

Introduction for Creating future of solid Earth science with HPC

HORI, Takane^{1*} ; KANEDA, Yoshiyuki² ; HORI, Muneo³ ; HINO, Ryota⁴ ; ARIKAWA, Taro⁵ ;
TODORIKI, Masaru⁶

¹JAMSTEC, ²Nagoya University, ³University of Tokyo, ⁴Tohoku University, ⁵Port and Airport Research Institute, ⁶University of Tokyo

In this session we will explore the scientific and social issues that can be addressed by Earth scientists over the next 10-20 years using high performance computing (HPC). We will discuss future problems and prospects in the development of solid Earth science, especially for simulation technology in earthquake and tsunami disaster mitigation, new methods for big data analyses of seismic waves and crustal deformation obtained by high-density observation networks, construction of multi-scale solid Earth models, and so on. We welcome both earth scientists working on computational, observational and theoretical aspects of the physics of the solid Earth, and specialists on disaster mitigation, to discuss the role of HPC in solving future problems in this field. We will introduce current states in this talk.