

Abstract Submitted
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Driven drops with contact line damping YI XIA, CHUN-TI CHANG,
PAUL STEEN, Cornell University — A water droplet placed on a hydrophobic plate
is driven by plate-normal oscillations. Resulting droplet motions are largely inviscid,
having Reynolds number $\lesssim 100$ (Ohnesorge ≈ 0.002). We are interested in isolating the
effective damping, sometimes called Davis dissipation, owing to a moving contact line
that is not completely mobile. In this talk, we report energy budgets as influenced
by contact angle – contact line speed relationships for variously prepared surfaces.

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