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Differences in dynamic heterogeneity in strong and fragile glass formers[1] HANNAH STALEY, ELIJAH FLENNER, GRZEGORZ SZAMEL, Colorado State University — We study dynamic heterogeneity in a model strong glass former. We examine the spatial extent $\xi_4^a(t)$ and the strength $\chi_4^a(t)$ of the heterogeneity of the dynamics at two length scales a. One length scale corresponds to the nearest neighbor separation and the other length scale corresponds to the length scale of the tetrahedral network. We find that the dynamic correlation length ξ_4^a grows much slower with increasing relaxation time at both length scales than for model fragile glass formers. We also find that the dynamically correlated regions are more ramified for the strong glass former than for model fragile glass formers. However, we do find that Stokes-Einstein violation indicates a change in the character of the dynamic heterogeneities for the strong glass former and the fragile glass formers.

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