Creep simulations with periodic boundary conditions using LAMMPS

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In this talk I will present a novel protocol that we implemented to study the bulk creep dynamics of amorphous systems. To this aim we realised a feed-back control protocol within LAMMPS to be able to resolve the mechanical response of a glassy material to a suddenly applied small step in shear-stress within periodic boundary conditions. In a first part I will introduce the method and present our results regarding the rebustness of the integration scheme. In a second part I will conlude with the results that we obtained regarding the definition of possible precursors prior to fluidisation and the size dependence of the fluidisation process.