Student Posters

Location: Exhibit Hall

Co-Chairs:
Robert Heitsenrether, NOAA/NOS/CO-OPS
Christophe Sintes, Institut TELECOM - TELECOM Bretagne

Bio-Inspired Pressure Sensing for Active Yaw Control of Underwater Vehicles
Amy Cao, Massachusetts Institute of Technology
Michael Triantafyllou, Massachusetts Institute of Technology

Coverage Path Planning for Marine Habitat Mapping
Enric Galarca, University of Girona
Marc Carreras, University of Girona

Applications of Full-Wave Inversion techniques to the estimation of the sound velocity structure in the ocean
Yukihiro Kida, Kyoto University
Hitoshi Mikada, Kyoto University
Junichi Takekawa, Kyoto University
Tada-nori Goto, Kyoto University

A Modified Model, Simulation, and Tests of a Full-Scale Sailing Yacht
Katrina Legursky, University of Kansas

Techniques to enhance the performance of hybrid lidar-radar ranging systems
Paul Perez, Clarkson University
Linda Mullen, NAVAIR
William Jemison, Clarkson University
Alan Laux, NAVAIR

Time-varying Array Shape Estimation by Mapping Acoustic Field Directionality
Jonathan Odom, Duke University
Jeffrey Krolik, Duke University

Characterization of a harbor seal whisker-inspired flow sensor
Heather Beem, MIT
Matthew Hildner, MIT
Michael Triantafyllou, MIT

Enhanced sonar bathymetry tracking in multi-path environment
Augustin Saucan, Telecom-Bretagne
Christophe Sintes, Telecom-Bretagne
Thierry Chonavel, Telecom-Bretagne
Jean-Marc Le Caillec, Telecom-Bretagne

Omni-Egg: A Smooth, Spheroidal, Appendage Free Underwater Robot capable of 5 DOF Motions
Aaron Fittery, Massachusetts Institute of Technology
Anirban Mazumdar, MIT
Martin Lozano, Massachusetts Institute of Technology
H. Harry Asada, Massachusetts Institute of Technology
Technical Program

Tuesday, October 16, 2012

Integrated Ocean Observing - Regional IOOS 1
Location: 1C
Tuesday, October 16 (1:30PM - 2:50PM)
Chair:
William Boicourt, University of Maryland Center for Environmental Science

Expanding the Caribbean Coastal Ocean Observing System into the Nearshore Region
Miguel Canals, University of Puerto Rico at Mayaguez
Julio Morell, University of Puerto Rico at Mayaguez
Jorge Corredor, University of Puerto Rico at Mayaguez
Stefano Leonardi, University of Puerto Rico at Mayaguez

Raising the Bar in the Mid-Atlantic: Moving Maracoos Observations to Next Generation Forecasting and Product Development
Gerhard Kuska, MARACOOS
Carolyn Thoroughgood, MARACOOS
Peter Moore, MARACOOS
Scott Glenn, Rutgers, The State University of New Jersey
Michael Crowley, Rutgers, The State University of New Jersey

Rapid detection of climate scale environmental variability in the Gulf of Maine
John Morrison, NERACOOS
Neal Pettigrew, University of Maine
James O'Donnell, University of Connecticut
Jeffrey Runge, University of Maine and Gulf of Maine Research Institute

Evolution of the USF/CMS CODAR and WERA HF Radar Network
Clifford Merz, University of South Florida
Robert Weisberg, USF
Yonggang Liu, USF

Acoustic telemetry and communication
Location: 2A
Tuesday, October 16 (1:30PM - 2:50PM)
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Craig Benson, UNSW
Timm Schoening, Bielefeld University

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Andrey Morozov, WHOI
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Bruno Ferreira, INESC TEC, Faculty of Engineering, University of Porto
Amíl Matos, INESC TEC, Faculty of Engineering, University of Porto
Chiara Petrioli, Dipartimento di Informatica, Università di Roma, La Sapienza
Roberto Petroccia, Dipartimento di Informatica, Università di Roma, La Sapienza
Daniele Spaccini, Dipartimento di Informatica, Università di Roma, La Sapienza

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Lyon Lanerolle, NOAA/National Ocean Service
Christopher Paternostro, NOAA/National Ocean Service
Gregory Dusek, NOAA/National Ocean Service
Laura Rear McLaughlin, NOAA/National Ocean Service
Sean Skaling, Alaska Energy Authority

Coastal Radars
Location: 2C
Tuesday, October 16 (1:30PM - 2:50PM)
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Jesse McNinch, U.S. Army Corps of Engineers Field Research Facility
Colin Evans, Rutgers Institute of Marine and Coastal Sciences

