MS live discussion time (as of July 28th, 2022)

Attention!
If you cannot find the MS you are looking for in the list below, the live discussion will not be held, so you enjoy discussion only on the VOD site. Please note that most scientific communications are exchanged on the VOD site using the Q&A feature.

JST August 1 (Monday) AM (10:00-12:00)

MS ID	Title
0105	Computational Damage & Fracture Modeling in Multiphysics Framework
0403	Molecular and Cellular Biomechanics
0507	Multiscale Topology Optimization
0713	Advances and Applications of Meshfree and Particle Methods
0719	ADVANCES IN NUMERICAL METHODS FOR LINEAR AND NON-LINEAR DYNAMICS AND WAVE PROPAGATION
0731	Advances in Rigorous and Agile Coupling of Conventional and Data-Driven Models for Heterogeneous Multi-Scale, Multi-Physics Simulations
0903	Vehicle Scanning Method for Bridges
1102	Computational Nanomechanics and Nanoscale Thermal Transport
1205	Real World Modeling and Simulation for the realization of Human-centered Society 5.0
1406	Portable, Efficient Implementation of Finite Elements for Mechanics Applications
1608	Particle-based numerical modeling in Geotechnical engineering
1718	Machine Learning-Based Computational Methods in Engineering Mechanics

JST August 1 (Monday) PM (17:00-19:00)

MS ID	Title
0101	ADVANCED MATERIALS: COMPUTATIONAL ANALYSIS OF PROPERTIES AND PERFORMANCE
0113	Damage and Failure of Composite Materials and Structures
0121	Recent Advances in Computational Fracture Mechanics for Subsurface Applications
0204	Recent advances in immersed boundary and fictitious domain methods
0215	Locking, Stability and Robustness of Non-linear Finite Elements for Large Deformation Problems
0308	Computations in mechanics of metamaterials
0324	Multiscale and Multiphysics Modelling of the Structural and Mechanical Properties of Energy Storage Materials
0411	Computational mechanobiology of musculoskeletal tissues
0603	Modelling and simulation of coupled solvent transport and deformation

MS ID	Title
0709	Recent Advances in Meshfree and Particle Methods
0904	Shell and spatial structures
0912	Guided Wave-Based Structural Condition Assessment
0921	Advanced structural mechanics of smart and adaptive structures
1003	Modeling, Simulation and Optimization of Functional Materials and Advanced Manufacturing
1214	Advanced Modelling for Automotive Applications in CASE Era
1311	ADVANCED APPROACHES FOR OPTIMIZATION OF COMPOSITE STRUCTURES
1702	Machine Learning for Cardiac Modelling and Simulation

JST August 2 (Tuesday) AM (10:00-12:00)

MS ID	Title
0106	Crack propagation in multiphysics problems
0203	Advances in High-Order Methods for Computational Fluid Dynamics
0327	Multiscale Computational Approach and Informatics of Complex Structures and Advanced Materials
0407	Multiscale Modeling and Machine Learning in Biomechanics
0722	High-order numerical methods for compressible flow and turbulence
0737	Semi-analytical numerical methods and their applications in mechanics and engineering
1104	Deformation Analysis of Carbon Nanomaterial with Lattice Defects
1215	Image Processing, Discretization, and Simulation of As-Built Geometries
1305	New Trends in Topology Optimization
1503	Recent Advances in Numerical Methods for Multi-Material Shock Hydrodynamics
1602	Computational Geomechanics
1610	Numerical methods in geomechanics
1802	Computer Vision on Structural Experiments, Inspection, and Monitoring
2102	COMPUTATIONAL METHODS FOR ENVIRONMENTAL ENGINEERING

JST August 2 (Tuesday) PM (17:00-19:00)

MS ID	Title
0119	Ductile-Fracture Modeling and Simulation
0207	Special Methods in Computational Fluid Mechanics
0213	Advances and Applications of Collocation Methods: Meshfree, IGA, Machine Learning for PDEs
0301	Mathematical and Mechanical Aspects of Mixed-Dimensional Coupling Problems
0313	Novel Modeling Strategies for Mechatronic Systems
0323	Multiscale modelling of packing and flow of granular materials

