LOCATION

Wassersaal (Orangerie)
Schlossgarten 1, 91054 Erlangen

CONTACT

If you would like to attend the 2nd FRASCAL Symposium, please register here by 5 March 2023:
www.frascal.research.fau.eu/?p=4005

Spokesperson of GRK 2423 FRASCAL

Prof. Dr.-Ing. Paul Steinmann
Institute of Applied Mechanics
Dep. of Mechanical Engineering
Egerlandstraße 5, 91058 Erlangen
Phone: +49 9131 85 28502
Fax: +49 9131 85 28503
paul.steinmann@fau.de

Coordination of GRK 2423 FRASCAL

Dr. Andrea Dakkouri-Baldauf /
Ann-Sophie Herzner
Competence Unit for Scientific Computing (CSC)
Martensstraße 5a, 91058 Erlangen
Phone: +49 9131 85 20782
Fax: +49 9131 85 20785
andrea.dakkouri@fau.de /
ann-sophie.herzner@fau.de

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Competence Unit for
Scientific Computing | CSC

Research Training Group
GRK 2423

Fracture across Scales

2nd FRASCAL Symposium

Wednesday, 15 March 2023

Wassersaal (Orangerie)
Erlangen

FRASCAL
GRK 2423

www.frascal.fau.eu

INVITED LECTURERS

Laura De Lorenzis
ETH Zurich, Switzerland

Variational Phase-Field Modelling

Manuel Friedrich
FAU Erlangen-Nürnberg, Germany

Applied Analysis, Calculus of Variations

Christian Wick
FAU Erlangen-Nürnberg, Germany

Molecular Modelling

Paolo Moretti
FAU Erlangen-Nürnberg, Germany

Complex Microstructures

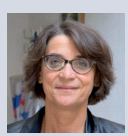
Erik Bitzek
MPIE Düsseldorf, Germany

Atomistics of Crack-Heterogeneity Interactions

Daniel Koehn
FAU Erlangen-Nürnberg, Germany

Structural Geology and Tectonics

Anna Pandolfi
Politecnico di Milano, Italy



Computational Mechanics

Within the framework of this symposium, the principal advisors of the GRK 2423 FRASCAL projects and the prospective future Mercator fellows will contribute their own insights into the fracture problem from a higher-level perspective in seven presentations, providing a basis for stimulating discussions and interactions for the participating colleagues and young researchers.

PROGRAMME

9:15 – 9:20 WELCOME and INTRODUCTION
Paul Steinmann

9:20 – 10:05 Laura De Lorenzis
Recent advances in phase-field modeling of fracture

10:05 – 10:20 COFFEE BREAK

10:20 – 11:05 Manuel Friedrich
Variational approach to brittle fracture

11:05 – 11:50 Christian Wick
Modelling mechanochemical reactivity: from molecules to complex polymer networks

11:50 – 13:00 LUNCH BREAK

13:00 – 13:45 Paolo Moretti
Tuning fracture properties of hierarchical materials and structures

13:45 – 14:30 Erik Bitzek
Challenges to multiscale modelling of fracture in metals

14:30 – 14:45 COFFEE BREAK

14:45 – 15:30 Daniel Koehn *(online)*
Scaling of natural and simulated fracture, anti-crack and fault networks

15:30 – 16:15 Anna Pandolfi *(online)*
Modelling fracture and failure with eigenerosion

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