OceanObs'19 Breakout Session
Integrated Ocean Observations II: Diverse Stakeholder Needs

Speaker Bios

Susan Wijffels (Woods Hole Oceanographic Institute, USA)

Dr Susan Wijffels is an Australian oceanographer and a senior scientist at Woods Hole Oceanographic Institute. She is recognised for her international and national leadership in global ocean observations. She is a member of the Argo Steering Team, and a Co-Chair of the TPOS2020 (Tropical Pacific Observing System) Backbone Task Team. Dr Wijffels is an expert in quantifying and understanding large-scale multi-decadal ocean warming and global salinity changes. She is a recipient of the Australian Meteorological and Oceanographic Society's Priestly Medal and the Australian Academy of Sciences' Dorothy Hill Award.

Dr Wijffels has co-authored seven OceanObs'19 CWPs. References to selected ones can be found below, and all are accessible at this link.

- Roemmich et al. (2019). On the Future of Argo: A Global, Full-Depth, Multi-Disciplinary Array. Front. Mar. Sci. doi: 10.3389/fmars.2019.00439
- Smith et al. (2019). Tropical Pacific Observing System. Front. Mar. Sci. doi: 10.3389/fmars.2019.00031

Lisa Levin (Scripps Institution of Oceanography, USA)

Dr Lisa Levin's research interests include biodiversity of deep-sea continental margin ecosystems including chemosynthetic ecosystems and oxygen minimum zones, the influence of ocean deoxygenation and ocean acidification on upwelling ecosystems, wetland structure and function in the context of invasion, restoration and water re-use, and connectivity in coastal ecosystems. Levin's deep-sea research has been conducted on the margins of the Pacific, Indian and Atlantic Oceans using ships, submersibles and remotely operated vehicles (ROVs) to sample and conduct experiments. Dr. Levin is founder and co-lead of the Deep-Ocean Stewardship Initiative, which seeks to integrate science, technology, policy, law and economics to advise on ecosystem-based management of resource use in the deep ocean and strategies to maintain the integrity of deep-ocean ecosystems within and beyond national jurisdictions. She is also science co-lead for the Deep Ocean Observing Strategy, dedicated to coordination of deep ocean observing programs to address science and societal needs into the future.

Dr Levin has (co)-authored two OceanObs'19 CWPs, references to which can be found below:

- Levin et al. (2019). Global Observing Needs in the Deep Ocean. Front. Mar. Sci. doi: 10.3389/fmars.2019.00241
- Wenhai et al. (2019). Successful Blue Economy Examples with an emphasis on international perspectives. Front. Mar. Sci. doi:10.3389/fmars.2019.00261

- Garcon et al. (in review). Multidisciplinary Observing in the World Ocean's Oxygen Minimum Zone regions: from climate to fish- the VOICE initiative. Front. Mar. Sci.

Nadia Pinardi (Bologna University, Italy)

Dr Nadia Pinardi holds a Ph.D. in Applied Physics from Harvard University, and she is associate tenure professor of Oceanography at Bologna University, Italy. Her interests range from ocean numerical modelling and predictions to data assimilation, numerical modelling of the marine physical-biological interactions and pollutants at sea. She has written more than hundred papers in peer reviewed journals on a wide range of subjects. Dr Pinardi is a member of the Global Ocean Observing System Steering Committee. She has received various awards:March 2007: European Geophysical Union (EGU) Fridtjof Nansen Medal for operational oceanography; June 2008: Roger Revelle Medal from the Intergovernmental Oceanographic Commission of UNESCO; March 2015: Commendatore, Ordine al Merito della Repubblica italiana, - for her scientific contribution in the strategic field of sustainable development such as oceanography and climatology; March 2017: Laurea Honoris Causa from the University of Liege, Belgium.

Dr Pinardi has (co)-authored six OceanObs'19 CWPs. References to selected ones can be found below, and all are accessible at this link.

