



Technische  
Universität  
Braunschweig

## ORGANISERS

### Thorsten Grahs

Institute of Scientific Computing  
Technische Universität Braunschweig  
Germany

### Hannes Kröger

Chair of Modelling and Simulation  
University of Rostock  
Germany

### Johann Turnow

Chair of Modelling and Simulation  
University of Rostock  
Germany

## Sponsors

GNS Systems

engys®

move  
silent dynamics

OPENFOAM® is a registered trade mark of OpenCFD  
Limited, producer & distributor of OpenFOAM software

## OBJECTIVES

The German OpenFOAM User meetiNg (GOFUN) is intended to advance the ideas and philosophy of OpenFOAM. It is an opportunity to discuss and exchange ideas between users from Germany and abroad.

## REGISTRATION

With thanks to our sponsors the workshop is free of charge. Nevertheless, in order to allow a thorough organization, registration is mandatory before **20 February, 2019**.

To register, please visit the gofun web-page under

<http://www.foamacademy.com/gofun/>

## LOCAL ORGANISATION & CONTACT

Thorsten Grahs  
Institute of Scientific Computing  
TU Braunschweig  
Mühlenpfordtstr.23  
D-38106 Braunschweig, Germany

tel ++49-531-391-3000

fax ++49-531-391-3003

<https://www.tu-bs.de/wire>



# GOFUN 2019

3rd German OpenFoam User meetiNg

27/28 February, 2019  
Technische Universität  
Braunschweig



## CONFERENCE DAY Wed 27 February 2019

10:30 Registration HdW - Veolia/Weitblick

11:00 Opening Remarks

11:10 Session I 11:10 – 12:25

- Adjoint CFD for Rapid Design Optimisation  
Thomas Schumacher (engsys)
- OpenSource CAE Software for efficient heat transfer – Johann Turnow (silentdynamics)
- VirtualBatteryFoam: Solving multi-physics electrolysis - Uwe Janoske (Univ. Wuppertal)

12:25 Lunch (Mensa, not incl.)

13:30 Session II 13:30 – 14:45

- Reduced Order Modeling (ROM) w. OpenFOAM – Giovanni Stabile (SISSA, Trieste)
- Interactive Aerodynamic Design via ROM  
Markus Mrosek (VW Research)
- Non-intrusive Proper Generalised Decomposition – Vasileios Tsiolakis (VW Research)

14:45 Coffee Break

15:05 Session III 15:05 – 16:20

- tba.  
Charles Mockett (Upstream CFD GmbH)
- Investigation of flow past a cylinder  
Ivan Shevchuk (Tutech Innovation)
- CFD of high speed marine vessels  
Hannes Kröger (silentdynamics)

## CONFERENCE DAY Wed 27 February 2019

16:20 Coffee Break

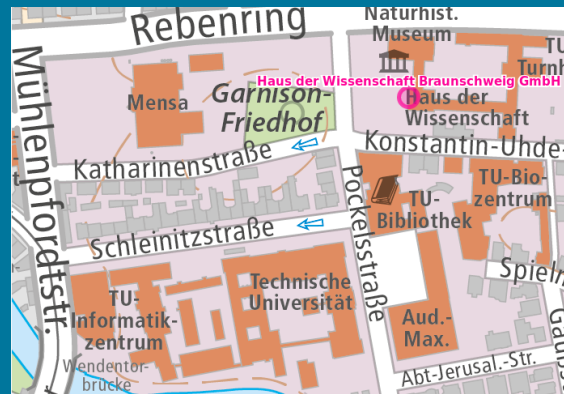
16:40 Session IV 16:40 – 17:55

- Latest meshing development i. OpenFOAM  
Sebastian Vilfayeum (ESI)
- Modelling of solid propellant burning procedure in inflator relevant applications  
Tilo Laufer (Joyson Safety Systems)
- The MantiumChallenge - A virtual race car championship using OpenFOAM  
Andre Zimmer (mantium CAE)

17:55 Closing

18:30 Social event (local pub, not incl.)

### LOCATIONS



## TUTORIAL DAY Thu 28 February 2019

09:30 Tutorials I (parallel) TU-Informatik-Zentrum

- Heat transfer in OpenFOAM  
Johann Turnow, silentdynamics, Room M812
- Particle simulation with OpenFOAM  
Robert Kasper, Univ. of Rostock, Room M826

11:00 Break

11:30 Tutorials II (parallel)

- Workflow automation in OpenFOAM  
Hannes Kröger, silentdynamics, Room M812
- Linear solvers & preconditioners  
Thorsten Grahs, TU Braunschweig, Room M826

13:00 Closing

### ROOMS

**Wed 27 February, 2019 Haus der Wissenschaften**

- Room Veolia/Weitblick, Pockelsstr. 11, 5th floor

**Thu 28 February, 2019 TU Informatik-Zentrum**

- M811/M826, Mühlenpfordstr. 23, 8th floor