

Workshop

“Taming the PDEs: Tailored Methods, Multiscale Approaches, and
Real-World Application”

March 9 - 13, 2026

organized by

Christian Döding, Andreas Rupp

Time measurement: CET

• Monday, March 9

08:30 - 09:00	<i>Arrival and Self-Registration</i>
09:00 - 10:00	Thomas Wick <i>A posteriori error control and adaptive discretizations for nonstationary, nonlinear, coupled PDE systems and coupled variational inequality systems</i>
10:05 - 11:00	<i>Coffee break</i>
11:00 - 12:00	Vishnu Raveendran <i>Wave propagation through a time-varying heterogeneous interface</i>
12:00 - 14:30	<i>Lunch break</i>
14:30 - 15:30	Free discussion time
15:30 - 16:15	<i>Coffee break</i>
16:15 - 17:15	Andreas Rupp <i>PDEs in hypergraphs and networks (of surfaces)</i>
from 17:15 on	<i>Get-Together</i>

• **Tuesday, March 10**

09:00 - 10:00	Katharina Schratz <i>Resonances as a Computational Tool</i>
10:00 - 10:45	<i>Coffee break</i>
10:45 - 11:45	Johan Wärnegård <i>Mathematical modeling of quantum fluids of light</i>
11:45 - 14:30	<i>Group Photo and Lunch break</i>
14:30 - 15:30	Benjamin Stamm <i>Computational methods in Density Functional Theory (DFT)</i>
15:30 - 16:15	<i>Coffee break</i>
16:15 - 17:15	Moritz Hauck <i>Guaranteed lower energy bounds for the Gross-Pitaevskii problem</i>

• **Wednesday, March 11**

09:00 - 10:00	Mahima Yadav <i>Qualitative and Quantitative Analysis of Riemannian Optimization Methods for Ground States of Rotating Multicomponent Bose-Einstein Condensates</i>
10:00 - 10:45	<i>Coffee break</i>
10:45 - 11:45	Patrick Henning <i>The pollution effect for the Ginzburg-Landau equation</i>
11:45 - 14:30	<i>Lunch break</i>
18:00 - 21:00	Workshop Dinner

• **Thursday, March 12**

09:00 - 10:00	Benjamin Dörich <i>Approximation of minimizers of the Ginzburg–Landau energy in non-convex domains</i>
10:00 - 10:45	<i>Coffee break</i>
10:45 - 11:45	Michael Crocoll <i>Scientific Machine Learning for the Ginzburg-Landau equation</i>
11:45 - 14:30	<i>Lunch break</i>
14:30 - 15:30	Gabriel Barrenechea <i>Bound-preserving discretisations for general meshes</i>
15:30 - 16:15	<i>Coffee break</i>
16:15 - 17:15	Larissa Martins <i>$H(\operatorname{div}; \Omega)$-Conforming Multiscale Hybrid-Mixed Methods for Elasticity with Weak and Strong Symmetry</i>

• **Friday, March 13**

09:00 - 10:00	Lucas Bouck <i>Commutativity and non-commutativity of limits in the nonlinear bending theory for prestrained microheterogeneous plates</i>
10:00 - 10:45	<i>Coffee break</i>
10:45 - 11:45	Andres Galindo-Olarte <i>A Nodal Discontinuous Galerkin Method with Low-Rank Phase Space Representation for the Multi-Scale BGK Model</i>
11:45 - 12:00	<i>Closing remarks</i>