A Study of Surface Currents in the Coastal Ocean Outside Chesapeake Bay Using High Frequency Radars Operating at Multiple Frequencies
Teresa Updyke, Old Dominion University Center for Coastal Physical Oceanography
Larry Atkinson, Old Dominion University Center for Coastal Physical Oceanography

Automated Quality Control of High Frequency Radar Data
Hugh Roarty, Rutgers University
Michael Smith, Rutgers University
John Kerfoot, Rutgers University
Scott Glenn, Rutgers University

Automatic Calibrations for Improved Quality Assurance of Coastal HF Radar Currents
Chad Whelan, CODAR Ocean Sensors, Ltd.
Brian Emery, University of California, Santa Barbara
Calvin Teague, CODAR Ocean Sensors, Ltd.
Donald Barrick, CODAR Ocean Sensors, Ltd.
Libe Washburn, University of California, Santa Barbara
Jack Harlan, NOAA

Identifying the Shoreward Gulf Stream Front at Cape Hatteras with Coastal Ocean Radar Surface Currents
Michael Muglia, University of North Carolina at Chapel Hill
Harvey Seim, UNC Chapel Hill
Sara Haines, UNC Chapel Hill

Imaging and vision
Location: 2D
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Co-Chairs:
David Krout, Applied Physics Laboratory, University of Washington
Edel O’Connor, MESTECH, DCU

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Aleya Gebali, Department of Electrical & Computer Engineering, University of Victoria
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Co-Chairs:
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Gary Mineart, Noblis
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Jawhar Chomnamm, Research Unit on Mechatronics and Autonomous Systems, Tunisia
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Jennifer Patterson, MBARI
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Marina Martini, U.S. Geological Survey
John Warner, U.S. Geological Survey
Jeffrey List, U.S. Geological Survey
Brandy Armstrong, U.S. Geological Survey
Ellyn Montgomery, U.S. Geological Survey

Fielding a Cross Shore array of gages in an Energetic Coastal Environment
Daniel Freer, U.S. Army Corps of Engineers Field Research Facility
Brian Scarborough, U.S. Army Corps of Engineers Field Research Facility
Jason Pipes, U.S. Army Corps of Engineers Field Research Facility

Jetski-based Bathymetric Surveying in Rincon, Puerto Rico
Patricia Chardón, University of Puerto Rico at Mayaguez
Miguel Canals, University of Puerto Rico at Mayaguez

A numerical method for calculating the flow-induced vibration of the microstructure profiler
Yuhong Liu, Tianjin University
Shiquan Lan, Tianjin University
Yanhui Wang, Tianjin University
Shijun Song, Tianjin University
Zhiliang Wu, Tianjin University
Hongwei Zhang, Tianjin University

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John Boon, Virginia Institute of Marine Science
Carolyn Lindley, NOAA/NOS/CO-OPS

Analysis of relative sea level variations and trends in the Chesapeake Bay: Is there evidence for acceleration in sea level rise?
Tal Ezer, Old Dominion University
William Corlett, Old Dominion University

Coastal Vulnerability in Long Island Sound: The Spatial Structure of Extreme Sea Level Statistics
James O'Donnell, University of Connecticut
Jennifer O'Donnell, Coastal Ocean Analytics

Improving Estimates of Sea Level Variability from 1900 to 2011
Benjamin Hamlington, University of Colorado at Boulder
Robert Leben, University of Colorado at Boulder
Kwang-Yul Kim, Seoul National University

A Concept for Water-based Community to Sea Level Rise in the Lower-laying Land Areas
Toshio Nakajima, Tokyo Metropolitan University
Umekazu Kawagishi, Nihon University
Hiroyuki Sugimoto, Myakonojo National College of Technology
Motohiko Umeyama, Tokyo Metropolitan University
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Location: 2A
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Stephen Woll, WeatherFlow Inc.

