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**Oscillatory Rheology near Jamming** SIMON DAGOIS-BOHY, Leiden University, BRIAN TIGHE, TU Delft, ELLAK VAN SOMFAI, University of Warwick, MARTIN VAN HECKE, Leiden University — Granular matter is known to exhibit rich mechanical features close to the jamming transition. These features have been explored extensively with quasi-static approaches in the past 10 years. We explore now the dynamical axis, and look at the form of the complex shear modulus in numerical packings of soft spheres, when submitted to a strain oscillating in time. As predicted by B. Tighe (PRL 107, 158303 (2011)) we find that close to the jamming transition, an anomalous scaling regime appears, where both storage and loss moduli grow as the square root of the frequency, and this even when inertia is taken into account. Finally, higher forcing allows to explore non-linearities in these systems, as well as complex reversibility and memory effects.

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