



CARTHE II Fall 2015 All-Hands Meeting

October 19-21, 2015

UM Student Center Complex, 1330 Miller Drive, Coral Gables, Florida

AGENDA

Monday, October 19, 2015

08:00 – 09:00	Registration and Buffet Breakfast	Pre-Function Area
09:00 – 09:05	Plenary Session Introductions Tamay Özgökmen, <i>University of Miami - RSMAS</i>	Grand Ballroom (Center)
09:05 – 09:10	Chuck Wilson Chief Scientific Officer, <i>GoMRI</i>	
	Session on Theory and Modeling for LASER, I	
09:10 – 09:20	Overview of the LAGrangian Submesoscale ExpeRiment - LASER Tamay Özgökmen, <i>University of Miami - RSMAS</i>	
09:20 – 9:40	Turbulent thermal wind, secondary circulation, frontogenesis and frontal arrest. Jim McWilliams, <i>University of California – Los Angeles</i>	
09:40 – 10:00	Are we doomed by unresolved flows, or what time and space scales of kinematic properties are expected to be resolved by drifters? Gregg Jacobs, <i>NRL-Stennis Space Center</i>	
10:00 – 10:20	Submesoscale geography and phenomenology in the northern Gulf of Mexico. Roy Barkan, <i>University of California – Los Angeles</i>	
10:20 – 10:40	Coffee Break	



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Session on Theory and Modeling for LASER, II

10:40 – 11:00	Lagrangian implications. Annalisa Bracco, <i>Georgia Tech</i>	Grand Ballroom (Center)
11:00 – 11:20	Surface Lagrangian parametrization for submesoscale flows. <i>Angelique Haza, University of Miami - RSMAS</i>	
11:20 – 11:40	Modelling submesoscale dynamics: a new parametrization for symmetrical instability. <i>Scott Bachman, Cambridge University</i>	
11:40 – 12:00	Anisotropy and inhomogeneity in clustering and dispersion. <i>Helga Huntley, University of Delaware</i>	
12:00 – 12:20	Atmospheric forcing in the GoM from seasonal to diurnal time scales. <i>Falko Judt, University of Miami - RSMAS</i>	
12:20 – 13:20	Lunch	Pre-Function Area

Session on Theory and Modeling for LASER, III

13:20 – 13:40	Real-time coupled atmosphere-wave-ocean model forecasts for LASER. <i>Shuyi Chen, University of Miami - RSMAS</i>	Grand Ballroom (Center)
13:40 – 14:00	Sensitivity analysis of surface divergence and surface vorticity in the northern GoM. <i>Has Ngodock, Naval Research Lab-Stennis</i>	
14:00 – 14:20	Stokes forces affect frontogenesis. <i>Baylor Fox-Kemper, Brown University</i>	



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| 14:20 – 14:40 | Material Transport in a wind forced convective mixed layer.
Jean Mensa, <i>Yale University</i> | Grand Ballroom
(Center) |
| 14:40 – 15:00 | Fronts, cyclones and internal waves – What did GLAD actually see?
Eric D’Asaro, <i>University of Washington</i> | |
| 15:00 – 15:20 | Langmuir turbulence and the response of buoyant and surface trajectories.
Ramsey Harcourt, <i>University of Washington</i> | |
| 15:20 – 15:40 | Coffee Break | Pre-Function Area |
| | Session on Theory and Modeling for LASER, IV | |
| 15:40 – 16:00 | Progress towards characterization of Langmuir turbulence in shallow costal shelves under surface heat fluxes and tidal forcing.
Andres Tejada-Martinez, <i>University of South Florida</i> | Grand Ballroom
(Center) |
| 16:00 – 16:20 | Drifter shape dynamics from triangular modules launched in GLAD.
Maristella Berta, <i>CNR-ISMAR</i> | |
| 16:20 – 16:40 | Sensitivity of storm surge predictions to meteorological forcing for hurricane Isaac (2012).
Casey Dietrich, <i>North Carolina State University</i> | |
| 16:40 – 17:00 | Air-sea interaction at large turbulent eddy scales.
Ping Zhu, <i>Florida International University</i> | |
| 17:00 – 17:20 | Quantifying initial and wind forcing uncertainties in the GoM.
Mohamed Iskandarani, <i>University of Miami - RSMAS</i> | |
| | Session on Oil and Plume Dynamics, I | |
| 17:20 – 17:40 | Surface dynamics of fresh and weathered oil in the presence of dispersants: laboratory experiment and numerical simulation.
Alexander Soloviev, <i>Nova Southeastern University</i> | |



