# Benedikt Zönnchen

*Curriculum vitae*

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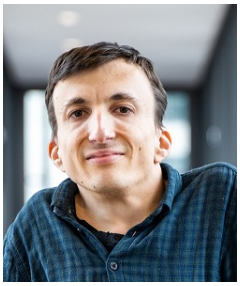

## Experience

08/2020 - today *Munich University of Applied Sciences (MUAS)*
**Senior Teaching Assistance**
Subject Modern education in computer science

## Academic education

03/2016 - today *Technical University of Munich (TUM)*
*Munich University of Applied Sciences (MUAS)*
**Computer Science (Dr.rer.nat.) (submitted)**
PhD Thesis Efficient parallel algorithm for pedestrian simulation.

10/2013 - 02/2016 *Technical University of Munich (TUM)*
**Computer Science (M.Sc.)**
Master Thesis Implementation of an efficient equivalence test for sequential & linear tree-to-word transducers

10/2010 - 09/2013 *Munich University of Applied Sciences (MUAS)*
**Computer Science (B.Sc.)**
Bachelor Thesis Navigation um Gruppen und Schlangenbildung durch dynamische Anpassung der Reisegeschwindigkeit im Fast Marching Algorithmus

## Teaching

Winter 2020/21 **Preparation for Computer Science**, 5-day course (Bachelor), *Trainer and coordinator*, MUAS
Winter 2019/20 **Machine Learning in Crowd Modeling and Simulation**, Lecture (Master), *Invited as a guest lecturer*, TUM
Winter 2016/17 **Linear Algebra**, Lecture (Bachelor), *Lecturer*, MUAS
Summer 2016 **Scientific Computing**, Seminar (Bachelor), *Lecturer*, MUAS
Summer 2016 **Theoretical Computer Science**, Lecture (Bachelor), *Trainer*, MUAS

## Publications

2019 **Benedikt Zönnchen**, Benedikt Kleinmeier, Marion Gödel and Gerta Köster, Vadere: an open-source simulation framework to promote interdisciplinary understanding, *Collective Dynamics*, 4, 10.17815/CD.2019.21

2018 **Benedikt Zönnchen** and Gerta Köster, A Parallel Generator for Sparse Unstructured Meshes to Solve the Eikonal Equation, *Journal of Computational Science*, volume 32, page 141–147, 10.1016/j.jocs.2018.09.009

## Conferences

2019 **Benedikt Zönnchen**, Benedikt Kleinmeier and Gerta Köster, Vadere – A Simulation Framework to Compare Locomotion Models, *International Conference on Traffic and Granular Flow '19*, Pamplona, Spain, pages 331–337, 10.1007/978-3-030-55973-1_41

2019 **Benedikt Zönnchen**, and Gerta Köster, GPGPU Computing for Microscopic Pedestrian Simulation, *Parallel Computing Conference*, Prague, Czech Republic, USA, volume 36, pages 93–104, 10.3233/APC200029

2017 **Benedikt Zönnchen**, Matthias Laubinger and Gerta Köster, Towards Faster Navigation Algorithms on Floor Fields, *International Conference on Traffic and Granular Flow '17*, Washington D.C., USA, pages 307–315, 10.1007/978-3-030-11440-4_34

2016 **Benedikt Zönnchen** and Gerta Köster, Detecting Arbitrarily Shaped Queues Using the Fast Marching Method, *8th International Conference on Pedestrian and Evacuation Dynamics*, Hefei, China

2015 Gerta Köster and **Benedikt Zönnchen**, A Queuing Model Based On Social Attitudes, *International Conference on Traffic and Granular Flow '15*, Delft, Netherlands, 10.1007/978-3-319-33482-0

2014 Gerta Köster and **Benedikt Zönnchen**, Queuing at Bottlenecks Using a Dynamic Floor Field for Navigation, *7th International Conference on Pedestrian and Evacuation Dynamics*, Delft, Netherlands, 10.1016/j.trpro.2014.09.029

## Scholarships

04/2012 – 05/2016 **German Academic Scholarship Foundation** (Studienstiftung des deutschen Volkes)

06/2012 – 05/2016 **Max Weber-Program of the State of Bavaria** (Max Weber-Programm Bayern)

2013 **RiMEA sponsorship award**

## Research interests

- Modelling and simulation of pedestrian dynamics
- Mesh generation and its application
- Design of efficient and parallel as well as online- and approximation algorithms
- Algorithm visualization
- Formal methods, automata theory, and functional programming
- Open courses

## Private interests

- Algorithmic art (Processing, P5js, Sonic Pi, SuperCollider)
- Film criticism and analysis
- Philosophy in movies
- Chess

München, 11. März 2021