The National Academies of SCIENCES ENGINEERING MEDICINE
GULF RESEARCH PROGRAM

Understanding Gulf Ocean Systems Annual Meeting
February 10th, 2021
Moderators and Panelists Biographies

"Operational Forecasts, their Applications, and International Collaboration" Panel

Moderators:

Dr. Melbourne Briscoe, UGOS Standing Committee Chair
Ocean Geeks, LLC
Dr. Melbourne (Mel) Briscoe is the President of OceanGeeks, LLC, an environmental consulting company and information provider specializing in information on ocean policy issues, advice on forming and maintaining ocean partnerships and collaborations, and best practices in the translation of ocean research results to practical applications. Prior to his consulting work, Dr. Briscoe was Director of Ocean, Atmosphere, and Space Research Division with the Office of Naval Research; Director, U.S. Global Ocean Observing System with NOAA; and Vice President and Director, Research and Education with the Consortium for Ocean Leadership. He is a member of multiple professional associations: the American Geophysical Union, the Oceanography Society, and the American Meteorological Society. Dr. Briscoe received his Ph.D. in mechanical engineering (fluid dynamics) from Northwestern University; he has prior NRC committee experience and holds certifications in aspects of group dynamics and meeting facilitation.

Dr. Elva Escobar-Briones, UGOS Standing Committee Member
Universidad Nacional Autónoma de México
Dr. Elva Escobar-Briones a Full Time Professor in the Instituto de Ciencias del Mar y Limnología (ICML) at the Universidad Nacional Autónoma de México (UNAM). The Institute addresses multidisciplinary research of high quality in inland waters, coastal and open ocean ecosystems and resources. Dr. Escobar-Briones' personal research area focuses on benthic fauna and marine conservation. She and her students conduct field work on board the Oceanographic research Vessel "Justo Sierra"; in collaboration with national and international institutions describing the structure and function in the abyssal Gulf of Mexico and other ocean regions of Mexico in scientific collaborative efforts. Dr. Escobar-Briones received her Ph.D. in Biological Oceanography from Universidad Nacional Autónoma de México.

Panelists:

Dr. Patrick Hogan
National Oceanic and Atmospheric Administration
Dr. Patrick (Pat) Hogan is an oceanographer who serves as the Chief of the Ocean Sciences and Development Branch (OSDB) for the National Centers for Environmental Information (NCEI) at the National Oceanic and Atmospheric Administration (NOAA), located at Stennis Space Center, MS. His branch includes the Ocean Surface, Ocean Subsurface, and Living Marine Ecosystems sections. Those sections are responsible for a wide range of Product Areas covering a diverse portfolio of products and services. Prior to joining NOAA/NESDIS/NCEI, Dr. Hogan was with the Naval Research Laboratory for 30+ years and served as the section head of the Open Ocean Process and Prediction Systems Section (the "Large Scale" group). Dr. Hogan has been modeling and forecasting the Gulf of Mexico circulation for many years. His research interests include ocean circulation dynamics, coupled process studies, probabilistic forecast methods, and development and application of products and services derived from both observations and numerical prediction systems. Dr. Hogan serves on the international OceanPredict Science Team and has authored or co-authored more than 50 refereed journal publications. Dr. Hogan received his Ph.D. in Marine Science from the University of Southern Mississippi, his M.S. degree in Geophysics from the University of New Orleans, and his B.S. in Geology from the University of Kansas.

Dr. Gregg Jacobs
Naval Research Laboratory
Dr. Gregg Jacobs heads the Ocean Dynamics and Prediction Branch at the Naval Research Laboratory – Stennis Space Center. In this capacity, he coordinates program R&D development to meet environmental forecast capability requirements for Navy applications. These include global to nested high-resolution ocean circulation, ice modeling, surface wave field, and satellite and in situ data processing and assimilation. Dr. Jacobs is an expert in numerical modeling and simulation, computational fluid dynamics, remote sensing, hydrodynamics, and hydrology. He received his Ph.D. in Aerospace Engineering Sciences from the University of Colorado, Boulder, his M.S. in Physical Oceanography from Oregon State University, Corvallis, and his B.S. in Aerospace Engineering Sciences from the University of Colorado, Boulder.

