

Abstract Submitted
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Finite Temperature Simulations of Glassy Models with Patchwork Dynamics CREIGHTON THOMAS, ALAN MIDDLETON, Syracuse University — We present simulation results on aging effects in the late time dynamics of two glassy models: the Edwards-Anderson Ising spin glass and a disordered lattice dimer model. As these models have glassy dynamics, direct simulations take prohibitively long times. We use patchwork dynamics, in which we replace local Monte Carlo updates with efficient exact finite temperature equilibration of subsystems, or patches. We scale the simulation data and find a collapse to relate the dynamics for different patch sizes, with larger patches evolving the system more rapidly. We investigate the use of this technique to study rejuvenation and memory effects.

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