

Abstract Submitted  
for the MAR11 Meeting of  
The American Physical Society

**Relaxation of stresses and dynamical heterogeneities close to jamming in a granular experiment** CORENTIN COULAIS, OLIVIER DAUCHOT, CEA-SPEC-GIT, ROBERT BEHRINGER, Duke U — Dynamical Heterogeneities have been found to exhibit maximal size and scale invariance at Jamming. We address here the question of the link with stresses in the materials. To that end, we use a confined, vibrated layer of 8000 bidisperse grains under uniaxial compression. The vibration is horizontal, transverse to the direction of compaction. First, an intruder is pulled at constant velocity through the assembly and force measurements reveals maximal time correlations at Jamming. Then, the experimental setup is slightly modified to accept photoelastic grains, made of soft or hard materials. By measuring positions and stresses, decorrelation of forces as well as dynamics in structure, spontaneous fluctuations are probed. Both quenches and intruder pulling protocols are performed, and novel behavior at Jamming is seen.

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Date submitted: 19 Nov 2010

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