Dr. William Lee
Universidad Nacional Autónoma de México
Dr. William Henry Lee Alardin is the Coordinator of Scientific Research and a researcher at the Instituto de Astronomía at the Universidad Nacional Autónoma de México (UNAM). Dr. Lee is a physicist by training and researches the accretion phenomena in compact objects, such as neutron stars and black holes, gamma-ray flash production, accretion disks' hydrodynamics, and supernova explosions. His current areas of interest are the emission of gravitational waves on compact objects and their potential counterparts within the electromagnetic spectrum and the development of observational infrastructure in Mexico. Dr. Lee has over 65 refereed journal publications in astronomy and astrophysics and is a member of the Academia Mexicana de Ciencias and the International Astronomical Union. Dr. Lee holds a B.S. in Physics from UNAM and an M.S. and Ph.D. in Physics from the University of Wisconsin-Madison.

Dr. Susana Lizano
Academia Mexicana de Ciencias and Universidad Nacional Autónoma de México
Dr. Susana Lizano is the President of the Academia Mexicana de Ciencias (AMC) and emeritus researcher at Instituto de Radioastronomía y Astrofísica (IRyA) of Universidad Nacional Autónoma de México (UNAM). She is member of El Colegio Nacional. Her main research interest is star formation. She has made fundamental contributions to the contemporary understanding of the phenomenon of the birth of new stars, both from a theoretical and observational perspective. Dr. Lizano has published over 84 refereed journal publications and 6 invited reviews in the most prestigious astronomy journals. She has also published 28 full-length memoirs and 5 book chapters. Her work has received more than 8,600 citations in international literature. Dr. Lizano earned her B.S. in Physics from UNAM and her M.S. and Ph.D. in Astronomy from the University of California at Berkeley, followed by a postdoctoral position at the Osservatorio Astrofisico di Arcetri in Florence, Italy.

Dr. Steven Pawson
National Aeronautics and Space Administration
Dr. Steven Pawson is the Chief of the Global Modeling and Assimilation Office (GMAO) at NASA Goddard Space Flight Center. In this capacity, he is responsible for guiding the development and use of the "Goddard Earth Observing System" (GEOS) Earth System modeling and data assimilation system. Dr. Pawson leads GMAO's work to enhance the use of NASA's satellite observations in weather and climate analysis and to improve predictions of the physical, chemical and biological components of the Earth system on timescales ranging from days to decades. His scientific expertise is in the domain of atmospheric composition, including the representation of transport processes in models and data assimilation systems. Dr. Pawson has worked at NASA since moving to the US in 1997. Prior to this, he spent almost a decade at the Meteorological Institute of the Free University of Berlin in Germany, including six years on the teaching faculty. Dr. Pawson earned his Ph.D. in Meteorology from the University of Edinburgh, followed by a postdoctoral position at the University of Oxford.

Dr. James Stear
Chevron

Dr. James (Jim) Stear is a Senior Principal Offshore Civil & Structural Engineer and Metocean Specialist with Chevron. Dr. Stear has extensive experience applying oceanography and meteorology to the improved design and operation of offshore and onshore oil and gas structures. Additionally, since 2000, he has been involved in Gulf of Mexico Loop Current and Eddy observations, modeling, and forecasting, including hindcast modeling and the development of ensemble forecasts with academic, federal, and industry partners. Dr. Stear is the chair of the International Association of Oil and Gas Producers' Metocean Committee and the Chairman of American Petroleum Institute's (API) Subcommittee 2 on Offshore Structures. He was formerly the Chairman of API's Metocean Resource Group. Dr. Stear earned his M.S. in Naval Architecture and Offshore Engineering and his Ph.D. in Civil and Environmental Engineering.