- Pinardi et al. (2019). The Joint IOC (of UNESCO) and WMO Collaborative Effort for Met-Ocean Services. Front. Mar. Sci. doi: 10.3389/fmars.2019.00410
- Le Traon et al. (2019). From observation to information and users: the Copernicus Marine Service perspective. Front. Mar. Sci. doi: 10.3389/fmars.2019.00234

Sebastien de Halleux (Saildrone Inc)

Sebastien de Halleux is the COO of Saildrone,Inc., a company designing wind and solar powered ocean drones aiming at revolutionizing data collection at sea. At the confluence of autonomous technologies and big data, Saildrone believes that improving the understanding of our oceans will help us better understand key planetary systems that affect humanity, such as weather, ocean acidification, and global fisheries. Sebastien is the recipient of the 2012 EA Emerging Leaders Award, the 2011 Tech 100 award, the 2010 TechFellow award, and the 2003 Booz Allen Professional Excellence Award. He sits on the boards of UWC-USA, the Solar Fuel Institute, and Trusted Family. He is passionate about helping the next generation of entrepreneurs, acting as mentor for the Founders Institute, BetaGroup and 500 Startups. Sebastien holds a Masters degree in Civil and Environmental Engineering from Imperial College London and is a member of the 2016 Class of Henry Crown Fellows and the Aspen Global Leadership Network at the Aspen Institute.

Sebastien de Halleux has co-authored one OceanObs'19 CWP, link to which can be found below:

- Meinig et al. (2019). Public–Private Partnerships to Advance Regional Ocean-Observing Capabilities: A Saildrone and NOAA-PMEL Case Study and Future Considerations to Expand to Global Scale Observing. Front. Mar. Sci. doi: 10.3389/fmars.2019.00448

Particularly relevant OceanObs'19 Community White Papers

Batten et al. (2019). A Global Plankton Diversity Monitoring Program. Front. Mar. Sci. doi: 10.3389/fmars.2019.00321

Bax et al. (2019). A Response to Scientific and Societal Needs for Marine Biological Observations. Front. Mar. Sci. doi: 10.3389/fmars.2019.0039

Cronin et al. (2019). Air-Sea Fluxes With a Focus on Heat and Momentum. Front. Mar. Sci. doi: 10.3389/fmars.2019.00430

DeYoung et al. (2019). An Integrated All-Atlantic Ocean Observing System in 2030. Front. Mar. Sci. doi: 10.3389/fmars.2019.00428

Foltz et al. (2019). The Tropical Atlantic Observing System. Front. Mar. Sci. doi: 10.3389/fmars.2019.00206

Goni et al. (2019). More Than 50 Years of Successful Continuous Temperature Section Measurements by the Global Expendable Bathythermograph Network, Its Integrability, Societal Benefits, and Future. Front. Mar. Sci. doi: 10.3389/fmars.2019.00452

Groom et al. (2019). Satellite Ocean Colour: Current Status and Future Perspective. Front. Mar. Sci. doi: 10.3389/fmars.2019.00485

Harcourt et al. (2019). Animal-Borne Telemetry: An Integral Component of the Ocean Observing Toolkit. Front. Mar. Sci. doi: 10.3389/fmars.2019.00326

Hermes et al. (2019). A Sustained Ocean Observing System in the Indian Ocean for Climate Related Scientific Knowledge and Societal Needs. Front. Mar. Sci. doi: 10.3389/fmars.2019.00355

Howe et al. (2019). SMART Cables for Observing the Global Ocean: Science and Implementation. Front. Mar. Sci. doi: 10.3389/fmars.2019.00424

Lee et al. (2019). A Framework for the Development, Design and Implementation of a Sustained Arctic Ocean Observing System. Front. Mar. Sci. doi: 10.3389/fmars.2019.00451

Levin et al. (2019). Global Observing Needs in the Deep Ocean. Front. Mar. Sci. doi: 10.3389/fmars.2019.00241

Le Traon et al. (2019). From observation to information and users: the Copernicus Marine Service perspective. Front. Mar. Sci. doi: 10.3389/fmars.2019.00234

Mackenzie et al. (2019). The Role of Stakeholders in Creating Societal Value From Coastal and Ocean Observations. Front. Mar. Sci. doi: 10.3389/fmars.2019.00137