AGENDA

Tuesday, October 20, 2015

08:00 – 08:40	Breakfast	Pre-Function Area
	Session on Oil and Plume Dynamics, II	
08:40 – 09:00	Recent progress on plume modeling. Bill Dewar, <i>Florida State University</i>	Grand Ballroom (Center)
09:00 – 9:20	Plumes in a rotating environment Paul Linden, <i>Cambridge University</i>	
9:20 – 9:40	Rotation effects on plumes in stratified environments Alex Fabregat, <i>City University of New York</i>	
9:40 – 10:00	Prediction of the oil droplet size distribution from blowouts Michel Boufadel, <i>New Jersey Institute of Technology</i>	
10:00 – 10:20	Coffee Break	Pre-Function Area
	Session on Oil and Plume Dynamics, III	
10:20 – 10:40	Impact of dispersant and sea state on the formation of oil droplets using the VDROD model: Guidelines for the selection of the optimal dispersant to oil ratio. Mohamed Iskandarani, <i>University of Miami – RSMAS</i>	Grand Ballroom (Center)
10:40 – 11:00	Propagation of uncertainty and sensitivity analysis in an integral oil-gas plume model. Shitao Wang, <i>University of Miami – RSMAS</i>	
11:00 – 11:20	Dynamics of turbulent plumes with mixed buoyancy sources in thermally stratified environments. Alex Fabregat, <i>City University of New York</i>	
11:20 – 11:40	Quantifying uncertainty in an oil-fate model using a polynomial chaos surrogate. Rafael Gonçalves, <i>University of Miami – RSMAS</i>	



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11:40 – 12:00	Biodegradation of oil buried within the GoM shoreline sediments. Michel Boufadel, <i>New Jersey Institute of Technology</i>	Grand Ballroom (Center)
12:00 – 13:00	Lunch	Pre-Function Area
	Session on Observational Platforms for LASER	
13:00 – 13:20	LASER biodegradable surface drifter update, part 1: design and manufacturing. Cedric Guigand, <i>University of Miami – RSMAS</i>	Grand Ballroom (Center)
13:20 – 13:40	LASER biodegradable surface drifter update, part 2: laboratory and field behavior characterization. Guillaume Novelli, <i>University of Miami – RSMAS</i>	
13:40 – 14:00	Aerostat progress report. Dan Carlson, Florida State University	
14:00 – 14:20	Air-sea flux and surface roughness measurements during LASER. Brian Haus, <i>University of Miami – RSMAS</i>	
14:20 – 14:40	Airborne and wave glider measurements of upper ocean and air-sea interaction processes. Ken Melville, <i>Scripps Institute of Oceanography</i>	
14:40 – 15:00	AirSWOT update Ernesto Rodriguez, <i>JPL/NASA</i>	
15:00 – 15:20	Coffee Break	Pre-Function Area
15:20 – 15:40	Overview of LASER Phase-I Andrew Poje, <i>City University of New York</i>	Grand Ballroom (Center)



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15:40 – 16:00	Overview of LASER Phase-II Jeroen Molemaker, <i>UCLA</i>	Grand Ballroom (Center)
16:00 – 16:20	Overview of LASER Phase-III Baylor Fox-Kemper, <i>Brown University</i>	
16:20 – 18:00	Breakout group discussions, I <ul style="list-style-type: none"> – LASER: moderated by Eric D’Asaro – Oil and plume group: moderated by Bill Dewar 	Grand Ballrooms (East, Center, West)

Wednesday, October 21, 2015

08:00 – 08:30	Breakfast	Pre-Function Area
	Session on Working Groups for LASER, II	
08:30 – 09:40	Breakout group discussions, II	Grand Ballrooms (East, Center, West)
09:40 – 10:10	LASER discussion summary and plans. Eric D’Asaro, <i>University of Washington</i>	
10:10 – 10:20	Oil and plume group discussion summary and plans. Bill Dewar, <i>Florida State University</i>	
10:20 – 10:40	Coffee Break	Pre-Function Area
	Session on Outlook for SOPYS: Coastal Studies	
10:40 – 11:00	ADCP data analysis from SCOPE. Mathias Roth, <i>Naval Postgraduate School</i>	Grand Ballroom (Center)
11:00 – 11:20	Recent enhancements in the three-dimensional baroclinic ADvanced CIRCulation (AD-CIRC) model. Arash Fathi, <i>University of Texas, Austin</i>	



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11:20 – 11:40	Meteotsunamis in the northern and eastern Gulf of Mexico. Arnoldo Valle-Levinson, <i>University of Florida</i>	Grand Ballroom (Center)
11:40 – 12:00	Effect of Stokes drift on coastal circulation from SCOPE. Milan Curcic, <i>University of Miami – RSMAS</i>	
12:00 – 12:20	Inertial oscillations in the GoM in June 2010 with HF radar. Matt Gough, <i>University of Miami – RSMAS</i>	
12:20 – 13:30	Lunch	Pre-Function Area
	Session on Miscellaneous Items	
13:30 – 13:45	CARTHE-I,II Data Management Helga Huntley, <i>University of Delaware</i>	Grand Ballroom (Center)
13:45 – 14:00	MURI 3D+1 collaborative opportunities. Larry Pratt, <i>WHOI</i>	
14:00 – 14:20	Freshwater lenses, double diffusion, and cabbeling in the near-surface layer of the ocean. Cayla Dean, <i>Nova Southeastern University</i>	
14:20 – 14:40	Information driven source seeking in 3D turbulent fields Alex Fabregat, <i>City University of New York</i>	
14:40 – 15:00	Other business? Tamay Özgökmen, <i>University of Miami – RSMAS</i>	
15:00 – 15:20	Coffee Break	Pre-Function Area
15:20 – 16:30	Free brainstorming session.	Grand Ballroom (Center)