

Overview of recent results regarding the appearance of non-diffusive behaviour in fluid and gyrokinetic turbulence codes

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In this short talk we will give a quick overview of some recent results obtained during an on-going search for non-diffusive (radial) transport behavior using several electrostatic fluid and gyrokinetic turbulence codes. This broad spectrum of codes allows us to examine the tracer transport features in quite different regimes and geometries, as well as to explore descriptions with increasing levels of complexity of the physics included. In all of the runs performed, we have determined several measures that characterize the features of tracer particle motion. The inter-comparison of the results obtained will then be used to suggest which are the underlying physical mechanisms responsible for the observed behavior in each case, as well as to identify improved ways to capture their dynamics beyond the standard diffusive framework. Further details will be provided in the several posters which are associated with this presentation.