

Abstract Submitted
for the DFD16 Meeting of
The American Physical Society

Draining Capillary Liquids from Containers with Interior Corners¹ JOSH MCCRANEY, Student, MARK WEISLOGEL, Portland State University — A new solution is found for the late stage draining of a wetting capillary fluid in an interior corner. A formulation for slender flow along the interior base-corner of a right circular cylinder is presented, where a separation of variables solution offers a method to predict drain rates for this and related double-drain geometries. It is shown the maximum volumetric liquid removal rate is $Q \sim t^{-3}$, volume removed is $V \sim t^{-2}$, and nominal liquid depth is $h \sim t^{-1}$. Representative experimental results are presented to assess the quantitative value of the approach.

¹NASA NNX12A047A

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Date submitted: 31 Jul 2016

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