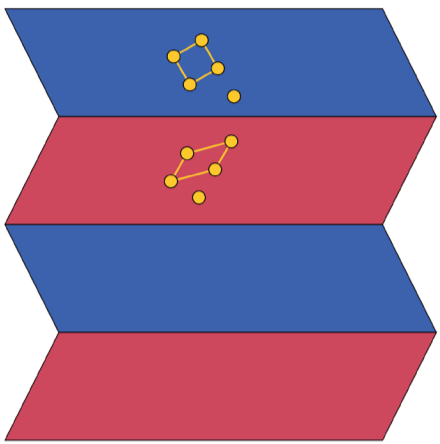


May 4 - 5, 2015



Workshop

Analysis and computation of microstructure in finite plasticity

Organizers: Sergio Conti (Bonn), Klaus Hackl (Bochum), Stefan Müller (Bonn)

Location: Mathematik-Zentrum, Lipschitz Lecture Hall, Endenicher Allee 60, Bonn

The conference will focus on the physical motivation, the mathematical behavior, and the numerical treatment of models of crystal plasticity which include microstructure. Approaches include mathematical analysis, numerical analysis, computational mechanics, material modelling and experiment. Recent analytical progress has been based on methods from the calculus of variations, while in the numerical implementation global optimization algorithms play a central role. The modelling of plasticity stretches over all length scales, from the atomic structure up to macroscopic samples. Specially designed experiments permit to selectively study microstructure formation in simple geometries.

Invited speakers:

Adriana Garroni, *Sapienza, Università di Roma*

Michael Ortiz, *California Institute of Technology*

Mark Peletier, *Technische Universiteit Eindhoven*

Henryk Petryk, *Polish Academy of Sciences*

$$u(\Omega) \subset \mathbb{R}^n$$

MICROPLAST

