

Outline programme

Monday 26th

09:00 to 11:45	Tutorial: Getting the Most from Your Seaglider Presented by: University of Washington <i>Please register online for this tutorial if you wish to participate.</i>
10:00	Registration opens
12:00	Welcome and introductory presentations
13:00	Lunch, posters, and tours of the MARS facility
14:00	New developments in glider and sensor technology
15:00	Gliders in polar oceans: science and technological challenges
15:30	Break
16:00	Gliders in polar oceans: science and technological challenges
17:30	End
19:00	Reception at Sea City Museum

Tuesday 27th

09:00	Micro-scale to meso-scale physical processes observed with underwater gliders
10:45	Break
11:15	Micro-scale to meso-scale physical processes observed with underwater gliders
11:45	The role of gliders in Ocean Observing Systems
13:00	Lunch, posters, and tours of the MARS facility
14:00	Workshop: Velocity Measurements from ADCPs on Gliders
15:30	Break
16:00	The role of gliders in Ocean Observing Systems
17:30	End

Wednesday 28th

09:00	The role of gliders in Ocean Observing Systems
10:45	Break
11:15	The role of gliders in Ocean Observing Systems
11:30	Sampling strategies for single vehicles and network
13:00	Lunch, posters, and tours of the MARS facility
14:15	Workshop: Data management and ocean observing systems
15:15	Break
15:45	Glider operations: piloting, infrastructure, data management and legal issues
17:30	End
19:00	Conference dinner at NOC

Thursday 29th

09:00	Observing biogeochemical processes with autonomous vehicles
10:45	Break
11:15	Observing biogeochemical processes with autonomous vehicles
11:45	New developments in glider and sensor technology
13:00	Lunch and posters
14:00	Workshop: Microstructure measurements from gliders
15:30	Break
16:00	Conference ends
16:00 to 17:30	Tutorial: SOCIB Glider Toolbox uses and implementation practical tutorial Presented by SOCIB <i>Please register online for this tutorial if you wish to participate.</i>

Schedule of talks: Monday 26th

Welcome and introductory talks

12:00	David Smeed	Organisers' welcome
12:10	Ed Hill	Director's welcome
12:20	Russell Wynn	Introduction to the NERC Marine Autonomous and Robotic Systems (MARS) facility
12:40	Pierre Testor	The EGO network

13:00 Lunch

New developments in glider and sensor technology

Chair: David Smeed

14:00	Charles Eriksen	Deepglider Characteristics and Capabilities
14:15	Clayton Jones	Slocum Glider - G3 Evolution
14:30	Rich Patterson	Kongsberg Seaglider - System Updates and Future Capabilities
14:45	Romain Tricarico	SeaExplorer Glider: Latest Innovations and Developments

Gliders in polar oceans: science and technological challenges

Chair: Seb Swart

15:00	Brad deYoung	Determining Iceberg Characteristics Using an Underwater Glider
15:15	Josh Kohut	Project CONVERGE: Gliders map local oceanographic processes and features that influence Adélie penguin foraging ecology
15:30	Break	
16:00	Craig Lee	Upper Ocean Evolution Across the Beaufort Sea Marginal Ice Zone
16:15	Alexander Brearley	Quantifying West Antarctic turbulent mixing from underwater gliders
16:30	Hazel Little	Quantifying spatial and temporal scales of phytoplankton variability in the Subantarctic Ocean using high-resolution glider data
16:45	Sophie Fielding	Is it a seal, no it's a glider: Antarctic krill react to gliders
17:00	Hank Statscewich	Tidewater Glacier Measurements from Gliders: Results from the Fjord Ecosystem Experiment on the West Antarctica Peninsula
17:15	Hugh Venables	Connections between surface and deep variability on the west Antarctic Peninsula shelf

