



# CARICOOS

**CARICOOS 2016 GENERAL ASSEMBLY**  
Puerto Rico Convention Center // April 27-28, 2016

## AGENDA

April 27, 2016

12:00 – 3:00 PM	<b>BOARD MEMBERS MEETING (Board Members Only)</b>
5:00 – 8:00 PM	<b>ICEBREAKER &amp; IGNITE SESSION: CARICOOS R&amp;D IN SUPPORT OF COASTAL INTELLIGENCE IN THE US CARIBBEAN</b>
5:00 - 5:15 PM	Registration
5:15 - 5:30 PM	Welcome remarks
5:30 - 6:00 PM	<b>OCEAN OBSERVING &amp; MARINE OPERATIONS</b> <b>Wave Modeling in Support of Navigation, Beach Safety and Port Operations</b> Dr. Miguel Canals, CARICOOS <b>The Challenge of Predicting Ocean Currents: The CARICOOS 2016 Drifter Experiment</b> Dr. Juan Gonzalez-López, CARICOOS <b>Marine Forecasting by the National Weather Service</b> Ernesto Rodriguez, NWS San Juan
6:00 - 6:30 PM	<b>COASTAL HAZARDS</b> <b>Center for Coastal Resilience</b> Prof. Ismael Pagán Trinidad, UPRM <b>Modeling Storm Surge in Puerto Rico</b> Prof. Aurelio Mercado, UPRM <b>Beach Water Quality: The Challenge of Predictive Models</b> Dr. Sylvia Rodriguez-Abudo, CARICOOS <b>Beach Water Quality: In-situ Bio-Sensor Development</b> Dr. Pedro Resto, UPRM
6:30 - 7:00 PM	<b>ECOSYSTEMS, FISHERIES &amp; CLIMATE</b> <b>Hydrodynamic Connectivity of West Coast Marine Protected Areas</b> Estefania Quiñones and Jorge Capella, CARICOOS <b>Coastal Barriers at Risk: Ocean Acidification and Warming in the Caribbean</b> Prof. Julio Morell, CARICOOS

### April 27, 2016

#### **Spirals, Gyres and Sargasso**

Luis Pomales, CARICOOS

#### **Ocean Observing in Support of Ecosystems Health in the USVI**

Dr. Sennai Habtes, University of Virgin Islands

7:00 - 7:30 PM

#### **OCEAN ENERGY**

##### **Ocean Wave Energy Potential in Puerto Rico**

Carlos Garcia, CARICOOS

##### **Wind Modeling in support of Offshore Wind Energy Potential**

Dr. Luis Aponte, CARICOOS

##### **Combining WRF, ROMS and UTD-WF to Assess the Effect of Offshore Wind Farms on the Ocean**

Dr. Stefano Leonardi, University of Texas-Dallas

7:30 - 8:00 PM

POSTER SESSION & ICE BREAKER

### April 28, 2016: GENERAL ASSEMBLY

7:30 - 8:00 AM

**Member registration & breakfast**

8:00 - 9:00 AM

**CARICOOS Business Meeting (Members Only)**

9:15 - 9:50 AM

#### **Welcome remarks**

Prof. Ruperto Chaparro, Chairman of the Board & PR Sea Grant Director

PR & USVI Government representatives (to be confirmed)

University of Puerto Rico System (to be confirmed)

University of Puerto Rico-Mayaguez (UPRM) Chancellor's Office (to be confirmed)

Dr. Manuel Valdez Pizzini, UPRM Dean of Arts and Sciences

Dr. Oscar Perales, UPRM Dean of Research - Engineering (to be confirmed)

