



Particle-Turbulence Interactions in the Plankton

A summer workshop for 15 scientists within ± 3 years of their Ph.D.
June 22-26, 2015, Walpole, Maine, USA; Lodging and Meals provided
Apply by March 1 at tinyurl.com/turbulence2015

Build a network of peers in complementary fields: biology, engineering, oceanography & physics

Learn professional communication skills tailored to a cross-disciplinary learning environment

Observe plankton and turbulence using field, laboratory, and numerical tools

Discuss contemporary open questions, including effects of shape and stiffness, Lagrangian stochastic models, the implications of different turbulence vortex models for plankton motion, the difference between organized vortices and turbulence, & swimming behavior in turbulence

Peer teach a topic to practice communication and enhance your conceptual understanding.

Possible topics include:

- Plankton buoyancy, how it is measured, and how fast it can change
- How to use collision kernels accurately in the marine environment
- What the common decompositions of the velocity gradient tensor mean for plankton
- Arguments for and against the importance of the Bassett history term
- Why marine aggregates are more complicated than the common fractal model

Enjoy guidance from a diverse set of researchers: Peter Jumars (Marine Sciences, U. Maine); Lee Karp-Boss (Marine Sci., U. Maine); Evan Variano (Environmental Engineering, UC Berkeley) Luca Brandt (Linne FLOW Centre, Royal Institute of Technology (KTH), Stockholm, Sweden)

An aerial photograph of the Darling Marine Center, showing a large building complex situated on a wooded peninsula overlooking a body of water. A dock with a boat is visible in the foreground.

Darling
Marine
Center

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