

Abstract Submitted
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Triangular Relations in Structural Glasses KARINA E. AVILA, HORACIO E. CASTILLO, AZITA PARSAEIAN, Ohio University — Structural glasses exhibit the phenomenon of dynamical heterogeneity: different regions of the system present different dynamical behavior. To study this phenomenon, we analyze simulations of four models of structural glasses performed in the aging regime. We compute the triangular relations of the local and global two-time correlation functions, i.e., the mathematical relationships among correlators calculated for the time pairs (t_1, t_2) , (t_2, t_3) and (t_1, t_3) with $t_1 > t_2 > t_3$. We plot the triangular relations of the global and local correlations together to compare their behavior. We find that the probability distribution of local correlations is concentrated along the curve representing the global correlations. Our results provide evidence of time reparametrization invariance and also point toward universality in the aging fluctuations.

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