

Dialogue on Ocean Monitoring and Research
Ministry of Science, Technology and Innovations - MCTI
National Oceanic and Atmospheric Administration – NOAA

November 16th, 17th and 18th, 2022

Brazil: 15h – 17:15h

USA: 1pm – 3:15pm ET

Format: virtual

Website: <https://ciencianomar.mctic.gov.br/acoef/dmpo/>

Objective

Exchange of ongoing initiatives and mutual interests on ocean research and monitoring including remote sensing and *in situ* monitoring.

Program

November 16th – 15h/1pm

Streaming: <https://youtu.be/mmBpGWb2qTM>

Moderator: Dr. John Cortinas – NOAA

General efforts for ocean monitoring from the perspective of the Brazilian Ocean Research National Institute (INPO)

Dr. Segen Farid Estefen [\[Short Bio\]](#)

Atlantic Contributions to the Global Ocean Observing System

Dr. David Legler [\[Short Bio\]](#)

AtlantOS - Co-Design in the Atlantic

Jessica Snowden [\[Short Bio\]](#)

NOAA/AOML Observations and Research in the tropical and South Atlantic

Dr. Rick Lumpkin [\[Short Bio\]](#)

The Marine Biodiversity Observation Network Pole to Pole of the Americas: Developing a community of practice dedicated to observing marine life for the benefit of society

Dr. Enrique Montes [\[Short Bio\]](#)

Gabrielle Canonico [\[Short Bio\]](#)

November 17th – 15h/1pm

Streaming: <https://youtu.be/N4dnW7-x-18>

Moderator: Karen Silverwood-Cope – MCTI

The Brazilian Oil Monitoring System (SISMON)

Dr. Paulo Nobre [\[Short Bio\]](#)

Satellite Oil Spill Monitoring: NOAA's Program and the Regional COSTA Initiative

Matthew Coverdale [\[Short Bio\]](#)

Ocean modeling, including transport and decay of oil spills

Dr. Robert Hallberg [\[Short Bio\]](#)

Satellite Monitoring of Pelagic Sargassum
Dr. Joaquin Trinanés [\[Short Bio\]](#)

November 18th – 15h/1pm

Streaming: https://youtu.be/hwYPfem_v2c

Moderator: Gabrielle Canonico – NOAA

The Brazilian Coast Monitoring System (SiMCosta)

Monitoring the Regional Variability of heat transport and volume in the surface layer of the South Atlantic Ocean (MOVAR)

Dr. Mauro Cirano [\[Short Bio\]](#)

Climate Ecosystem and Fisheries Initiative

Dr. Charles Stock [\[Short Bio\]](#)

GEO Blue Planet

Dr. Emily Smail [\[Short Bio\]](#)

AmeriGEO

Albert DeGarmo [\[Short Bio\]](#)

Brazilian Speakers

Segen Farid Estefen



[\[http://lattes.cnpq.br/7932825341116352\]](http://lattes.cnpq.br/7932825341116352)

Professor of Ocean Structures and Subsea Engineering at the Federal University of Rio de Janeiro – COPPE, where he is the General Manager of the Subsea Technology Laboratory and Coordinator of the Offshore Renewable Energy Group. Fellow of the of the American Society of Mechanical Engineers (ASME) and Member of the Advisory Board of the Ocean, Offshore and Arctic Engineering Division. Member of the Brazilian Academy of Engineering. Ph.D. Imperial College London. Member of the Advisory Council of FINEP - Ministry of Science, Technology and Innovations (2019-2021). Member of the Petrobras Board of Directors (2015-2019). General Diretor (1998-2001) and Director of Technology and Innovation (2009-2013) of the Institute for Post-Graduate Studies and Research in Engineering (COPPE) of the Federal University of Rio de Janeiro. General-Director of the National Ocean Institute.

