

1032-76-205

**C Foias** and **M S Jolly\*** ([msjolly@indiana.edu](mailto:msjolly@indiana.edu)), Indiana University, Department of Mathematics, Bloomington, IN 47405. *Estimates for the Kraichnan Spectrum*. Preliminary report.

The Kraichnan spectrum relates the average dyadic energy component to its wave number and enstrophy dissipation rate. It can be derived by heuristic scaling arguments after making either a universality assumption, or assuming that a certain eddy break-up mechanism holds. This talk presents partial results toward a rigorous proof of this relation in the context of the 2D periodic, incompressible Navier-Stokes equations. (Received August 21, 2007)