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Time reparametrization symmetry in a structural glass model GCINA MAVIMBELA, HORACIO E. CASTILLO, Ohio University, CLAUDIO CHAMON, Boston University, LETICIA CUGLIANDOLO, Université Pierre et Marie Curie - Paris VI — We explore the existence of time reparametrization symmetry in a particle system with quenched disorder. The system's density fluctuations are described by a stochastic equation (D. S. Dean, J. Phys. A:Math. Gen **29**, L613 (1996)). Using the Renormalization Group (RG) on the Martin-Siggia-Rose generating functional, we analytically probe the long time dynamics by systematically integrating over short time scale fluctuations. We find that the RG flow converges to a fixed point that is invariant under reparametrizations of the time variable.

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