[EJ] Evening Poster | M (Multidisciplinary and Interdisciplinary) | M-AG Applied Geosciences

[M-AG32]Marine Earth Informatics

convener:Seiji Tsuboi(JAMSTEC, Center for Earth Information Science and Technology), Keiko Takahashi(Japan Agency for Marine and Earth Science and Technology), Masaki Kanao(国立極地研究所) Wed. May 23, 2018 5:15 PM - 6:30 PM Poster Hall (International Exhibition Hall7, Makuhari Messe) In advancing the research of marine Earth science, observation and computer simulation is an essential element. In recent years, the performance of the observation apparatus is dramatically improved, along with the means of observation is diversified. It is becoming possible to observe in a resolution, which was not imaginable so far. Such data to be generated from the observation is tremendously large in quantity and its quality is drastically improved. To handle these huge and high quality dataset for data analysis, we need to have a high speed and large memory computer system but such a system now becomes within reach in our hands by the recent dramatic improvement of high performance computer system. On the other hand, researchers who can use this kind of large-scale computer in their studies are still quite limited. In this session, we try to review the situation of observation data that has undergone a dramatic change regarded with both quality and quantity in recent years of marine Earth science research. We also try to review the situation from a professional standpoint of simulation about the status of the high performance computer system to analyze these 'big data'. Also we focus on the state of the art data analysis technique and aim to share the outlook from the professional standpoint of computational science and professional position of observation science about the future direction of the marine Earth informatics research.

[MAG32-P06]Seamless Visualization of Weather Forecast

Information with Nested Structure on Digital Globe

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Tools for automatically exporting visualization results from the weather simulation data with nested structure are developed as an application example of VDVGE which is a visualization software. Visualization result is exported in data format which suitable for digital globes (Google Earth and Cesium.js) and seamless visualization between each nested level is realized by appropriately region segmentation of the input data set. In order to represent clouds realistically, a visualization method which combined physical quantities computed in the atmospheric simulation model is applied simultaneously. These enable us to sequentially visualize the results obtained by advanced weather forecasting by automatic processing after execution of simulation model completely. As an application of using visualization results, a visual representation of forecast results using mobile devices will be introduced.