Granular Response to an Impact\textsuperscript{1} LOU KONDIC, New Jersey Institute of Technology, ROBERT BEHRINGER, Duke University, WOLFGANG LOSERT, University of Maryland, COREY O’HERN, Yale University — In this computational study we discuss response of a granular system to an impact of a large intruder. We find that interaction between the granular particles strongly influences the intruder’s dynamics, with particularly strong role played by friction. We will also discuss the dynamics of granular particles to an impact and correlate affine and non-affine components of particles’ motion to the dynamics of intruder itself.

\textsuperscript{1}Supported by DTRA Grant No. 1-10-1-0021 and NSF Grant No DMS-0835611