**, H R Dietterich, G Grant, J J Major

1340h **V43J-0278** POSTER Increase in pressure in the deep magma reservoir detected prior to the 2018 Kilauea eruption with ambient seismic noise interferometry: **C Donaldson**, G Olivier, F Brenguier, P Okubo, R Carey

1340h **V43J-0279** POSTER InSAR deformation time-series of the 2018 Kilauea events: depletion of the volcano, the east rift zone and the Mw 6.9 Earthquake: **X Xu**, B R Smith-Konter, L A Ward, L M Burkhard, G Blewitt, D T Sandwell

1340h **V43J-0280** POSTER Insights into Kilauea’s Magmatic Plumbing System from the Leilani 2018 Eruption: **M Rhodes**, M O Garcia

1340h **V43J-0281** POSTER Insights into Magma Mixing and Sulfur Degassing During the 2018 Kilauea Fissure Eruption via Mineral and Melt Inclusion Geochemistry: **A H Lerner**, R L Lee, C A Gansecki, P A Nadeau, P J Wallace, T Elias, C Kern, C R Thornber, L E Clark, P J Kelly, C A Werner, M Cappos

1340h **V43J-0282** POSTER Insights into the collapse of Kilauea caldera using seismicity and infrasound: **W A Thelen**, D R Shelly, G P Waite, A Wech, B Shiro

1340h **V43J-0283** POSTER Ionospheric Signature Recorded on the Hawaii GPS Network of the Mw 6.9 Earthquake and Tsunami: **L Rolland**, S A, C Twardzik, D Mikels, A Sladen, B Delouis, D Rivet, C S Larmat, F Zedek, M S Bagiya

1340h **V43J-0285** POSTER Modulation of seismic activity in Kilauea’s East Rift Zone by summit inflation and deflation: D Roman, C Wauthier, M P Poland

1340h **V43J-0286** POSTER Monitoring the Kilauea lava flow evolution using Sentinel2 and Landsat8 images in an open WebGIS environment: M Musacchio, M Silvestri, M F Buongiorno

1340h **V43J-0287** POSTER Near Field observation of 2018 Eruption of Kilauea volcano at Fissure 8 Lower East Rift Zone: A Namiki, I Sumita, M R Patrick

1340h **V43J-0288** POSTER Pāhala mantle source area earthquake swarms: reliable precursors to eruption at Kilauea?: M K Burgess, W A Thelen

1340h **V43J-0289** POSTER Preliminary Study of Mantle Fault Zone Earth Quakes Beneath Hawaii: D Worcester, H Lehto

1340h **V43J-0290** POSTER RAPID Dense Seismic Array Deployment in Response to Recent Kilauea Activity: Deployment Logistics, Array Design, and Data Quality: M Miller, J Farrell, F C Lin, S M Wu, Y Wang, E M Berg, B Shirko, P Okubo, J C Chang

1340h **V43J-0291** POSTER Reducing future risk during the 2018 Kilauea eruption: a new model for enabling subject matter expert-decision maker engagement: A Pennaz, K A Ludwig, A Wilkin

1340h **V43J-0292** POSTER Seismic Monitoring of the Kilauea Caldera Collapse Reveals Repeated Shear Failure on a Ring Fault: J Wilding, M Nettles, G Ekstrom, M Howe

1340h **V43J-0293** POSTER Shear Wave Splitting Tomography at Kilauea: J H Johnson, R Herd, J Eyles, B Shirko, B McLeod

1340h **V43J-0294** POSTER Size-resolved chemistry of volcanic aerosol from the 2018 Kilauea Lower East Rift Zone eruption, traced from source to exposed communities: E Liu, E Ilyinskaya, E Mason, P Wieser, R C W Whitty, M Edmonds, T A Mathe, T Elias, P A Nadeau, C Kern, D J Schneider, C Oppenheimer

1340h **V43J-0295** POSTER Spatiotemporal Variations of Seismic Parameters During the 2018 Kilauea East Rift Zone and Summit Activity: G Lin, F Aziz Zanjani, P Okubo

1340h **V43J-0296** POSTER Statistics of seismicity associated with a sequence of explosive eruptions at Kilauea, Hawaii: R Fillies, L H Kellogg, D L Turcotte, J B Rundle

1340h **V43J-0297** POSTER Structural readjustment due to large-scale mass redistribution at active basaltic shield volcanoes based on multi-temporal SAR satellite data: N Richter, M P Poland, A Peltier

1340h **V43J-0298** POSTER Sulfur dioxide emissions associated with the May 2018 fissure eruption in Kilauea’s Lower East Rift Zone: C Kern, T Elias, P A Nadeau, A H Lerner, C A Werner, M Cappos, L E Clor, P J Kelly, S A Carn, N Thays