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Chad Whelan, CODAR Ocean Sensors, Ltd.
Teresa Updyke, Old Dominion University Center for Coastal Physical Oceanography

Radar inlet observing system (RIOS): Continuous remote sensing of waves, currents, and bathymetry at tidal inlets
Jesse McNinch, U.S. Army Corps of Engineers Field Research Facility
Katherine Brodie, U.S. Army Corps of Engineers Field Research Facility
Richard Slocum, U.S. Army Corps of Engineers Field Research Facility

Simulation of HF Radar Cross Sections for Swell Contaminated Seas
Chengxi Shen, Memorial University
Eric Gill, Memorial University
Weimin Huang, Memorial University

Examination of the SeaSonde Wave Processing Parameters and the Effects of Shallow Water on Wave Measurements
Colin Evans, Rutgers Institute of Marine and Coastal Sciences
Hugh Roarty, Rutgers Institute of Marine and Coastal Sciences
Scott Glenn, Rutgers Institute of Marine and Coastal Sciences
Josh Kohut, Rutgers Institute of Marine and Coastal Sciences

Estimation of Wind Turbine Radar Signature at 13.5 MHz
Calvin Teague, CODAR Ocean Sensors, Ltd.
Donald Barrick, CODAR Ocean Sensors, Ltd.

Imaging and vision
Location: 2D
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Co-Chairs:
Fraser Dalgleish, HBOI-FAU
Bing Ouyang, Florida Atlantic University

Underwater 3D modelling and photosynthetic life detection
Piotr Jasiobedzki, MDA Space Missions
Chris Dimas, MDA Space Missions
Darlene Lim, NASA Ames Research Center

Tracking Drifting Surface Objects with Aerial Infrared and Electro-Optical Sensors
David Krout, Applied Physics Laboratory, University of Washington
Greg Okopal, Applied Physics Laboratory, University of Washington
Evan Hanusa, University of Washington
Andy Jessup, Applied Physics Laboratory, University of Washington

Multi-Modal Sensor Networks for More Effective Sensing in Irish Coastal and Freshwater Environments
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Susan Barco, Virginia Aquarium & Marine Science Center Foundation
Using Radar & AIS TO Investigate Ship Behavior in the Chesapeake Bay
Ocean Approach Off of Virginia, USA Susan Barco, Virginia Aquarium
Gwen Lockhart, Virginia Aquarium
W. Swingle, Virginia Aquarium

The Role of MarineCadastre.gov in Offshore Energy Planning
Christine Taylor, Bureau of Ocean Energy Management
Brian Smith, IM Systems Group at NOAA Coastal Services Center
David Stein, NOAA Coastal Services Center

Localization of Southern Resident Killer Whales Using Two Star Arrays to Support Marine Renewable Energy
Zhiqun Deng, Pacific Northwest National Laboratory
Huiying Ren, Pacific Northwest National Laboratory
Thomas Carlson, Pacific Northwest National Laboratory
Yannan Sun, Pacific Northwest National Laboratory
Tao Fu, Pacific Northwest National Laboratory
Jayson Martinez, Pacific Northwest National Laboratory
Shari Matzner, Pacific Northwest National Laboratory
Joshua Myers, Pacific Northwest National Laboratory

Autonomous underwater vehicles
Location: 3C
Tuesday, October 16 (3:20PM - 5:00PM)
Co-Chairs:
Frank Raspante, Hydroid
Carl Kaiser, Woods Hole Oceanographic Institution

Pipeline detection system from acoustic images utilizing CA-CFAR
Sebastián Villar, UNCPBA
Gerardo Acosta, CIFICEN-CONICET-UNCBA
André Sousa, Universitat de les Illes Balears
Alejandro Rozenfeld, CIFICEN-CONICET-UNCBA

New Developments for the NIUST AUVs
Max Woolsey, University of Southern Mississippi
Roy Jamagin, University of Southern Mississippi
Arne Diercks, University of Southern Mississippi
Vernon Asper, University of Southern Mississippi

Modification of a Military Grade Glider for Coastal Scientific Applications
Joseph Imlach, Exocetus Development, LLC
Ray Mahr, Exocetus Development, LLC

Long Range Acoustic Underwater Communication with a Compact AUV
Joseph Borden, Teledyne Benthos
Jeffery DeArruda, OceanServer Technology

Object Detection and Tracking Method of AUV based on Acoustic Vision
Tiedong Zhang, National Key Laboratory of Science and Technology on Autonomous Underwater Vehicle/College of Shipbuilding Engineering
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Liesl Hotaling, University of South Florida
Jill Zande

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Claude Brancart, Blue Sea Corp

The Ocean Observatories Initiative Education and Public Engagement
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Michael Crowley, Rutgers University
Scott Glenn, Rutgers University
Annette DeCharon, University of Maine
Janice McDonnell, Rutgers University
C. Lichtenwalner, Rutgers University
Joseph Wieclawek, Raytheon Web Services

Communication Over Lasers in Ocean Research (COLOR): Bringing Navy Research to the Classroom
Linda Mullen, NAVAIR
Brandon Cochenour, NAVAIR

