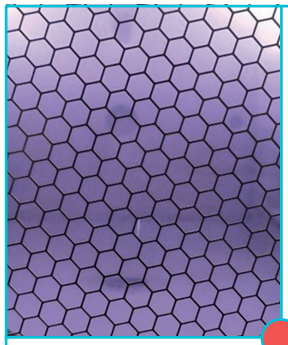

GRK 2462 PintPFS
Conference

WELCOME

In the framework of Research Training Group GRK 2462 "Processes in Natural and Technical Particle-Fluid-Systems" (PintPFS), funded by the German Research Foundation (DFG), researchers from the fields of civil engineering, mechanical engineering, process engineering and materials sciences investigate natural and technical Particle-Fluid-Systems in an interdisciplinary approach. GRK 2462 is formed by eight professors from Hamburg University of Technology leading the PhD research projects of eight junior scientists.

In this international conference the Research Training Group brings together all associated scientists and external guest scientists to present and discuss research results of the first 3 year period. While the junior scientists give insights into their research work at TUHH, the international guest scientists will present on the corresponding state of the art in their related fields of research. Interested colleagues from research and industry are cordially invited to join the workshop.

GRK 2462 PintPFS
Conference

GRK2462 PINTPFS CONFERENCE

Monday/Tuesday, September 26th/27th 2022
Hamburg University of Technology (TUHH)
Ditze-Hörsaal (H 0.16)
Am Schwarzenberg-Campus 5
D-21073 Hamburg

REGISTRATION FEE

250 € regular
(Includes: coffee, lunch, dinner, conference proceedings)

125 € for students except from TUHH
(Includes: coffee, lunch, conference proceedings)

REGISTRATION FORM

www.tuhh.de/grk2462/pintpfs-conference.html

REGISTRATION DEADLINE

September 12th 2022

NUMBER OF PARTICIPANTS

Limited to 80–100 participants

INFORMATION

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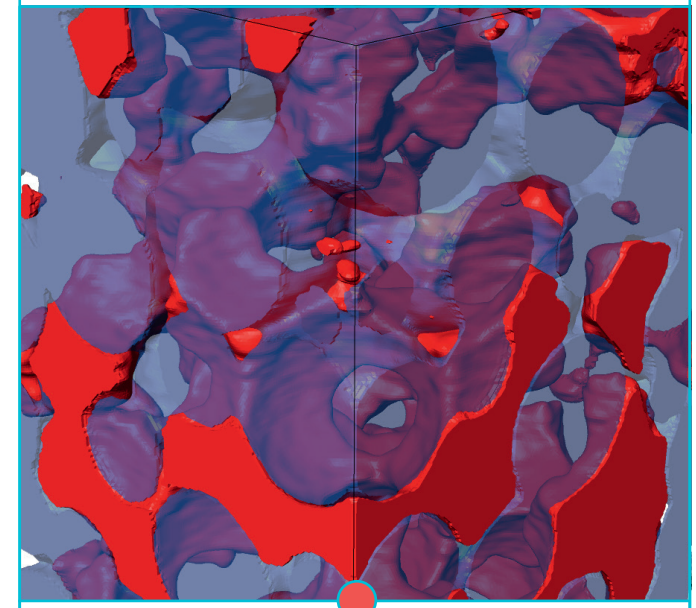
www.tuhh.de/grk2462/pintpfs-conference.html

September
26th and 27th
2022

GRK 2462 PintPFS Conference



DFG Deutsche Forschungsgemeinschaft
German Research Foundation

Funded by the German Research Foundation

TUHH
Hamburg University of Technology

Day 1 SEPTEMBER 26TH 2022

12.30 **Registration**

13.00 **Welcome address and introduction**
Prof. Dr.-Ing. Andreas Timm Giel
President of Hamburg University of Technology
Dr. Anna Böhme, Dr.-Ing. Holger Eggemann
DFG

