

# Kinetically Constrained Models and the Glass Transition

Piper Fowler-Wright

## **Abstract**

The glass transition is observed in a vast range of systems – from supercooled liquids to granular material and even cellular cultures. Despite this ubiquity, the fundamental nature of the transition has yet to be established. Here kinetically constrained models, the basis of dynamical facilitation theory, may provide insight. In this lecture we introduce these simple lattice models of glass formers and the tools used to study them. A key result presented is the existence of *dynamical phase transitions* in these models.