

Objective:

Methane hydrate in the natural condition is interested from various viewpoints, such as a future energy resource, drilling hazard, and a major player of the global climate change. In every aspects, mechanical character is important, but it is not well known for the material in the natural condition. In this session, we want to exchange the knowledge and experience of the material with the theoretical, experimental and numerical approaches.

Topics:

1. Basic mechanical character of hydrate; constitutive law, acoustic characters
2. Application to the resource exploration and development, and environmental impact
3. Characterization of gas hydrate bearing sediments
4. Instability analysis of sea floor due to gas hydrate extraction
5. Heat modeling for gas hydrate extraction. etc.