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**Force measurements on an intruder in pre-fluidized sand** TESS A.M. HOMAN, DETLEF LOHSE, DEVARAJ VAN DER MEER, Physics of Fluids, University of Twente, Enschede — A container filled with sand is fluidized from below, and by slowly turning of the air flow a very loose packing is created. An intruder controlled by a linear motor is connected to a load cell to measure the force it experiences while moving through the bed. By varying several parameters, such as the intruder shape, velocity, and penetration depth, we aim to obtain a better understanding of the behavior of loosely packed granular materials.

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