Monday, December 11

C11B-02. Rapid Earth uplift in southeast Greenland driven by recent ice melt above low-viscosity upper mantle. *Maaike F.M. Weerdesteijn and Clinton P Conrad*.

C11B-03. Influence of Glacial Isostatic Adjustment on Intraplate Fault Reactivation in Eastern North America in the Presence of Lithospheric Heterogeneity and Pre-existing Weakzones. *Erin Hightower and Michael Gurnis*.

C13E-1181. The Effects of 3D Lithospheric Viscosity and Asthenosphere on GIA-induced Present-day Crustal Motion As Revealed by CitcomSVE -- the Publicly Available Software Package for Modeling Deformation of the Earth's Mantle with Compressibility. *Tao Yuan, Shijie Zhong, and Geruo A*.

DI12A-03. Effect of Lateral Viscosity Variations in the Mantle on Earth's Long-Wavelength Dynamic Topography and Free-Air Gravity. *Clinton Conrad and Florence Ramirez*.

DI13A-01. Persistent heterogeneities in the oceanic lithosphere due to differential freezing beneath ridges. *Shi Joyce Sim, Ting-Ying Yu and Christopher Havlin*.

DI13B-0043. Consistent Integration of Thermodynamics and Geodynamics using ThermoCodegen. *Marc W Spiegelman, Cian R Wilson, Owen Evans, Mark S Ghiorso, and Lucy E L Tweed.*

G11B-0431. Vertical Displacements in Eastern North America Driven by Glacial Isostatic: an Ensemble Modeling Approach. *Karen Williams, D. Sarah Stamps, Giorgio Spada and Daniele Melini*.

P11C-2726. Preparation for the Farside Seismic Suite: Seismic Propagation on the Moon. *Ceri Nunn, Benjamin Fernando, Sharon Kedar and Mark P Panning.*

P11D-2755. Physics-Based Ground Motion Simulations to Study the Far Side Seismic Characteristics of the Moon. *Sreejaya Kizhaekke Pakkathillam, Philippe Henri Lognonné, Taichi Kawamura, Taoufik Gabsi and Mark P Panning*.

S11B-02. Ambient Noise Adjoint Tomography of Northern Alaska. *Bryant Chow and Carl Tape*.

S11C-0284. Imaging upper-mantle P-wave velocity and azimuthal anisotropy structures using Pn waveform tomography. *Xueyang Bao, Bing Lu, Yao-Chong SUN and Wei Zhang*.

S11D-0290. Breaking Adria and Southern Italy: adjoint tomography of an intricate lithosphere. *Emanuele Casarotti, Federica Magnoni, Raffaele Di Stefano, maria Grazia Ciaccio*.

S11D-0292. Deeper into the Yellowstone Mantle Plume: Insights from Full-Waveform based Box Tomography. *Utpal Kumar, Chao Lyu, Federico Daniel Munch, and Barbara A Romanowicz*.

S13A-02. Short-term Temporal Stability of Teleseismic P-wave Cross-correlations during the Transit of a Single Microseism Event. *Lisa Tomasetto, Pierre Boué, and Laurent Stehly*.

S13B-05. Finite-element modeling of intermittent dynamic rupture in fault gouge using rate-and-state friction with flash heating. *Shengduo Liu, Nadia Lapusta, Vito Rubino and Ares Rosakis*.

S13C-03593D. Possible 3D Dynamic Rupture Modelling of the Mw7.8 Kahramanmaras Earthquake. *Yasemin Korkusuz Ozturk, Nurcan Meral Ozel, Ali Ozgun Konca, Jean-Paul Ampuero, Sophia Antipolis, Elif Oral, and Fatih Turhan.*

T11A-04. The Role of Pre-Existing Structures in the Initiation of the Northern Western Branch of the East African Rift System. *Asenath Kwagalakwe, D. Sarah Stamps, John B Naliboff, Michael H Taylor, Tahiry Andriantsoa Andriantsoa Rajaonarison, Rob L Evans, Estella A Atekwana, Andrew B Katumwehe, Eliot A Atekwana, Fred Tugume and John Mary Kiberu.*

T11A-08. Detachment Fault Linkage During Continental Necking, the Northern Margin of the South China Sea. *Mohamed Gouiza and Hong dan Deng*.

