Abstract Submitted
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Dynamic drying transition versus free-surface cusps JENS EGGERS, University of Bristol — We study air entrainment by a solid plate plunging into a viscous liquid, theoretically and numerically.At dimensionless speeds Ca $=U\eta/\gamma$ of order unity, a near-cusp forms due to the contact line.The radius of curvature of the cusp's tip scales by the slip length, multiplied by an exponential of Ca. The pressure of the air drawn inside the cusp leads to a bifurcation, at which air is entrained.

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