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TECHNISCHE UNIVERSITÄT
BERGAKADEMIE FREIBERG
The University of Resources. Since 1765.



Autumn Retreat in Holzgau

from 28th to 30th September 2020



Institute of Mechanics
and Fluid Dynamics

Applied Mechanics
Solid Mechanics

Prof. Dipl.-Ing. Björn Kiefer, Ph.D.
Prof. Dr. rer. nat. habil. Meinhard Kuna

Monday, 28th September 2020		Tuesday, 29th September 2020		Wednesday, 30th September 2020	
08:30	Arrival / Registration	07:30	Breakfast	07:30	Breakfast
09:10	Opening <u>Session 1</u> (chair: Prof. Kiefer)		<u>Session 3</u> (chair: Prof. M. Kuna)		<u>Session 5</u> (chair: M. Abendroth)
09:15	Prof. Björn Kiefer, Ph.D.: Current developments in research and teaching	08:30	M. Sc. Rahul Ganesh: TMF-Crack propagation calculations for turbocharger-hot-parts	08:30	Dr.-Ing. Stephan Roth: Implementation of a multi-phase, multi-component chemo-mechanical phase-field model
10:15	Coffee Break	09:30	M. Sc. Jeffy Sabu Abraham: A cohesive zone model for thermo-mechanical fatigue	09:30	M. Sc. Andreas Seupel: On chemical reactions within the continuum approach to chemo-mechanical modeling
10:30	M. Sc. Omar El'Khatib: Thermal effects on the fracture mechanics of ferroelectric ceramics	10:30	Coffee Break		
11:30	Dr.-Ing. Sergey Kozinov: Modeling of fracture behavior of polycrystalline ferroelectric ceramics using the macromechanical Landis model	10:45	M. Sc. Kai Simbruner: Brittle failure of zircalloy claddings	10:30	Coffee Break
12:30	Lunch	11:45	Dr.-Ing. Andreas Burgold: On parameter identification for a cyclic plasticity model including phase transformation	10:45	Dr.-Ing. Stefan Prüger: Enforcement of inequality constraints in constitutive modeling — application to a single crystal SMA model
	time for individual discussions and leisure activities (Hiking, Climbing, Bicycling...)	12:45	Lunch	11:45	M. Sc. Vincent von Oertzen: Parameter variation Python-interface with application to phasefield-modeling of TRIP-composites
			time for individual discussions and leisure activities (Hiking, Climbing, Bicycling...)	12:45	Lunch
	<u>Session 2</u> (chair: G. Hütter)			13:45	Closing
16:15	Coffee Break	16:45	Coffee Break	14:00	Departure
16:30	Dipl.-Ing. Nils Lange: Implementation of a monolithic FE ² -program		<u>Session 4</u> (chair: S. Roth)		
17:30	Dipl.-Ing. Alexander Malik: Orthotropic material model of ceramic foam structures with neural networks	17:00	Dr.-Ing. Martin Abendroth: Investigations on iron-based shape memory alloys using the Small Punch Test		
18:30	M. Sc. Shahin Takht Firouzeh: Determination of elastic material properties using the BD Test	18:00	Dr.-Ing. Jarno Hein: Investigations on steel and shape memory alloys for bolted timber connections		
19:30	Dinner	19:00	Dinner		