Paulo Nobre



[\[http://lattes.cnpq.br/6041333024387123\]](http://lattes.cnpq.br/6041333024387123)

Paulo Nobre is a climatologist, professor, researcher and author with more than three decades of experience in climate variability and change research, ocean observation and prediction studies, and earth system modeling. Currently, he heads the development of the Brazilian Earth System Model and leads the Brazilian national committee of the Brazil-France-United States PIRATA array of moored buoys for tropical Atlantic research. Among his most recent missions is the development of a national system for the detection, prediction and monitoring of oil spills at sea in Brazil.

Carlos Alberto Eiras Garcia



[\[http://lattes.cnpq.br/2465461893697741\]](http://lattes.cnpq.br/2465461893697741)

CARLOS A. E. GARCIA holds a BSc in Physics (State University of Campinas, Brazil) and MSc and PhD in Oceanography (University of Southampton, UK). He works on Physical Oceanography, with emphasis on polar oceanography, coastal oceanography, remote sensing of oceans, oceans and climate, ocean/coastal observing systems. In the past, he participated in the National Committee of Antarctic Research (CONAPA/Brazil), ESA “Polder Science Team” and NASA “Ocean Colour Team. He also coordinated several multidisciplinary scientific projects in the Southern Ocean, South Atlantic Ocean and Southwestern Brazilian continental shelf waters. He coordinated the subnetwork Coastal Zone of REDE CLIMA from 2008 to 2013. Currently, he coordinates the Brazilian Coastal Monitoring System (SiMCosta) funded by the Brazilian Funding Agency for Climate Change and the Ministry of Science, Technology, Innovation and Communication and he is also member of the National Institute of Ocean Research (INPO).

Mauro Cirano



<http://lattes.cnpq.br/4745910699812089>

Mauro Cirano graduated in Oceanography from the Federal University of Rio Grande (1991) and completed his master's degree in Physical Oceanography from the Oceanographic Institute of the University of São Paulo (1995). In 2000, he finished his PhD in Physical Oceanography from the University of New South Wales, Sydney, Australia. He worked at the Federal University of Bahia (UFBA) from 2001 to 2015, being in charge of the implementation of the Undergraduate Course in Oceanography (2004) and the Physical Oceanography concentration area in the Postgraduate Course in Geophysics at UFBA (2009). In 2011 he spent a sabbatical year at the South Australian Research and Development Institute (SARDI), Adelaide, Australia. In 2015 he joined the Federal University of Rio de Janeiro (UFRJ), the largest federal university of Brazil, where he is an Associate Professor working at the Department of Meteorology. His areas of research include the study of circulation processes in coastal and oceanic regions, both based on the analysis of oceanographic data and through numerical modeling of circulation. So far, he published 40 articles in peer review journals over the last 10 years. Among his research projects, he coordinates the longest sustained monitoring program of the Brazil Current, established 19 years ago. On a national level he: i) coordinates the National Council for Scientific and Technological Development Advisory Committee for Oceanography (CNPq CA-OC) and ii) is a member of the Steering Committee of the Brazilian Global Ocean Observing System (GOOS-BR). Internationally, he is a member of: i) the steering committee of CoastPredict, ii) the Coastal Ocean and Shelf Seas Task Team (COSS-TT) associated with the global consortium OceanPredict, iii) the BRICS Working Group on Ocean and Polar Science and Technology, iv) the steering committee of the Global Temperature and Salinity Profile Programme (GTSP) and v) the XBT Science Team.

NOAA Speakers

John Cortinas



Dr. John Cortinas currently serves as the Director of NOAA's Atlantic Oceanographic and Meteorological Laboratory (AOML), a U.S. federal laboratory that studies hurricanes, coastal ecosystems, oceans and human health, climate, global carbon, and how the ocean changes over time. Previously, Dr. Cortinas served as Director of the NOAA Research Weather Program Office (WPO). As the Director of WPO and Steward of NOAA Research's weather portfolio, he oversaw NOAA's U.S. Weather Research Program, the Joint Technology Transfer Initiative, and hosted the National Earth System Prediction Capability project office. In addition to his work at NOAA, he also serves as a Vice-Chair for the Intergovernmental Oceanographic Commission (IOC) of UNESCO sub-commission for the Caribbean and adjacent regions (IOCARIBE).

