# **TO Annual Meeting**

## November 12, 2012

# - Program -

# Oral Presentations will be in Sharp Lecture Hall, 155 Arms

8:00 - 8:30	Breakfast – Bechtel Mall
8:30 - 8:35 8:35 - 9:45 9:45 - 10:30	Introduction (Jean-Philippe) Earthquakes- Observations (Mark) Earthquakes- Dynamic Modeling (Nadia)
10:30 - 11:30	Break/Poster Session – Bechtel Mall
11:30 - 12:30	Methods (Pablo)
12:30 - 1:45	Lunch & Poster Session – Bechtel Mall
1:45 - 2:30 2:30 - 3:00 3:00 - 3:45	Geomorphology (Jean-Philippe) Continental Dynamics (Brian) Lithosphere Structure and Dynamics (Rob)
4:00 - 6:00	Poster Session – Bechtel Mall
(4:00 - 5:00)	Division Seminar
6:00 - 8:00	Dinner– Bechtel Mall

### Contributions listed per theme

NB: The ordering under each theme is arbitrary. Coordinators (indicated in bold) will organize each theme discussion.

#### **Earthquakes-Observations: Mark**

Guihua Chen - Seismotectonics of the 2008 and 2009 Qaidam earthquakes and its implication for regional tectonics

Risheng Chu - Source parameters of the shallow 2012 Brawley Earthquake, Imperial Valley

Zacharie Duputel – Analysis of long-period seismic waves excited by the 2012 Off-Sumatra earthquake

James Hollingsworth - Analysis of the Shallow Slip Deficit Using Sub-Pixel Image Correlation

Ken Hudnut - Hector Mine 1999 new results

Asaf Inbal - Envelope inversion for the spatial distribution of high-frequency radiation during the M 9.0 Tohoku-Oki earthquake

Nina Lin - Characterizing the Arauco Barrier Effect

Francisco Ortega - Sensitivity Modulated Inversion of the Post-seismic Deformation of the Great 11 March 2011 Tohoku-Oki Earthquake

Jean-Philippe Avouac – Pre-, co and post-seismic slip on the Japan Megathrust based on PCAIM inversion of on-shore and off-shore ground displacements

Belle Philibosian - Refined Historical Seismic Cycle of the Sunda Megathrust from Coral Data

Chris Rollins - Mechanisms of Postseismic Deformation following the 2010 M=7.2 El Mayor-Cucapah Earthquake

Marion Thomas - Lithological Control on the Spatial Evolution of Fault Slip, Longitudinal Valley Fault, Taiwan

Yu Wang - The InSAR and field observation of the Match-2011 Myanmar earthquake

Shengji Wei - Modeling the 2012 Wharton Basin Earthquakes off-Sumatra; Complete 1 Lithospheric Failure

Shengji Wei - Finite Slip Distribution of 2012 Brawley Earthquake Swarm

#### **Earthquakes-Dynamic Modeling: Nadia**

Thomas Ader - Response of rate-and-state faults to periodic variations

Nadaya Cubas - On the activation of the landward normal splay fault of the Tohoku-Oki forearc

Nadaya Cubas - On the propagation of earthquake to the surface

Vahe Gabuchian - Experimental Investigation of Thrust Faults: Blind vs Surface Breaking

Junle Jiang - Do Large Earthquakes Penetrate below Seismogenic Zone?

Nadia Lapusta - From stable to destructive: Creeping fault segments can join earthquake rupture due to dynamic weakening

Nadia Lapusta - Under the Hood of the Earthquake Machine

Ka Yan Semechac Lui - Understanding interaction of small repeating earthquakes through models of rate-and-state faults

### Methods (Remote Sensing, Seismology, Geodesy): Pablo

Piyush Agram – Giants

Naofumi Aso - Focal Mechanisms of Semi-Volcanic Low-Frequency Earthquakes

Bruno Conejo - Tracking 3D ground displacements from apair of point clouds

Sebastien Leprince - Quantifying 3D ground deformation using multi-angle high resolution optical imagery

Jennifer Jackson – Shear wave velocities in minerals at high-pressures and temperatures determined with synchrotron-based experimental methods

Susan Owen - Imaging and Analysis of large Space Geodetic Data Sets for Monitoring, Research, and Response

Bryan Riel - Detecting Transient Signals in Geodetic Time Series using Sparse Estimation Techniques

Vito Rubino - Laboratory earthquakes: Measuring surface displacements with highspeed DIC

Surendra Somala - Earthquake source inversion with dense networks

Erika Swanson - Possible Evidence for Decarbonation Reactions from Carbonate Clumped Isotope Analyses of Fault Gouges

Swetha Veeraraghavan - 3-D dynamic response of precariously balanced rocks under earthquake excitation

Walter Landry – Gamra: Earthquake Modeling without Meshing

#### Geomorphology: Jean-Philippe

Francois Ayoub - Measuring Mars Sand Flux Seasonality from a time series of HiRISE Images

Adam Booth - Surface change based estimation of slow-moving landslide depth and implication for landscape scaling

Phairot Chatanantavet - Backwater controls on source-to-sink Sediment Transport near Deltas

Roman DiBase - Quantifying relationships among topography, climate, and erosion rate

Mathieu Lapotre - Hydraulic control on the width of waterfall escarpments

Ajay Limaye - River channel lateral migration and strath terrace evolution: Quantitative predictions using a new bank coupling approach

Luca Malatesta - Investigation of the fold of channel-width for erosion work in the piedmont of the NW Tian Shan

Jeff Prancevic – Relative roughness controls on incipient sediment motion in steep channels

Joel Scheingross - Fault zone controls on the spatial distribution of the slow-moving landslides

Dirk Scherler - Exploring the causes of widespread late Pleistocene river aggradation in the Himalaya

Victor Tsai - Modeling seismic noise generation from bedload sediment transport

#### **Continental Tectonics: Brian**

Robinson Cecil - Plio-Quaternary subsidence and exhumation of the southeastern San Joaquin Basin, in response to mantle lithosphere removal

Jamshid Hassanzadeh - Can an Andean margin evolve directly from a passive margin? Possible example from the Northern Neotethys

Katie Snell - Paleoclimate and paleoevevation in the western US Cordillera, 80 Ma to Present

Frank Sousa - The Sierra Nevada Great Valley Foothills, 36N to 37N: He apatite thermochronometry along a new horizontal transect

Victoria Stevens - Strain Partitioning in Tibet

Christoph von Hagke - Measuring changes in orogenic taper through time using thermochronometry

Brian Wernicke - History of the SW Cordilleran orogenic plateau

### Geodynamics: Rob

Dan Bower - High bulk modulus structures in the lower mantle from dynamic Earth models

Risheng Chu - Hidden hotspot track beneath Eastern United States

Sara Dougherty - Seismic structure in central Mexico: Possible fragmentation of the subducted South Cocos plate

Kristin Phillips - Receiver function results from the subduction transition region in Southern Peru

Jason Price - Extension along the Austoalpine overthrust, Switzerland, evidence from U-Th/He thermochronology

Vishagan Ratnaswamy - Inverse Modeling in Mantle Convection

Zorka Saleeby - Three Dimensional Delamination of Mantle Lithosphere in the Southern Sierra Nevada Region

Steve Skinner - South America Slabs

Mark Turner – Gplates: Computational Tools for Creating a 4-D North American Continent and Mantle

Zhongwen Zhan - Seismic Evidence for Dipping High Velocity Layer in the Kuril Island Subduction Zone

#### General

Laurie Kovalenko - Education and Public Outreach