

Andrea Beck – Universität Stuttgart, Germany

Talk title	Towards data-driven high-fidelity Computational Fluid Dynamics
Biography	<p>Andrea Beck obtained a M.Sc. degree in aerospace engineering with a focus on fluid dynamics from the Georgia Institute of Technology in Atlanta (USA) and a doctoral degree from the University of Stuttgart (Germany) in computational fluid dynamics (CFD). She currently holds the Dorothea-Erxleben professorship at the Institute of Fluid Dynamics and Thermodynamics of the Otto-von-Guericke University in Magdeburg (Germany). Her areas of interest include numerical discretization schemes for multiscale-multiphysics problems, in particular high order methods, high performance computing and visualization, Large Eddy Simulation methods and models, shock capturing schemes, uncertainty quantification methods and machine learning. She is a co-developer of the open-source high order Discontinuous Galerkin CFD framework FLEXI. Recent fields of application include uncertainty quantification of feedback loops in acoustics, particle-laden flow in turbomachines, wake-boundary layer interaction for transport aircraft at realistic flight conditions, shock-droplet interactions and data-driven models for LES closures.</p>