



## **Dynamics of a subducting Slab: Influence of rheological Parameters**

**E. Tzoumerkiotis (1), K. D. Fischer (1)**

(1) Institute of Geology, Mineralogy and Geophysics, Ruhr-University-Bochum, Germany  
(eleni.tzoumerkiotis@ruhr-uni-bochum.de)

The subduction process is of the main topics of geodynamics/tectonics. One of the possibilities to deduce information about the subduction process is to perform numerical simulations. There the influences of forces, material behaviour, temperature and boundary conditions can be analysed. In this work the influence of the material behaviour on the subduction is tested with the finite element method. For this the finite element code ABAQUS is used.

Here the numerical model contains lithosphere and mantle of visco-elastic material. Rheology parameters are varied in different calculations and the subduction process is monitored while gravity acts.