1077-60-1431 **P. Sundar***, Department of Mathematics, Louisiana State University, Baton Rouge, LA 70803.
Ergodic control for two-dimensional stochastic Navier-Stokes equations. Preliminary report.

After a brief introduction to solvability and ergodic behavior of stochastic Navier-Stokes equations, the existence of optimal ergodic controls will be established. A controlled martingale problem with relaxed controls will provide the framework for this study. Further properties of the optimal control will be discussed. (Received September 19, 2011)