David Legler



Dr. David M. Legler currently serves as the Director, Global Ocean Monitoring and Observing program, within NOAA's Oceanic and Atmospheric Research. GOMO is leading NOAA's efforts to develop and sustain a global in-situ ocean observing system and related products for researchers, forecasters, and other consumers of ocean knowledge. He is currently co-chair of the GOOS Observation Coordination Group and co-chairs the US Interagency Ocean Observation Committee (IOOC). He has also served on numerous national and international committees addressing global ocean observations, ocean data assimilation, ocean data management, and climate research. He has published on a range of topics such as ocean remote sensing, air-sea interaction, and the impacts of ENSO on North American climate and subsequent effects on US agriculture and water resources.

Jessica Snowden



Jessica joined the [Global Ocean Monitoring and Observing Program](#) as the first permanent deputy director in April 2020. She previously acted as deputy in 2019, while working for the U.S. Integrated Ocean Observing System (IOOS) where she spent over a decade helping to build the new IOOS program in NOAA. Jessica is a 2018 graduate of NOAA's Leadership Competencies Development Program. Prior to joining NOAA, Jessica worked for Ocean.US, the coordinating office for U.S.IOOS. She also served as policy coordinator for the American Fisheries Society. She holds a Bachelor of Science degree in biology from the University of Delaware and a Master of Science degree in marine biology from the University of Maine.

Rick Lumpkin



Division Director of Physical Oceanography Division of NOAA's Atlantic Oceanographic and Meteorological Laboratory at Miami, FL, and a principal investigator of NOAA's Global Drifter Program.

Enrique Montes



Enrique Montes is a biological oceanographer working at the U. Miami Cooperative Institute for Marine and Atmospheric Studies (CIMAS) and NOAA's Atlantic Oceanographic and Meteorological Laboratory (AOML) studying responses of marine life to changes in atmospheric and oceanographic conditions. His research integrates environmental, bio-optical, genomic, and taxonomic measurements collected from ships with satellite data to resolve the oceanographic context of local observations, and characterize regional biogeographic conditions and ocean habitats. He is a Co-Investigator of the Marine Biodiversity Observation Network (MBON) in the USA and internationally. Montes is the Principal Investigator of the MBON Pole-to-Pole of the Americas, presides the International Association for Biological Oceanography (IABO), and serves as Executive Committee member of the Scientific Committee on Oceanic Research (SCOR).

Gabrielle Canonico



Gabrielle is the Marine Life Program Manager for the U.S. Integrated Ocean Observing System (U.S. IOOS), based in NOAA, and the federal coordinator for the US Marine Biodiversity Observation Network. Her focus is integration of biological observing data and capability into U.S. IOOS and the Global Ocean Observing System, development of information products to ensure availability of marine life observations for resource managers and the public, and advancing efforts to ensure sustained monitoring of marine life and biodiversity. Gabrielle serves as co-lead of the Marine Life 2030 UN Decade Programme, co-chair of the Global Ocean Observing System (GOOS) Biology and Ecosystem Panel, and co-chair of the US Subcommittee on Ocean Science and Technology Interagency Working Group on Biodiversity.

Matthew Coverdale



Matthew is a satellite analyst with NOAA's Satellite Analysis Branch (SAB) at the NOAA Center for Weather and Climate Prediction (NCWCP) in College Park, MD. SAB is a 24/7 group under NESDIS that uses satellite imagery to monitor for oil spills, volcanic ash, tropical cyclones, and fire/smoke. In addition to being an analyst on these desks, Matthew is a trainer on the marine pollution/oil spill monitoring desk. He is also a trainer for SAB's international oil spill monitoring initiative, COSTA. Matthew's educational background includes a bachelor's degree in Operational Meteorology and a master's degree in Oceanography.