Prof. Julio Morell, CARICOOS Executive Director

9:50 - 10:10 AM

#### **Message from the IOOS Director**

Zdenka Willis, IOOS Director

10:10 - 10:25 AM

#### **Chairman's Report**

Prof. Ruperto Chaparro, Chairman of the Board & PR Sea Grant Director

### April 28, 2016: GENERAL ASSEMBLY

10:25 - 10:40 AM	<b>CARICOOS: 2015-2016 Director's Report</b> Prof. Julio Morell, CARICOOS Executive Director
10:40 - 10:55 AM	<b>Technical Director's Report: Enhancing Coastal Intelligence in the US Caribbean</b> Dr. Miguel Canals, CARICOOS Technical Director
10:55 - 11:20 AM	<b>COFFEE &amp; POSTER BREAK</b>
11:20 - 11:35 AM	<b>A Likely Future for Virgin Islands Ocean Observing</b> Prof. Roy Watlington, Director of VINCOO
11:35 - 11:50 AM	<b>Improving Hurricane Predictions Using Underwater Gliders</b> Dr. Gustavo Goni, Director of the Physical Oceanography Division, NOAA-AOML
11:50 - 12:05 PM	<b>Need for Coastal Observations in Support of Coastal Engineering</b> José Sánchez, Director of the Coastal Hydraulics Laboratory, USACE
12:05 - 12:20 PM	<b>Precision Navigation &amp; the Demand for Coastal Intelligence</b> Kyle Ward, Regional Navigation Manager, NOAA Office of Coast Survey
12:20 - 1:20 PM	<b>LUNCH</b>
1:20 - 1:30 PM	<b>MOU DRNA-CARICOOS</b> Hon. Carmen Guerrero & Julio Morell
1:30 - 2:00 PM	<b>CARICOOS Abroad: Emerging International Collaborations</b> <ul style="list-style-type: none"> <li>• <b>Ocean Observing Needs in the Dominican Republic</b> Ing. Yamil Rodríguez, MSc, ANAMAR &amp; UNIBE Douglas Carvajal, MSCM – MDGF, UNIBE &amp; FIU</li> <li>• <b>GEO Coastal Ocean Pilot Project for the Caribbean Region</b> Doug Wilson, Caribbean Wind LLC</li> </ul>
2:00 - 2:30 PM	<b>KEYNOTE: THE NEW CARICOOS.ORG</b> The CARICOOS Team
2:30 - 4:00 PM	<b>POSTER SESSION</b>
2:30 - 3:00 PM	<b>Board Meeting (Board Members Only)</b>

## LIST OF POSTERS

TITLE	AUTHORS
Changes in the Duration and Peak of the Wave Season in Puerto Rico	Edwin Alfonso-Sosa
The CariCOOS Nearshore Wave Model v7.0	Miguel Canals
UPRM-CAOSE: The UPRM Center for Applied Ocean Science and Engineering	Miguel Canals, Julio Morell, Sylvia Rodríguez-Abudo & the CARICOOS team
Model and Data Based Hydrodynamic Connectivity Study for the Marine Protected Area Network off Western Puerto Rico	Jorge E. Capella, Miguel Canals, Julio M. Morell, Estefanía Quiñones, and Fabián García
Evaluation of aerodynamic loads over wind turbines due to katabatic winds in North Norway	Guillermo Araya, Muhammad Bilal and Yngve Birkelund
Development of an operational Coastal Ocean Forecasting System for Puerto Rico and the US Virgin Islands	Miguel Solano, Juan González-López, Edgardo García, Miguel Canals, Jorge Capella, Julio Morell, and Stefano Leonardi
Nowcasts of Beach Water Quality for Rincón Public Beach: Predictive Modeling with EPA's Virtual Beach	Priscila Vargas and Sylvia Rodríguez-Abudo
Nowcasts of Beach Water Quality for Rincón Public Beach: Binary Models	Mary C. Acosta and Sylvia Rodríguez-Abudo
CARICOOS OceansMap: An integrated data display and analysis portal for CARICOOS	Kelly Knee, Eoin Howlett, Doug Wilson and Luke Campbell
Operational Breaker Height Predictions Using Spectral Partitioning	Miguel Canals
Analysis of Shoreline Changes in Rincón, PR	Francisco Villafañe and Luis Aponte
Increased Beach Monitoring in Rincón & Añasco, PR	Pedro Tarafa, Eddie López Pérez, Luis Colón, Sylvia Rodriguez-Abudo
Hydrodynamic Observations in Support of Ocean Acidification Monitoring in La Parguera	Sylvia Rodríguez-Abudo, Melissa Meléndez, and Julio Morell
CARICOOS Outreach, Education & Engagement	Adolfo González, Sylvia Rodríguez-Abudo and the CARICOOS team
Implementation of a Three-Dimensional Circulation Model for San Juan Bay and its Estuary	Adail Rivera and Miguel Canals
Importance of High-Resolution Modeling for Storm Surge, Hurricane Waves, Coastal Water Levels, and Currents in Puerto Rico and the USVI	Juan Gonzalez-López, Joannes Westerink, Andre van der Westhuysen