1340h **V43J-0299** POSTER Synthesizing satellite, mobile monitoring, and surface networks for air quality resulting from Kilauea Volcano: L Golston, D Pan, X Guo, L Tao, R Wang, K Olander, J McSpiritt, N Li, L P Wendt, M A Zondlo

1340h **V43J-0300** POSTER Temporal Velocity Changes on the East Rift Zone of Kilauea Concurrent with the Volcanic Activity of 2018 Interpreted from Changes in Single-Station Correlation Functions: T A Lee, M Ishii, P Okubo

1340h **V43J-0301** POSTER The 2018 Kilauea Eruption along the East Rift Zone Is Becoming Voluminous Enough to Cause Substantial Global Warming Just Like Other Extensive, Effusive, Sub-aerial, Basaltic Lava Flows Found Worldwide: P L Ward

1340h **V43J-0302** POSTER The First 100 Minutes in the Life of an Hawaiian Fissure: Segment 8 on Kilauea’s Lower East Rift Zone: B F Houghton, B H Walker, T R. Orr, C M Tisdale

1340h **V43J-0303** POSTER The infrasound signal from a draining lava lake: the exceptional recordings from Halema’uma’u, Kilauea volcano in April and May 2018: G P Waite, W A Thelen, B Shirko

1340h **V43J-0304** POSTER The rapid emplacement of lava flows in the Lower East Rift Zone of Kilauea, May 2018: M E Rumpf, C Parcheta, M R. Patrick, R G Vaughan

1340h **V43J-0305** POSTER The velocity variations of the Kilauea Volcano area of Hawaii revealed by ambient noise: Z Liu, C Liang

1340h **V43J-0306** POSTER The Volcano Rapid Response Campaign after the Kilauea eruptions (VoiKilaue): J P Vernier, L Kalna, S A Diaz

1340h **V43J-0307** POSTER Triggering of the 4th May 2018 Mw 7.0 Hawaii earthquake by dike intrusion: K Chen, J D Smith, J P Avouac, Z Liu, Y T Song

1340h **V43J-0308** POSTER Understanding Summit Failure Processes during the 2018 Kilauea Eruption through Analysis of Earthquake Swarms: G Tepp, A J Hotovec-Ellis, M M Haney, W A Thelen

1340h **V43J-0309** POSTER Very Long-Period Seismic Signals and Collapse Events at the Kilauea Summit Crater in 2018: L Ye, T Lay, H Kanamori, E E Brodsky, H Tsuruoka, K Satake

1340h **V43J-0310** POSTER Volcanic signals in webcam data: Building a Change Detection and Outreach Tool: P W Webley
1340h V43K-0311 POSTER Was Kilauea’s East Rift Zone “primed” for intrusion? Possible evidence from ambient noise seismic interferometry: A F Flinders

V43K  (CC) Hall A-C (Poster Hall)

Thursday  1340h

Upper Crust Evolution: Models of Formation and Composition Posters  
(joint with S, T)

Presiding: Scott Wipperfurth, University of Maryland College Park; Jill VanTongeren, Rutgers University New Brunswick; C. Keller, Berkeley Geochronology Center; Oliver Jagoutz, Massachusetts Institute of Technology;


1340h V43K-0313 POSTER Crustal growth models demystified: J Korenaga

1340h V43K-0314 POSTER The influence of mantle refertilisation on the formation of TTGs in a plume-lid tectonic setting: R Fischer, T Gerya

1340h V43K-0315 POSTER Continental margin processes in the Neoarchean: insights from the Angikuni Lake, Nunavut, Canada: S Regan, J R Chiarenzelli, L Aspler, M L Williams, B Couzens, M J Jercinovic

1340h V43K-0316 POSTER New ~1.90 Ga Bayan Obo mélange along the northern margin of the North China craton: Implications for the assembly of Columbia supercontinent: C Wu, Z Zhou, A V Zua, G Wang, C Liu, T Jiang

1340h V43K-0317 POSTER Episodic Arc Volcanism Related to the Precambrian Supercontinent Cycle: Insights from Geochemical and Nd Isotopic Compositions of Felsic Tuffs from Proterozoic Sedimentary Basins of India: P Basu, R Chakrabarti

1340h V43K-0318 POSTER Maurice Ewing Bank Complex: A Missing Piece to Rodinia Puzzle and Beyond.: F Chemale Jr, M Rodrigues de Vargas, T J Girelli

1340h V43K-0319 POSTER Episodic Neoproterozoic magmatism in the Songnen-Zhangguangcai Range Massif, NE China: Implications for tectonic evolution of the Rodinia: J Luan, W Xu, F Wang, P Guo

1340h V43K-0320 POSTER Petrogenesis of Late Indosinian I-type Qingxi Pluton in Jiangxi Province, South China: Evidence from U-Pb Zircon Geochronology, Whole-rock Geochemistry and Sr-Nd-Hf Isotopes: L Wang, Z Zhao, X Mo

