

Abstract Submitted
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Granular Flow Fields Around Plunging and Withdrawing Intruders TRISTAN DENNEN, STEPHAN KOEHLER, ROBERT MATSON, Emory University Physics Department — The drag resistance of a vertically moving intruder in dense granular media follows a supra-linear power law with depth. We investigate this behavior by optically tracking the flow fields in a Hele-Shaw cell and correlating them with the drag resistance on the intruder. In particular, the vertical extraction of an intruder causes a wedge of material to be raised, and the volume of this wedge is closely correlated to the extraction force.

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