The topic of the workshop is the interplay between microscopic material models and the corresponding macroscopic continuum theories. The development of methods which couple multiple length and time scales is one of the key challenges of the 21st century and requires significant mathematical input. The workshop will cover recent developments in dislocation theory, phase field crystals, coarse-grained simulation methods and stochastic modelling.

Confirmed Speakers

Timothy Blass Carnegie Mellon University
Andrea Braides Roma Tor Vergata
Ken Elder Oakland University
Tom Hudson Oxford University
Hosni Idrissi University of Antwerp
Michael Ortiz Caltech
Marcello Ponsiglione La Sapienza, Università di Roma
Arnd Scheel University of Minnesota
Lev Truskinovski École Polytechnique, Paris
Benedikt Wirth University of Muenster

Organizers: Giovanni Leoni (CMU), Christoph Ortner (Warwick) and Florian Theil (Warwick)

Funds are available to support a limited number of early-career participants. Applications submitted by April 15, 2014 will receive preference.