

Mantle convection simulations on HPC: present and future

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In this presentation, we will discuss (a rather personal view of) the possible directions of the advanced numerical studies of mantle dynamics in concert with the progress of high-performance computing in the next era. We will start with a brief overview of the research targets and outcrops of the numerical modelings of mantle convection to date from a viewpoint of geosciences. Then we will discuss the scientific goals which the mantle dynamics researchers are to tackle with over a mid- to long-span of years, together with the technical issues in terms of both software and hardware developments.

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