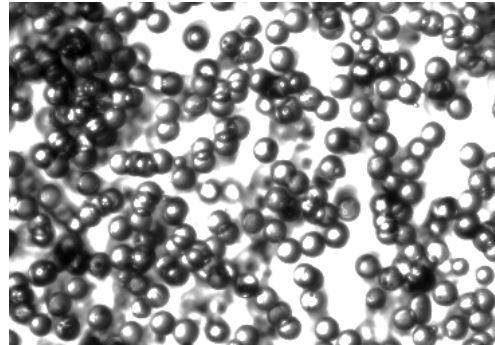


Sniffing at sandy suspensions

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Experimental investigations of the dynamics of granular matter are presented, with special emphasis on suspensions of the granular glass beads in water:



In particular, we discuss pattern forming processes in

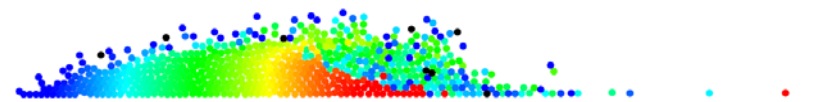
i) a rotating drum, containing sand and water [1]:



ii) an unstable layering, with the sand on top of the water [2]:



iii) dense sand packings under a shear flow of the embedding water [3]:



References:

- [1] [Oscillatory patterns in a rotating aqueous suspension](#)
A. P. J. Breu, C.A. Kruehle, and I. Rehberg,
The European Physical Journal E-Soft Matter **13**, 189 (2004).
- [2] [Rayleigh-Taylor instability in a sedimenting suspension.](#)
C. Völtz, W. Pesch, and I. Rehberg,
Physical Review E **65**, 011404 (2001).
- [3] [Particle dynamics of a cartoon dune](#)
Christopher Groh, Ingo Rehberg and Christof A. Kruehle
New J. Phys. **12**, 063025 (2010).