## 1078-35-407 Walter Rusin\* (wrusin@usc.edu). Navier-Stokes equations, stability, and minimal perturbations of global solutions.

It has been established that if some data in  $\dot{H}^{1/2}$  lead to a singularity in the 3D Navier-Stokes equations, there are also initial data with the minimal  $\dot{H}^{1/2}$  norm which produce a singularity and the set of such data is compact up to translations and the natural scaling of the equation. In this talk we analyze the connection between the latter and the issue of stability of global regular solutions. (Received December 13, 2011)