"Understanding Gulf Ocean Systems Ongoing Observations and Future Plans" Panel

Moderator:

Steven Anderson, UGOS Standing Committee Member
Areté Associates
Dr. Steven Anderson is a Senior Principal Scientist at Areté Associates. Before joining Areté Associates in 2009, Steven was a Chief Scientist at Horizon Marine for nine years. Dr. Anderson is an oceanographer and engineer with experience in upper ocean dynamics, instrument design, and operational oceanography. He has conducted basic research on internal gravity waves, mixed layer dynamics, air-sea interaction, remote sensing, and Loop Current dynamics. His engineering development experience includes acoustic Doppler profilers, air-deployable oceanographic instrumentation, meteorological sensors, and remote sensing systems. Dr. Anderson has directed government and industry-sponsored research and development programs. Dr. Anderson received his Ph.D. in applied ocean sciences from Scripps Institution of Oceanography, U.C.S.D. and was an assistant scientist at Woods Hole Oceanographic Institution for six years.

Panelists:

UGOS-1 Project: "Loop Current Floats: Near-real-time Hydrography and Deep Velocity in the Loop Current System using Anonymous Profilers"

Amy Bower
Woods Hole Oceanographic Institution
Dr. Amy Bower is a senior scientist and the Chair of the Department of Physical Oceanography at the Woods Hole Oceanographic Institute. Dr. Bower's primary research interests are aimed at understanding the structure and dynamics of the most energetic features of the deep circulation: boundary currents and deep mesoscale eddies. As part of the GRP's Understanding Gulf Ocean Systems Campaign, Dr. Bower and her team have deployed and maintained a fleet of autonomous profilers throughout the Loop Current System in the eastern Gulf of Mexico. Dr. Bower earned her B.S. in Physics at Tufts University and her Ph.D. from the University of Rhode Island in Oceanography.

Heather Furey
Woods Hole Oceanographic Institution
Ms. Heather Furey is a Research Specialist at the Woods Hole Oceanographic Institution. As a member of the technical staff, her research focuses on deep currents and overflows, specializing in Lagrangian data processing and analysis. Ms. Furey earned a B.A. in Physics and Studio Art from Smith College and a M.S. in Physical Oceanography from University of Alaska Fairbanks.

UGOS-1 Project: "Pressure and Current Meters"

Kathleen Donohue
University of Rhode Island
Dr. Kathleen Donohue is Professor in the Graduate School of Oceanography and the director of the annual Summer Undergraduate Research Fellowship in Oceanography (SUFRO) at the University of Rhode Island. Before coming to the University of Rhode Island in 2000, Dr. Donohue did her post doctorate research at the University

of Hawaii. Her research has focused on large-scale and meso-scale ocean circulation around the globe, especially in the Loop Current in the Gulf of Mexico and the Antarctic Circumpolar Current in the Drake Passage. Dr. Donohue earned her B.S. in Applied Mathematics from Brown University and her Ph.D. in Oceanography from the University of Rhode Island.

UGOS-1 Project: "Passive Gulf of Mexico Loop Current Observations from High Frequency Radar Across the Yucatan Strait"

Anthony Knap
Texas A&M University
Dr. Anthony Knap is a Professor in the Department of Oceanography, holder of the James R. Whatley Endowed Chair in Geosciences, and the Director of the Geochemical and Environmental Research Group at Texas A&M University. Prior to coming to Texas A&M, Dr. Knap transformed the Bermuda Institute for Biological Sciences (BIOS) from a small biological station into a world-renowned center on oceanographic research. His research focuses on ocean chemistry and biogeochemistry, oil pollution and other marine pollutants, ocean observations, risk assessment of climate change, and oceans and human health. Dr. Knap earned his B.S. in Biology and Chemistry from Wisconsin State University, his M.S. in Oceanography and his Ph.D. in Chemical Oceanography from the University of Southampton.

UGOS-1 Project: "Dry Tortugas and Lower Keys High Frequency Radars"

Clifford Merz
University of South Florida
Dr. Clifford Merz is a Senior Research Ocean Engineer in the University of South Florida's College of Marine Science. In this role, he serves as the Program and HF Radar Operations Director for the Coastal Ocean Monitoring and Prediction System (COMPS) program operating along the Gulf of Mexico's West Florida coast. Dr. Merz is also the founder and president of the blue energy technology company Dialytics, Inc., a startup focused on the commercialization and application of microalgae (diatom) production for the aquaculture, nutraceutical, and biofuel sectors and has served as a multi-term board member for the NOAA/IOOS Southeast Coastal Ocean Observing Regional Association (SECOORA). Dr. Merz earned his B.S. in Ocean Engineering and his M.S. in Civil/Water Resource Engineering from Florida Atlantic University, an M.S. in Ocean Engineering from the University of Connecticut, Avery Point, and a Ph.D. in Electrical/Engineering Science from the University of South Florida.

