Granular flows : fluidization and anisotropy

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Publication List

[1] G. Wortel, J. Dijksman, and M. van Hecke,
Rheology of weakly vibrated granular media,
Phys. Rev. E **89**, 012202 (2014).

[2] J. Dijksman, G. Wortel, L. van Dellen, O. Dauchot, and M. van Hecke
Jamming, Yielding, and Rheology of Weakly Vibrated Granular Media
Phys. Rev. Lett. **107**, 108303 (2011).

[3] F. Tabak, E. Disseldorp, G. Wortel, A. Katan, M. Hesselberth
T. Oosterkamp, J. Frenken, and M. van Spengen
MEMS-based fast scanning probe microscopes
Ultramicroscopy **110**, 559 (2010).

In preparation:

[4] G. Wortel and M. van Hecke,
Anisotropy of weakly vibrated granular flows,
Submitted to Phys. Rev. E, arXiv: 1410.4335 (2014).

[5] G. Wortel, T. Börzsönyi, S. Wegner, B. Szabo, E. Somfai,
R. Stannarius, and Martin van Hecke
Heaping and Broken Symmetry in Flows of Anisotropic Granular Media
In Preparation.

Curriculum Vitae

I was born on November 22nd 1985 in Zoetermeer, the Netherlands. My childhood was spent in this same city, and I attended the "Oranje Nassau College" where I obtained my vwo-diploma in 2004. I went on to study Experimental Physics at the University of Leiden. After two research projects, "MEMSPM - Tip formation and actuation", under supervision of prof. J.W.M. Frenken, and "Piles of Rice - Surface Instability in Sheared Granular Rod Systems", with prof. M. van Hecke, I received my master's degree in August 2010.

After a six day vacation, I started my PhD project in M. van Hecke's "Complex Media and Metamaterials" group. During this time, I attended schools in Edinburgh (Scotland), Beg Rohu (France), and Enschede (The Netherlands). In addition, I went to conferences in Cambridge (England), Boston, Baltimore, Denver (APS March Meetings, United States), and many in The Netherlands. At Physics@FOM Veldhoven (2012) and three APS March Meetings (2012-2014), I presented my work. In 2012, I presented my work at the annual meeting of the Burgerscentrum at the TU Eindhoven and won the prize for the best talk of the day.

During my PhD, I was teaching assistant for the undergraduate courses "Diffusion and Dissipation" and "Fourier Physics". In addition, I have supervised seven students for a BSc or MSc internship. Besides writing papers, I have been an active referee, having reviewed nine papers for APS journals. I have given many lab tours for the biannual Open House Day of the university, and helped set up fun demonstration experiments.

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Another special thanks goes to Joshua; he supervised my first internship in 2008, and has been my granular mentor ever since.

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