

Abstract Submitted  
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**Enhancing Shear Thickening**<sup>1</sup> FATEMEH MADRAKI, SARAH HORMOZI, Department of Mechanical Engineering, Ohio University, Athens, Ohio 45701-2979, USA, GUILLAUME OVARLEZ, University of Bordeaux, CNRS, Solvay, LOF, UMR 5258, 33608 Pessac, France, ELISABETH GUAZZELLI, OLIVIER POULIQUEN, Aix-Marseille Universite, CNRS, IUSTI UMR 7343, 13453 Marseille, France — A cornstarch suspension is the quintessential particulate system that exhibits shear thickening. By adding large non-Brownian spheres to a cornstarch suspension, we show that shear thickening can be significantly enhanced. More precisely, the shear thickening transition is found to be increasingly shifted to lower critical shear rates. This enhancement is found to be mainly controlled by the concentration of the large particles.

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