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Pair-particle Statistics in the California upwelling system

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Meso-to submesoscale processes are not properly resolved in current climate models and need to be parameterized. Understanding of the characteristics of the turbulent regimes can be gained from Lagrangian particle statistics. We study the relative dispersion of surface drifters in the California upwelling system from observed drifter trajectories and a high resolution ocean model.

From the data sets, the non-local regime with the unfolding time τ, the local regime with the energy transfer rate ϵ and the diffusive regime with the diffusivity κ are estimated. The comparison shows that the diffusivity κ of the surface drifters is by one order of magnitude larger than from the numerical simulation.

Do you need an official invitation letter?

No

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