Abstract Submitted
for the DFD12 Meeting of
The American Physical Society

On the Collapse of Granular Columns in Different Gravities HORACIO TAPIA-MCCLUNG, ROBERTO ZENIT, National Autónomous University of México — By performing numerical simulations of the collapses of granular columns we find that the scaling of the final height of the emplacements ($\sim a^{\beta}$) is preserved when the inter-granular friction coefficient and the initial aspect ratio of the columns is varied under different gravitational accelerations. The top of the column initially evolves closely to the free falling law for large aspect ratios and gravities. For high aspect ratio columns in low gravities, an initial fluidization of the grains is observed. We present energy balances during the emplacement and measurements of a quantity equivalent to the inertial number, to understand the influence of varying the gravitational acceleration on the properties of the column collapses.

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Date submitted: 06 Aug 2012 Electronic form version 1.4