UGOS-1 Project: "Gulf of Mexico Loop Current and Eddy Observations from HF Radar Systems: Offshore Platforms"

Stephan Howden
University of Southern Mississippi
Dr. Stephan D. Howden is an Associate Professor in the Department of Marine Science at the University of Southern Mississippi, where he has directed the Central Gulf of Mexico Ocean Observing System since 2003. In addition, he on the Board of Directors of the Gulf of Mexico Coastal Ocean Observing System (GCOOS) and is a member of GCOOS's HF Radar Technical Steering Team for the NOAA Integrated Ocean Observing System Program Office. He was a member of the Program Advisory Committee for the Ocean Observatories Initiative, from 2013 until it ended in 2015. He earned a B.S. in Physics from the State University of New York at Buffalo, an M.S. in Physics from Michigan State University, and a Ph.D. in Oceanography from the University of Rhode Island.

UGOS-1 Projects: "A Unified Approach to HF Radar Quality Control for UGOS"

Scott Glenn
Rutgers University
Dr. Scott Glenn is a Distinguished Professor in the Department of Marine and Coastal Sciences and the Co-Director of the Center for Ocean Observing Leadership at Rutgers University. He has had an over 30-year

research career of implementing sustained real-time ocean observation and forecast systems for offshore oil exploration at Shell (1983-1986), then for the Naval Oceanography Command supporting fleet operations while at Harvard University (1986-1990). At Rutgers, his research interests include the development of new autonomous ocean observing technologies, their application to scientific research in remote and extreme environments, and the demonstration of new educational paradigms. Dr. Glenn received his Sc.D. in Ocean Engineering from the Massachusetts Institute of Technology and Woods Hole Oceanographic Institution Joint Program.

UGOS-1 Project: "The West Florida Shelf Pressure Point Control on Shelf Ecology and Loop Current Penetration into the Gulf of Mexico"

Robert Weisberg
University of South Florida
Dr. Robert Weisberg is a Distinguished University Professor in the College of Marine Science, University of South Florida. As an experimental physical oceanographer, he is engaged in ocean circulation and ocean-atmosphere interaction studies in the tropics, on continental shelves, and in estuaries. Present emphasis is on the West Florida Shelf and the interactions between the shelf and the deep ocean and between the shelf and the estuaries using a combination of in situ and remote observations and numerical circulation models. Dr. Weisberg earned his Ph.D. from the University of Rhode Island.

UGOS-2 Project: "Technology and Methods for Yucatán Channel Monitoring"

Uwe Send
Scripps Institution of Oceanography
Dr. Uwe Send is a Professor of Climate, Atmospheric Science and Physical Oceanography at the Scripps Institution of Oceanography at UC San Diego. Dr. Send's research interests include thermohaline circulation; water mass formation and effects; boundary current observations; coastal circulation and processes; ocean-climate interaction; physical-biogeochemical and ecosystem interactions; multi-disciplinary time-series observations; global and coastal ocean observing systems; and ocean observing techniques. At the Scripps Institution of Oceanography, he is the leader of the ocean Time-Series Group, which specializes in physical oceanographic and interdisciplinary research using time-series observations from moored sensors. Dr. Send received two M.S.s, one from the University of Sussex and the other from the University of Southampton. He earned his Ph.D. from the Scripps Institution of Oceanography.

"Shell Stones Ocean Observing System: A Public-Private Academic Partnership"

James Ranson
Fugro
Mr. James Ranson is a Senior Oceanographer and Project Manager at Fugro USA Marine Inc. Before joining Fugro in 2010, Mr. Ranson was a Marine Scientist and Engineer at National Oceanography Centre. Mr. Ranson received his B.S. in Oceanography from the University of Southampton.