Schedule of talks: Tuesday 27th

Micro-scale to meso-scale physical processes observed with gliders

Chair: Eleanor Frajka Williams

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|-------|-------------------|--|
| 09:00 | Matthew Palmer | Understanding turbulent controls on the ocean surface boundary layer with the Ocean Microstructure Glider |
| 09:15 | Luc Rainville | Long-Term Observations of Upper Ocean Turbulence and of its Impacts on Upper Ocean Variability during the SPURS Campaigns |
| 09:30 | Felix Margirier | Characterization of convective plumes associated with oceanic deep convection from autonomous gliders |
| 09:45 | Jian Zhao | Mesoscale eddy observed by glider in the Iceland Basin |
| 10:00 | Charles Eriksen | Vertical Structure of Mesoscale Features Observed by Deepglider |
| 10:15 | Kevin Martin | Trials and Tribulations of operating Slocum Gliders and Seaglidors in the highly dynamic waters in the Northern Gulf of Mexico |
| 10:30 | Urmaz Lips | Combining glider surveys and vertical profilers for process studies in the stratified estuaries (Gulf of Finland, Baltic Sea) |
| 10:45 | Break | |
| 11:15 | Ricardo Domingues | Hurricane Gonzalo (2014): upper-ocean processes and hurricane intensity forecast using hurricane underwater gliders data |
| 11:30 | Travis Miles | Glider observations and modeling of sediment transport in Hurricane Sandy |

The role of gliders in Ocean Observing Systems

Chair: Johannes Karstensen

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| 11:45 | Gustavo Goni | NOAA/AOML-CariCOOS Hurricane Underwater Glider Operations |
| 12:00 | Scott Glenn | Stratified Coastal Ocean Processes in Landfalling Hurricanes and Typhoons |
| 12:15 | Carlos Barrera | Improving in-situ ocean observations in the Macaronesia region with gliders |
| 12:30 | Robert Todd | New views of the Gulf Stream |
| 12:45 | Craig Lee | Kuroshio Transport and Waterless Modification in the Vicinity of Luzon Strait |

13:00 **Lunch**

14:00 **Workshop: Velocity Measurements from ADCPs on Gliders**

Chair: Robert Todd

15:30 **Break**

The role of gliders in Ocean Observing Systems

Chair: Brad de Young

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| 16:00 | Daniel Rudnick | The California Underwater Glider Network |
| 16:15 | Luc Rainville | Sustained Measurements of Monsoon-driven Circulation and Watermass Variability in the Northern Indian Ocean |
| 16:30 | Jeffrey Book | Pitfalls and Possible Solutions for using Glider Data to Constrain Ocean Models |
| 16:45 | Mauricio da Rocha
Fragoso | The Importance of Glider Observations for the Forecast Skill of the Santos Basin Ocean Observing System (Brazil) |
| 17:00 | Maciej Telszewski | Global Ocean Biogeochemistry Observing System based on Essential Ocean Variables - Focus on Gliders |

Schedule of talks: Wednesday 28th

The role of gliders in ocean observing systems

Chair: Luc Rainville

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| 09:00 | Florian Schuette | Occurrence and characteristics of mesoscale eddies in the tropical northeast Atlantic Ocean |
| 09:15 | Peter Haugan | The Norwegian Glider Observatory |
| 09:30 | Loic Houpert | Transport Structure and Energetic of the Flow associated to the North Atlantic Current in the Eastern part of the Subpolar Gyre |
| 09:45 | Peter Sheehan | Tidal and frontal flows in the Fair Isle Current observed using a Seaglider |
| 10:00 | Pierre Testor | Observation of 2012-2013 deep convection events in the north-western Mediterranean Sea |
| 10:15 | Zoi Kokkini | The use of gliders in a continuous monitoring of the South Adriatic Sea |
| 10:30 | Emma Heslop | Drivers of variability in water mass exchange at a circulation choke-point; a combined observing-modelling approach |
| 10:45 | Break | |
| 11:15 | Clayton Jones | Slocum Gliders - Uses and Applications |

