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**Softness and Kinetic Heterogeneities in Glassy Liquids** SAMUEL SCHOENHOLZ, University of Pennsylvania, EKIN CUBUK, EFTHIMIOS KAXIRAS, Harvard University, ANDREA LIU, University of Pennsylvania — One signature feature of glassy liquids is the existence of kinetic heterogeneities. Isoconfigurational approaches show that there is a connection of these kinetic heterogeneities to the underlying structure of the liquid, but do not identify the particular structural features that are important in leading to enhanced mobility. We use machine-learning methods to show that the thermally-induced rearrangements that corresponding to enduring displacements in glassy liquids occur at “flow defects” that can be identified from the liquid structure. We will discuss the dynamics and spatial structure of the defect population, as well as the connection between the defect population and kinetic heterogeneities.

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