



## The Gas in Marine Sediments (GIMS) conference

National Oceanography Centre, Southampton UK

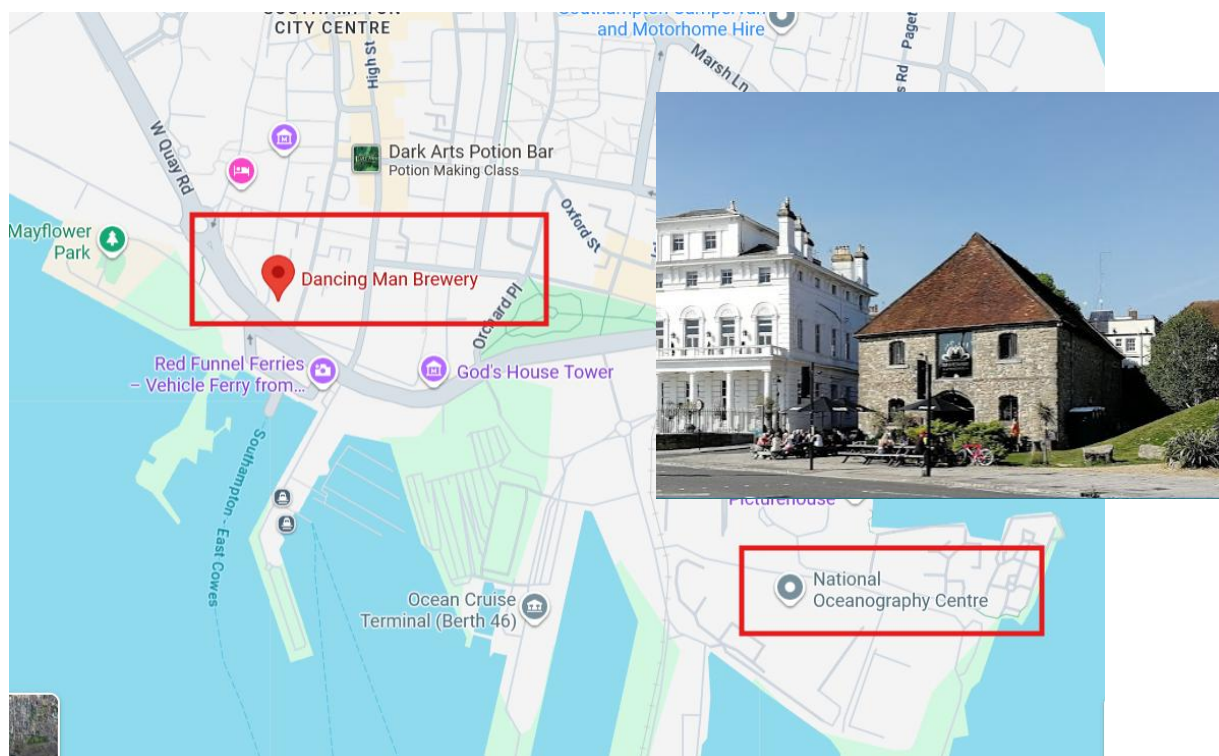
20th to the 24th of October 2025

### Scientific Programme

(\* indicates presenter of the day if not first author)

**Sunday 19/10/25**

**Icebreaker 19:00: Dancing Man Brewery** *Town Quay, Southampton SO14 2AR*



**Monday 20/10/25**

**Session 1: Gas-related biogeochemical and microbial processes and their impact on marine ecosystems**

**08:45 - 09:15 REGISTRATION**

**09:15 – 09:30 WELCOME** from **Chris Hatton**, Head of the School of Ocean and Earth Science, University of Southampton, & **Len Shaffrey**, Associate Director for Science and Technology, National Oceanography Centre Southampton

**09:30 - 10:15 Keynote: Katrin Linse**, *Living at Arctic and Southern Ocean methane seeps: insights into their benthic faunal*

**10:15 - 10:40 Delcy R. Nazareth, Maria Judith Gonsalves**, *Comparative study on the microbial diversity and metabolic processes in the sediments associated with gas hydrate and non-hydrate ecosystem*

**10:40 - 11:05 Katarzyna Lukawska-Matuszewska, Andrzej Borkowski, Aleksandra Brodecka-Goluch, Jakub Idczak, Kacper Jurczyk, Jarosław Kania, Maciej Manecki, Grzegorz Rzepa**, *Methanogenesis and submarine groundwater discharge alter microbiology, geochemistry and mineralogy of continental shelf sea sediments: a case study from the S-E Baltic Sea*

