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*Vanishing viscosity limit of some symmetric flows.*

We study the boundary layers of Navier-Stokes equations at small viscosity, especially when a certain symmetry is imposed to the flow. More precisely, for the case of ill-prepared initial data, asymptotic behavior of the radially symmetric, plane-parallel, and infinite-pipe flows are discussed. Concerning such models, using the method of correctors, we prove the vanishing viscosity limit, and a version of weak convergence of Navier-Stokes vorticity to Euler vorticity up to a measure on the boundary. (Received September 10, 2013)