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Measurement of Stopping Force in Low Velocity Impact Cratering JOSEPH AMATO, MICHAEL NITZBERG, Colgate University — The time dependent stopping force on a ball dropped into a granular medium has been measured using an accelerometer embedded within the ball. The velocity dependence of the force shows two distinct behaviors: (1) for impacts with large (200 μm) irregularly shaped sand particles, $F(v) \propto v^{1/2}$; for impacts with 100 μm spherical glass beads, $F(v) \propto (v - v_0)$. The accelerator apparatus yields reproducible, low noise data that reveals peculiar features such as a downward acceleration pulse just before the ball comes to rest.

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