

Johannes Störkle

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Education

- 2013–2018 **Doctoral Student (PhD)**, *Institute of Engineering and Computational Mechanics*,
(current) University of Stuttgart, Germany, Prof. Eberhard.
Simulation and Model-based Control of High Performance Optics (Dissertation)
- 2012–2013 **Diploma Thesis**, *Institute for Dynamic Systems and Control*, ETH Zurich, Switzerland,
Prof. Schiehlen, Prof. Guzzella, M. Alberding.
Lateral Dynamics of Multi-axle Vehicles - Control Strategies for a Steered Rearmost Axle of a
Semi-Trailer.
- 2006–2013 **Mechanical Engineering (Diploma)**, *University of Stuttgart*, Germany.
Specializing in Technical Dynamics and Automatic Control Engineering,
 - Application of the dynamic stress analysis for the compensation of an aberration at optical systems, Student Research Thesis, Inst. of Eng. and Comput. Mechanics (ITM), 2011.
 - Modelling and control of the hydraulic drive of a fire-rescue turntable ladder, Student Research Thesis, Institute for System Dynamics (ISYS), 2012.
- 2003–2006 **A Level**, *Technical Academic High School*, Waldshut, Germany.
General qualification for university entrance with additive technical subjects and a seminar thesis.

Research & Work Experience

- 2013–2018 **Research Associate (Dipl.-Ing.)**, *Institute of Engineering and Computational Mechanics*,
(current) University of Stuttgart, Germany.
 - Simulation based geometry study for claw-shifted racing gears (project with the Porsche AG), 2014-2015.
 - Model-based control of a mechanical-optical system demonstrated at a laboratory experiment. Proc. of the IUTAM Symposium, Sozopol, Bulgaria 2017.
 - Influence of model order reduction methods on dynamical-optical simulations. Journal of Astronomical Telescopes, Instruments, and Systems, 2017.
 - Using integrated multi-body systems for dynamical-optical simulations. Proc. of the AS16, SPIE Digital Library, 2016.
 - Strategies for the dynamical-optical simulation of high-performance optics. Proc. of the IMCOS, SPIE Digital Library, 2015.
 - Optimization and Investigation of the dynamical-optical behavior of mirror systems, Proc. of the Engineering Optimization, 2014.
 - Lecturer and Teaching Assistant for the courses in Machine Dynamics, Mechatronics, Applied Mechanics and Biomechanics, 2013-2018.
 - Person responsible for the institute website and the annual report, 2013-2018.
- 2011–2013 **Software Developer and Working Student**, *CCI von Kahlden*, Stuttgart, Germany.
Development of a software package for the monitoring of dust-free rooms via sensors in VB.net.

- 2010–2011 **Internship**, *Alstom*, Baden, Switzerland.
 Dept. Gasturbine research & development, structure dynamics.
 ○ Improvement of fracture mechanic approaches for the estimation of LCF-crack propagation;
 ○ Programming of a software tool for fracture mechanic assessments using FEM-results.
- 2010–2011 **Working Student**, *Bosch-Mahle Turbosystems*, Stuttgart, Germany.
 Dept. Turbocharger Development, Simulation of Structure-Dynamics / Experiments
 ○ Comparisons of experimental and simulation results, programming of a material-database-tool.
- 2008–2009 **Intern and Working Student**, *Alstom*, Birr, Switzerland.
 Dept. Production Planning of gas- and steam-turbines
 ○ Programming of a work planning tool for employee activities & technical calculations;
- 2006–2008 **Basic Internship**, *ABB Turbo Systems*, Baden, Switzerland.
 Dept. Production of turbocharger compressor wheels
 ○ Activities in the production process of radial compressor wheels and team presentations.
- 2008 & 2011 **Working Student**, *Nuclear power plant KKL*, Leibstadt, Switzerland.
 Dept. Nuclear reactor maintenance, Drywell
 ○ Assistent/Coordinator of the revision works in the drywell zone.
- 2012 **Research Assistant**, *Institute for System Dynamics*, Support during projekt SmartShell.
- 2007–2008 **Tutor**, *Institute of Engineering and Computational Mechanics*, Seminar exercises (TM).
- 2005–2006 **Seminar Course**, *Technical High School*, Winner of the Youth Research Competition.

Scholarships

- 2016 **SPIE Travel Scholarship**, *Travel bursary for the SPIE Conference*.
- 2015 **Heidenhain Scholarship**, *Fee and travel bursary for the EUSPEN Conference*.
- 2012–2013 **Thomas Gressmann Foundation**, *Foundation for the diploma thesis at the ETH Zurich*.

Computer Skills

Engineering	Matlab & Simulink, Ansys, Simpack, AutoCad
Programming	Matlab, VB.net/VBA, Phyton, C/C#/C++, Linux-Shell, Git, SQL, Fortran
Publishing	MS-Office, L ^A T _E X, Bootstrap, WordPress, Joomla, php, html, css, Muscore
Design	Inkscape, GIMP, Photoshop, Lightroom, InDesign, Illustrator, Premiere, Blender

Languages & Activities

- German (Mother tongue), English (Fluent), French (Basics)
- Sling/TRX training, basketball, motorbike
- Webhosting and webdesign, photography, composing and arranging sheets of music.
- Tuba in the Hailigs-Blechle Brass Quintet & Trumpet in the BigBand Uni-Hohenheim.