

CONTACT

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Announcement:

March 12 and 13, 2020

2nd Visitors Workshop, Schloss Atzelsberg
Online registration:



[www.frascal.research.fau.eu/
events-2/events/2nd-visitors-
workshop/](http://www.frascal.research.fau.eu/events-2/events/2nd-visitors-workshop/)

Research Training Group
GRK 2423

Fracture across Scales

3rd RTG SEMINAR

Thursday, February 20, 2020

Seminar Room 00.044, LTM
Egerlandstraße 5, 91058 Erlangen



FRASCAL

GRK 2423

PROGRAMME

09:15 - 09:30 WELCOME & INTRODUCTION

Prof. Paul Steinmann (spokesperson)

09:30 - 09:50 Paras Kumar (P8)

Modelling Size Effect in Polymer Nano-Composites

09:50 - 10:10 Dhananjay Phansalkar (P9)

On the Demanding Relation Between ϵ and h in a Numerical Phase-Field Model

10:10 - 10:30 Elmira Birang (P10)

Uncertainty of Energy Release Calculation in Molecular Mechanics; Can Configurational Forces Resolve It?

10:30 - 10:50 COFFEE BREAK

10:50 - 11:10 Nosaibeh Esfandiary (P7)

Detachment Properties of Hierarchical Materials

11:10 - 11:30 Samaneh Esfandiary (P7)

Robustness and Failure of Brain Activity Patterns

11:30 - 11:50 Wuyang Zhao (P6)

A Viscoelastic-Viscoplastic Constitutive Model for Polymers Based on Molecular Dynamics Simulations under Uniaxial Deformation

PROGRAMME

11:50 - 13:00 JOINT LUNCH

13:00 - 13:20 Maximilian Ries (P6)

Deriving Interphase Properties of Polymer Nanocomposites by Coupled FE-MD Simulations

13:20 - 13:40 Christof Bauer (P6)

Investigating the Relation of Particle Movements and the Continuum Displacement Field of Thermoplastics

13:40 - 14:00 Ahmad Hosseini (P5)

A Beam Network Model for Strength Optimization of Fibrous Materials

14:00 - 14:20 COFFEE BREAK

14:20 - 14:40 Jonas Ritter (P5)

Designing a Confined Uniaxial Compression Test for Porous Materials within a Peridynamic Framework

14:40 - 15:00 Ali Mauricio Velasco Sabogal (P4)

Dynamics and Fractures of Real-Shaped DEM grains