

MONDAY, 25 June

9:30-10:30	Registration and coffee
10:30-11:15	Welcome
11:15-11:30	Break
Session M1 11:30-13:00	G. Olson 45 min I. Beyerlein 45 min
13:00-14:15	Lunch
Session M2 14:15-16:00	B. Curtin 45 min Contributed 15 min Contributed 15 min Contributed 15 min Contributed 15 min
16:00-16:30	Coffee Break
Session M3 16:30-18:15	C. Volkert 45 min Contributed 15 min Contributed 15 min Contributed 15 min Contributed 15 min
18:15-20:00	Poster Session with champagne- and stand-up reception

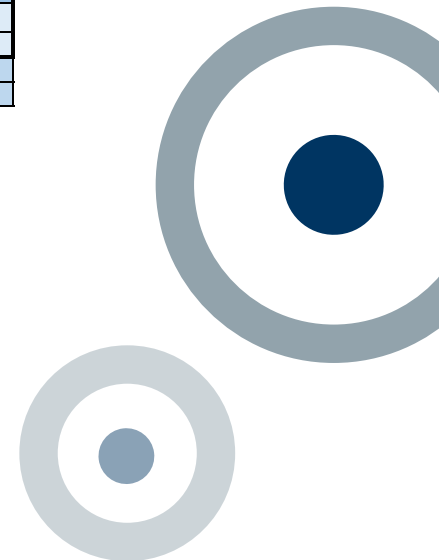
TUESDAY, 26 June

Session T1 9:00-10:45	D. Kochmann 45 min Contributed 15 min Contributed 15 min Contributed 15 min Contributed 15 min
10:45-11:15	Coffee Break
Session T2 11:15-13:00	A. Dlouhy 45 min Contributed 15 min Contributed 15 min Contributed 15 min Contributed 15 min
13:00-14:15	Lunch
Session T3 14:15-15:30	J. Llorca 45 min Contributed 15 min Contributed 15 min
15:30-15:45	Break
Session T4 15:45-16:45	Contributed 15 min Contributed 15 min Contributed 15 min
16:45-17:15	Coffee Break
17:15-18:45	Panel Discussion
18:45-21:00	BBQ

WEDNESDAY, 27 June

Session W1 9:00-10:45	L. Chen 45 min Contributed 15 min Contributed 15 min Contributed 15 min Contributed 15 min
10:45-11:15	Coffee Break
Session W2 11:15-13:00	M. Asta 45 min Contributed 15 min Contributed 15 min Contributed 15 min Contributed 15 min
13:00-14:15	Lunch
Session W3 14:15-15:30	E. Rabkin 45 min Contributed 15 min Contributed 15 min
15:30	Concluding Remarks Departure

10 Invited 45 min
32 Contributed 15 min



Session M1: 11:30 a.m. - 01:00 p.m. (Chair: A. Hartmaier)

Greg Olson	Genomic materials design: From CALPHAD to flight
Irene Beyerlein	Twin formation, propagation, and intersections at the mesoscale

Session M2: 02:15 - 04:00 p.m. (Chair: R. Drautz)

Bill Curtin	Theory of strengthening in BCC high entropy alloys
Matous Mrovec	Atomistic studies of dislocations in iron using magnetic bond order potential
Volker Mohles	Mesosopic simulations of grain boundary motion: influences on the Zener drag
Dennis Rapp	Comparison of the interaction behaviour of edge and screw dislocations with respect to precipitate interfaces
Klaus Hackl	A relaxation-based approach to damage modeling

Session M3: 04:30 - 06:15 p.m. (Chair: I. Steinbach)

Cynthia Volkert	Insights into dislocation nucleation obtained from in-situ TEM studies and MD simulations of deformation of single crystal and twinned Au nanowires
Alfred Ludwig	Combinatorial and high-throughput methods for materials discovery
Tilmann Hickel	High-throughput optimization of the phase stability of complex alloys
Irina Roslyakova	Third generation CALPHAD databases by automated statistical regression analysis
Godehard Sutmann	Advances in stochastic optimization applied to interstitial segregation

