

# FINITE ELEMENTS FOR NONLINEAR AND MULTISCALE PROBLEMS

Feb 28 – Mar 03, 2020 : Department of Mathematics, IISc Bangalore

## Topics

Introduction to finite elements and theory,  
Numerics for nonlinear  
bending theories for rods and plates,  
Discretisation of fully nonlinear PDE,  
including finite element and semi-  
Lagrangian methods, links to Optimal  
Control,  
Numerical Homogenization and Beyond,  
PDE Constrained Optimization: analysis,  
algorithms, and applications

## Speakers

**Soeren Bartels**, Albert Ludwigs  
University of Freiburg  
**Max Jensen**, University of Sussex  
**Daniel Peterseim**, Augsburg  
University  
**Harbir Antil**, George Mason  
University  
**Thirupathi Gudi**, Indian Institute  
of Science Bangalore

**PhD Scholars, PostDocs and Researchers working in finite elements can apply to participate in this workshop by email to [mathgudi@gmail.com](mailto:mathgudi@gmail.com) with their biodata by Nov 30, 2019. Recommendation letter from advisor should be sent directly to this email-id. Boarding and Lodging will be provided to all the selected participants during the programme. Participants will cover their own travel expenses.**

**Organizer: Thirupathi Gudi**