IWPDF 2021 Live Session Schedule

Time (GMT+3) Istanbul, Turkey	Wednesday, August 18
10:55-11:00	**Opening Remarks**
11:00-11:40	**Keynote Lecture: Prof. Dierk Raabe** Multiscale and multi-physics simulations of chemo-mechanical crystal plasticity and phase transformation problems for complex materials using DAMASK
11:40-12:20	**Keynote Lecture: Prof. Javier Segurado Escudero** Modeling size effects in metals using FFT homogenization
12:20-12:30	**Break**
12:30-12:55	**Lorenzo Bardella, University of Brescia, Italy** Distortion gradient plasticity modelling of the small-scale behaviour of polycrystalline metals under non-proportional loading
12:55-13:15	**Stefan Prüger, Technische Universität Bergakademie Freiberg, Germany** Application of a robust, rate-independent crystal plasticity formulation to oligo-crystalline TRIP-/TWIP-steel modeling
13:15-13:35	**Lei Liu, Eindhoven University of Technology, The Netherlands** A multi-scale framework towards prediction of the martensite/ferrite interface damage initiation
13:35-13:55	**Evgeniya Emelianova, National Research Tomsk State University, Russia** Numerical study of the texture effect on deformation-induced surface roughening in α-titanium
13:55-14:15	**Vahid Rezazadeh, Eindhoven University of Technology, The Netherlands** On the deformation behavior of lath martensite in advanced high strength steels
14:15-15:00	**Lunch Break**
15:00-15:40	**Keynote Lecture: Prof. Erdogan Madenci** Recent progress in Peridynamic Theory
15:40-16:00	**Erkan Oterkus, University of Strathclyde, UK** Comparison of peridynamics and lattice dynamics wave dispersion relationships
16:00-16:20	**Selda Oterkus, University of Strathclyde, UK** Peridynamic surface elasticity formulation based on modified core-shell model
16:20-16:40	**Aleksandar Sedmak, University of Belgrade, Serbia** Structural integrity assessment of pressure vessels with defects in welded joints
16:40-16:50	**Break**
16:50-17:10	**Sandra Baltic, Materials Center Leoben Forschung GmbH, Leoben, Austria** Damage and fracture in aluminum structures
17:10-17:30	**Shabnam Konica, Michigan Technological University, USA** A viscoelastic anisotropic phase-field fracture model to predict fatigue fracture in the polymer matrix composites
17:30-17:50	**Oleksandr Menshykov, University of Aberdeen, UK** Impact loading of interface cracks: effects of cracks' closure and friction
17:50-18:10	**Martin Ferreira Fernandes, Sao Paulo State University, Brazil** Investigation of the damage and fracture of Ti-6Al-4V titanium alloy under dwell-fatigue loadings
18:10-18:30	**Jarmil Vlach, VZLU a. s., Czech Aerospace Research Centre, Czechia** Impacted area description effect on strength of laminate determined by calculation

