

Abstract Submitted
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Connecting microscopic and phenomenological approaches to glassy dynamics¹ MALCOLM KENNETT, Simon Fraser University, MATTHEW DOWNTON, Technische Universitat Berlin — Kinetically constrained spin models are known to exhibit dynamical behavior mimicking that of glass forming systems. They are often understood as coarse-grained models of glass formers, in terms of some “mobility” field. The identity of this “mobility” field has remained elusive due to the lack of coarse-graining procedures to obtain these models from a more microscopic point of view. Here we exhibit a scheme to map the dynamics of a two-dimensional soft disc glass former obtained from Molecular Dynamics simulations onto a kinetically constrained spin model, providing an attempt at bridging these two approaches.

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