**11:05 - 11:35 BREAK**

**11:35 - 12:00 Tiantian Sun, Nengyou Wu, Yanlong Li, Jiapeng Jin**, *Geochemical signatures of seep dolomites in the Pearl River Mouth basin: implications for paleo-methane fluid activities*

**12:00 - 12:25 Nengyou Wu**, *The cycling of key substances and its environmental effects in the cold seep area of the Okinawa Trough*

**12:25 - 13:25 LUNCH**

**13:25 - 13:50 Ye Chen, Zhilei Sun, Cuiling Xu, Nengyou Wu**, *Microbial community structure and metabolic potential across deep-sea vent seep transition zones in the Okinawa Trough*

**13:50 - 14:15 Madeline P. B. C. Anderson, William D.K. Reid, Gerhard Bohrmann, Ingrid Dohrmann, Philip R. Hollyman, Sabine Kasten, Thomas Pape, Miriam Römer, Jason Newton, Ben D. Wigham, Katrin Linse**, *The abundance, diversity and trophodynamics of the macrobenthos at the South Georgia shelf methane seeps*

**14:15 - 14:40 Thomas Pape, Martin Kölling, Greta Feddersen, Miriam Römer, Nele Behrendt, Victoria Kürzinger, Katharina Streuff, Yiting Tseng, Gerhard Bohrmann**, *Formation of volatile hydrocarbons at the Central Mediterranean Ridge west and south of Cretes*

**14:40 - 15:10 BREAK**

**15:10 - 15:35** Aleksandra Brodecka-Goluch, Katarzyna Lukawska-Matuszewska, Jakub Idczak, Andrzej Borkowski, Grzegorz Rzepa, Maciej Manecki, *Multidisciplinary research on newly discovered pockmarks in the Gdansk Basin, SE Baltic Sea*

**15:35 - 16:05 DISCUSSION**

**16:05 END of the DAY**

## **Tuesday 21/10/25**

### **Session 2: Laboratory testing and modelling of marine sediments containing gas and/or hydrate**

**09:30 - 10:15 Keynote: Shubhangi Gupta**, *Periodic states and emergent complexities in gas hydrate dynamics*

**10:15 - 10:40** Mark V. Elbertsen, Marlow J. Cramwinckel, Lucas J. Louren, *Modelling the contribution of methane hydrates to the Late Paleocene – Early Eocene hyperthermal events*

**10:40 - 11:05** Ewa Burwicz-Galerie, Shubhangi Gupta, *Gas hydrate and methane gas dynamics in response to warming Arctic*

**11:05 - 11:35 BREAK**

**11:35 - 12:00** Yizhao Wan, Jing Li, Nengyou Wu, *Experimental and numerical investigation for the biogeochemical process of methane released from gas hydrate*

**12:00 - 12:25** Yuna Nakamura, Toru Sato, Norio Tenma, *Numerical analysis of triaxial compression of methane hydrate bearing sediment using the discrete element method*

**12:25 - 12:50** Lior Rake and Shmulik Pinkert\*, *Data-driven mechanical framework for methane hydrate-bearing soils*

**12:50 - 13:50 LUNCH**

**13:50 - 14:15** Hanif S. Sutyoso, Sourav S. Sahoo, Laurence J. North, Ismael H. Falcon-Suarez, Angus I. Best, Tim A. Minshull, *A laboratory acoustic study of fluid and ice saturation effects in sands*

**14:15- 14:45 DISCUSSION**

**14:45-17:00 POSTER SESSION**

**17:00 END of the DAY**

### Wednesday 22/10/25

#### Session 3: Seismo-acoustic characterization and monitoring of gassy sediments and gas bubble dynamics

**09:30 - 10:15 Keynote: Jonathan Bull, Constraining the physical properties of chimney/pipe structures in sedimentary basins**

**10:15 - 10:40** Boris Katsnelson, Ernst Uzhansky, Andrey Lunkov, Regina Katsman, *Acoustic methods for characterizing gas-containing sediments (Lake Kinneret, Israel, as a case study)*

**10:40 - 11:05** Ernst Uzhansky, Regina Katsman\*, Andrey Lunkov, Boris Katsnelson, *Evaluation of dynamics and bubble sizes of methane gas in sediments of Lake Kinneret, Israel: Insights from a multiannual acoustic investigation and physical modelling*

**11:05 - 11:35 BREAK**

**11:35 - 12:00** Miriam Römer, Yann Marcon, Thomas Pape, Jan Kleint, Walter Menapace, Christian Borowski, *Degassing mud volcanoes in the Gulf of Cádiz*

