

Clarissa Schönecker

Jun.-Prof. Dr.-Ing.

Employment

- since 07/2017 **Junior Professor**, TU Kaiserslautern, Research Group leader Micro Fluid Mechanics.
- since 07/2017 **Guest Researcher**, Max Planck Institut for Polymer Research, Mainz.
- 01/2014–06/2017 **Research Assistant**, Max Planck Institut for Polymer Research, Mainz.
- 09/2013–12/2013 **Lectureship for fluid mechanics**, Baden-Wuerttemberg Cooperative State University.
- 11/2008–12/2013 **Research Assistant**, Center of Smart Interfaces, TU Darmstadt.
- 12/2009–07/2013 **Associated member**, Graduate School of Excellence Computational Engineering, TU Darmstadt.
- 05/2006–05/2007 **Student Research Assistant**, Institute for Gas Turbines and Aerospace Propulsion, TU Darmstadt.
- 03/2004–09/2004 **Student Research Assistant**, Chair for Mechanics, TU Kaiserslautern.

Education

- 07/2013 **Dr.-Ing.**, Technische Universität Darmstadt, with distinction.
„Flow Phenomena at Microstructured Surfaces“.
- 10/2004–08/2008 **Studies of Mechanical and Process Engineering**, Technische Universität Darmstadt.
 - Degree Diplom-Ingenieur, with distinction
 - Theses
 - Stability analysis of a flow of an active fluid, *Fluid Mechanics Group, Physics Department*
 - Modeling of plasma actuators, *Chair for Fluid Mechanics and Aerodynamics*
- 06/2007–09/2007 **Internship**, General Motors, Detroit, USA, Aerodynamics Group.
- 09/2005–02/2006 **Exchange semester**, Universidad Pública de Navarra, Pamplona, Spain.
- 10/2002–09/2004 **Studies of Mechanical and Process Engineering**, Technische Universität Kaiserslautern.
 - Degree Vordiplom, grade: 1.6 (from 1 down to 6)
- 03/2002 **Abitur** (university-entrance qualification), Friedrich-Wilhelm-Gymnasium, Trier.
grade: 1.2

Awards and Scholarships

- 2016–2018 Fast-Track Program, Robert Bosch Stiftung
- 09/2015–01/2016 Research Scholarship, DAAD
- 2015 Alfred-Kuhlenkamp Preis, VDE/VDI-Gesellschaft Mikroelektronik, Mikrosystem- und Feinwerktechnik
- 2014 PhD Award 2014, Graduate School of Excellence Computational Engineering, TU Darmstadt
- 07/2012 Scholarship for participation in the Summer School „Soft Interfaces“ in Les Houches
- 12/2006 Adam Opel Award 2006 for achievements in academic studies
- 04/2005–06/2008 Scholarship from the Studienstiftung des Deutschen Volkes
- 03/2003 Dr. med. Franz-Rudolf Centner Award for achievements in mathematics

10 most important publications

Peer reviewed journal articles

- H. Teisala, C. Schönecker, A. Kaltbeitzel, W. Steffen, H.-J. Butt, D. Vollmer, *Wetting over pre-existing liquid films*, Physical Review Fluids, 3, 084002, 2018

- F. Geyer, C. Schönecker, D. Vollmer and H.-J. Butt, *Enhancing CO₂ Capture Using Robust Superomniphobic Membranes*, *Advanced Materials*, 10.1002/adma.201603524, 2016
- Y. Liu, J. Wexler, C. Schönecker and H. Stone, *Effect of viscosity ratio on the shear-driven failure of liquid-infused surfaces*, *Physical Review Fluids*, 1, 074003, 2016
- D. Schäffel, K. Koynov, D. Vollmer, H.-J. Butt and C. Schönecker, *Local flow field and slip length of superhydrophobic surfaces*, *Physical Review Letters*, 116, 134501, 2016
- C. Schönecker and S. Hardt, *Electroosmotic flow along superhydrophobic surfaces with embedded electrodes*, *Physical Review E*, 89, 063005, 2014
- C. Schönecker, T. Baier and S. Hardt, *Influence of the enclosed fluid on the flow over a microstructured surface in the Cassie state*, *Journal of Fluid Mechanics*, 740, 168–195, 2014
- C. Schönecker and S. Hardt, *Longitudinal and transverse flow over a cavity containing a second immiscible fluid*, *Journal of Fluid Mechanics*, 717, 376–394, 2013
- C. Steffes, T. Baier and S. Hardt, *Enabling the Enhancement of Electroosmotic Flow over Superhydrophobic Surfaces by Induced Charges*, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 376 (1-3) (2011) 85-88
- T. Baier, C. Steffes and S. Hardt, *Thermocapillary flow on superhydrophobic surfaces*, *Physical Review E*, 82(3):037301 (2010)
- R. Srikar, T. Gambaryan-Roisman, C. Steffes, P. Stephan, C. Tropea and A.L. Yarin, *Nanofiber coating of surfaces for intensification of drop or spray impact cooling*, *International Journal of Heat and Mass Transfer*, 52, 5814-5826, 2009

(Steffes = maiden name C. Schönecker)