Abstract Submitted
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Biaxial extensional motion of an inertially driven liquid disk[1]
LINDA SMOLKA, Bucknell University — We derive a time-dependent exact solution of the free surface problem for the Navier-Stokes equations that describes the biaxial extensional motion of a viscous disk driven by inertia. The linear stability of the exact solution to axisymmetric and two-dimensional perturbations is examined in the inviscid limit within the framework of the long-wave approximation. Both transient growth and long-time asymptotic stability are considered.

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