1064-76-237 **C. Foias** and **M. S. Jolly*** (`msjolly@indiana.edu`), Department of Mathematics, Indiana University, Bloomington, IN 47405, and **R. Kravchenko**. *A determining form for the 2-D Navier-Stokes equations.*

The determining modes for the incompressible Navier-Stokes equations (NSE) are shown to satisfy a differential equation which preserves the solutions of the NSE. This new infinite-dimensional system is shown to be dissipative; an estimate for the radius of an absorbing ball is derived in terms of the number of modes and the Grashof number. (Received September 10, 2010)