



## Session 17

### Physics of intermediate-depth and deep-focus earthquakes

Conveners:

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The nature of the intermediate-depth and deep-focus earthquakes is still enigmatic. These events occur in subduction zones, deeper than ~70 km, despite the high pressure and temperature conditions prohibiting brittle rupture. Although much progress has been achieved in the study of such peculiar earthquakes, there is still much to learn. The source process of intermediate and deep focus earthquakes could provide answers on slab state and deformation, and ultimately explain the physical mechanism that controls their generation.

In this session, we invite both observational and modelling contributions, including the spatio-temporal distribution of seismicity in slabs, focal mechanisms, moment tensors, and their double-couple and non-double couple components, as well as kinematic and dynamic finite-fault models.

We also invite studies, in which seismic data are interpreted in terms of physical properties of slabs, such as the stress field in the slabs, anisotropy, etc. Presentation of 2D/3D thermal and mineralogic models of subduction evolution would be important, too.

Studies of intermediate-depth events of the Hellenic subduction are particularly welcome.