Time (GMT+3) Istanbul, Turkey	Thursday, August 19
10:55-11:00	**Opening Remarks**
11:00-11:40	**Keynote Lecture: Prof. Odd Sture Hopperstad** Plastic flow and fracture in anisotropic aluminium alloys: Experiments, modelling and simulation
11:40-12:20	**Keynote Lecture: Prof. Emilio Martínez Pañeda** Phase field modelling of corrosion damage and hydrogen embrittlement
12:20-12:30	**Break**
12:30-12:50	**Can Erdogan, Middle East Technical University, Turkey** Numerical analysis and extension of a porous plasticity model for ductile failure
12:50-13:10	**Sahin Celik, TOBB University of Economics and Technology, Turkey** The role of nucleation conditions for damage under mode-I tearing of ductile plate metals
13:10-13:30	**Omar El Khatib, Technische Universität Bergakademie Freiberg, Germany** Investigation of the constraint effects on the ductile fracture resistance using a non-local GTN-model
13:30-13:50	**Berkay Kochan, TOBB University of Economics and Technology, Turkey** Voided unit cell simulations with constant stress ratios
13:50-14:10	**Artyom Chirkov, National Research Tomsk State University, Russia** Kinetic regularities of the stages of yield plateau and linear strengthening during tension of steel samples: Numerical simulation
14:10-15:00	**Lunch Break**
15:00-15:20	**Nils Lange, Technische Universität Bergakademie Freiberg, Germany** Efficient monolithic FE^2-simulation of the creep and ductile deformation behavior of cellular materials
15:20-15:40	**Ekaterina Dymnich, Siberian Branch of Russian Academy of Sciences, Russia** Micromechanical analysis for the deformation behavior of additive aluminum alloys
15:40-16:00	**Joachim Koelblin, School of Engineering, University of Aberdeen, UK** Deformation of AlSi10Mg parts manufactured by Laser Powder Bed Fusion: In-situ measurements incorporating X-ray micro computed tomography and a micro testing stage
16:00-16:20	**Konrad Perzynski, AGH University of Science and Technology, Poland** Prediction of local inhomogeneities in the TiN thin films deposited on the aluminum substrate based on the combination of nanoindentation and numerical modeling.
16:20-16:40	**Lintao Zhang, Swansea University, UK** Influence of aspect ratio (AR) on the necking angle of tensile specimens for different alloys
16:40-16:50	**Break**
16:50-17:30	**Keynote Lecture: Prof. Huseyin Sehitoglu** Exploring the Fundamental Issues in Modeling of Twinning in Materials
17:30-17:50	**Junhe Lian, Aalto University, Finland** Characterizing and modeling the rate dependency of plastic deformation from single crystal to multiphase steels
17:50-18:10	**Yuri Kadin, SKF, The Netherlands** Modeling of plasticity and retained austenite decomposition in bearing steel under cyclic compression
18:10-18:30	**David Unger, University of Evansville, USA** Yield criteria representable by elliptic curves and Weierstrass form

Time (GMT+3) Istanbul, Turkey	Friday, August 20
10:55-11:00	**Opening Remarks**
11:00-11:40	**Keynote Lecture: Prof. Timon Rabczuk** Machine learning based solutions of PDEs
11:40-12:20	**Keynote Lecture: Prof. Laura De Lorenzis** Two new contributions to phase-field modeling of brittle fracture
12:20-12:30	**Break**
12:30-12:50	**Mehmet Dorduncu, Erciyes University, Turkey** A novel ordinary state based peridynamic truss element with uniform/nonuniform discretization
12:50-13:10	**Jiayu Sun, Tohoku University, Japan** Epoxy fracture behavior in the metalized CFRP by cold spray
13:10-13:30	**Jae Min Sim, Kyung Hee University, Republic of Korea** Evaluation of aging related degradation mechanisms due to neutron irradiation on reactor vessel internals
13:30-13:50	**Kenan Cinar, Tekirdag Namik Kemal University, Turkey** Investigation of failure initiation in syntactic foam core L-shaped sandwich structures
13:50-14:10	**Kadir Gunaydin, General Electric Aviation, Turkey** Failure analysis of auxetic lattice structures under crush load
14:10-15:00	**Lunch Break**
15:00-15:20	**Linar Akhmetshin, Tomsk State University, Russia** Influence of the unit cell connecting in the metamaterial on its deformation properties
15:20-15:40	**Kadir Bilisik, Erciyes University, Turkey** In-plane shear and interlaminar fracture toughness properties of MWCNTstitched para-aramid/phenolic nanocomposites
15:40-16:00	**Aleksandr Zemlianov, Tomsk State University, Russia** The influence of bi-layer metal-matrix composite coating on the strength of the coated material
16:00-16:20	**Yonca Yasayanlar, Izmir Institute of Technology, Turkey** Modeling of hybrid fiber reinforced concrete members under static and dynamic conditions
16:20-16:30	**Closure**