

Agenda for CARTHE-II Fall 2017 All-Hands Meeting

Day 1: 16 November 2017, Thursday; RSMAS Auditorium

- 08:00 - 08:50 Registration and breakfast
- 08:50 - 09:00 Welcome: Tamay Özgökmen (University of Miami)
- 09:00 - 09:20 Chuck Wilson (GoMRI):
Research Board synthesis plans

SPLASH Session #1:

- 09:20 - 09:40 Jeroen Molemaker (UCLA):
SPLASH overview
- 09:40 - 10:00 Brian Haus (University of Miami):
Observations of the vertical profile of currents in the upper meter of the ocean
- 10:00 - 10:20 Andrey Shcherbina (University of Washington):
Towed and AUV observations during SPLASH

10:20 - 10:40 Coffee break

SPLASH Session #2:

- 10:40 - 11:00 Ernesto Rodriquez (JPL/CalTech):
DopplerScatt surface current and winds results during SPLASH
- 11:00 - 11:20 Yannis Androulidakis (University of Miami):
Multi-platform, collaborative Taylor leak study: tracing oil pathways under the influence of river fronts
- 11:20 - 11:40 Alexdander Soloviev (NOVA):
Fine-scale features on the sea surface observed in the vicinity of an oil seep in the Gulf of Mexico during SPLASH
- 11:40 - 12:00 Aviv Solodoch (UCLA):
Detailed observations of structure and erosion of a Mississippi-plume front in the Gulf of Mexico
- 12:00 - 12:20 Arnoldo Valle-Levinson (University of Florida):
Coastal observations during SPLASH

12:20 - 13:20 Lunch

SPLASH Session #3:

- **13:20 - 13:40** Gregg Jacobs (Naval Research Laboratory):
SPLASH model forecasts in the Mississippi Bight
- **13:40 - 14:00** Helga Huntley (University of Delaware):
Divergence, vorticity, and shear: Estimates from SPLASH gridded drifter arrays
- **14:00 - 14:20** Rafael Goncalvez (University of Miami):
Retrieving submesoscale velocity field from surface drifters
- **14:20 - 14:40** Guillaume Novelli (University of Miami):
A surface dispersion experiment using drone-tracked drift cards and GPS-tracked CARTHE drifters
- **14:40 - 15:00** Karina Khazmutdinova (Florida State University):
Experimental UAV-tracking of surface Lagrangian transport: overview and preliminary results
- **15:00 - 15:20** Jochen Horstmann (Helmholtz-Zentrum Geesthacht):
Upper ocean current fields retrieved by radar and UAV

15:20 - 15:40 Coffee break

LASER Session #1:

- **15:40 - 16:00** Jim McWilliams (UCLA):
Surface wave effects on submesoscale fronts and filaments
- **16:00 - 16:20** Angelique Haza (University of Miami):
Wind-based parameterizations for drifter motion during LASER: are the models getting it right?
- **16:20 - 16:40** Henry Chang (University of Delaware):
Fronts, Langmuir circulation, dispersion, and clustering from LASER aerostat data
- **16:40 - 17:00** John Lodise (University of Miami):
Examination of wind surface currents using drogued and undrogued LASER drifters

17:00 - 18:00 Free discussion time for collaborative work

18:00 - 20:00 Reception at SALT

Day 2: 17 November 2017, Friday; RSMAS Auditorium

- **08:00 - 09:00** Registration and breakfast

Plume Session:

- **09:00 - 09:20** Michel Boufadel (NJIT):
Plume group overview
- **09:20 - 09:40** Andrew Poje (CUNY):
Numerical simulations of oil droplet breakup in homogeneous isotropic turbulence
- **09:40 - 10:00** William Dewar (FSU):
Recent results on near field convection with cross flows
- **10:00 - 10:20** Paul Linden (University of Cambridge):
Anticyclonic precession of a plume in a rotating environment

10:20 - 10:40 Coffee break

LASER Session #2:

- **10:40 - 11:00** Roy Barkan (UCLA):
The role of horizontal divergence in submesoscale frontogenesis
- **11:00 - 11:20** Andrew Smith (University of Miami):
Dissipative heating and the TKE budget: field measurements and implications for air-sea exchanges
- **11:20 - 11:40** Jeroen Molemaker (UCLA):
Observing sharp current gradients from sea surface roughness: Validation using LASER surface drifters
- **11:40 - 12:00** Mohammad Barzegar (TAMU-CC):
Upper oceanic boundary in field (LASER and SPLASH) and laboratory experiments
- **12:00 - 12:20** Ming Shao (University of Miami):
Variability of winds and fluxes observed near sub-mesoscale fronts

12:20 - 13:40 Lunch

Modeling Session:

- **13:40 - 14:00** Ramsey Harcourt (University of Washington):
The roles of coherent surface convergence and nonlocal vertical fluxes in the transport and dispersion of buoyant tracers by mixed layer turbulence.
- **14:00 - 14:20** Baylor Fox-Kemper (Brown University):
Energy cascades: Inferences from LES-style global ocean models
- **14:20 - 14:40** Michael McGauley (NOVA):
Laboratory and computational fluid dynamic experiments on oil droplet dynamics in the presence of dispersants
- **14:40 - 15:00** Mohamed Iskandarani (University of Miami):
Uncertainty quantification group overview

15:00 - 15:20 Coffee break

Broader Impacts Session:

- **15:20 - 15:40** Ani Hsieh (University of Pennsylvania):
Synchronous rendezvous in gyre like flows
- **15:40 - 16:00** Darek Bogucki (TAMU-CC):
Polarimetric Lidar measurements of oceanic turbulence - laboratory experiment
- **16:00 - 16:20** Alexander Sidelev (University of Miami):
Effect of ocean surface layer turbulence upon vertical settling velocity of microplastic
- **16:20 - 16:40** Jeremy Katz (FIU):
Impact of precipitation on the tropical cyclone induced upper ocean cooling in the coupled atmosphere-ocean system
- **16:40 - 17:00** Laura Bracken (University of Miami):
Drifter applications for urban pollution monitoring

17:00 - 18:00 Free discussion time for collaborative work

18:00 RSMAS Happy Hour at SALT