1340h V43K-0321 POSTER Petrogenesis of Mesozoic Granitic Pluton in the Eastern Hunan Province, South China: Evidence from Zircon and Whole-rock Geochemistry: Q Liu, M He, J Sun

1340h V43K-0322 POSTER Episodic crustal thickening and growth of the Gangdese arc in south Tibet: L Guo, H F Zhang

1340h V43K-0323 POSTER Cadomian basement evolution and Cenozoic crustal growth in Iran: Constraints from zircon Hf isotopes: H Y Chiu, S L Chung, M H Zarrinkoub, K N Pang, H Y Lee

1340h V43K-0324 POSTER Understanding Magmatic Processes and Evolution in Georgian Caucasus: H Y Lee, Y H Chang, S L Chung

1340h V43K-0325 POSTER Late Miocene garnet-bearing andesites in the Northern Andean Block and their tectonic implications: S Hoyos, M Weber, E Cottrell, A L Cardenás-Rozo, J Duque, A Beltrán-Triviño

1340h V43K-0326 POSTER Recovery of ⁴He concentration profiles across the zircon He partial retention zone through application of step-heating and direct laser-ablation to zircon ⁴He/³⁶⁹He thermochronology: C Brennan, D F Stockli, D B Patterson


S44A  (MM) Independence E

Thursday  1600h

Beyond the Earthquake Cycle: Field and Modeling Constraints of Earthquake Rupture Along Complex-Geometry Fault Systems and Implications for Seismic Hazard Assessment II   
(joint with NH, T)

Presiding: Olaf Zielke, KAUST; Oona Scotti, IRSN

Institut de Radioprotection et de Sûreté Nucléaire;

1600h S44A-01 Fully Physics-Based PSHA: Coupling RSQSim with Deterministic Ground Motion Simulations: K R Milner, B E Shaw, T H Jordan, S Callaghan, C A Goulet

1615h S44A-02 How does fault roughness influence surface displacement?: L Bruhat, Y Klinger, A Vallage, E M Dunham

1630h S44A-03 Radiocarbon Dating of the 1934AD Bihar-Nepal Earthquake Surface Rupture Reveals Systematic Biases that Cause Artificially Aging of Historical events: L Bollinger, M Rizza, S N Sapkota, P Tapponnier, Y Klinger, C Karakas, M Riesner
S44B (MM) Independence F-H

Thursday 1600h

**Infrasonic and Seismoacoustic Analysis for Global Security I**

*Presiding: Omar Marcillo*, Los Alamos National Laboratory; *Philip Blom*, Los Alamos National Laboratory; *Pierrick Mialle*, CTBTO Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization; *Brian Stump*, Southern Methodist University;

1600h **S44B-01** Acoustic point-source representation for vertical ground motions induced by buried explosions: *K Kim*, A Chiang, S R Ford, D Bowman

1615h **S44B-02** Infrasound Propagation in Tropospheric Ducts: *R Waxler*, M Willis, C H Hetzer, C L Talmadge

1630h **S44B-03** Infrasound Signals from the 2017 North Korean Underground Nuclear Explosion and the Subsequent Collapse Event: *J Park*, B W Stump, C Hayward, I Y Che, J D Assink, L G Evers, P S M Smets

1645h **S44B-04** Infrasonic and Seismoacoustic Waves emitted from the 2017 DPRK Underground Nuclear Test: *C Pilger*, K Koch

1700h **S44B-05** Optimizing Sensor Placement for Nuclear Forensics with Multiple Data Types: *D T Reiter*, W L Rodi, A N Ferris, R Waxler, C H Hetzer

1715h **S44B-06** Signature Analysis and Propagation Modeling of Supersonic Sources: *D Norris*, M Antolik, J T Hertzog, S Nava

1730h **S44B-08** Monitoring the Ocean by High-fidelity Sound Propagation Modeling Using Airgun Shots Ground-Truth Locations.: *R J Le Bras*, P Nielsen, A Brouwer

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1645h **S44A-04** Paleoseismology along the Himalayan Frontal Thrust (HFT) of Nepal after the Mw7.8 2015 Gorkha earthquake: *S G Wesnousky*, Y Kumahara, D Chamalagin

1700h **S44A-05** Limitations of Paleoseismic Data Along the Fastest Slipping Section of the San Andreas Fault: *S O Akciz*, L Grant Ludwig, R Arrowsmith

1715h **S44A-06** Improving confidence and revealing fault complexity using multiple sampling sites in $^{36}$Cl Quaternary slip rate studies: *H Goodall*, L C Gregory, L N J Wedmore, G Roberts, R P Shanks, K J W McCaffrey, R Amey, A J Hooper


1745h **S44A-08** Slip Deficit on the North Anatolian Fault: Implications for Pending Earthquakes Offshore Istanbul: *H Ozener*, F Bulut, B Aktug, C Yaltirak, A Dogru