1077-35-510 **Cong Phuc Nguyen** (`pcnguyen@math.lsu.edu`), Department of Mathematics, Louisiana State University, 303 Lockett Hall, Baton Rouge, LA 70803, and **Tuoc Van Phan*** (`phan@math.utk.edu`), Department of Mathematics, University of Tennessee, 277 Ayres Hall, 1403 Circle Drive, Knoxville, TN 37996. *Stationary Navier-Stokes equations with singular external forces.*

We introduce new functional spaces which include some Morrey spaces. We then show that for a sufficiently small given external force in these spaces, there exists unique solution of Navier-Stokes equations (in $\mathbb{R}^n, n \geq 3$). The stability of these stationary solutions are also established. Our results extend the results of H. Kozono and M. Yamazaki (1995) where the existence and stability of stationary solutions of Navier-Stokes equations were obtained in Morrey spaces.

This is a joint work with Nguyen Cong Phuc. (Received September 06, 2011)