

Abstract Submitted
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Emergence of collective motion in bacterial suspensions SONG

LIU¹, Shenzhen Research Institute, The Chinese University of Hong Kong; Department of Physics, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong — It is well known that bacterial suspensions will exhibit collective motion at high concentrations, in which both steric and hydrodynamic interactions play important roles. We aim to investigate whether steric and hydrodynamic interactions are of equal importance to the emergence of collective motion. Here we will present our efforts to experimentally tune the relative strength of these interactions in bacterial suspensions. Our preliminary results suggest that the transition to collective motion may depend on the interplay between steric and hydrodynamic interactions.

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