Monday, December 10


**DI13B-0034**  Small Scale Flow Induced Azimuthal Seismic Anisotropy beneath Madagascar: Implications for Rheology.  Tary Andriantsrajaonarison, D. Sarah Stamp, Stewart Fishwick, Sascha Brune, and Anne Glerum.

**G13B-0516**  Cryospherically Induced Stress Fluctuations in Tectonically Active Southern Alaska.  Jeanne M Sauberer, Natalia A Ruppert, and Christopher Rollins.


**T13J-0353**  Multicycle Simulations of Fault Parameters of Mw6-7 Inland Faults.  Anatoly Petukhin, Percy Galvez, Paul Somerville, and Andreas Sklarlautidis.

Tuesday, December 11

**DI21B-001**  Investigation of dynamic sub-grid scale (SGS) terms in dynamo simulations with small Ekman number.  Hiroaki Matsui and Bruce A Buffett.

**DI22A-05**  Dynamics of Stagnant Slabs in the Mantle Transition Zone.  Ying Zhou and Zhen Guo.

**DI23A-01**  Sensitivity kernels for geodynamic surface observables based on adjoint methods.  Jacqueline Austermann, David Al-Attar, Wolfgang Bangerth, and Mark Hoggard.

**DI23A-02**  CitcomSVE: A massively parallelized finite element software package for modeling elastic and viscoelastic deformation on regional and global scales.  Shilie Zhong.


**DI24B-01**  Adaptive Multigrid Solvers for Stokes flow in ASPECT.  Timo Heister and Thomas Clevenger.


**ED21B-13**  Why Are the Pieces of Land in the Wide Water that Breath out Fire and Smoke Made of Different Types of Rocks?  Julianne Dannberg and Rene Gassmoeller.

**NG24A-08**  Convection Simulations Explain the Compositional Heterogeneity of Oceanic Island Chains.  Julianne Dannberg and Rene Gassmoeller.


**S21C-0464**  Reconstruction of Fault Geometry Through Hypocenter Clustering for Coulomb Stress Analysis During the L’Aquila Earthquake Swarm.  Brennan Brunsik, Gabriele Morra, Gabriele Cambiotti, Lauro Chiaraluce, Raffaele Di Stefano, Maddalena Michele, and David A Yuen.

**S21D-0474**  Effect of damage and spallation on Rg waves for SPE-5.  Zhou Lei, Eustein Rougier, Howard J Patton, Carene S Larmat, and Christopher R Bradley.


Wednesday, December 12

**DI31C-0026**  Mapping transition zone topography beneath China by migration of Scs reverberations.  Samuel McRae Haugland, Jeroen Ritsema, Jeannot Trampert, and Daoyuan Sun.

**DI33C-0051**  Venusian Impacts: Starting a Mobile Lid.  Grant Euen and Scott D King.

**S31C-0520**  Variation in Interplate Coupling Between Downgoing and Overriding Plates: Implications for Great Earthquakes in Areas of Flat Slab Subduction from 3-D Geodynamic Models of Alaska.  Angela Olsen and Margarete Ann Jadamec.


**S31E-0559**  Transdimensional receiver function waveform inversion.  Scott Burdick, Makayla Myers, and Sarah J Brownlee.


**T33C-0416**  Stability of cratons since early Phanerozoic.  Jyotirmoy Paul and Attreyee Ghosh.

**T33C-0417**  Evolution of lithospheric drip and its impact on the seismicity in the Central and Southeastern US.  Arushi Saxena, Eunseo Choi, and Christine Ann Powell.
The numerical simulation for lithospheric mantle delamination triggered by oceanic plate subduction. Miao Chen, Xiaobing Shen, and Wei Leng.


Thursday, December 13

Effect of viscosity structure on long wavelength convection and comparison with tomographic models. Diogo José Louro Lourenço, Maxwell L Rudolph, and Pritwiraj Moulik.

Geodynamics of Martian Volcanism and Mantle Melting: Formation of the Tharsis Rise Due to Small-Scale Convection at the Dichotomy Boundary. Josh Murphy.

A Decade of Open Software Practice at CIG. Lorraine Hwang and Louise H Kellogg.


Joint theory of friction and fracturing for earthquake rupture modelling. Ekaterina Bolotskaya and Bradford H Hager Kanda and Anthony R Lowry.


Modeling Lithospheric Stress of Continental United States. Zebin Cao, Lijun Liu, and Quan Zhou.

Friday, December 14

Role of Strain-Dependent Weakening Memory on the Style of Mantle Convection and Plate Boundary Stability. Lukas Fuchs, Zel Hurewitz, and Thorsten W Becker.

The Role of Dynamic Topography on Glacial Inception in North America. Sophie Coulson, Jacqueline Austermann, Mark Hoggard, and Jerry X Mitrovica.


The Relation Between Tectonics and Strain Rate at the Base of the Lithosphere: Key to Understanding Cratonic Stability. Attreyee Ghosh, Jytirmoy Paul, and Clinton P Conrad.

The Advantages of Sp Pre-stack Migration Based on Scattering Kernels. Junlin Hua, Karen M. Fischer, and Nicholas J Mancinelli.

Full Waveform Tomography: A Comparison Between Adjoint-Wavefield and Scattering-Integral Approaches. Changyang Yin, Li Zhao, and Jieyuan Ning.

Impact of surface topography on full-waveform tomography for Central Mexico. Armando Espindola-Carmona and Daniel B Peter.

Adjoint Tomography of South America based on 3D Spectral-Element Seismic Wave Simulations. Caio Ciardelli, Ebru Bozdag, and Marcelo Assumpcao.

Moment tensor estimation and uncertainty quantification using mtuq, instaseis, obspy and pymc. Ryan Modrak, Vipul Silwal, Celso R Alvizuri, and Carl Tappe.


Numerical simulations of stress variations with depth in a model for the San Jacinto fault zone. Niloufar Abolfathian, Christopher W Johnson, and Yehuda Ben-Zion.

Subduction dynamics in the Southwest Pacific. Diandian Peng, Lijun Liu, and Jiashun Hu.

Adjoint Tomography of the Hikurangi Subduction Zone and New Zealand’s North Island. Bryant Chow, Yoshihiro Kaneko, Vipul Silwal, Carl Tappe, and John Townend.

Transition Zone Structure Beneath the Eastern US. Shangxin Liu, John C. Aragon, Maggie Benoit, Maureen D Long, and Scott D King.


Imaging the Sharpness of the Lithosphere-Asthenosphere Boundary (LAB). Shuyang Sun and Ying Zhou.