PROCESSES IN NATURAL AND TECHNICAL PARTICLE-FLUID-SYSTEMS (PFS)

13.30 **Investigation of unsaturated granular soil behavior by means of *in situ* CT-experiments**
Dr.-Ing. Marius Milatz
Postdoctoral researcher and fellow of GRK 2462

14.00 **Complex multiscale solid fluid interactions in porous media**
Prof. Dr. Nima Shokri
Institute of Geo Hydroinformatics, TUHH

DRY AND UNSATURATED PFS

14.30 **Investigations for the development of a new test method to prevent the alkali-silica reaction**
Gyde Hartmut, M. Sc.
Fellow of GRK 2462

15.00 **New findings on alkali-silica-reaction of concrete**
Dr. sc. nat. Andreas Leemann
Empa – Swiss Federal Laboratories for Materials Science and Technology

15.30 COFFEE BREAK

16.00 **Numerical investigation of the breakage and crash absorbing behavior of granular materials in ship collisions**
Sonja Kraus, M. Sc.
Fellow of GRK 2462

16.30 **Virtual elements and their use as deformable particles in DEM**
Prof. Dr.-Ing. Peter Wriggers
Institute of Continuum Mechanics, Leibniz Universität Hannover

17.00 **Static and dynamic properties in nano-confined solid-liquid interfaces**
Johannes Gäding, M. Sc.
Fellow of GRK 2462

17.30 **Optimizing liquid solid slip in nanofluidic systems**
Prof. Dr.-Ing. Laurent Joly
Institut Lumière Matière, Université Lyon, CNRS

18.00 **End of first day**

19.30 DINNER

Day 2 SEPTEMBER 27TH 2022

9.00 **Development and application of the BPM for the investigation of mechanical properties of frozen solid materials**
Tsz Tung Chan, M. Sc.
Fellow of GRK 2462

9.30 **Application of discrete element method to analyze micromechanics of granular materials**
Prof. Dr.-Ing. Sergiy Antonyuk
Institute of Particle Process Engineering, TU Kaiserslautern

10.00 **Experimental investigation of capillary collapse of partially saturated granular media**
Nicole Hüsener, M. Sc.
Fellow of GRK 2462

10.30 **Micromechanical insights into the capillary collapse of granular materials**
Prof. Dr. Jean-Michel Pereira
École des Ponts ParisTech

11.00 COFFEE BREAK

SATURATED PFS

11.30 **Imbibition-Induced Deformation Dynamics of Nanoporous Solids**
Juan Sánchez Calzado, M. Sc.
Fellow of GRK 2462

12.00 **Condensation-Induced Restructuring of Atmospheric Soot Aggregates**
Prof. Dr. Gennady Gor
Dept. of Chemical and Materials Engineering, New Jersey Institute of Technology

12.30 LUNCH

FUNCTIONALIZED PFS

13.30 **Production of tailor-made functional particles via fluidized bed spray granulation**
Maike Orth, M. Sc.
Fellow of GRK 2462

14.00 **About modeling rheology and agglomeration of wet particle systems**
Prof. Dr. Stefan Luding
Multiscale Mechanics Group, University of Twente

14.30 **Adsorption of Organic Components from Fluid Mixtures on Functionalized Mesoporous Materials: Experiment and Simulation**
Isabella Jung, M. Sc.
Fellow of GRK 2462

15.00 **Interaction of Aerogels with Multicomponent Mixtures from Molecular Interaction towards Applications**
Prof. Dr. Carlos Alberto Garcia Gonzales
Department of Pharmacology, Pharmacy and Pharmaceutical Technology, Universidade de Santiago de Compostela (USC)

15.30 **Closing words and outlook on 2nd and 3rd cohort of the GRK**
Prof. Dr.-Ing. Jürgen Grabe
Spokesman of GRK 2462
Prof. Dr.-Ing. Stefan Heinrich
Vice-spokesman of GRK 2462

16.00 END