**Polycrystals in single-slip crystal plasticity: The interplay of anisotropy and geometry**

This talk revolves around a variational model for polycrystals in finite crystal plasticity, where the possible deformations in each grain are restricted to plastic glide along one active slip system. Our main object of interest is the set of attainable macroscopic strains, whose analysis is linked to the solvability of an inhomogeneous differential inclusion problem with affine boundary values. We discuss how to estimate this set by exploiting admissible boundary interaction, global compatibility, and the interplay between the slip mechanism and the polycrystalline texture. In particular, a geometry-independent inner bound follows from considering constant-strain solutions to a relaxed problem in combination with well-known relaxation and convex integration results. On the other hand, we deduce outer bounds from a generalized Hadamard jump condition applied to the boundary grains. While there are examples of polycrystals for which the two bounds mentioned above coincide, we present an example of a sheared-square construction, showing that the inner bound is non-optimal in general.