

Abstract Submitted
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Rheology of dense suspensions of non colloidal spheres in yield-stress fluids¹ ELISABETH GUAZZELLI, SIMON DAGOIS-BOHY, Aix-Marseille Université, CNRS, IUSTI UMR 7343, 13453 Marseille, France, SARAH HORMOZI, Department of Mechanical Engineering, Ohio University, Athens, Ohio 45701-2979, USA, OLIVIER POULIQUEN, Aix-Marseille Université, CNRS, IUSTI UMR 7343, 13453 Marseille, France, AIX-MARSEILLE UNIVERSITÉ, CNRS, IUSTI UMR 7343 TEAM, DEPARTMENT OF MECHANICAL ENGINEERING, OHIO UNIVERSITY TEAM — Pressure-imposed rheometry is used to study the rheological properties of suspensions of non colloidal spheres in yield stress fluids. Accurate measurements for both the shear stress and particle normal stress are obtained in the dense regime. The rheological measurements are favourably compared to a model based on scaling arguments and homogenisation methods. The detailed account of this study can be found in Dagois-Bohy, S., Hormozi, S., Guazzelli, E., and Pouliquen, O. (2015). Rheology of dense suspensions of non-colloidal spheres in yield-stress fluids. *Journal of Fluid Mechanics*, 776, R2.

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Elisabeth Guazzelli
Aix-Marseille University, CNRS, IUSTI UMR 7343, 13453 Marseille, France

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