1030-76-139 **Chun-Hsiung Hsia**, Department of Math., Stat., and Comp. Sci., University of Illinois at Chicago, Chicago, IL 60607, **Tian Ma**, Department of Mathematics, Sichuan University, Chengdu, Sichuan, Peoples Rep of China, and **Shouhong Wang*** (`showang@indiana.edu`), Department of Mathematics, Indiana University, Bloomington, IN 47405. *Dynamic transition and stability in geophysical fluid dynamics.*

In this talk, we present a new classification scheme for dynamical transitions for dissipative dynamical systems, and its application to rotating fluid flows. Applications to other geophysical fluid dynamics problems are also briefly addressed. (Received July 29, 2007)