Robert Hallberg



Dr. Robert Hallberg is an Oceanographer at NOAA/Geophysical Fluid Dynamics Laboratory, where he is the co-leader of the development team for the widely used Modular Ocean Model, version 6 (MOM6) community ocean model and the SIS2 sea ice model. In addition to his work on the dynamic core of MOM6, Robert has developed numerically robust and physically accurate parameterizations of a wide variety of oceanic physical processes, such as turbulent boundary layer mixing, energetically constrained interior-ocean mixing, and eddy mixing and restratification. He has used global-scale numerical ocean simulations to study topics as varied as the dynamics of Southern Ocean eddies and their role in the ocean's response to climate, sources of steric sea level rise, and the fate of the deep plumes of methane and oil from the Deepwater Horizon oil spill. Robert recently served as one of the lead authors of one of the chapters of the 2019 IPCC Special Report on the Oceans and Cryosphere in a Changing Climate (SROCC), and was also one of the coauthors who wrote the Summary for Policymakers of the SROCC report and successfully presented this report to the governments of the world for their acceptance. Robert has a B.A. in Physics from the University of Chicago and a Ph.D. in Oceanography from the University of Washington.

Joaquin Trinanes



Joaquin Trinanes is the Op. Manager for the NOAA/CoastWatch Caribbean and Gulf of Mexico Regional Node, and for Atlantic OceanWatch. Both nodes are located at the Atlantic Oceanographic and Meteorological Laboratory (NOAA/AOML) in Miami, FL. He is also an Associate Professor at the University of Santiago de Compostela. He received his PhD in Physics on the development of a global Fisheries Information System using satellite data. His research interests are focused on remote sensing, oceanography, and scalable data management and analysis.

Charles Stock



Charlie Stock is the deputy lead for oceans within GFDL's Biogeochemistry, Atmospheric Chemistry and Ecosystems group. Stock co-leads the development of the ocean biogeochemical component of GFDL's earth system model. His research focuses on interactions between climate and marine ecosystems. He has worked extensively with colleagues from the National Marine Fisheries Service to apply GFDL's climate and earth system models to marine resource science and management challenges. Stock earned his Ph.D. from Woods Hole Oceanographic Institute/MIT Joint Program Civil, Environmental and Ocean Engineering in 2005. He received the 2009 Presidential Early Career Award for Scientists and Engineers.

Emily Smail



Dr. Emily Smail specializes in utilizing science to support informed decision-making and the development of effective ocean, conservation, and development policies. Emily has been serving as the Secretariat Director of the GEO Blue Planet Initiative since 2015 and is a Senior Faculty Specialist at the NOAA-University of Maryland Cooperative Institute for Climate and Satellites. Prior to working to support GEO, Emily worked in science policy and information science education. She received a B.S. in Biology from the Pennsylvania State University and a Ph.D. in Biology from the University of Southern California.

Albert DeGarmo



Albert DeGarmo joined NOAA's National Environmental Satellite, Data, and Information Service (NESDIS) International and Interagency Affairs Division (IIAD) in 2016. In his role as an International Affairs Specialist, Albert supports the Group on Earth Observations (GEO) by serving as Secretariat for AmeriGEO. Established in 2014, AmeriGEO provides a framework for cooperation in the use of Earth observations, among and within countries in the Americas. This regional approach seeks to both take advantage of existing institutional and technical capabilities of its member countries and leverage the resources of other GEO initiatives and Participating Organizations. AmeriGEO focuses its activities in five priority areas agreed by the Americas Caucus: agriculture, biodiversity & ecosystems, disaster risk reduction, water, and health. (https://earthobservations.org/geo_blog_obs.php?id=520)