"Data Compilation and Management" Panel

Moderator:

Eileen Hofmann, UGOS Standing Committee Member
Old Dominion University
Eileen Hofmann is a Professor in the Department of Ocean, Earth and Atmospheric Sciences and a member of the Center for Coastal Physical Oceanography, both at Old Dominion University, Norfolk, VA. Her research interests are in the areas of physical-biological interactions in marine ecosystems, environmental control and transmission of marine diseases, descriptive physical oceanography, and mathematical modeling of marine ecosystems. She has published extensively in

marine ecosystem modeling and other areas of marine research and has co-edited nine special issues of journals and two books. Her contributions to modeling physical-biological interactions in marine systems were recognized by her election in 2013 as a Fellow of the American Geophysical Union (AGU). She was a member of the international and U.S. science steering committees for the Global Ocean Ecosystem Dynamics (GLOBEC) program. She coordinated the U.S. and international Southern Ocean GLOBEC field program and synthesis phases. From 2010-2015, she served as Chair of the Integrated Marine Biogeochemistry and Ecosystem Research (IMBER) and in this role, oversaw the development of a new ten-year IMBER Science Plan and Implementation Strategy. She is currently President of the Ocean Sciences section of the AGU. She represents the Ocean Sciences section at the AGU Council Meetings and is a member of the AGU Council Leadership Team and Board. She is Co-Editor-in-Chief for the Journal of Marine Systems. She received a B.S. in Biology from Chestnut Hill College, M.S. and Ph.D. degrees in Marine Sciences and Engineering from North Carolina State University.

Panelists:

UGOS-1 Project: "GulfHub"

Barbara Kirkpatrick
Gulf of Mexico Coastal Ocean Observation System
Dr. Barbara Kirkpatrick is the Executive Director for the Gulf of Mexico Coastal Ocean Observation System (GCOOS). She has more than 35 years of experience in human and environmental epidemiology and started her career as a Respiratory Care Supervisor at Duke University Medical Center before going on to receive a M.Ed in Health Occupations Education at North Carolina State University and a Ph.D. in Educational Leadership from the University of Sarasota. In 1999, Dr. Kirkpatrick joined Mote Marine Laboratory as a staff scientist and shifted her research focus to environmental human health, particularly the respiratory effects linked to harmful algal blooms. As Executive Director of GCOOS, she has been instrumental in broadening the scope of the ocean monitoring organization to include biological aspects of ocean monitoring — particularly monitoring for toxic algal blooms and marine animal movements.

The Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC)

James Gibeaut
Harte Research Institute, Texas A&M University
Dr. James (Jim) Gibeaut is the Endowed Chair for Coastal and Marine Geospatial Sciences at the Harte Research Institute for Gulf of Mexico Studies (HRI) at Texas A&M University – Corpus Christi. Dr. Gibeaut is a coastal geologist who uses optical, radar, and lidar remote sensing, GIS, and field surveys to measure and understand coastal change. He has studied shorelines in a variety of locations including Rhode Island, Florida, Texas, Alaska, Honduras, Venezuela, Brazil, and Saudi Arabia. Currently, he is modeling the effects of relative sea-level rise and storms on coastal systems and projecting future change. His Coastal and Marine Geospatial Lab at HRI is also developing web applications and scientific data repositories for the dissemination of research results. Dr. Gibeaut earned a B.S. in geology from Ohio State University, a M.S. in coastal geology from the University of Rhode Island, and a Ph.D. in Marine Science from the University of South Florida.

Rosalie Rossi
Harte Research Institute for Gulf of Mexico Studies
Ms. Rosalie Rossi is a biologist and Program Manager for the Gulf of Mexico Research Initiative Information and Data Cooperative. She works with researchers from around the Gulf in order to facilitate data sharing and promote a culture of open data. Ms. Rossi's previous employer was the National Park Service at Padre Island National Seashore with the Division of Sea Turtle Science and Recovery where she worked primarily with Kemp's Ridley sea turtles. She has a diverse background in ornithology, herpetology, website support, and data management. Ms. Rossi received her bachelor's degree in Zoology at Texas A&M University and her master's degree in Biology at Texas A&M University-Corpus Christi.

