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**Crossover from Intermittent to Continuum Dynamics for Locally Driven Colloids** CHARLES REICHHARDT, CYNTHIA J. OLSON REICHHARDT, Theoretical Division and Center for Nonlinear Studies, Los Alamos National Laboratory — We simulate a colloid with charge  $q_d$  driven through a disordered assembly of interacting colloids with charge  $q$  and show that, for  $q_d \approx q$ , the velocity-force relation is nonlinear and the velocity fluctuations of the driven particle are highly intermittent with a  $1/f$  characteristic. When  $q_d \gg q$ , the average velocity drops, the velocity force relation becomes linear, and the velocity fluctuations are Gaussian. We discuss the results in terms of a crossover from strongly intermittent heterogeneous dynamics to continuum dynamics. We also make several predictions for the transient response in the different regimes.

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