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Self-Organized Criticality Below The Glass Transition: A Computer Simulation[1] KATHARINA VOLLMAYR-LEE, Bucknell University, ELIZABETH A. BAKER, Emory University — We obtain evidence that the dynamics of a glassy system below the glass transition is characterized by self-organized criticality. To investigate the dynamics of a binary Lennard-Jones system we use molecular dynamics simulations. To study cooperative motion we define single particle jump events via single particle trajectories and identify clusters of jump events which are correlated in space and time. We find string-like clusters whose size is power-law distributed not only close to T_c but for *all* temperatures below T_c, indicating self-organized criticality which is suggestive of a freezing in of critical behavior.

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