"Loop Current Forecasting and Modeling" Panel:

Moderator:

Francis Wiese, UGOS Standing Committee Member
Stantec
Dr. Francis Wiese is a Senior Principal within Stantec's Environmental Services Group and serves as Stantec's overall Technical Leader for Marine Science. Dr. Wiese brings 25 years of experience working in the coastal and marine environment throughout the world: designing, implementing, and managing large inter-disciplinary, multi-institutional science programs in the North Atlantic, North Pacific, Bering Sea, Gulf of Alaska, and the Arctic; and conducting projects in the North Sea, Caribbean, Galapagos, Gulf of Mexico, and the east and west coast of North America. Dr. Wiese has worked for and with academia, government, non-profits, and industry. He is a technical reviewer for over 20 international journals and serves on a variety of national and internal science panels and working groups. He has also provided expert testimony for oil pollution related issues in Canada and the United States. Dr. Wiese has extensively focused on environmental impacts as a result of anthropogenic stressors, marine shipping, marine spatial planning, climate change, environmental policy, adaptive management, resiliency, population and bio-energetic modeling, aerial surveys, satellite telemetry, marine mammals, seabirds, fisheries, study design, statistical analyses, and public speaking. Most of all, he enjoys thinking outside the box to solve complex real-world issues.

Panelists:

UGOS-1 Project: "Numerical Modeling"

Ruoying He
North Carolina State University
Dr. Ruoying He is a Goodnight Innovation Distinguished Professor in the Department of Marine, Earth, and Atmospheric Sciences at North Carolina State University. His research expertise spans from coastal circulation dynamics and air-sea interaction to biophysical interactions. As the director of the Ocean Observing and Modeling Group, he conducts coastal ocean observations, remote sensing data analyses, and leads the development of prediction models of ocean circulation, air-sea-wave interactions, physical-biogeochemical couplings, as well as data assimilation. He is presently a member of NSF Ocean Observatories Initiative Facility Board, a member of Integrated Ocean Observing System- National Modeling Team, and a science team member of International GODAE OceanView project. Dr. He earned his B.S. in Oceanography from the Ocean University of China and his Ph.D. in Physical Oceanography from the University of South Florida.

UGOS-2 Project: "An Altimetry Based Statistical Model for the Loop Current System"

George Forristall
Foristall Ocean Engineering, Inc.
Dr. George Forristall is a Principal at Forristall Ocean Engineering, which provides meteorological and oceanographic design specifications for offshore projects. Before starting Forristall Ocean Engineering, Dr. Forristall held various positions in offshore engineering at Shell, in both Houston and the Netherlands. His work has involved fundamental research into the kinematics and statistics of storm waves and the structure of oceanic circulation, as well as site-specific investigations. Dr. Forristall earned his B.A. in Math and Mechanical Engineering and his M.S. and Ph.D. in Mechanical Engineering from Rice University.

UGOS-2 Project: "Loop Current Sea Surface Height and Subsurface Current Prediction with a Transfer Learning Approach"

Laurent Chérubin
Florida Atlantic University
Dr. Laurent Chérubin is an Associate Research Professor at Florida Atlantic University, Harbor Branch. His research focuses on the understanding of ocean dynamics; specifically the dynamics of motions associated with

instabilities in coastal currents and eddies. His research provides an understanding of the environmental forces that affect the ocean ecosystem. He uses observational analysis and numerical modeling involving hydrodynamic and biophysical models to study how environmental drivers shape the oceanic ecosystems. Dr. Chérubin earned his DEA in Physical and Coastal Oceanography and his Ph.D. in Science of Marine Environment from the University of the Mediterranean.

