

## HSA\_sim RESEARCH TEAM – COMPETENCIES AND CONTACT



### The HSA\_sim research team (left to right):

Prof. Dr.-Ing. Alexandra Jördening, Prof. Dr.-Ing. Joachim Voßiek, Prof. Dr.-Ing. Matthias Schlägel

HSA_sim Spokesman Prof. Dr.-Ing. Joachim Voßiek	Column 1:	Column 2:	Column 3:
Prof. Dr.-Ing. Alexandra Jördening	Modelling, Analytical and Numerical Calculation	Verification and Validation	Optimization
Prof. Dr.-Ing. Matthias Schlägel			



## CONTACT



**"We are in great demand as a partner for research and development and generate new knowledge for the benefit of students and businesses alike."**



### HSA\_sim Spokesman

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**HSA\_sim  
research team**

**SIMULATION IN MECHANICAL  
ENGINEERING**

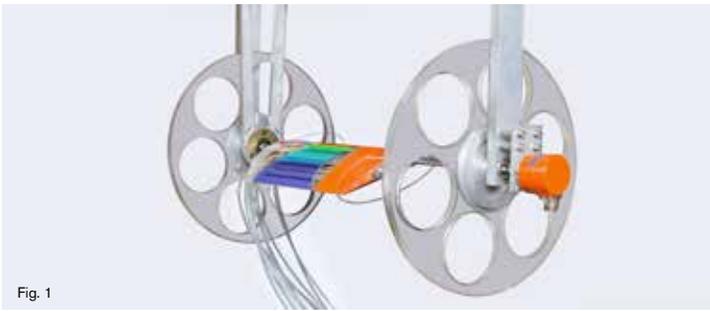


Fig. 1

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## HSA\_sim – FLUID-DYNAMICAL COMPUTATION & SIMULATION

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**Fig. 1**  
FSI Simulation and Verification  
using a wing



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- Analytical and Numerical Flow Computation
- Set-up of Fluid-dynamical Models and CFD Simulation
- Development of experimental Validation Systems
- Fluid-Structure Interaction

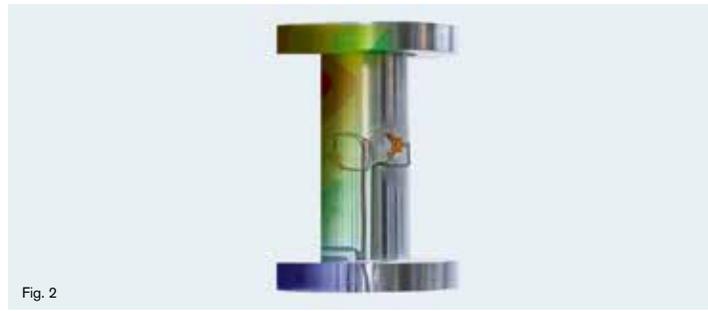


Fig. 2

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## HSA\_sim – STRUCTURAL-MECHANICAL COMPUTATION & SIMULATION

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**Fig. 2**  
FEM Simulation of an  
Impression Cylinder



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- Analytical and Numerical Component Design and Calculation
- FEM Simulation
- Verification and Validation
- Development and Implementation of Structural-mechanical Material Models
- Fluid-Structure Interaction



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## HSA\_sim – COMPETENCE CENTRE

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**Competence Centre**  
**TZA – Technologiezentrum**  
**Augsburg**  
Technical Centre,  
Conference Rooms,  
Project Office

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## Competence Centre Augsburg University of Applied Sciences

- ANSYS Multi Physics, MSC.MARC and MSC.Nastran, running on a modern HPC Cluster
- Mechanics of Materials Lab with Material Analysis and Strain Gauge Equipment
- Wind Tunnel Lab, equipped with Pressure, Velocity and Resistance Measurement Technology
- Equipment for Thermal and Thermomechanical Analysis (DMA, DSC and TGA)