

# CSE Workshop 11.-13. March 2024

Groß Schwansee 2024

Time	Monday, 11.03.2024
10:30-10:40	<b>Welcome Address for the CSE Workshop 2024</b> Sabine Le Borne (Technische Universität Hamburg)
10:40-11:30	Invited lecture <b>Spence, E.</b> (University of Bath): <i>Non-uniform finite element meshes defined by ray dynamics for Helmholtz problems</i>
11:30-11:55	<b>von Hallern, C.</b> (Universität Hamburg): <i>An Exponential Stochastic Runge-Kutta Type Method of Order up to 1.5 for SPDEs of Nemytskii-type</i>
11:55-12:30	<b>Angel, J.</b> (Technische Universität Hamburg): <i>Bathymetry Reconstruction in a Water Channel</i>
12:30-13:30	<b>Lunch</b>
13:30-13:55	<b>Firdaus, K.</b> (Universität Hamburg): <i>A Locally Adaptive Numerical Model for Non-Hydrostatic Waves</i>
13:55-14:20	<b>Lampert, J.</b> (Universität Hamburg): <i>Structure-Preserving Numerical Methods for Nonlinear Dispersive Wave Equations</i>
14:20-14:55	<b>Fesefeldt, L.</b> (Technische Universität Hamburg): <i>Solving Nonlinear Finite Element Problems in Elasticity</i>
14:55-15:20	<b>Bartel, H.</b> (Universität Hamburg): <i>Structure-preserving numerical methods for Fokker-Planck equations</i>
15:20-16:00	<b>Coffee break</b>
16:00-16:25	<b>Schmidt, N.</b> (Christian-Albrechts-Universität zu Kiel): <i><math>p</math>-Stokes equations - solution strategies and parameter identification</i>
16:25-16:50	<b>Braack, M.</b> (Christian-Albrechts-Universität zu Kiel): <i>Solutions to nonlinear and nonmonotone operator equations in Banach spaces</i>
16:50-17:40	Invited lecture <b>Spence, E.</b> (University of Bath): <i>How to present</i>
18:00	<b>Dinner</b>
20:00-22:00	Evening programme: <b>Pub-Quiz Night</b> <i>Pferdestall</i>

Time	Tuesday, 12.03.2024
09:00-09:50	Invited lecture <b>Jäger, J.</b> (Katholische Universität Eichstätt-Ingolstadt): <i>Quasi-interpolation: Approximating without Interpolating</i>
09:50-10:15	<b>Entzian, J.</b> (Universität Hamburg): <i>Summation Kernels: Construction, Benefits and Limits</i>
10:15-10:40	<b>Wenzel, T.</b> (UHH): <i>On the optimality of greedy kernel algorithms: Kernel exchange algorithms</i>
10:40-11:15	<b>Coffee break</b>
11:15-11:40	<b>Ruprecht, D.</b> (Technische Universität Hamburg): <i>Parallel-in-time integration based on spectral deferred corrections</i>
11:40-12:05	<b>Grams, J.</b> (Technische Universität Hamburg): Coupled clustering strategies for hierarchical matrix preconditioners in saddle point problems
12:05-12:30	<b>Shamko, P.</b> (Helmut-Schmidt-Universität): <i>Space-time finite element geometric multigrid techniques applied to fully dynamic poroelasticity</i>
12:30-13:30	<b>Lunch</b>
13:30-15:30	Noon programme: <b>Walk on the Beach</b> <i>Baltic Sea</i>
15:30-16:00	<b>Coffee break</b>
16:00-16:25	<b>Wyschka, H.</b> (Universität Hamburg): <i>A Trust-Region Method for <math>p</math>-Harmonic Shape Optimization</i>
16:25-16:50	<b>Suchan, T.</b> (Helmut-Schmidt-Universität): <i>Optimization of piecewise-smooth shapes as optimization on a Riemannian product manifold</i>
16:50-17:15	<b>Andreev, D.</b> (Technische Universität Hamburg): <i>Adjoint-based Shape Optimization of a Ship Hull using Various Propeller Resolution Methods</i>
17:15	<b>Meeting CSE 2025 committee</b>
18:00	<b>Dinner</b>

<b>Time</b>	<b>Wednesday, 13.03.2024</b>
09:00-09:50	Invited lecture <b>Wieners, C.</b> (Karlsruher Institut für Technologie): <i>Space-time DG for the linear transport equation</i>
09:50-10:15	<b>Rozier, E.</b> (Universität Hamburg): <i>Remainder-Based Spatial Refinement Criteria of a Moving Mesh Discontinuous Galerkin Method for 2D Unsteady Convection-Diffusion Equation</i>
10:15-10:40	<b>Behrens, J.</b> (Universität Hamburg): <i>Development and Tests of a Discontinuous Galerkin Scheme for Meteotsunamis</i>
10:40-11:15	<b>Coffee break</b>
11:15-11:40	<b>Bleitner, F.</b> (Universität Hamburg): <i>Two-dimensional buoyancy driven flows with Navier-slip boundary conditions</i>
11:40-12:05	<b>Iske, A.</b> (Universität Hamburg): <i>On the Convergence of Multiscale Kernel Regression under Minimalistic Assumptions</i>
12:05-12:30	<b>Rademacher, J.</b> (Universität Hamburg): <i>Sharp interface dynamics in presence of large scale linear fields</i>
12:30-13:30	<b>Lunch</b>
13:30-13:55	<b>Schwarz, H.</b> (Technische Universität Hamburg): <i>Comparison of LSTM, Koopman-Operator and Transformer Approaches for Predicting Transient Ditching Loads</i>
13:55-14:20	<b>Margenberg, N.</b> (Helmut-Schmidt-Universität): <i>A Hybrid Neural Network/Finite Element Method with Applications to 3D Simulations of the Navier-Stokes Equations</i>
14:20	<b>Closing and coffee</b>