**12:00 - 12:25** Ben Roche, Corentin Cauldron, Julien Govoorts, Jonas Patzel, Olivier Fontaine, *Hydroacoustic monitoring of volcanic gas seeps using hydrophones and DAS*

**12:25 - 12:50** Giorgos Papageorgiou, Ismael Falcon-Suarez\*, Maria-Daphne Mangriotis\*, *Time-lapse seismic monitoring of hydrogen storage: is the cushion gas – hydrogen contrast truly undetectable?*

**12:50 - 13:50 LUNCH**

**13:50 - 14:20 DISCUSSION**

**14:20 - 15:30 NOCS & SOES TOUR**

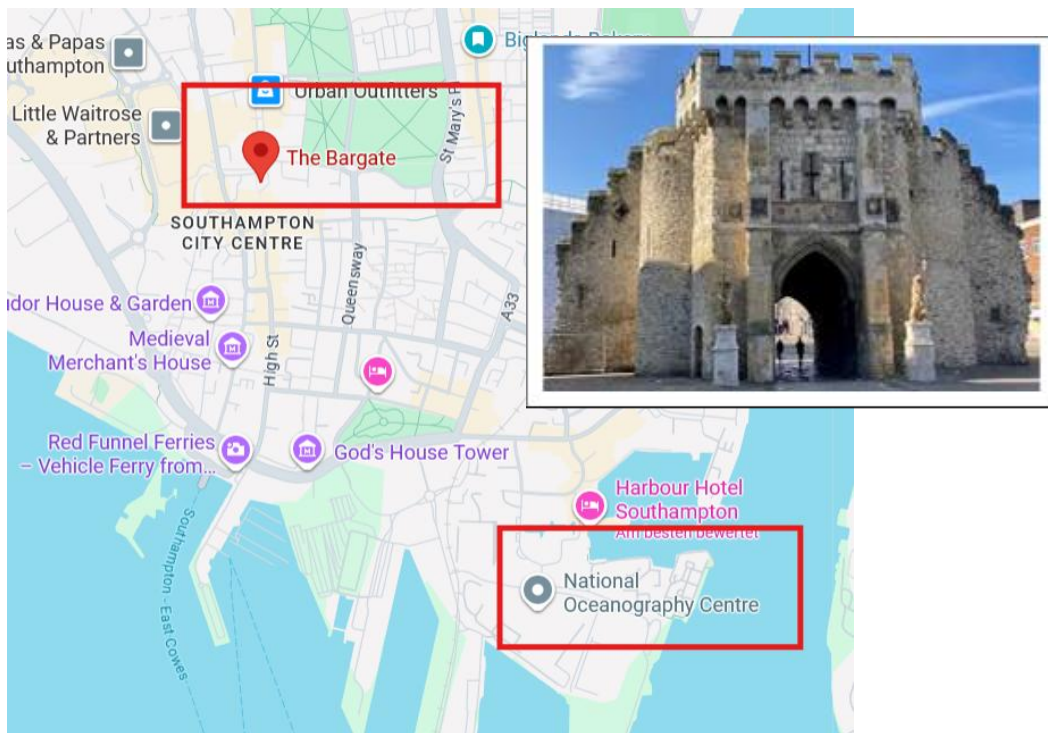
**15:30 END of the DAY**

**17:15 SOUTHAMPTON TOUR** : meeting point Bargate North side, besides the lions, (High St, Southampton SO14 2DJ)

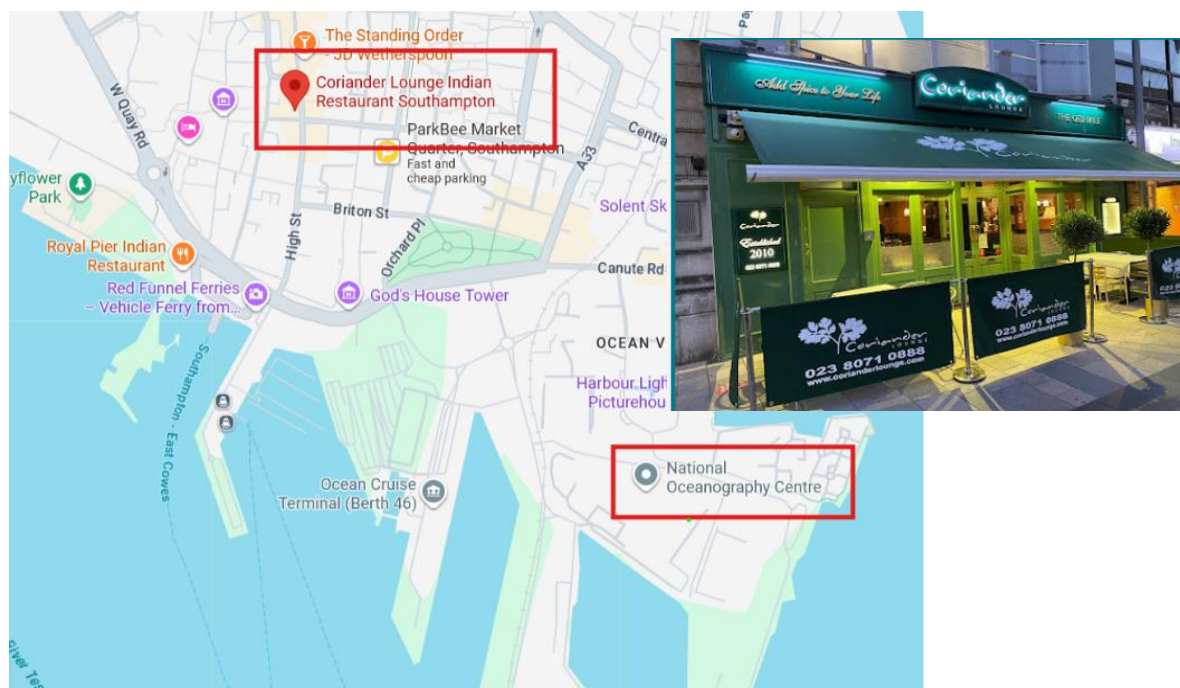
**19:00 Conference dinner at CORIANDER LOUNGE** (130-131 High St, Southampton SO14 2BR)



### Location meeting point City tour: the Bargate



### Location conference dinner



## Thursday 23/10/25

### Session 4: Geological and geophysical investigation of gas related structures

**09:30 - 10:15 Keynote: Adriano Mazzini, *New discoveries of hydrocarbon seepages on the Norwegian Continental Shelf***

**10:15 - 10:40** Roger Urgeles, Ricardo León, Rafael Bartolomé, Manel Prada, Miriam Mestre, Maria De La Fuente, Xavier Garcia, Michela Giustiniani, Héctor Marín-Moreno, Umberta Tinivella, Maria del Carmen Fernández Puga, Teodora Ortega, *Methane seeping in the gas hydrate province of the Antarctic Peninsula facilitated by crustal strike-slip faults*

**10:40 - 11:05** Ricardo León, Roger