

Abstract Submitted
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Vector Force Measurements of a Dense Granular Flow¹ KEVIN FACTO, University of Massachusetts-Amherst, TOM SCHICKER, NARAYANAN MENON, University of Massachusetts-Amherst — We have made force measurements at the wall of a dense granular flow. The data was acquired at rate of 800 Hz in all three spatial directions. The fluctuations in the forces were examined for a wide range of flow speeds. Correlations in the forces decay by the time the flow moves one ball diameter. The force along the flow direction is highly correlated with the force normal to the wall. For a given value of normal force, the force along the flow has a gaussian distribution about the tangential force that would be predicted from a constant friction angle.

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Kevin Facto
University of Massachusetts-Amherst

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