[EJ] Evening Poster | A (Atmospheric and Hydrospheric Sciences) | A-OS Ocean Sciences & Ocean Environment

[A-OS14]Freshwater discharge from rivers and estuaries to the ocean

convener:Shinichiro Kida(Research Institute for Applied Mechanics, Kyushu University), Dai Yamazaki(Institute of Industrial Sciences, The University of Tokyo), Humio Mitsudera(北海道大学低温科学研究所, 共同), Yosuke Alexandre Yamashiki(Earth &Planetary Water Resources Assessment Laboratory Graduate School of Advanced Integrated Studies in Human Survivability Kyoto University)

Tue. May 22, 2018 5:15 PM - 6:30 PM Poster Hall (International Exhibition Hall7, Makuhari Messe)

The water cycle from land to the ocean involves complex dynamics of rivers and buoyancy driven flows in estuaries and the ocean. Recent progress in satellite observations and numerical models are beginning to illuminate how this water cycle occurs on various time scales globally and regionally. This session welcomes various process studies that investigate the dynamics and material circulation related to the freshwater cycle from land to the ocean such as surface runoff, river transport, estuarine circulation, and coastal river plumes based on numerical, observational, or theoretical studies.

[AOS14-P06]Dispersal process of water particles along Sanriku ria coast in Japan

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Along Sanriku ria coast in northeast of Japan, a number of small bays distribute, which have several or a few tens kilometers. Sanriku coastal region is an important area for Japanese fisheries, and many kinds of seaweeds and shellfishes are caught and farmed. Bays along Sanriku coastal region face to the Northwest Pacific and exchange their water for open ocean water advected by Tsugaru warm current, Oyashio, Kuroshio, and eddies. Understanding the water exchange between the bays and the open ocean and among the bays in Sanriku coastal region is important not only for fisheries but also understanding of material circulation. In the present study, dispersal processes of water particles in the bays along Sanriku coastal region is investigated by particle tracking using an ocean model. In the presentation, results for the bays in the middle of Sanriku ria coast, such as in Otsuchi bay, is mainly introduced.