Urgeles, Rafael Bartolomé, Ferran Estrada, Maria del Carmen Fernandez-Puga, Maria de la Fuente, Luis Galán, Xavier Garcia, Michela Giustiniani, Clara Estela Jimenez-Tejero, Miguel Llorente, Ana Manrique, Miriam Mestre, Teodora Ortega, Manel Prada, *Strike slip mud volcano system in the accretionary wedge of the South Shetlands Islands (Antarctic Peninsula)*

### 11:05 - 11:35 BREAK

**11:35 - 12:00** Emeric Babut du Marès, Maria De La Fuente, Jemma Wadham, Petra Langebroek, Henry Patton, Sandra Arndt, *Mapping the methane gas hydrates stability zone beneath the Antarctic Ice Sheet from 40 Ma to the year 3000*

**12:00 - 12:25** Alexey Portnov, Jess IT Hillman, Sally Watson, Ann E. Cook, Andreas Laake, Francisco José Lobo, *Insights into the Tuaheni North landslide from shallow gas and hydrate accumulations along the Hikurangi Margin, New Zealand,*

**12:25 - 12:50** Aditya Kumar, Ann E. Cook, Muhedeen A. Lawal, Alexey Portnov, Vincent Lecours, *Pockmark occurrence in the Northern Gulf of Mexico influenced by glacial cycles and hydrate stability*

### 12:50 - 13:50 LUNCH

**13:50 - 14:15** Nil Rodes, Kim Senger, Miriam Römer, Andy Hodson, Peter Betlem, David Amblas, Sten-Andreas Grundvåg, Arunima Sen, *Gas emission dynamics in Arctic Fjords of Svalbard: A spatio-temporal analysis*

### 14:15 - 14:45 DISCUSSION

### 14:45 - 15:15 BREAK

### 15:15 - 16:15 GENERAL ASSEMBLY

## Friday 24/10/25

### FIELD TRIP TO ISLE OF WIGHT

8:15 Meeting at NOC lobby

Return before 18:00