

Modelling Oceanic Dispersion : an application to the Lagrangian Transport in the Sicily Channel

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A correct description of Lagrangian dispersion in the ocean has great relevance, but it is a delicate task because of the finite space and time resolution of the circulation models. These are mostly affected by two main limitations: i) unresolved scale motions, and mesoscale motions that are largely smoothed out at scales close to the grid spacing; (ii) poorly resolved time variability in the profiles of the horizontal velocities in the upper layer. In the talk, I will discuss how we can use observations to improve numerical modeling of dispersion processes. As an application, I will discuss a case of Lagrangian transport in the Central Mediterranean Region.