

## **CIG\_01: Mantle Convection: Computational Infrastructure for Geodynamics**

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### **Session Description**

Mantle convection is the process that drives plate tectonics and continental drift on the Earth. It determines the cooling rate of the planet and therefore the core, thus also determining the conditions critical for the geodynamo. Convection in the mantles of other terrestrial planets and both rocky and icy satellites, similarly determines the evolution of these bodies and expressions of their histories such as resurfacing, manifestations of past and present dynamos and volcanism. Progress in understanding these processes on the Earth and other bodies is being driven by continual advancements in computational geodynamic modelling as well as new means of dealing with voluminous model output and tools for visualizing calculation results. This session seeks proposals describing the findings from the full spectrum of studies of mantle convection, new numerical techniques for dealing with issues related to the modelling of mantle dynamics and new tools for dealing with model interpretation. Relevant contributions extend to applications to any system in which convection in a silicate or icy layer is modelled.

**Primary Affiliation:** Computational Infrastructure for Geodynamics

**Joint Session Submission:** none