

Abstract Submitted
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Simulation of 2D Granular Hopper Flow¹ ZHUSONG LI, MARK SHATTUCK, CUNY Graduate Center and the Benjamin Levich Institute and Physics Department of The City College of New York — Jamming and intermittent granular flow are big problems in industry, and the vertical hopper is a canonical example of these difficulties. We simulate gravity driven flow and jamming of 2D disks in a vertical hopper and compare with identical companion experiments presented in this session. We measure and compare the flow rate and probability for jamming as a function of particle properties and geometry. We evaluate the ability of standard Hertz-Mindlin contact mode to quantitatively predict the experimental flow.

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