Marine Vehicle Autonomy
Location: 3E
Tuesday, October 16 (3:20PM - 5:00PM)
Chair:
Mark Patterson, College of William & Mary

Designing for Autonomy in Unmanned Underwater Vehicles
Michael Incze, Naval Undersea Warfare Center

Design and Test of a Robust Docking-System for Hovering AUVs
Marius Wirtz, DFKI-RIC
Christopher Gaudig, DFKI-RIC
Marc Hildebrandt, DFKI-RIC

An Experimental Comparison of USV Trajectory Tracking Control Laws
Christian Sonnenburg, Virginia Tech
Craig Woolsey, Virginia Tech

Distance Detection of Unmanned Underwater Vehicles by Utilizing Optical Sensor Feedback in a Leader-Follower Formation
Firat Eren, University of New Hampshire
May-Win Thein, University of New Hampshire
Barbaros Celikkol, University of New Hampshire
Shachuk Pe'en, University of New Hampshire
Jud DeCew, University of New Hampshire

Oceanographic instrumentation and sensors
Location: 4A
Tuesday, October 16 (3:20PM - 5:00PM)
Chair:
Carol Janzen
Characterizing Magnetic Sensors and Magnetic Noise of AUVs

Dylan Tilley, Florida Atlantic University
Manhar Dhanak, Florida Atlantic University
Edgar An, Florida Atlantic University
Karl von Ellenrieder, Florida Atlantic University

Gravity gradiometer implemented in AUV for detection of seafloor massive sulfides

Akito Araya, Earthquake Res. Inst., University of Tokyo
Toshiohiko Kanazawa, Earthquake Res. Inst., University of Tokyo
Hiromi Fujimoto, Tohoku Univ.
Masanao Shinozaka, Earthquake Res. Inst., University of Tokyo
Tomoko Yamada, Earthquake Res. Inst., University of Tokyo
Kokichi Lizasa, Grad. School of Frontier Sciences, Univ. Tokyo

Improving Depth Averaged Velocity Measurements from Seaglider with an Advanced Acoustic Current Profiler, the Nortek AD2CP-Glider

Peter Rusello, Nortek
Christopher Yahnker, iRobot Corporation
Mark Morris, iRobot Corporation

Investigation of Double-Pulse Laser-Induced Breakdown Spectroscopy for Analysis of the Composition of Solids Submerged at High Pressures

Tomoko Takahashi, The University of Tokyo
Blair Thornton, Institute of Industrial Science, the University of Tokyo
Tamaki Ura, Institute of Industrial Science, the University of Tokyo

AeroKret Coating™ Properties and Applications

Rajagopalan Sivakumar, AS&M Inc

Sea Level Rise/Coastal Inundation
Location: 4B
Tuesday, October 16 (3:20PM - 5:00PM)
Co-Chairs:
James O’Donnell, University of Connecticut
Benjamin Hamlington, University of Colorado at Boulder

Exceedance Probability Statistics: the Likelihood that Coastal Water Levels will Reach Extreme Elevations

Carolyn Lindley, NOAA/NOS/CO-OPS
Chris Zervas, NOAA/NOS/CO-OPS

Estimated Increase in Inundation Probability with Confidence Intervals for Pensacola, Florida and Key West, Florida

Natalya Warner, Texas A&M University-Corpus Christi
Blair Sterba-Boatwright, Texas A&M University-Corpus Christi
Philippe Tissot, Texas A&M University-Corpus Christi
Gary Jeffress, Texas A&M University-Corpus Christi

Development and Validation of a Coastal Surge and Inundation Prediction System

Andrew Condon, American Society for Engineering Education (ASEE)
Jay Veeramony, Naval Research Laboratory
Technical Program

Wednesday, October 17, 2012

Integrated Ocean Observing - Regional IOOS 2
Location: 1C
Wednesday, October 17 (8:20AM - 9:40AM)
Chair:
Richard Crout, National Data Buoy Center

Addressing ocean and coastal issues at the West Coast scale through regional ocean observing system collaboration
Jennifer Patterson, MBARI
Julie Thomas, University of California, San Diego
Leslie Rosenfield, MBARI
Jan Newton, University of Washington
Lisa Hazard, SCCOOS
Janine Scianna, MBARI
Raphael Kudela, University of California Santa Cruz
Emilio Mayorga, University of Washington
Chris Cohen, University of California, San Diego
Mike Cook, NPS
Mark Otero, SIO
Jason Adelaars, CoNCOOS/MBARI

