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FRASCAL SYMPOSIUM

November 21st 2024



Wassersaal | Orangerie
Erlangen
www.frascal.fau.eu

PROGRAM



ANDREW MCBRIDE
Computational Mechanics
University of Glasgow



DIRK ZAHN
Theoretical Chemistry
FAU



JULIEN YVONNET
Multiscale Modeling and Simulation Group
Université Gustave Eiffel



MICHAEL ZAISER
Materials Simulation
FAU



DOROTHEE KNEES
Analysis of Differential Equations
Universität Kassel



SUKHMINDER SINGH
Solid Mechanics
Technical University of Denmark

09:00-09:10

PAUL STEINMANN

MICHAEL STINGL Welcome

09:10-09:55

ANDREW MCBRIDE Continuum-kinematics-inspired peridynamics

09:55-10:15

COFFEE BREAK 

10:15-11:00

SUKHMINDER SINGH Optimizing fracture toughness of two-dimensional periodic microstructures

11:00-11:45

JULIEN YVONNET Multiscale modelling of quasi-brittle fracture: machine learning strategies

11:45-13:00

LUNCH BREAK 

13:00-13:45

MICHAEL ZAISER Fracture mechanical aspects of battery failure

13:45-14:30

DOROTHEE KNEES Phase-field damage models as rate-independent processes

14:30-14:45

COFFEE BREAK 

14:45-15:30

DIRK ZAHN Understanding polymer fracture: from theoretical Chemistry to materials properties

15:30-15:40

PAUL STEINMANN

MICHAEL STINGL Closing