

Internal Webinar

The role of dimensionality in glass transition and memory behaviour of amorphous solids

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My talk consists of two parts: The first part is about the formation of glasses and the second part deals with the mechanical behaviour of glasses. In the first part, we investigate the dependence of the glass transition density and jamming densities on the spatial dimension. We also have studied the spatial dimensional dependence of heterogeneity in the dynamics, focusing on the breakdown of the Stokes-Einstein relation and fragility. In the second part of the talk, I will discuss the memory behaviour of amorphous solids under oscillatory shear deformation. We also study the yielding behaviour of a model glass using an asymmetric cyclic shear deformation protocol and investigate the role of annealing in the yielding transition.

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12:00 PM