



Kai Pfeiffer

Robotic Researcher



12 April 1990



Japan



<http://pfeiffer-kai.github.io>

Skills

C++



matlab



Teamplayer



FEM Abaqus



Languages

German



English



Japanese



Spanish



Education

- | | | |
|------------|--|---|
| since 2016 | Ph.D. candidate in Robotics
<i>Multi-contact control of humanoid robots for locomotion and manipulation in constrained environments</i> | AIST-JRL, Tsukuba, Japan |
| 2013-2016 | M.Sc., Mechanical Engineering, Grade 1.4
Majoring in 'Computational Mechanics' and 'Calculation Methods in Mechanical Engineering' | KIT, Karlsruhe, Germany |
| 2010-2013 | B.Sc., Mechanical Engineering, Grade 2.0
Majoring in 'Dimensioning and Validation of Mechanical Constructions' | KIT, Karlsruhe, Germany |
| 2000-2009 | High school, Grade 1.6
Specializing in mathematics and physics | Riemenschneider-Gymnasium, Wuerzburg, Germany |

Publications

- | | |
|------|---|
| 2018 | K. Pfeiffer, A. Escande and A. Kheddar. Singularity Resolution in Equality and Inequality Constrained Hierarchical Task-Space Control by Adaptive Nonlinear Least Squares. IEEE Robotics and Automation Letters. |
| 2018 | Vincent Bonnet, Kai Pfeiffer, Philippe Fraisse, André Crosnier, Gentiane Venture. Self-Generation of Optimal Exciting Motions for Identification of a Humanoid Robot. International Journal of Humanoid Robotics. |
| 2017 | K. Pfeiffer, A. Escande and A. Kheddar. Nut fastening with a humanoid robot. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS). |

Experience

- | | | |
|---------------|---|-------------------|
| 05/18 | Coursera
Machine Learning | Online course |
| 04/16 - 09/16 | KIT and Tokyo University of Agriculture and Technology Master Thesis 'Inertial Parameter Identification of Online Controlled Humanoid Robots'. Supervised by Tamim Asfour, Gentiane Venture and Vincent Bonnet. | |
| 09/15 - 02/16 | Bosch Japan
Exoskeleton development | Internship |
| 02/15 | KIT
Practical Training in Measurement of Vibrations | University course |
| 10/13 - 02/14 | Bosch Germany
FEM analysis of car window regulators for noise reduction. | Internship |
| 03/13 - 09/13 | KIT
'Simulation for Crack Propagation Coupled with a Diffusion Process of Water in Glass' | Bachelor Thesis |
| 10/09 - 06/10 | Obligatory German military service
Basic military training | |

Interests

Sports (swimming, running, surfing, snowboarding, hiking, bicycling)
Travelling, mostly backpacking