T11B-0163. Applications of 3D Regional Geodynamic Modeling with ASPECT to Rifting in East Africa. *D. Sarah Stamps, Tahiry Andriantsoa Andriantsoa Rajaonarison, Emmanuel Atem Njinju and Asenath Kwagalakwe.*
T11B-0164. Linkage between the Red Sea and Gulf of Aden rifts in central Afar: A 3D numerical modeling approach. *Ameha Muluneh, Dr. Sascha Brune, Derek Keir, Kidane Birke, Carolina Pagli, Giacomo Corti, and Alessandro La Rosa.*
T11B-0170. Effects of rift obliquity on strain localization and rift segmentation. *Liang Xue, Robert Moucha, and Christopher A Scholz.*
T11B-0172. Modeling Multi-phase Rifting as an Evolving Balance between Internal Structure of Lithosphere and Driving Forces. *Kuruvitage Chameera Silva, Sungho Lee, and Eunseo Choi.*
T11B-0174. The interaction of lithosphere and intrusion mantle flow induce by rift propagation. *Min Seok Jang and Byung-Dal So.*
T13B-02. Influence of Farallon Slab Loading on Intraplate Stress and Seismicity in Eastern North America in the Presence of Pre-existing Weakzones. *Erin Hightower and Michael Gurnis*.
T13C-0237. Investigating Volcano-Tectonic Interactions of the Natron Rift using 3D Numerical Modeling and Geodesy. *Ntambila Simon Daud Masungulwa, D. Sarah Stamps, Brad Aagaard, Elifuraha Saria, Kang Hyeun Ji, and Mong-Han Huang*.
T14A-04A. Catalog of Slow Slip Events at the Hikurangi Subduction Margin, New Zealand, from 2006 to 2016. *Charles A Williams Jr, Laura M Wallace, Noel M Bartlow Jackson, and Alan John Haines*.

Tuesday, December 12

DI21C-0017. Exploring the structure of the Cascadia Subduction Zone by coupling 3D thermomechanical modeling and CPO evolution with observations. *Menno Fraters, Magali I Billen, John B Naliboff, Lydia Staisch, and Janet Tilden Watt*.
DI21C-0022. Along-strike variation in overriding plate age: Impacts on Subduction dynamics and mantle flow. Pedro Gea, Ana M Negredo, Flor De Lis Mancilla, Jeroen Van Hune, and Magali I Billen
DI21C-00193D. Numerical Simulations of the Convergent Double Opposite Subduction in the Caribbean Plate During the Last 65 Million Years. *Andrés David Bayona and Vlad Constantin Manea*.
DI23A-08. Thermal Structure of the Subducting Slab and Mantle Wedge in 2D Dynamic Models of Subduction. *Magali I Billen.*
MR21A-08. Understanding Sub-Lithospheric Small-Scale Convection By Linking Models Of Grain Size Evolution, Mantle Convection and Seismic Tomography. *Juliane Dannberg, Zachary Eilon, Joshua B Russell and Rene Gassmoeller.*
S21C-0316. Simulated and observed ground motions from earthquakes on the central Calaveras Fault, Northern California. *Evan Hirakawa, Grace Alexandra Parker, Annemarie Baltay and Kyle Withers.*
S22A-05. Adjoint inversion of antipodal PKPab waveforms for P wave velocity anomaly at the base of lower mantle. *Seiji Tsuboi and Rhett Butler*.
S23A-01. Enhancing Models of Vibrational Relaxation in Supercritical Atmospheres: Application to Venus and Seismoacoustic Couplings for the Prospect of Aerial Seismology. *Solène Gérier, Léo Martire, Siddharth Krishnamoorthy, Andi Petculescu, John Wilding and Jennifer M Jackson*.

T21G-07. Neogene Post-Collisional Delamination Beneath the Northern Apennines. *Ana M Negredo, Ivone Jiménez-Munt, Jaume Vergés, Wentao Zhang, Eugenio Carminati, Montserrat Torne, Daniel Garcia-Castellanos, and Javier Fullea.*
T23D-0284. Reactive Thermodynamics of Crustal Foundering. *Mitchell McMillan, Shi Joyce Sim and Cian R Wilson*.
T31G-0281. Validating Geodynamic Models of Segmentation Behavior Along the Alamogordo Fault, Central New Mexico, With New Remote Sensing and Field-based Datasets. *George Pharris, Veronica Prush, and John B Naliboff.*