MS ID	Title
0329	Multi-scale modelling of generalised continua and metamaterials
0414	Exploring brain mechanics
0604	Granular Flows: Modelling and Computational Challenges
0605	Complex Fluid Flows in Engineering: Modeling, Simulation and Optimization
0727	Multi-level iterative solvers for finite element systems
0728	Efficiency and reliability in biomedical modeling: computational and mathematical advances
0910	Adaptive Engineering Structures
0923	Modeling of Damping
1005	Shape Optimization for Large-scale Problems
1204	Combined finite-discrete element methods for multi-body dynamics and fracture mechanics
1220	HPC application on turbulent wind over urban model represented by individual shape of buildings
1301	Computational structural design for architecture and civil engineering
1403	Advanced HPC Methods for Eigenvalue Problems and Beyond
2405	Benchmark technologies and cases for computational acoustics

JST August 3 (Wednesday) AM (10:00-12:00)

MS ID	Title
0107	Peridynamic Theory and Multiscale Methods for Complex Material Behavior
0210	Mesh-free particle methods for multi-physics problems
0412	modeling and simulation of biological cells
0721	RECENT ADVANCES ON POLYTOPAL METHODS
0738	Nonlinearly Stable High-Order Methods for Partial Differential Equations.
0916	Data-Driven Computational Methods and Model Order Reduction for Structures, Structural Dynamics, and Aeroelasticity
1107	Modeling Mechanics of Materials with Voids
1213	Modeling&Simulation of Terrestrial Flows (Terrestrial (Geosphere) hydrologic/hydraulic flow modeling&simulation)
1302	Model Learning and Optimization for Nonlocal and Fractional Equations
1704	Deep learning in computational materials science and engineering
2206	Advanced seismic response analysis and design

JST August 3 (Wednesday) PM (17:00-19:00)

MS ID	Title
0108	Recent advances in computational modeling of damage and fracture
0123	Computational Fracture Modeling in Heterogeneous Materials – Recent Advances and Future Challenges
0209	Current Trends and Advances in Coupled Simulations and Enriched Finite Element Methods

0303	Computational interface mechanics in coupled problems
0306	MULTISCALE COMPUTATIONAL HOMOGENIZATION FOR BRIDGING SCALES IN THE MECHANICS AND PHYSICS OF COMPLEX MATERIALS
0314	3D modeling of building materials: geometric and constitutive issues
0406	Female pelvic floor biomechanics
0508	Lessons from nature: design of bioinspired architected materials
0609	MODELLING OF ATOMIZATION, BREAKUP AND FRAGMENTATION OF FLUIDS
0717	Modeling and Simulation of Polymer Fluids
0732	COMPUTATIONAL MODELLING AND EXPERIMENTAL IMAGING OF GRANULAR AND MULTIPHASE SYSTEMS: TOWARD IMPROVED VALIDATION AND SYNERGISTIC APPLICATION
0744	Multilevel Discretization of Mixed Variational Formulations
0808	Numerical methods for verification, validation and uncertainty quantification in manufacturing, civil engineering, advanced materials and biomechanics
0918	Dynamic performance of ceramic composites and composite structures
0927	RECENT ADVANCES IN RAILWAY DYNAMICS NUMERICAL MODELLING
1007	Modeling and Simulation Approaches of Metal Additive Manufacturing on Part Scale
1216	Solid Mechanics of Elastomers
1218	Industrial Perspectives on Isogeometric Analysis and Design with Advanced Spline Techniques
1405	HPC-BASED SIMULATIONS AND DATA SCIENCE FOR THE WIDE INDUSTRIAL REALM: AEROSPACE, AUTOMOTIVE, BIOMEDICAL, CONSTRUCTION, HEAVY…
1603	Computational Methods for Snow Mechanics and Engineering
1713	Deep and Machine Learning Methodology in the Context of Application to Computational Mechanics
1715	Intelligent design optimization of structural and mechanical systems
2401	Recent advances on numerical methods and parallel solvers for the cardiac function

