Meeting: 1001, Evanston, Illinois, SS 11A, Special Session on Stability Issues in Fluid Dynamics

1001-76-139 **Carmen Chicone*** (carmen@math.missouri.edu), Department of Mathematics, University of Missouri-Columbia, Columbia, MO 65211-4100. *The Tiger fountain problem.* Preliminary report.

A new fountain on the campus of the University of Missouri-Columbia features a deep pool with a rectangular flat-plate outlet, a waterfall, a plunge pool, and a recycle pump. An interesting property of the flow over the flat-plate outlet is the existence of a steady-state undular bore. Basic water wave theory and preliminary results on modeling the undular bore will be discussed. (Received August 20, 2004)