

**Day 1: 12 November 2018, Monday; RSMAS Auditorium**

- **08:00 - 09:00** Registration and breakfast
- **09:00 - 09:10** Welcome: Tamay Özgökmen (University of Miami)

**Session-I: Analysis of Observations in the Gulf of Mexico**

- **09:10 - 09:30** Denny Kirwan Jr. (University of Delaware):  
*Relative diffusivity scaling through the submesoscale*
- **09:30 - 09:50** Annalisa Griffa (ISMAR/CNR/Italy):  
*Seasonality and scale dependence of the evolution of drifter triads during LASER and GLAD experiments*
- **09:50 - 10:10** Jeroen Molemaker (UCLA):  
*Submesoscale statistics of the wintertime northern Gulf of Mexico*
- **10:10 - 10:30** Nick Shay (University of Miami):  
*Float measurements of physical and biochemical structure in the Gulf under weak and strong wind conditions*

**10:30 - 10:50** Coffee break

**Session-II: Analysis of Observations in the Gulf of Mexico**

- **10:50 - 11:10** Mohammad Berzegar (TAMU):  
*Studying the dynamics of the near surface in the SPLASH (2017) Experiment*
- **11:10 - 11:30** Helga Huntley (University of Delaware):  
*Lagrangian vs. Eulerian scale dependence of vorticity, divergence, and deformation*
- **11:30 - 11:50** Ming Shao (University of Miami):  
*High frequency internal wave accompanied by unstable submesoscale fronts*
- **11:50 - 12:10** Abigail Bodner (Brown University):  
*A novel approach to studying turbulence effects on fronts*

**12:10 - 13:30** Lunch

**Session-III: Near-Surface Dynamics**

- **13:30 - 13:50** Darek Bogucki (TAMU):  
*Energy and temperature dissipation beneath the non-breaking waves - laboratory results*
- **13:50 - 14:10** Andrew Smith (University of Miami):  
*Enthalpy transfer and energy dissipation observations adjacent to a changing sea surface structure*
- **14:10 - 14:30** Alex Soloviev (NOVA University):  
*The air-sea interface as a factor in rapid intensification of hurricanes*
- **14:30 - 14:50** Hanjing Dai (University of Miami):  
*Surface oil film effects on short wind-generated waves - laboratory results*

**14:50 - 15:30** Coffee break

**Session-IV: Miscellaneous Advances**

- **15:30 - 15:50** Cayla Dean (NOVA University):  
*Surfacing oil droplets in the presence of dispersants: laboratory experiment and numerical simulation*
- **15:50 - 16:10** Matt Grossi (University of Miami):  
*Predicting particle transport in oceanic flow regimes using artificial neural networks*
- **16:10 - 16:30** S. Metoyer (TAMU):  
*The near surface velocity divergence as predictor of the near-surface energy dissipation - laboratory results*

**16:30 - 18:00** Free discussions for collaboration, papers, synthesis

**18:00 - 20:00** Reception

**Day 2: 13 November 2018, Tuesday; RSMAS Auditorium**

- 08:00 - 09:00 Breakfast

**Session-V: Modeling**

- 09:00 - 09:20 Jim McWilliams (UCLA):  
*Advances in SPLASH simulations*
- 09:20 - 09:40 Ramsey Harcourt (University of Washington):  
*Parameterization of the vertical fluxes of buoyant scalars in Langmuir turbulence*
- 09:40 - 10:00 Shuyi Chen (University of Washington):  
*Coupled earth system modeling and prediction over the Gulf of Mexico: air-sea fluxes and hurricane impacts*
- 10:00 - 10:30 Baylor Fox-Kemper (Brown University):  
*Observations and models of oceanic macroturbulence: meet the new bias same as the old bias*

10:30 - 11:00 Coffee break

**Session-VI: Plume Experiments and Modeling**

- 11:00 - 11:20 Michel Boufadel (NJIT):  
*Subsurface large scale experiments of oil and gas from bubbly and churn flow release. Measurements of hydrodynamics and the droplet size distribution*
- 11:20 - 11:40 Daria Frank (Cambridge University):  
*Bubble plumes in a rotating environment*
- 11:40 - 12:00 Andrew Poje (CUNY):  
*Energetics of oil droplet breakup in homogeneous turbulence*

12:00-13:30 Lunch

**Session-VII: Synthesis**

- 13:30 - 15:00 Eric D'Asaro (University of Washington) will lead this discussion.

15:00 - 15:30 Coffee and meeting adjurns