

On the stationary measures of 3D stochastic Navier-Stokes equations

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Abstract

Some open problems about quantitative informations on the stationary measures of 3D stochastic Navier-Stokes equations will be presented, also in connection with their possible RSB properties. Then a few rigorous results will be given on a definition of K41 scaling law: the relation with a measure of the typical dissipation length, negative results for 2D and Stokes problems, necessary conditions on mean vortex stretching, characterizations in terms of certain properties of high and low modes.