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Ming-Chih Lai, Yu-Hou Tseng and Jiahong Wu* (jiahong@math.okstate.edu),
Department of Mathematics, 401 Mathematical Sciences, Oklahoma State University, Stillwater,
OK 74078. *The 2D surface quasi-geostrophic equation with supercritical dissipation*. Preliminary
report.

The fundamental issue on the global existence of regular solutions to the 2D surface quasi-geostrophic (QG) equation with critical or subcritical dissipation has been resolved, but this issue for the supercritical case remains open. This talk presents some recent numerical and theoretical results concerning solutions of the 2D surface QG equation with supercritical dissipation. (Received September 19, 2006)