Wednesday, December 13

DI31A-07. Continental Heterogeneity and the Evolution of Continental Margin Topography at Subduction Zones. *Antoniette Greta Griam, Thorsten Becker.*
DI31A-08. From Data to Dynamics: Integration of Geophysical Constraints in Global Mantle Circulation Models. *Arushi Saxena, Juliane Dannberg, Rene Gassmoeller and Menno Fraters.*
DI32A-03. Linking Timescales of Subducting Slab Evolution: Long-term Slab Deformation and How it Relates to the Spatial Distribution of Deep Earthquakes. *Rebecca Fildes and Magali Billen.*
DI33A-0024. Comparisons between tidal deformation modeling from the semi-analytical ALMA3 and the finite element CitcomSVE. *Agnes Fienga, Arthur Briaud, Shijie Zhong, and Anthony Mémin*.
IN31E-0703. Reimagining the VirtualQuake Model: Utilization of stress point sources for broader flexibility and application, including inter-fault seismic interactions and fluid injection. *Spence Norwood and John B Rundle*.
NH33A-04. Nowcasting Earthquakes with QuakeGPT: An AI-Enhanced Earthquake Generative Pretrained Transformer. *John B Rundle, Geoffrey Fox, James Crutchfield, Andrea Donnellan, and Lisa Grant Ludwig.*
S31B-01. Adjoint wavefield tomography for the Longmenshan Fault Zone region. *Kaiyue Zheng, Yi Wang and Li Zhao*.
S33C-07. The Fate of Primordial Mid-Mantle Heterogeneities and Their Synthetic Seismic Signal. *Matteo Desiderio, Anna Gulcher and Maxim Ballmer.*

Thursday, December 14

DI41B-0014. Exploring Mantle Convection Styles through Earth's History: The Role of Phase Transitions. *Ranpeng Li, Juliane Dannberg, Rene Gassmoeller, Carolina R Lithgow-Bertelloni and Lars P Stixrude.*
DI41B-0015. Rheological Memory in Plate-like Mantle Convection with Continents. *Lukas Fuchs, Thorsten W Becker, and Thibault Duretz*.
DI41B-0016. The Influence of Plate Cooling Models and Convection on Early Earth Mid-Ocean Ridge Depths. *Shradhanjli Ravikumar, Keneni Godana and Shi Joyce Sim.*
DI43C-0055.Investigating lowermost mantle anisotropy near Australia using a beamforming approach. *Ella Xu, Jonathan Wolf, Daniel Andrew Frost, and Maureen D Long*.
DI43C-0060. Shear Wave Splitting Characteristics of Aligned Partial Melt Configurations in Subduction Zone Settings. *Eric Loeberich, Jonathan Wolf, and Maureen D Long*.
ED43B-04. Empowering Future Geoscientists through Quantitative Computational Skills in Geodynamics. *Mohamed Gouiza, Lorraine Hwang, and Rene Gassmoeller.*

T41A-04. Lithospheric Drips Driving Topographic Evolution in Orogenic Plateaus with insights from Analogue and Numerical Models. *Julia Andersen, Oguz Gogus, Russell Pysklywec, Ebru Sengul Uluocak and Tasca Noela Santimano.*
T41D-0267. The influence of eclogitization in subduction: enhanced slab pull versus subduction interface jamming. *Ana Carolina Mauricio Gomes, Derek J Neuharth, Whitney Behr and Adam Holt.*
T41D-0268. Do Subducted Seamounts Act as Weak Asperities? *Sungho Lee, Eunseo Choi, and Christopher Scholz*.
T41D-0274. Exploring Deep Slab-Deformation Processes Behind Potential Precursory Signals Preceding Large Subduction Zone Earthquakes. *Isis Lemus, Curtis William Baden, Kristel Chanard, Lei Wang, and Roland Burgmann.*

Friday, December 15

DI51B-0001. Effect of Dual-Insulators on Mantle Dynamics and Earth's Thermal Evolution. *Hadeel Al Harthi, Catherine M Cooper, Eric L Mittelstaedt, and Dante Hickey*.
DI51B-0006. Connecting Earth's Mantle and Core: Modeling Heterogeneous Core-Mantle Boundary Heat Flux over Time. *Rene Gassmoeller, Daniele Thallner, Frederick S Lacombe, Chloe Ritchie, Juliane Dannberg and Courtney Jean Sprain*.
DI53A-02. Detection of Pdiff Postcursors caused by the Hawaii Mega-ULVZ. *Lisanne Jagt, Florian Millet, Carl Martin and Sanne Cottaar.*
S51F-0272. Unraveling Induced Seismicity in the lower crust and upper mantle. *Eduardo Arzabala, Cynthia J Ebinger, Aude Lavayssière, and Finnigan Illsley-Kemp*.
S53E-0325. Effect of In-situ Stresses on the Compressive to Shear Wave Ratio for RV-DC events. *Carene S Larmat, Zhou Lei, Bryan Euser, and Esteban Rougier*.
T53F-0206. Discovering Tools for Geoscience Research at the Computational Infrastructure for Geodynamics (CIG). *Lorraine Hwang, Rene Gassmoeller, and Mohamed Gouiza.*