



For GIMS 16 we encourage diverse contributions with scientific value related to gas in marine sediments. For organisational purposes, five broad science themes are proposed; it is expected that most contributions will fall within these themes. After abstract closure and acceptance, the scientific committee will reassess the science themes and build an exciting conference program based on the accepted submissions.

Gas seeps & vents

Expected contributions can include fundamental physical and biogeochemical processes regulating the dynamics of e.g. cold seeps, hydrothermal vents and methane hydrate sites. We invite case studies evidencing such phenomena and studying e.g. their detection and distribution and the characterisation and quantification of the associated gas fluxes, including new methods and technological advances in this field.

Sediment diagenesis and marine ecosystems

Expected contributions will address gas-related physical and biogeochemical processes in deep and shallow sediments, and their impacts on marine ecosystems, nutrient cycling, and chemical exchanges between the seabed and the ocean. We welcome contributions related to global carbon cycles and the potential vulnerability of these sites to climate change and the impact of extreme events on the biogeochemical processes of gas in marine sediments.

Gas emissions and climate

Expected contributions will provide insights into the role of marine gas emissions to the past, present and future marine and global methane budget. Contributions addressing the role of the ocean as a marine methane sink and associated ocean biochemical and physical changes are encouraged. Case studies addressing emissions in polar areas and from marine permafrost are also encouraged.

Gas-related geohazards

Expected contributions will explore threats of gas and gas hydrates in marine sediments, focusing on their potential to trigger underwater landslides, tsunamis, and abrupt greenhouse gas emissions. Potential contributions can include recent advances in monitoring technologies and mitigation strategies.

Human influence and applications of gas in marine sediments

Expected contributions will address topics such as storage of CO₂ in geological formations, hydrogen storage and production, advances in quantification and attribution monitoring of gas leakage from pipes, characterization of gassy sediments for offshore infrastructure development, and stability analysis of offshore infrastructure in gassy sediments.