Sampling strategies for single vehicles and networks

Chair: Laurent Mortier

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| 11:30 | Nick Green | Combined USV and Subsea-Glider fleets for Tidal Mixing Front Tracking and Monitoring |
| 11:45 | Peter Challenor | Autonomous Glider System Planning for Optimal Sampling |
| 12:00 | Charles Eriksen | Automated Glider Piloting in a Subsurface Submesoscale Eddy |
| 12:15 | Blandine L'Hévéder | The glider simulator SIGLID |
| 12:30 | Anastasis Rossides | γ -planner: A robust and efficient tool for designing optimal geometrically-based oceanographic missions using fleets of under-water gliders and buoys |
| 12:45 | John Allen | Examples of autonomous fleet optimisation |
| 13:00 | Lunch | |
| 14:15 | Workshop: Data management and ocean observing systems | |
| | <i>Chair: Pierre Testor</i> | |
| 15:15 | Break | |

Glider operations: piloting, infrastructure, data management and legal issues

Chair: Estelle Dumont

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| 15:45 | Alvaro Lorenzo Lopez | C2 - A command and control Infrastructure for Unmanned Fleets of Vehicles for the UK Community |
| 16:00 | Clayton Jones | Slocum Glider - Flight Mission Control |
| 16:15 | JongJin Park | Korea Underwater Glider Operation Network (KUGON) Project |
| 16:30 | Marc Torner | Past, present and future perspectives of SOCIB Glider Facility from a technical point-of-view |
| 16:45 | David White | How much use can you get out of your gliders? |
| 17:00 | Adrian Baker | Information from data: the use of submarine gliders by the UK MOD |
| 17:15 | Jean Luc Fuda | A low-cost method for controlling SLOCUM temperature and conductivity sensors |

Schedule of talks: Thursday 29th

Observing biogeochemical processes with autonomous vehicles

Chair: Sophie Fielding

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| 09:00 | Filipa Carvalho | Coupled physical and phytoplankton dynamics in Antarctic coastal seas |
| 09:15 | Ruth Curry | Radically improved observations of physical and biogeochemical dynamics at time series sites using gliders |
| 09:30 | Frederic Cyr | Dissolved organic matter dynamics in the NW Mediterranean from a new glider optical sensor |
| 09:45 | Johannes Karstensen | Upwelling and isolation in oxygen-depleted anticyclonic modewater eddies and implications for nitrate cycling |
| 10:00 | Bastien Queste | Eddy-mediated habitat compression through changes in the oxycline in the north west Arabian Sea |
| 10:15 | Anna Rumyantseva | Seagliders capture manifestation of the North Atlantic spring bloom |
| 10:30 | Alex Vincent | Using a Lab-on-Chip nutrient sensor in an autonomous glider to measure nitrate in shelf seas |
| 10:45 | Break | |
| 11:15 | Nikolaos Zarokanellos | Using AUVs to resolve fronts and eddies in the upper circulation of the Central Red Sea |
| 11:30 | Angelos Hannides | A glider observes chlorophyll dynamics during a transition from winter mixing to summer stratification across a subsurface eddy |

New developments in glider and sensor technology

Chair: Alexander Brearley

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| 11:45 | Mingxi Zhou | Preliminary Results of Surface Vehicle Assisted Navigation of a Underwater Glider |
| 12:00 | Fabian Wolk | An electro-magnetic flow sensor for measuring the axial speed of gliders |
| 12:15 | Robin Matthews | Measuring seawater pCO ₂ with a Slocum glider |
| 12:30 | Ben Moat | Large Eddy Simulations of flow around underwater gliders and the impact of flow distortion on sensor measurements |
| 12:45 | Ehsan Abdi | Development of a low-power wet-pluggable interface for easy integration of analog sensors to autonomous platforms |
| 13:00 | Lunch | |
| 14:00 | Workshop: Microstructure measurements from gliders | |
| | <i>Chair: Fabian Wolk</i> | |
| 15:30 | Break | |
| 16:00 | Conference ends | |