The US IOOS Coastal and Ocean Modeling Testbed for Advancing Research to Applications
Rebecca Baltes, US IOOS/NOAA
Eoin Howlett, Applied Science Associates
Richard Signell, US Geological Survey
Kyle Wilcox, Applied Science Associates
Alex Crosby, Applied Science Associates
Andrew Bird, Applied Science Associates
Sarah Graves, UAH
Manil Maskey, UAH
Ken Keiser, UAH
Liz Smith, Southeastern University Research Association
Don Wright, Southeastern University Research Association
Jeff Hanson, U.S. Army Corps of Engineers Field Research Facility
Rick Luettich, UNC-Chapel Hill
Integrating Observing Systems to Benefit Stakeholders: A Case Study in the Gulf of Mexico

Ann Jochens, Texas A&M University
Matthew Howard, Texas A&M University
Chuanmin Hu, University of South Florida
Gary Kirkpatrick, Mote Marine Laboratory
Chad Lembke, University of South Florida
Robert Weisberg, University of South Florida
Barbara Kirkpatrick, Mote Marine Laboratory
Alina Corcoran, FL Fish & Wildlife Conservation Commission
Jim Ivey, FL Fish & Wildlife Conservation Commission
Lisa Campbell, Texas A&M University
Christina Simoniello, Institute for Marine Mammal Studies
Ruth Mullins-Perry, Texas A&M University
Steven Wolfe, Florida Dept. of Environmental Protection

Ocean Data Integration: Successes and Lessons Learned from the Bleeding Edge

Mohamed Chaouchi, NOAA/NOS
Richard Crout, NDBC
Derrick Snowden, NOAA/NOS
Jeff De La Beaujardiere, NOAA/NESDIS
Robert Bassett, NOAA/NOS

Acoustic telemetry and communication
Location: 2A
Wednesday, October 17 (8:20AM - 9:40AM)
Chair:
Anthony Amankwah, School of Computer Science

Dual PN Padding TDS-OFDM for Underwater Acoustic Communication
Jinxing Hao, Department of Electronic Engineering, Tsinghua University
Yahong Zheng, Department of Electrical & Computer Engineering, Missouri University of Science and Technology
Jintaow Wang, Department of Electronic Engineering, Tsinghua University
Jian Song, Department of Electronic Engineering/Research Institute of Information, Tsinghua University

Design and implementation of a bidirectional acoustic micro-modem for underwater communication systems
Jun-Ho Jeon, Gangneung-Wonju National University
See-Hee Hwangbo, Gangneung-Wonju National University
Hossein Peyvandi, University of Surrey
Sung-Joon Park, Gangneung-Wonju National University
Joint Carrier Frequency Offset and Impulsive Noise Estimation for Underwater Acoustic OFDM with Null Subcarriers

Haixin Sun, Key Laboratory of Underwater Acoustic Communication and Marine Information Technology (Xiamen University), Ministry of Education, P.R.C

Weijie Shen, Key Laboratory of Underwater Acoustic Communication and Marine Information Technology (Xiamen University), Ministry of Education, P.R.C

Zhaohui Wang, Dept. of Electrical and Computer Engineering, University of Connecticut

Xiaoka Xu, Dept. of Electrical and Computer Engineering, University of Connecticut

Shengli Zhou, Dept. of Electrical and Computer Engineering, University of Connecticut

Yougan Chen, Xiamen University

Marine Renewable Energy - Waves 1
Location: 2B
Wednesday, October 17 (8:20AM - 9:40AM)
Chair:
Phil Hart, Ocean Power Technologies Inc

Direct Drive Ocean Wave Energy Electric Plant Design Methodology
Joseph Prudell, Columbia Power Technologies, Inc.
Alphonse Schacher, Columbia Power Technologies, Inc.
Kenneth Rhinefrank, Columbia Power Technologies, Inc.

Wing Wave: Feasible, Alternative, Renewable, Electrical Energy Producing Ocean Floor System
Stephen Wood, Florida Institute of Technology
Mark Christian, Florida Institute of Technology
Billy Wells, Florida Institute of Technology
Patrick Maloney, Florida Institute of Technology
Sitara Baboolal, Florida Institute of Technology

Wave Energy Development Roadmap: Design to Commercialization
Kelley Ruehl, Sandia National Laboratories
Diana Bull, Sandia National Laboratories

GECCO Ocean Energy System
Stephen Wood, Florida Institute of Technology
Luis Maristany, Florida Institute of Technology
Nicole Waters, Florida Institute of Technology
Billy Wells, Florida Institute of Technology
Mario Suarez, Florida Institute of Technology
Richard Castewitz, Florida Institute of Technology
Alex Wiest, Florida Institute of Technology