

Asymptotic energy concentration in the phase space of the weak solutions to the Navier-Stokes equations

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We study the asymptotic behavior of the energy of weak solutions of Navier-Stokes equations as $t \rightarrow \infty$. We characterize the space of the initial data which causes a concentration of the kinetic energy in the phase space. Moreover, an explicit convergence rate is obtained. In this viewpoint, we consider the shape of the solutions asymptotically.