"Loop Current and Loop Current Eddy Shedding and their Impacts on the Gulf of Mexico Dynamics" Panel

Moderator:

David Halpern, UGOS Standing Committee Member
Scripps Institution of Oceanography
Dr. David Halpern is Visiting Researcher at the Scripps Institution of Oceanography after retiring from the Jet Propulsion Laboratory (JPL) in January 2020. While on assignment from JPL from 2002 to 2006, he served in the White House Office of Science and Technology Policy. He has chaired many national and international committees. Currently he serves as U.S. Representative to the UN Bureau for the Regular Process for the World Ocean Assessment, Vice-President of the Scientific Committee on Oceanic Research, member of the Research Board of the Gulf of Mexico Research Initiative, and member of the Group on Earth Observations Program Board. He has been a visiting or adjunct professor at University of California at Los Angeles, California Institute of Technology, and University of Washington. Dr. Halpern pioneered the measurement of near-surface ocean currents and surface winds in shallow and deep-water regions, including the highly challenging equatorial Pacific. His research focused on ocean circulation and ocean- atmosphere interactions using in-situ and satellite measurements, and he served as Chief Scientist on many cruises in the Atlantic and Pacific. Currently, he is investigating the impact of increasing greenhouse gas emissions on the transport of the Equatorial Undercurrent. Dr. Halpern received the B.Sc. (Honours) in geology and physics from McGill University and Ph.D. in physical oceanography from the Massachusetts Institute of Technology.

Panelists:

UGOS-2 Project: "The Loop Current and the Mississippi-Atchafalaya River System: Interactions, Variability and Modeling Requirements"

Annalisa Bracco
Georgia Institute of Technology
Dr. Annalisa Bracco is a professor in the Department of Earth and Atmospheric Sciences at the Georgia Institute of Technology. She is the Co-Director of the Ocean Science and Engineering Graduate Program at Georgia Tech and a Co-Chair of the CLIVAR Scientific Steering Group. Dr. Bracco's research interests include ocean mesoscale dynamics and climate variability and the role of the oceans at interannual and decadal scales. Dr. Bracco earned her B.S. in Physics from the University of Torino and her Ph.D. in Geophysics and Oceanography from the University of Genova.

UGOS-2 Project: "Development of an Unstructured-Grid Nesting Method for the Study of Loop Current Frontal Eddies"

Haosheng Huang
Louisiana State University
Dr. Haosheng Huang is an Associate Professor in the Department of Oceanography and Coastal Sciences at Louisiana State University. His research focuses on physical oceanography, circulation in regional seas and continental shelves, coastal and estuarine circulation dynamics, unstructured grid numerical modeling and data assimilation, tide and storm surge simulation, biophysical interactions, and ecosystem modeling. Dr. Huang earned his B.S. at Fudan University in Shanghai, his M.S. at the First Institute of Oceanography in Qingdao, and his Ph.D. at Florida State University.

UGOS-2 Project: "Lagrangian Analysis of Loop Current system Dynamics"

Helga Huntley
Rowan University

Dr. Helga Huntley is an Assistant Professor in the Department of Mathematics at Rowan University. Her research area is geophysical fluid dynamics where she is studying pieces of the Earth's climate system by using mathematical and numerical models, in connection with data. More specifically, she is following three main directions in her research: (1) Developing and applying Lagrangian tools to analyze ocean circulation and transport. (2) Investigating data assimilation methods. (3) Studying sea ice in the Arctic and its role in the local circulation. Dr. Huntley earned her B.S. in Mathematics from the University of Notre Dame and her M.S. and Ph.D. in Mathematics from New York University.

UGOS-2 Project: "Lagrangian Methodology to Quantify and Predict the Impact of Caribbean Eddies on Loop Current System Dynamics"

Vassiliki Kourafalou
University of Miami

Dr. Vassiliki (Villy) Kourafalou is a Research Professor at the Department of Ocean Sciences in the University of Miami's Rosenstiel School of Marine and Atmospheric Science. Since 2009, she has been serving as co-chair of the Coastal and Shelf Seas Task Team under the international Ocean Predict initiative. She has pioneered research in river plume dynamics and interaction of coastal/shelf flows with deep ocean boundary currents. She has a strong record on advancing science in support of numerical modeling of coastal and regional seas, with over 100 publications on related processes and methods, including coastal forecasting and observing system design. Current research in Dr. Kourafalou's group focuses on the science needed to advance the understanding, modeling, and prediction of the interdisciplinary dynamics in the coastal ocean and regional seas. She received a B.S. in Physics from the University of Athens, Greece, and earned M.S. and Ph.D. degrees in Physical Oceanography from the University of Miami.