

WORKSHOP PROGRAM

Numerical Methods for Evolution Equations

Heraklion, Crete, September 19-20, 2025

Friday, September 19

9:15-9:30	Opening
	Chair: Vidar Thomée
9:30-10:00	Christian Lubich (U. Tübingen) <i>Regularized dynamical parametric approximation of evolution problems.</i>
10:00-10:30	Balázs Kovács (U. Paderborn) <i>Error estimates for BDF full discretisation of Cahn–Hilliard equation with dynamic boundary condition.</i>
10:30-11:00	Maria López-Fernández (U. Malaga) <i>Convolution quadrature for the quasilinear subdiffusion equation.</i>
Coffee Break	
	Chair: Patrick Joly
11:30-12:00	Alexandre Ern (U. Paris) <i>Convergence of ERK-DG approximations of the first-order form of Maxwell's equations with low regularity.</i>
12:00-12:30	Axel Målqvist (Chalmers U. of Technology) <i>Numerical simulation of beam network models.</i>
12:30-13:00	Stig Larsson (Chalmers U. of Technology) <i>Nonlinear filtering based on density approximation and deep BSDE prediction.</i>
Lunch Break	
	Chair: Alexandre Ern
14:30-15:00	Patrick Joly (INRIA) <i>On numerical methods via quadrature for computing integrals of fractal sets.</i>
15:00-15:30	Mats Larson (Umea U.) <i>Solving inverse and ill-posed problems using finite elements and machine learning.</i>
15:30-16:00	Emmanuil Georgoulis (NTU Athens, Heriot-Watt U., and IACM) <i>Level-set shape optimization via polytopic discontinuous Galerkin methods.</i>
Coffee Break	
	Chair: Maria López-Fernández
16:30-17:00	Michael Feischl (Technical U. Wien) <i>Optimal adaptive timestepping.</i>
17:00-17:30	Theodoros Katsaounis (U. Crete) <i>A posteriori error estimates for the Schrödinger-Poisson system.</i>
17:30-18:00	Natalia Kopteva (U. Limerick) <i>Pointwise-in-time a-priori and a-posteriori error control for subdiffusion equations.</i>
18:00-18:30	Gabriel Barrenechea (U. Strathclyde) <i>Implicit-explicit schemes for incompressible flows with variable viscosity and density.</i>

Saturday, September 20

	Chair: Stig Larsson
9:30-10:00	Buyang Li (Hong Kong Polytechnic U.) <i>A new approach to the analysis of parametric finite element approximations to geometric flow.</i>
10:00-10:30	Thomas Wihler (U. Bern) <i>Pseudo-time iterations for variational PDE.</i>
10:30-11:00	Sören Bartels (U. Freiburg) <i>Unconstrained approximation of constrained problems.</i>
Coffee Break	
	Chair: Angela Kunoth
11:30-12:00	Daniel Peterseim (U. Augsburg) <i>Quantum algorithms for computational PDEs.</i>
12:00-12:30	Konstantinos Chrysafinos (Technical U. Athens) <i>Error estimates for discontinuous Galerkin schemes for the parabolic p-Laplacian.</i>
12:30-13:00	Lehel Banjai (Heriot-Watt U.) <i>Space-time FEM for nonlinear wave equations with elliptic regularization.</i>
Lunch Break	
	Chair: Charalambos Makridakis
14:30-15:00	Tristan Pryer (U. Bath) <i>Geometry, energy and sensitivity in proton dynamics.</i>
15:00-15:30	Vanja Nicolić (Radboud U.) <i>Multiharmonic discretization approaches for contrast-enhanced ultrasound.</i>
15:30-16:00	Angela Kunoth (U. Köln) <i>Multigrid B-spline methods and applications.</i>
Coffee Break	
	Chair: Christian Lubich
16:30-17:00	Georgios Akrivis (U. Ioannina and IACM) <i>Discrete maximal L^2 regularity in Hilbert spaces.</i>
17:00-17:30	Georgios Zouraris (U. Crete) <i>Approximating the DNLS equation.</i>
17:30-18:00	Annika Lang (Chalmers U. of Technology) <i>Simulation of random fields and stochastic partial differential equations on hypersurfaces.</i>