JST August 4 (Thursday) AM (10:00-12:00)

MS ID	Title
0117	Advancement of computational fracture mechanics applications
0328	Fundamental numerical methods towards accurate, efficient and practical simulations in industrial, environmental and biological applications
0413	ADVANCES IN COMPUTATIONAL BIOMECHANICS AND MECHANIOBIOLOGY
0601	INTERFACIAL FLOW SIMULATION
0725	Towards Next-Generation Aircraft Design with High-Fidelity Simulation Technologies
0745	Waves: Advanced Numerical Methods and Applications
1203	Nonlocal models in computational mechanics: perspectives, challenges, and applications
1401	PSE (Problem Solving Enviornment)
1710	Numerical Simulations and Machine Learning for Micro-Meteorology Predictions and Applications
2205	Microstructural characterization and property evaluation of materials for structural safety

JST August 4 (Thursday) PM (17:00-19:00)

MS ID	Title
0110	CURRENT TRENDS IN PHASE-FIELD MODELING AND COMPUTATION OF FRACTURE & FATIGUE
0114	Computational Modelling of Self-healing Composite Materials and Structures
0201	ADVANCES IN THE SCALED BOUNDARY FINITE ELEMENT METHOD AND OTHER SEMI-ANALYTICAL & NUMERICAL TECHNIQUES
0211	Isogeometric Spline Techniques on Complex Geometries
0304	Multi-scale and machine learning-based modeling methods for optimization and design of composites
0321	Computational Multiscale Method of Solids and Structures
0405	Computational Biomechanics and Biomimetics of Flapping Flight
0502	COMPUTATIONAL MECHANICS OF SOFT MATTER
0701	Numerical techniques for the simulation and model reduction of complex physical systems
0704	Stabilized, Multiscale and Multiphysics Methods
0724	Non-Newtonian fluid flows: Numerical schemes and computational simulations
0734	Discretization methods and software tools for the simulation of complex fractured media in computational geophysics
0908	NON-MATERIAL MODELLING OF AXIALLY MOVING CONTINUA: ARBITRARY LAGRANGIAN-EULERIAN DESCRIPTION IN STRUCTURAL MECHANICS
0920	Statics and Dynamics of Composite Structures and Metamaterials
0929	Nonlinear computational structural dynamics in rotating turbomachinery
1208	Industrial Application of Particle Methods
1309	Recent progress in topology optimization and its applications
1609	Advanced computational modelling of wood, wood-based products, and timber structures
1611	Computational Granular Mechanics
2203	Hyper-complex disaster simulation

JST August 5 (Friday) AM (10:00-12:00)

MS ID	Title
0302	Quasistatic Electromechanics: Methods and Applications
0423	Multiscale biofluid mechanics: from cells to organs
0714	Meshfree and Other Advanced Numerical Methods for Engineering and Applied Mathematical Problems
0729	Advances in High-Order Methods for Computational Fluid Dynamics
0747	Accurate and Efficient Solution Remapping Strategies for Coupled Multiphysics Systems
1404	Progress and Challenges in Extreme Scale Computing and Data
1712	Machine Learning and Computational Modeling for Mechanical Behavior of Materials
2204	Simulation-based Disaster Prediction and Mitigation
2404	Reliability of Robots

Other Time Windows

MS ID	Title, time and date
1001	Modeling and Simulation for Additive Manufacturing, 20:00 - 26:00, Aug 1 (JST)
0503	Computational Design of Architected Materials, 23:00 - 24:00, Aug 3 (JST)
1711	Learning models for reliable predictions and decision making: methods and applications, 20:00 - 22:00, Aug 4 (JST)
0716	Model order reduction for for parametrized continuum mechanics, 0:00 - 2:00, Aug 5 (JST)
1703	Incorporating fundamental principles in innovative machine learning models of physics, 0:00 - 2:00, Aug 5 (JST)