

Abstract Submitted
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Spreading of granular suspensions on a solid surface ALICE PELOSSE, MENGHUA ZHAO, MATHIEU OLERON, LAURENT LIMAT, ELISABETH GUAZZELLI, MATTHIEU ROCHÉ, Université de Paris, CNRS, Matière et Systèmes Complexes (MSC) UMR 7057, Paris, France, MATIÈRE ET SYSTÈMES COMPLEXES TEAM — The investigation of the spreading of granular suspensions on a solid surface indicates that the apparent viscosity of these suspensions in the vicinity of the triple-phase contact line is dependent on particle size in addition to particle volume fraction. This observation results from the existence of a particle-depleted region at the contact line with beads expelled due to confinement. Our experimental observation leads to interesting outcomes for the spreading of suspension mixture having different particle sizes and further opens a new possible way to control fluid flow.

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