Invited talk:	35 + 10 min.
Contributed talk:	12 + 3 min

Session T1: 09:00 - 10:45 a.m. (Chair: R. Janisch)

Dennis Kochmann	Bridging across scales from atomistics to the macroscale: 20 years of quasicontinua
Franz Roters	DAMASK: the Düsseldorf Advanced MAterial Simulation Kit for studying multi-physics crystal plasticity phenomena
Yong Du	CVD hard coating Ti(C,N): through-process modeling and its experimental verification
Edern Menou	Alloy design using CALPHAD and data-mining: application to nickel-based single-crystal superalloys
Alexander Müller	A fast model for the optimal composition sensitivity based on regression analysis of superalloy properties calculated with CALPHAD approach.

Session T2: 11:15 a.m. - 01:00 p.m. (Chair: T. Hammerschmidt)

Antonin Dlouhy	Understanding creep in engineering materials through 2D and 3D discrete dislocation models
Gunther Eggeler	20 years of shape memory research in Bochum: Topics, breakthroughs and challenges
Siwen Gao	A phenomenological creep model for nickel-base single crystal superalloys at intermediate temperatures
Johannes Görler	The role of microstructure in Ni-base superalloy creep
Patrick Fopp	The effect of the hypercooling limit on the crystal growth velocity

Session T3: 02:15 - 03:30 p.m. (Chair: G. Sutmann)

Javier Llorca	Precipitation in Al-Cu alloys: a multiscale analysis based on first principles simulations
Hamad ul Hassan	Numerical modeling of the influence of process conditions on hydrogen transport at microstructural level
Napat Vajragupta	Addressing the indentation size effect (ISE) in cono-spherical nanoindentation test using a nonlocal crystal plasticity model

Session T4: 03:45 - 04:45 p.m. (Chair: Hamad ul-Hassan)

Philipp Junker	Thermodynamic principles for topology optimization
Junhe Lian	Microstructure modelling guided design of high-strength and damage-tolerance steels
Mustafa Mamduh Mustafa Awd	Additive manufacturing of lightweight metals – the process-property relationship
Fathollah Varnik	Blessing and curse of amorphous solids: State of the art and perspectives

Invited talk:	35 + 10 min.
Contributed talk:	12 + 3 min

Session W1: 09:00 - 10:45 a.m. (Chair: Fathollah Varnik)

Long-Quing Chen	A few recent developments in phase-field method of materials microstructures and properties
Oleg Shchyglo	10 Years OpenPhase
Reza Darvishi Kamachali	Phase-field simulation and mean-field study of grain growth
Julia Kundin	Phase-field modelling of pores in ceramic materials
Florian Kargl	Equiaxed dendrite growth in non-refined Al-base alloys in real-time

Session W2: 11:15 a.m. - 01:00 p.m. (Chair: Matous Mrovec)

Mark Asta	Insights into deformation mechanisms from atomistic simulations: The case of oxygen in titanium
Jutta Rogal	Extended timescale simulations of atomistic processes during phase transformations in materials
Anna Grünebohm	Optimizing the electrocaloric effect by ab initio based simulations
Thomas Hammerschmidt	Atomistic modelling of the structure and functional properties of technological materials
Rebecca Janisch	Fracture ab initio: Scalable traction-separation laws for single crystals and grain boundaries

Session W3: 02:15 - 03:30 p.m. (Chair: A. Hartmaier)

Eugen Rabkin	Thermomechanical processing of metals at the nanoscale
Sebastian Münstermann	Modelling the influence of inclusions on the fatigue lifetime of steels
Eckehard Müller	Stress rolling - a method inducing great amounts of compressive residual stresses

Invited talk:	35 + 10 min.
Contributed talk:	12 + 3 min