Poster presentations: Monday 26th

New developments in glider and sensor technology

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| M01 | Pierre Cauchy | Autonomous measurements of coastal turbidity using glider mounted ADCP (MATUGLI project) |
| M02 | Charles Eriksen | Conductivity Cell Thermal Inertia Correction on Seagliders |

Micro-scale to meso-scale physical processes observed with underwater gliders

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| M03 | Anthony Bosse | Understanding the oceanic variability in the Lofoten basin: an overview of the glider activity of the ProVoLo project |
| M04 | Ruth Curry | Underwater Glider Observations of Hurricane Passages near Bermuda in 2014 and 2015 |
| M05 | Dafydd Evans | Gliders for mesoscale and mixing in the Bahamas (MerMEED) |
| M06 | Joe O'Callaghan | Navigating New Zealand's Shelf Seas with underwater gliders |
| M07 | Marie Porter | Glider observations of enhanced deep water upwelling at a shelf break canyon |
| M08 | Simon Ruiz | Observational and numerical evidence for ocean frontogenesis inducing submesoscale processes and impacting biochemistry |
| M09 | Takahiro Tanaka | Glider observation in the Bussol Strait |
| M10 | Kjetil Vage | Wintertime glider measurements in the western Iceland Sea |

Posters to be displayed throughout the conference

Posters: Tuesday 27th

The role of gliders in Ocean Observing Systems

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| T01 | Francis Emile Asuquo | Ocean Gliders Applications as an alternative technology to conventional oceanography (analytical) techniques in the Bight of Bonny, Nigeria |
| T02 | Paraskevi Bourma | The POSEIDON system: A new Glider component and future applications |
| T03 | Richard Davis | OTN/MEOPAR Glider Operations in Canadian Waters |
| T04 | Daniel Hayes | Operational assimilation of glider temperature and salinity improves ocean state estimate |
| T05 | Dave Hebert | Glider measurements on the Scotian Shelf |
| T06 | Emma Heslop | JERICO-NEXT Trans-National Access: Expanding glider monitoring and facilitating external access to the glider platform |
| T07 | Felix Margirier | Assessing the abrupt changes of LIW properties observed in the Northwestern Mediterranean basin. |
| T08 | Tal Ozer | Establishing a monitoring Glider program for the investigation of watermass dynamics in the South-Eastern Mediterranean |
| T09 | David Smeed | A role for gliders in sustained observations on the eastern boundary of the subtropical Atlantic |
| T10 | Kimmo Tikka | Shallow water glider experiments in the Finnish coastal waters |

Sampling strategies for single vehicles and networks

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| T11 | Fabien Durand | SPRAY glider for altimetric cal/val activities in the South-Western Pacific: the case example of the East Caledonian Current |
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Posters to be displayed throughout the conference

Posters: Wednesday 28th

Glider operations: piloting, infrastructure, data management and legal issues

W01	Carlos Barrera	PLOCAN Glider School: The hands-on ocean glider technology and training forum
W02	Guislain Becu	Frontiers: Piloting gliders in highly dynamic and ice-covered environments
W03	Robert Gregor	The mystery disappearance and reappearance of Glider 416 during a mission in The Great Barrier Reef
W04	Daniele Cecchi	LOGMEC16: a long term glider deployment in the Ligurian Sea
W05	Charles Troupin	SOCIB Glider toolbox: from sensor to data repository
W06	Daniel Hayes	Discovery and access of glider data based on the Sensor Web Enablement (SWE) standards: a proposed architecture
W07	Mark Hebden	Progress towards the establishment of an EGO Data Assembly Centre for UK glider data

Observing biogeochemical processes with autonomous vehicles

W08	Victoria Hemsley	Nitrate fluxes in the North Atlantic and their relationship with primary production
W09	Jennifer Jardine	Using ocean gliders to determine the physical controls on fluorescence variability in shelf seas
W10	Anna Rumyantseva	Addressing observation continuum between satellite and glider measurements of Chlorophyll a
W11	Jo Hopkins	Physical drivers of the spring bloom in a temperate shelf sea

Posters to be displayed throughout the conference