Collapse **Dynamics**
in Rotating Thin Films SHOMEEK MUKHOPADHYAY, Levich Institute, City College of New York, JOSHUA DIJKSMAN, Physics Department, Duke University, RICHARD MACLAUGHLIN, ROBERTO CAMASSA, Department of Mathematics, University of North Carolina at Chapel Hill, ROBERT BEHRINGER, Physics Department, Duke University — We study the collapse of a dry cavity in a thin fluid film. Collapse dynamics driven by viscous gravity currents is well described by a self similar solution of the thin film equation. In the current analysis we include surface tension effects. We find both experimentally and numerically that for small capillary numbers, the collapse dynamics retains its power law scaling behavior, but with a power law clearly distinct from viscous collapse dynamics.

Shomeek Mukhopadhyay
Levich Institute, City College of New York