Geophysical Research Abstracts, Vol. 10, EGU2008-A-11386, 2008 SRef-ID: 1607-7962/gra/EGU2008-A-11386 EGU General Assembly 2008 © Author(s) 2008



## Interaction of lithosphere and mantle convection

Leszek Czechowski Warsaw University Ul. Pasteura 7 02-093 Warszawa lczech@fuw.edu.pl tel. (48)-(22) – 5546850 fax. (48)-(22)-8222387

Numerical model of interaction of lithosphere and thermal convection in mantle is developed. The model assumes elastic or plastic rheology of the crust and lithosphere and viscous astenosphere. The model is used to determine the thermal and dynamical conditions of origin of basins. We consider different types of evolution of the mantle flow and we investigate their consequences on the surface.