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TITLE	AUTHORS
Detection and Characterization of Submesoscale Eddies Off the Southwestern Coast of PR	Luis Pomales and Julio Morell
Spatial and temporal distribution of contaminants of emerging concern in the San Juan Bay Estuary, Puerto Rico	Loretta Roberson, Vanessa Santiago, Claudia Ruiz, and Alexander Rodriguez, UPR Río Piedras
Towards the Development of an Eco-Friendly C.O.D.E. Drifter	Emmanuel Colón, Joan Bonilla Pagán, Julio Rivera, Fabián García Moreno, and Estefania Quiñones
Increased Monitoring and Source Characterization of Enterobacteria in Playa Santa, Guánica	Geraldine Gómez, Julio Morell, Ernesto Otero and Sylvia Rodríguez
Validation of AMSEAS and HFR current fields and particle tracking solutions with surface and mixed-layer drifters on the southern waters of PR	Juan González-López, Julio Morell, Miguel Canals, Jorge Capella, Estefania Quiñones, Luis Pomales, Carlos E. Garcia-Moreno, Luis Rodriguez
Wave Energy Potential in Puerto Rico	Carlos García and Miguel Canals
Flooding Effects on the East Coast of PR Combining Storm Surge and Runoff during Hurricane Georges	Félix Santiago, Walter Silva and Juan González-López
The CariCOOS High-Resolution WRF Model: Capturing Regional Fine-Scale Effects	Héctor J. Rodríguez-Romero and Luis Aponte-Bermúdez
CariCOOS Computer/Network Infrastructure	José B. Rodríguez Rueda and Jorge Capella
Advancing Coastal Ocean Observing in the Caribbean: The U.S. Virgin Islands Achievements and Future Goals	Paul Jobsis
Lagrangian Drifter Dispersion in the Mona Passage	Estefanía Quiñones, Miguel Canals, Julio M. Morell, Jorge E. Capella
Runoff and Enterobacteria at Rincón Public Beach	Steve Tamar, Priscila Vargas and Sylvia Rodriguez
Work in Progress: Hydrodynamic modeling in Dorado, PR using Delft 3D	Daniel Martínez and Sylvia Rodriguez
Yabucoa Port Metocean Observation and Prediction System	Miguel Canals, Patricia Chardón, Julio Morell, Jorge Capella, Luis Aponte and Adail Rivera
Observations of Seasonal Morphological Evolution at Moderly Energetic Beaches in Rincón	Gabriela Salgado, Adail Rivera, Miguel Canals, Sylvia Rodriguez-Abudo and Miguel Loubriel
CariCOOS High-Frequency Radar Network Expansion and Data Quality Assesment	Carlos Garcia, Miguel Canals and Luis Pomales

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TITLE	AUTHORS
Documenting the Expression of Nearshore Mangrove Ecosystem Processes on La Parguera Shelf Water Chemistry	Erick García and Julio Morell
Exploratory JBNERR System Wide Monitoring Program Time Series Data Analysis	Jorge Capella and Mary Acosta
Wind Modeling in support of Offshore Wind Energy Potential	Luis Aponte
The State of Beaches in Puerto Rico	Maritza Barreto and the Coastal Geomorphology Laboratory
An Automated In-situ Biosensor for Quasi Real-Time Detection of Coliform Bacteria in Public Waters	Pedro Resto Irizarry, Dong Wang, Osvaldo Duran, Luis Rosa, Isamarie Vega, Gabriel Cordero, Javier De Jesus
CARICOOS Ocean Observation System Needs Assessment: Transferring Data to Practice	Hedy I. Nieves Crespo, Berliz Morales Muñoz y Tania del Mar López Marrero
Four-way collaboration with CARICOOS in the US Virgin Islands	Paul Jobsis, Mark Sabino, Marjorie Smith, Roy Watlington, Douglas Wilson