

ICTS Colloquium

Title : Particles in the Ocean

Speaker : Amala Mahadevan, Woods Hole Oceanographic Institution, USA

Date : Monday, August 13, 2018

Time : 3:00 PM

Venue : Emmy Noether Seminar Room, ICTS Campus, Bangalore

Abstract : Particles of organic matter produced in the sunlit surface layers of the ocean through the growth and grazing of phytoplankton, sink gradually, sequestering carbon in the deep ocean. The particles are altered by bacterial remineralization and shrink with time. As they sink, they are transported by the oceanic flow and become sorted by size, because the slowest sinking (and smallest) particles experience higher velocities near the surface, while deeper particles are advected more slowly. Here we estimate the sinking flux of particles as a function of their size distribution and examine how the size distribution is altered with depth. We estimate the patchy distribution of the particle flux due to segregation by the flow.