Meinig et al. (2019). Public–Private Partnerships to Advance Regional Ocean-Observing Capabilities: A Saildrone and NOAA-PMEL Case Study and Future Considerations to Expand to Global Scale Observing. Front. Mar. Sci. doi: 10.3389/fmars.2019.00448

Moltmann et al. (2019). A Global Ocean Observing System (GOOS), Delivered Through Enhanced Collaboration Across Regions, Communities, and New Technologies. Front. Mar. Sci. doi: 10.3389/fmars.2019.00291

Muelbert et al. (2019). ILTER – The International Long-Term Ecological Research Network as a Platform for Global Coastal and Ocean Observation. Front. Mar. Sci. doi: 10.3389/fmars.2019.00527

Newman et al. (2019). Delivering sustained, coordinated and integrated observations of the Southern Ocean for global impact. Front. Mar. Sci. doi: 10.3389/fmars.2019.00433

O'Carroll et al. (2019). Observational Needs of Sea Surface Temperature. Front. Mar. Sci. doi: 10.3389/fmars.2019.00420

Palmer et al. (2019). Adequacy of the Ocean Observation System for Quantifying Regional Heat and Freshwater Storage and Change. Front. Mar. Sci. doi: 10.3389/fmars.2019.00416

Pinardi et al. (2019). The Joint IOC (of UNESCO) and WMO Collaborative Effort for Met-Ocean Services. Front. Mar. Sci. doi: 10.3389/fmars.2019.00410

Roarty et al. (2019). The Global High Frequency Radar Network. Front. Mar. Sci. doi: 10.3389/fmars.2019.00164

Roemmich et al. (2019). On the Future of Argo: A Global, Full-Depth, Multi-Disciplinary Array. Front. Mar. Sci. doi: 10.3389/fmars.2019.00439

Ryabinin et al. (2019). The UN Decade of Ocean Science for Sustainable Development. Front. Mar. Sci. doi: 10.3389/fmars.2019.00470

Sloyan et al. (2019). Evolving the global ocean observing system for research and application services through international coordination. Front. Mar. Sci. doi: 10.3389/fmars.2019.00449

Sloyan et al. (2019). The Global Ocean Ship-Base Hydrographic Investigations Program (GO-SHIP): A platform for integrated multidisciplinary ocean science. Front. Mar. Sci. doi: 10.3389/fmars.2019.00445

Smith et al. (2019). Tropical Pacific Observing System. Front. Mar. Sci. doi: 10.3389/fmars.2019.00031

Snowden et al. (2019). The U.S. Integrated Ocean Observing System: Governance Milestones and Lessons From Two Decades of Growth. Front. Mar. Sci. doi: 10.3389/fmars.2019.00242

Tanhua et al. (2019). What have we learned from the Framework for Ocean Observing: evolution of the Global Ocean Observing System. Front. Mar. Sci. doi: 10.3389/fmars.2019.00471

Tanhua et al. (2019). Ocean FAIR Dasta Services. Front.Mar.Scie. doi: https://doi.org/10.3389/fmars.2019.00440

Testor et al. (2019). OceanGliders: a component of the integrated GOOS. Front.Mar.Scie. doi: 10.3389/fmars.2019.00422

Tilbrook et al. (2019). An Enhanced Ocean Acidification Observing Network: From People to Technology to Data Synthesis and Information Exchange. Front. Mar. Sci. doi: 10.3389/fmars.2019.00337

Todd et al. (2019). Global Perspectives on Observing Ocean Boundary Current Systems. Front. Mar. Sci. doi: 10.3389/fmars.2019.00423

Trowbridge et al. (2019). The Ocean Observatories Initiative. Front. Mar. Sci. doi: 10.3389/fmars.2019.00074

Villas Bôas et al. (2019). Integrated Observations of Global Surface Winds, Currents, and Waves: Requirements and Challenges for the Next Decade. Front. Mar. Sci. doi: 10.3389/fmars.2019.00425

Vinogradova et al. (2019). Satellite Salinity Observing System: Recent Discoveries and the Way Forward. Front. Mar. Sci. doi: 10.3389/fmars.2019.00243

Weller et al. (2019). The Challenge of Sustaining Ocean Observations. Front. Mar. Sci. doi: 10.3389/fmars.2019.00105