

2009 AGU Fall Meeting that will be held 14-18 December in San Francisco, California.

AGU special session T24 Moho, Lithosphere and Upper Mantle Structure Beneath Europe: What Have we Learnt in 100 Years?

Session description:

One century has passed since the earthquake in Kupa Valley, Croatia, which led A. Mohorovicic to the discovery of the existence of the crust-mantle boundary. He determined crustal thickness using about dozen of analogue stations operating in Europe at that time. Since then, changes in our paradigms about the Earth's crust and upper mantle have been driven by results from seismological and other geophysical data. Further advancement in our knowledge is anticipated as more information become available.

An unprecedented recent expansion of seismic instruments in Europe has resulted in a considerable progress in elucidating structures of the Earth's lithosphere beneath Europe. Apart from reflection and refraction surveys, seismological techniques such as tomography, receiver functions, surface wave dispersion, shear wave splitting, and seismic noise studies have become increasingly popular, and are utilized by many networks. Yet there are still a number of regions in Europe with very little or no information about lithospheric structure. Thus it is crucial to take a multidisciplinary approach and interpret seismological findings in the context of relevant results from other disciplines such as geology, magnetotellurics, mineral physics, geochemistry, geodynamics, and others.

All such contributions are welcome, and we particularly welcome contributions from small networks and individual stations whose data are not readily available. This session will unify findings that have a common objective of advancing our understanding of physical and chemical properties of Moho, lithospheric and upper mantle structure and tectonic processes beneath Europe and its surroundings.

Conveners:

Hrvoje Tkalčić, The Australian National University, [Hrvoje.Tkalcic at anu.edu.au](mailto:Hrvoje.Tkalcic@anu.edu.au)

Marijan Herak, University of Zagreb, [herak at irb.hr](mailto:herak@irb.hr)

Davorka Herak, University of Zagreb, [herak at irb.hr](mailto:herak@irb.hr)

Gregory A Houseman, University of Leeds, [greg at earth.leeds.ac.uk](mailto:greg@earth.leeds.ac.uk)