

Students' Annual Seminar

Role of Avalanches in the Yielding Transition of Amorphous Solids

Bhanu Prasad Bhowmik

Under external loading conditions, a solid first deforms elastically at small deformation (strain) and then starts to show irreversible plastic rearrangements with increasing strain. Finally at large deformation, it fails to resist the externally imposed deforming force and starts to flow. This phenomenon is termed as yielding in solids. Recent results seem to suggest that avalanches observed in amorphous solids under these conditions play an important role and yielding is associated with the percolation of plastically rearranged particles due to avalanches. In this talk I will discuss the findings about the yielding transition in a system with varying concentration of randomly pinned particles.

Tuesday, May 8th 2018

4:00 PM (Tea/Coffee at 03:30 PM)

Seminar Hall, TIFR-H