

10th CMAPT Workshop Computational Mathematics and Approximation Theory

03 – 07 July 2023, Sozopol, Bulgaria



organized by

Institute of Mathematics and Informatics,
Bulgarian Academy of Sciences, Bulgaria
Institute of Numerical Mathematics (NuMa),
Johannes Kepler University Linz, Austria,



and

Research Institute of Symbolic Computation (RISC),
Johannes Kepler University Linz, Austria

Schedule

Arrival day	July 2
Departure day	July 8
Excursion day	July 5
Lectures	July, 3, 4, 6, 7, The House of the Bulgarian Red Cross, Chernomorets str. 1



Program

Monday, July 3, 2023

14:00 – 14:15	Registration	
14:15 – 14:30	Opening	
14:30 – 15:15	Michael Mandlmayr	Normal cone computation with CAD (Cylindric Algebraic Decomposition)
15:15 – 16:00	Irina Georgieva	Computation of polynomial and rational approximations in complex domains

Tuesday, July 4, 2023

09:15 – 10:00	Geno Nikolov	Turan inequality for ultraspherical polynomials revisited
10:00 – 10:45	Stefan Takacs	Locking free Isogeometric Analysis of linearized elasticity using reduced quadrature?
10:45 – 11:15	Coffee break	
11:15 – 12:00	Ivan Gadjev	Extremal function and sequence for Hardy Inequalities in Hilbert Spaces
12:00 – 14:00	Lunch break	
14:00 – 17:00	Discussions in groups	
19:00	Official dinner	

Wednesday, July 5, 2023

09:30 – 16:00	Excursion	
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Thursday, July 6, 2023

09:15 – 10:00	Stefan Tyoler	Efficient computation of a spline basis for adaptive multi-patch discretizations
10:00 – 10:45	Rumen Uluchev	Asymptotically sharp estimates for the best constant in a weighted Hardy inequality
10:45 – 11:15	Coffee break	
11:15 – 12:00	Georgi Bazlyankov	Differential equation models of the different types of Multiple Sclerosis
12:00 – 14:00	Lunch break	
14:00 – 17:00	Discussions in groups	

Friday, July 7, 2023

09:15 – 10:00	Vladimira Suvandjieva	A model for Lions-Hyenas interactions
10:00 – 10:45	Bogdan Radu	A mixed FEM for the nonlinear magneto-static problem
10:45 – 11:15	Coffee break	
11:15 – 12:00	Anniversary talk	
12:00 – 14:00	Lunch break	
14:00 – 16:00	Discussions in groups	
16:00	Closing	