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**Asymptotic stability of the stationary solution to the incompressible
Navier-Stokes equation in Besov spaces**

We discuss the asymptotic stability problem for the incompressible Navier-Stokes equation in homogeneous Besov spaces on the whole space. Following an approach by Kozono-Yamazaki (1995), we consider semigroup that is generated by the Laplacian with a perturbation. Using estimates for the semigroup, we give a critical estimates, motivated by a result by Meyer. This plays an important role in this talk.