

Creating future of solid Earth science with high performance computing: Discussion

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Due to the development in computer science and computational science, large-scale or many times forward simulations and/or inversion analyses have become available recently. In solid Earth science, large-scale seismic wave propagation and crustal deformation with high fidelity model based on high resolution observation data have been demonstrated; uncertainty in crustal deformation caused by material properties and structures can be investigated based on many-time calculations for different material properties and structures; fault slip inversion analyses for non-Gaussian error distribution, etc. Thus, we will invite researchers who are facing problems in forward simulations and inversion analyses and discuss how to solve such problems by the collaboration between computer & computational sciences and solid Earth science.

Keywords: HPC, Large scale forward simulation, High fidelity data analysis