

Curriculum Vitae - Peter Kappel

Last update: 19th August 2020

Birth date 25th March 1989
Nationality German
Present affiliation Cluster of Excellence Living, Adaptive and Energy-autonomous Materials Systems (*livMatS*) @ FIT - Freiburg Center for Interactive Materials and Bioinspired Technologies
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Employments

Since 08/2020 **Cluster of Excellence Living, Adaptive and Energy-autonomous Materials Systems (*livMatS*) @ FIT - Freiburg Center for Interactive Materials and Bioinspired Technologies Freiburg, Germany**

- Doctorial researcher
- PhD thesis: "Biomimetic gripper systems based on living adaptive and energy-autonomous materials systems"
- Supervisors: T. Speck & F. Tauber

Since 06/2019 **Plant Biomechanics Group Freiburg (PBMG), University of Freiburg, Germany**

- Research assistant in industrial projects

Education

10/2014 – 05/2019 **Biology M.Sc. RWTH, RWTH Aachen University, Aachen, Germany**

- Specialization in neuroscience and biomimetic
- Master thesis: "Drinking in the moisture harvesting lizard *Phrynosoma platyrhinos*: biological pumping mechanism and biomimetic potential for technical applications"
- Supervision: J. Kampa, Institute of Biology II, RWTH Aachen University
W. Baumgartner, Institute of Biomedical and Mechatronics, JKU Linz, Austria

10/2011 – 09/2014 **Biology B.Sc. RWTH, RWTH Aachen University, NRW, Germany**

- Specialization in neuroscience
- Bachelor thesis: "The spinning of cribellate fibers of the spider *Uloborus plumipes*: analysis with video microscopy"
- Supervision: J. Mey and P. Bräunig, Institute of Biology II, RWTH Aachen University

2006 – 2009 **Anne-Frank-Gymnasium Halver, NRW, Germany**

- A-Levels (Abitur)

1999 – 2006 **St. Jacobus-School Breckerfeld, NRW, Germany**

Stays Abroad

- 09/2015 – 03/2016 **Research Internship, FrontierLab@OsakaU, Osaka University, Japan**
- Title: „Linear systems analysis methods for measuring receptive fields of visual neurons“
 - Supervision: Prof. Izumi Ohzawa, Visual Neuroscience Laboratory, Graduate School of Frontier Biosciences and School of Engineering Science
- 03/2011 - 07/2011 **Work & Travel in Canada**
- Traveling and working on an organic farm in Vernon, British Columbia

Military Service

01/2010 – 09/2010 **6./GuardBtl. DoD in Siegburg, NRW, Germany**

Software Skills

Programming	Matlab, Python, RStudio (basic)
CAD	SolidWorks, Vectorworks 2018 SP3 (basic)
Microsoft Office 2016	Word, Excel, and Powerpoint (proficient)
Imaging	Adobe Photoshop CS2, Gimp 2, Image J (proficient)
Literature recherche	Citavi 5 (proficient)

Languages

German	Native language
English	Proficient knowledge (B2)
Japanese	Basic knowledge (A2)
Dutch	Basic knowledge (A1)
Latin	Latin proficiency certificate

List of Publications

Philipp Comanns, Falk J. Esser, **Peter H. Kappel**, Werner Baumgartner, Jeremy Shaw, Philip C. Withers (2017). Adsorption and movement of water by skin of the Australian thorny devil (Agamidae: *Moloch horridus*). The Royal Society Open Science 4(9):170591

Anna-Christin Joel, Ingo Scholz, Linda Orth, **Peter Kappel**, Werner Baumgartner (2016). Morphological adaptation of the calamistrum to the cribellate spinning process in Deinopoidae (Uloboridae, Deinopidae). Royal Society Open Science 3(2)

Anna-Christin Joel, **Peter Kappel**, Hana Adamova, Werner Baumgartner, Ingo Scholz (2015). Cribellate thread production in spiders: Complex processing of nano-fibers into a functional capture thread. Arthropod structure & development 44(6)