[JJ] Evening Poster | M (Multidisciplinary and Interdisciplinary) | M-GI General Geosciences, Information Geosciences & Simulations

[M-GI27]Data-driven geosciences

convener:Tatsu Kuwatani(Japan Agency for Marine-Earth Science and Technology), Hiromichi Nagao(Earthquake Research Institute, The University of Tokyo), Takane Hori(独立行政法人海洋研究開発機構・地震津波海域観測研究開発センター)

Wed. May 23, 2018 5:15 PM - 6:30 PM Poster Hall (International Exhibition Hall7, Makuhari Messe)

It is important to extract essential processes and structures from observed data sets in order to understand and predict the dynamic behavior of the earth and planetary systems. Recently, many powerful methodologies have been proposed to extract useful information from high-dimensional data sets in information sciences. This session aims to provide an opportunity to gather various geoscientists to have a productive discussion for interdisciplinary collaborations.

[MGI27-P09]Progress and future prospects of data-driven analysis in solid-earth science

*Tatsu Kuwatani[1,2], Atsushi Okamoto[3], Kenta Yoshida[1], Kengo Nakamura[3], Noriyoshi Tsuchiya[3], Takeshi Komai[3] (1.Japan Agency for Marine-Earth Science and Technology, 2.Japan Science and Technology Agency, 3.Graduate School of Environmental Studies, Tohoku University, Japan)

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The high-dimensional and large amounts of data sets in geosciences show very complex behavior and often have large uncertainty. It is important to extract a small number of essential parameters which can explain the phenomenon from high-dimensional data in order to understand the behavior of dynamic solid earth. Under the framework of a big scientific project entitled as “Initiative for high-dimensional data-driven science through deepening sparse modelling” supported by the MEXT in Japan (http://sparse-modeling.jp/index_e.html), we try to introduce data-driven approaches into geosciences. In this presentation, we will share some applications in solid-earth science and discuss future prospects.