

# WORKSHOP PROGRAM

## Numerical Methods for Evolution Equations

### Heraklion, Crete, September 17-18, 2021

Friday, September 17	
9:15-9:30	<b>Opening</b>
	<b>Chair: Vidar Thomée</b>
9:30-10:00	<b>Patrick Joly</b> (INRIA) <i>A hybrid numerical scheme for transient electromagnetic wave propagation in thin coaxial cables.</i>
10:00-10:30	<b>David Ketcheson</b> (KAUST) <i>Explicit energy-conserving schemes for dispersive wave equations.</i>
10:30-11:00	<b>Alexander Ostermann</b> (U. Innsbruck) <i>Low-regularity integration of NLS.</i>
<i>Coffee Break</i>	
	<b>Chair: Angela Kunoth</b>
11:30-12:00	<b>Stig Larsson</b> (Chalmers U. of Technology) <i>On the backward Euler method for SDEs with multivalued drift coefficients.</i>
12:00-12:30	<b>Gabriel Berrechea</b> (U. Strathclyde) <i>Low-order divergence-free finite element method.</i>
12:30-13:00	<b>Konstantinos Chrysafinos</b> (Technical U. Athens) <i>Analysis and approximation of an optimal control problem related to the Allen-Cahn equation.</i>
<i>Lunch Break</i>	
	<b>Chair: Alexander Ostermann</b>
14:30-15:00	<b>Angela Kunoth</b> (U. Köln) <i>Monotone multigrid methods for option pricing.</i>
15:00-15:30	<b>Emmanuil Georgoulis</b> (NTU Athens, U. Leicester, and IACM) <i>Hypo-coercivity-preserving Galerkin discretisations.</i>
15:30-16:00	<b>Lehel Banjai</b> (Heriot-Watt U.) <i>A posteriori error analysis for time-fractional subdiffusion problems.</i>

## Saturday, September 18

	<b>Chair: Patrick Joly</b>
9:30-10:00	<b>Maria López-Fernández</b> (U. Malaga) <i>Global in time inversion of Laplace transforms associated to evolution problems.</i>
10:00-10:30	<b>Theodoros Katsaounis</b> (U. Crete) <i>A relaxation scheme for the numerical approximation of the Schrödinger-Poisson system.</i>
10:30-11:00	<b>Daniel Peterseim</b> (U. Augsburg) <i>Riemannian gradient flows for nonlinear eigenvector problems.</i>
<b>Coffee Break</b>	
	<b>Chair: Charalambos Makridakis</b>
11:30-12:00	<b>Lukas Einkemmer</b> (U. Innsbruck) <i>Some surprising stability results for exponential methods applied to hyperbolic problems.</i>
12:00-12:30	<b>Mats Larson</b> (Umea U.) <i>Space time analysis of cut finite element approximations of parabolic problems on moving domains.</i>
12:30-13:00	<b>Sébastien Imperiale</b> (INRIA) <i>Chebyshev polynomials for the time discretization of the wave equation: application to local time stepping.</i>
<b>Lunch Break</b>	
	<b>Chair: Stig Larsson</b>
14:30-15:00	<b>Georgios Akrivis</b> (U. Ioannina and IACM) <i>Discontinuous Galerkin time-stepping methods: Maximal regularity and a posteriori error estimates.</i>
15:00-15:30	<b>Panagiotis Chatzipantelidis</b> (U. Crete) <i>On positivity preservation of backward Euler method for stabilized chemotaxis systems.</i>