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Critical Scaling of Shear Viscosity At the Jamming Transition¹

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I review the assumptions behind a scaling theory of the jamming transition for shear driven non-equilibrium steady states of a granular medium. Scaling predictions are compared against data from numerical simulations for a simple two dimensional model of frictionless soft core interacting disks with overdamped dynamics. Methods are discussed to accurately measure the critical jamming density and the critical exponents describing the jamming transition.

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