Statistics of fronts in 2d turbulence

G. Falkovich

Weizmann Institute of Science

I shall briefly review the recent findings on the statistics of isolines of vorticity and temperature in turbulence described by 2d Navier-Stokes and surface quasi-geostrophic model. The lines are found to be statistically equivalent to boundaries of critical clusters in percolation and spin models. In particular, the statistics is more than just scale invariant, it is conformal invariant. I shall explain some implications and consequences of that (very powerful) symmetry.