IMarEST Oceans of Knowledge 2025

8th October

National Oceanography Centre Southampton

9:15	**Introduction and Welcome** Professor Stephen de Mora, IMarEST President
9:35	**Keynote Address** Professor John Siddorn, *Chief Executive,* National Oceanography Centre
The Concepts Chair: Dr Edward Steele, IT Fellow Data Scientist, Met Office	
10:00	**AI Technologies** Niall Robinson, Developer Relationship Manager Earth 2, Nvidia
10:20	**AI Techniques** Dr Marcus Juniper, Senior Marine Applications Scientist, Met Office
10:40	**AI Explainability** Madeleine Waller, Kings College London
11:00	**Q&A** • Dr Edward Steele (moderator) • Niall Robinson • Dr Marcus Juniper • Madeleine Waller
11:20-11:50	Break
The Domains Chair: Professor Ralph Rayner FIMarEST, Professorial Research Fellow, Grantham Research Institute and National Oceanic and Atmospheric Administration	
11:50	**Atmosphere** Dr Peter Lean, Senior Scientist, ECMWF
12:10	**Data Driven Physical Ocean Modelling** Dr Rachel Furner, *Machine Learning & Ocean Modelling Scientist*, ECMWF
12:30	**Ocean Biogeochemistry** Dr Josef Skakala, Plymouth Marine Laboratory
12:50	**Ocean Climate** Professor Caroline Rowland, *Head Oceans Cryosphere and Climate Change*, Met Office
13:10	**Q&A**

	• Professor Ralph Rayner (moderator) • Dr Peter Lean • Dr Rachel Furner • Dr Josef Skakala • Professor Caroline Rowland
13:30-14:30	Lunch
Case Studies Chair: Dr Sophie Arana, Research Application Manager, The Alan Turing Institute	
14:30	**Sensor Networks** Dr Ajit Pillai, *Offshore Renewable Energy Researcher, Senior Lecturer,* Royal Academy of Engineering Research Fellow, University of Exeter/ RAEng
14:50	**Shipping & Polar** Dr Jonathan Smith, D*eputy Science Leader of AI Lab/ Principal Research Scientist in AI/ML*, British Antarctic Survey
15:10	**Fisheries** Dr Thomas Catchpole, *Principal Fisheries Science Advisor*, Cefas
15:30	Break
16:00	**Coastal Hazards** Professor Jenny Brown, *Coastal Oceanographer*, National Oceanography Centre
16:20	**Q&A** • Dr Sophie Arana (moderator) • Dr Ajit Pillai • Dr Jonathan Smith • Dr Thomas Catchpole • Professor Jenny Brown
16:40	**Closing Remarks** Professor Ralph Rayner
17:00	**Drinks reception**