

Abstract Submitted
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Stability of a viscous pinching thread JENS EGGERS, University of Bristol, Department of Mathematics — We consider the dynamics of a fluid thread near pinch-off, in the limit that inertial effects can be neglected. There exists an infinite hierarchy of similarity solutions corresponding to pinch-off. Only one of the similarity solutions (the “ground state”) is stable, all other solutions are linearly unstable to perturbations, and thus cannot be observed. Eigenvalues and eigenfunctions are calculated analytically.

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