Abstract Submitted
for the DFD10 Meeting of
The American Physical Society

On influence of microstructure on granular impact[1] XIAONI FANG, LOU KONDIC, NJIT, ROBERT BEHRINGER, Duke University, WOLFGANG LOSERT, University of Maryland, COREY O'HERN, Yale University — We use discrete element simulations to explore interaction of an intruder with a dense granular matter. Granular particles are modeled as soft, inelastic, frictional disks in two spatial dimensions, and the intruder is considered to be much larger than particle size. In this presentation we will concentrate in particular on the influence of granular microstructure on the impact, including the influence of system size, preparation, and material properties. The results will be compared to the existing ones, and new experiments will be proposed.

[1]Supported by DTRA Grant No. 1-10-1-0021.

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Date submitted: 05 Aug 2010 Electronic form version 1.4