

Taking control of flowing dense suspensions

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Densely packed suspensions arise widely in industry and manufacturing, where reliable, predictable and prescribable flow properties are essential. A recent series of experiments and simulations has transformed the study of suspension rheology by showing the crucial role that particle-particle contact forces can play in addition to hydrodynamics. Here, I will give an overview of the techniques that have been used to characterise suspensions within this new framework, and I will go on to propose how the understanding gleaned might be used both to formulate suspensions and to design processing equipment more effectively.