

JOHANNES BAUMGART

*Scientists look for the unexpected and
engineers make sure that nothing unexpected happens.*

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EDUCATION

2004 – 2010	TECHNISCHE UNIVERSITÄT DRESDEN PhD in Mechanical Engineering Graduated with summa cum laude Received fellowship for research stay at Stanford University (2 months, DAAD)	DRESDEN GERMANY
2003 – 2004	VON KARMAN INSTITUTE FOR FLUID DYNAMICS Research Master in Fluid Dynamics Graduated with honors Awarded with <i>von Karman prize</i> for best overall result of the academic year	BRUSSELS BELGIUM
1998 – 2003	TECHNISCHE UNIVERSITÄT DRESDEN Diplom in Mechanical Engineering Graduated with honors Stays abroad at UCSB (USA) and at VKI (Belgium) Received fellowship of Studienstiftung des deutschen Volkes	DRESDEN GERMANY

EXPERIENCE

since 2018	GICON GmbH <i>Work as an engineer in a company of consulting and engineering.</i> Project Engineer – Sound immission protection	DRESDEN GERMANY
2011 – 2018	MAX-PLANCK INSTITUTE FOR THE PHYSICS OF COMPLEX SYSTEMS <i>Conducted research at a world-class research institute with about 200 employees in the biophysics department with about 50 employees.</i> Project Manager – Postdoc in biophysics Managed a project on local polymer concentration in cells with 9 people from 3 experimental groups combining light and electron microscopy data. Developed new methods to retrieve information from noisy raw data. Applied numerical methods from engineering to biophysics, i.e. finite-elements, using mainly Matlab and verified by code review. Collaborated on cell division research with partners in Dresden and Paris by applying liquid crystal theory. Published 5 journal articles, 1 patent and presented my work at several prestigious international meetings. Illustrated 1 cover with results of my research in Nature. Communicated research to public 3 times at open house events. Established and organized a monthly postdoc meeting on soft skills for the entire institute (10 – 30 people) and a weekly chalk talk for the postdocs of the biophysics department (5 – 15 people).	DRESDEN GERMANY
2004 – 2011	TECHNISCHE UNIVERSITÄT DRESDEN <i>Conducted research at the institute of aerospace engineering and the institute of scientific computing with about 30 employees each.</i> Project Manager – Researcher in fluid mechanics Planned and wrote the proposal and business plan (2 years and 2 people) for a project on a testing site for bassoons with 5 industry partners, which I successfully managed. Organized workshops with up to 30 people and for 2 days. Developed method to compute efficiently fluid-structure interaction problems and applied this to mechanics of hearing and musical instruments using finite-element software Ansys. Collaborated closely with experimentalists and clinicians from ENT-clinics and neuroscience labs to complement biological experiments with 3D numeric models. Started new collaborations with labs at Stanford and New York. Presented my work at international conferences. Illustrated 1 cover with results of my research. Communicated research to public 4 times at open house events. Taught high-temperature flows to groups of about 20 undergraduates. Supervised 1 PhD student and 4 diploma students.	DRESDEN GERMANY

LANGUAGES

German: Native

English: Fluent

French: Basic

PUBLICATION PROFILES

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