



Friedrich-Alexander-Universität
Competence Center
Scientific Computing | CSC

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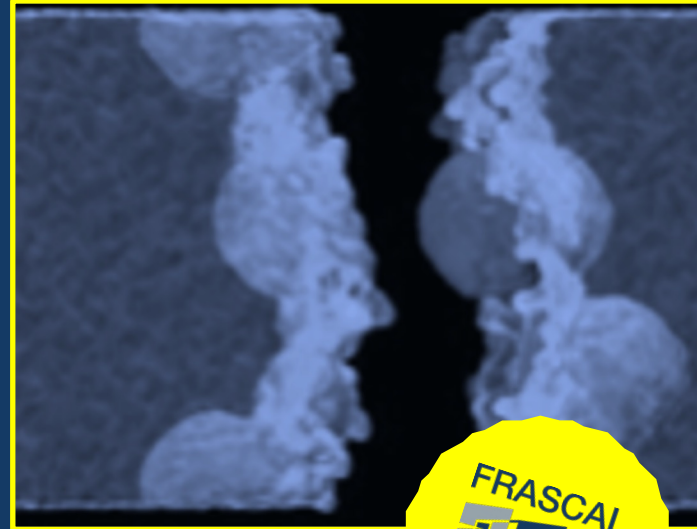
ADMINISTRATION

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11th FRASCAL SEMINAR

June 27th 2025



LTM Seminar Room
Egerlandstraße 5 | 91058 Erlangen
www.frascal.fau.eu



PROGRAM

09:00 – 09:10 **Welcome & Introduction**

Michael Stingl

09:10 – 09:40 **Prateek (P9)**

Variational integrators with spatio-temporal adaptivity for dynamic fracture modelling using Peridynamics

09:45 – 10:15 **Deepak Jadhav (P9)**

Simulating dynamic phase field fracture using a spatio-temporally adaptive asynchronous variational integrator

10:20 – 10:50 **Pascal Puhlmann (P3)**

MD-Simulation of Polysiloxanes

10:50 – 11:05



Break

11:05 – 11:35 **Yuxin Luo (P5)**

Preliminary construction of a phase field model for dendrite cracking in lithium metal solid-state batteries

11:40 – 12:10 **Felix Weber (P6)**

Fracture modeling of amorphous materials: from molecular to continuum-based approaches

12:15 – 12:45

Eva Richter (P6)

Molecular dynamics simulations of thermoplastics: reaching up to the microscale

12:45 – 13:45



Break

13:45 – 14:15

Lukas Laubert (aP6)

Advances in continuum-to-discrete modeling and benchmarking the results

14:20 – 14:50

Leon Pyka (P7)

Design and modeling of graded structures in composite materials

14:55 – 15:25

Maurice Rohracker (P8)

Efficient phase-field fracture simulations and failure zone averaging in heterogeneous materials

15:30 – 16:00

Ba Duc Duong (P14)

Eigenfracture approximation for a Griffith-type energy

16:00 – 16:10

Closing

Paul Steinmann