

Abstract Submitted
for the MAR08 Meeting of
The American Physical Society

Rheology and structure of granular flows in split-bottom geometries. JOSHUA DIJKSMAN, MARTIN VAN HECKE, Leiden University — Combining rheological methods with surface flow imaging, we probe the flow of slow dry granular media as function of driving rate and geometry. The flow rate affects the spatial structure of the flow much stronger than the stresses, while details of the boundary conditions significantly modify both stresses and flow. We discuss our results in the context of recent numerics on rapid flows in these split-bottom geometries, and various theories developed for slow flows.

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Date submitted: 23 Nov 2007

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