GAMM2025

Tuesday 8 April 2025

S07: Coupled problems: S07.01 - Room 8 (08:30 - 10:30)

-Conveners: Yousef Heider; Arnd Wagner

time	[id] title	presenter
08:30	[178] Steady vibration problems in the theory of Moore-Gibson-Thompson thermoelasticity for materials with voids	SVANADZE, Merab
08:50	[179] Modelling and simulation of experiments for fractured and fracturing porous media	WAGNER, Arndt
09:10	[180] Modelling of resuspension and sedimentation of solid particles in fractured and fracturing porous media using a TPM-phase-field approach with mass production terms	RIVAS, Yann
09:30	[181] Coupling phase-field fracture with non-isothermal fluid-structure interaction problems	VON WAHL, Henry
09:50	[182] A phase field model to describe the behavior of volcanic crystals	HADDENHORST, Hendrik Holger
10:10	[183] Modeling of hydrogen-embrittlement using a monolithically coupled, nonlocal Gurson-Tvergaard-Needleman damage model	PRÜGER, Stefan

S07: Coupled problems: S07.02 - Room 8 (16:30 - 18:30)

-Conveners: Yousef Heider; Arnd Wagner

time	[id] title	presenter
16:30	[184] Smoothed Particle Hydrodynamics as a Tool for Improving Deep-Hole Drilling	BAUMANN, Andreas
16:50	[185] An approach to model the influence of hydrodynamics on wet grinding	THUNICH, Paul
17:10	[186] Periodic self-propulsion of a swimmer	EDELMANN, Joris
17:30	[187] Seamless Simulation Across Regimes – Uniformly Stable DG Discretization for Coupled Stokes-Darcy Flow	KOWALSKI, Julia
17:50	[188] Coupled CFD-DEM numerical analysis of reactive flow in a porous zone	WARDACH-ŚWIĘCICKA, Izabela
18:10	[189] Space-Time Block-structured Meshing in Coupled Problems with Moving Domains	SCHWENTNER, Teresa

Wednesday 9 April 2025

S07: Coupled problems: S07.03 - Room 8 (08:30 - 10:10)

-Conveners: Stephan Wulfinghoff; Arnd Wagner

time	[id] title	presenter
08:30	[190] Identification of Ferroelectric Energy Harvesting Cycles: from Material Modeling to Process Optimization	WARKENTIN, Andreas
08:50	[191] Multiscale modeling of structured magnetorheological elastomers using physics-augmented neural networks	ROTH, Heinrich
09:10	[192] Numerical modeling of the thermo-mechanical and electrical behavior of a sensor-integrating jaw coupling	MENNING, Johannes D.M.
09:30	[193] Energy, Momentum and Entropy Consistent Integrators for Discrete Coupled Systems Using GENERIC	REIFF, Pit
09:50	[194] Space-Time Discretization of Nonlinear Coupled Thermo-Elastodynamical Problems in a Novel, Polyconvexity-Inspired, Mixed GENERIC Framework	HILLE, Moritz

S07: Coupled problems: S07.04 - Room 8 (16:30 - 18:30)

-Conveners: Abedulgader Baktheer; Detlef Kuhl

time	[id] title	presenter
16:30	[195] Anisotropic friction models of moving macromolecules in polymeric liquids	ZMITROWICZ, Alfred
16:50	[196] Modeling concepts for piezoceramics in ultrasonic motors	SUTTER, Felix
17:10	[197] Variational thermomechanically coupled SMA material model and optimization of SMA based out-of-plane bistable microactuator	SHAMIM, Muhammad Babar
17:30	[198] Multiphase-field simulation studies on Ni thin film dewetting	BECKER, Nils
17:50	[199] Simulating cycled loading of hydrogen on thin metallic structures	GISY, Johannes
18:10	[200] A laser beam welding process and its microstructural thermoelastoplastic analysis	HARTWIG, Philipp

Thursday 10 April 2025

S07: Coupled problems: S07.05 - Room 8 (08:30 - 10:30)

-Conveners: Fadi Aldakheel; Yousef Heider

time	[id] title	presenter
08:30	[201] Porous media approach for multi-physics modeling of Nafion membrane in water electrolysis	ALDAKHEEL, Fadi
09:10	[202] Multi-scale modeling of electro-chemo-mechanical interactions in battery electrode composites	JÄNICKE, Ralf
09:30	[203] A phase-field model for the anodic dissolution process during electrochemical machining	SCHMIDT, Annika
09:50	[204] A thermodynamically consistent phase field model for organic solar cell production	TRETMANS, Carmen
10:10	[205] Two scale FE-FFT based modeling of cancellous bone	BLASZCZYK, Mischa

S07: Coupled problems: S07.06 - Room 8 (14:00 - 16:00)

-Conveners: Andreas Ricoeur

time	[id] title	presenter
14:00	[206] Implementation of a thermomechanical model for journal bearings using p-FEM	SCHMIDTCHEN, Fabian
14:20	[207] Physics-based modeling of a counter-flow heat exchanger with application to control model development	KLEIN, Marten
14:40	[208] Thermal Analysis of Heat Sink with Different Channel Geometries	ITICHA, Weltej
15:00	[700] Plastic strain induced phenomena at temperatures close to absolute zero	SKOCZEŃ, Błażej