LUCKY #13: International Workshop on Modelling of Mantle and Lithosphere Dynamics

31 August - 5 September 2013 | Hønefoss, Norway



PS 3 Dynamics of Planetary Interiors + Multi-Scale Physics of the crust and lithosphere

Alisic et al. Shear Banding in a Partially Molten Mantle

Baumann et al. Constraining the rheology of the lithosphere through joint geodynamic and gravity

inversion

Buiter Numerical models of the response of passive margins to syn-rift surface processes

Caron et al. Effect of Burgers rheology on Glacial Isostatic Adjustment models

Dabrowski et al. MILAMIN 2 – Fast MATLAB FEM solver: algorithms, implementation &

applications

Delannoy et al. Virtual Patterson experiment - a way to access the rheology of aggregates and

mélanges.

Fry et al. Depth variable crustal anisotropy, patterns of crustal weakness, and destructive

earthquakes in low-strain rate areas

Gac Control of lithosphere structure on surface deformation in the Central Barents Sea:

insights from dynamical modeling

Huerta & Crane Strain evolution and the relative role of heat and strain rate during continental rupture

Kohut et al. Formation conditions recorded by OH-point defects in quartz – experimental and

analytical approach

Liao & Gerya Inheritance of continental rifting on incipient seafloor spreading pattern: Insights from

3D numerical modeling

Lourenço & Tackley

Lu et al.

The effect of melting and crustal production on plate tectonics on terrestrial planets Strong intracontinental lithospheric deformation in South China: implications from

seismic observations and geodynamic modeling

Maas et al. Crystal settling and crystal growth caused by Ostwald Ripening in a terrestrial magma

ocean under rotation

Medvedev Estimating lithospheric stresses: parameters check with applications to the African

Plate

Mezri et al. Impact of fluid-rock interactions and metamorphic reactions on rheological evolution

and style of rifting during extension

Noack et al. Relevance of continents for habitability and self-consistent formation of continents on

early Earth

Püsök et al. Modeling the India-Asia collision zone: 3D simulations and numerical insights

Roy et al. Landscape response to lithospheric strain localization

Ruh et al. 3D deformation patterns in accretionary wedges: effects of strain and velocity

weakening

Schmeling et al. Symmetric versus asymmetric spreading, rifting, and ridge migration: The role of visco-

plasticity

Schroeder et al. Modelling the influence of faults on a developing river system

Tan DynEarthSol3D: an efficient and flexible unstructured finite element method to study

long-term tectonic deformation

Tétreault & Buiter A discussion of mantle temperatures in numerical studies of rift-to-drift extension

Trubienko et al. Interseismic and postseismic deformations associated with 2011 Magnitude 9.0

Tohoku-Oki Earthquake: 2D and 3D Finite Element Models with a viscoelastic rheology

Wallner & Schmeling Numerical model exploration of a movable emplacement zone for melt extraction in a

continental lithospheric extension scenario