

Abstract Submitted
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Multiscale Distribution of Energy Transfer in Two Dimensional Turbulence MICHAEL TWARDOS, MICHAEL RIVERA, ROBERT ECKE — In two dimensional turbulence, the mechanisms responsible for energy transfer to larger scales are not well understood. We present results from an experimental system consisting of a square meter of electromagnetically driven thin salt water layer that is used to investigate this inverse energy cascade. A filter technique applied to high resolution velocity fields is used to understand scale to scale energy transfer. An extension of this technique determines the contribution of energy transfer across a given length scale from smaller scales. Expanding the subgrid coupling terms allows for some speculation of the energy transfer mechanisms.

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