Mario Teixeira Parente
Academic CV

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Education

10/2016 – now	*Technical University of Munich (TUM)*
	Applied mathematics (Ph.D.)
PhD Thesis	Algorithms in Uncertainty Quantification
10/2013 – 04/2016	*Ludwig-Maximilians-Universität Munich (LMU)*
	Mathematics (M.Sc.)
Master Thesis	Brownian Motion and the Dirichlet Problem
10/2010 – 09/2013	*University of Applied Sciences Munich (HM)*
	Scientific computing (B.Sc.)
Bachelor Thesis	N.V. Krylov's Proof of the de Moivre-Laplace Theorem

Scholarships

04/2012 – 05/2016	**German Academic Scholarship Foundation** (Studienstiftung des deutschen Volkes)
04/2012 – 04/2016	**Max Weber-Program of the State of Bavaria** (Max Weber-Programm Bayern)
10/2011 – 03/2012	**Deutschlandstipendium**

Teaching

Winter 2018/19	**Modeling and Simulation with ODEs**, *Tutor*, TUM
Summer 2018	**Numerics for ODEs**, *Tutor*, TUM
Winter 2017/18	**Introduction to Numerical Linear Algebra**, *Tutor*, TUM
Summer 2017	**Introduction to Programming**, *Tutor*, TUM
Summer 2017	**Hauptseminar: Uncertainty Quantification with Efficient Monte Carlo Methods**, TUM
Winter 2015/16	**Stochastics**, *Tutor*, LMU
Winter 2014/15	**Analysis I**, *Tutor*, LMU
Winter 2011/12	**Linear algebra and Software engineering**, *Tutor*, HM

Publications

Preprints

02/2019	D. Bittner, **M. TP.**, S. Mattis, B. Wohlmuth, and G. Chiogna, *On the relationship between parameters and discharge data for a lumped karst aquifer model*
01/2019	**M. TP.**, D. Bittner, S. Mattis, G. Chiogna, B. Wohlmuth, *Bayesian calibration and sensitivity analysis for a karst aquifer model using active subspaces*
09/2018	**M. TP.**, *A probabilistic framework for approximating functions in active subspaces*

Journal papers

2018	**M. TP.**, S. Mattis, S. Gupta, C. Deusner, and B. Wohlmuth, *Efficient parameter estimation for a methane hydrate model with active subspaces*, Computational Geosciences

Talks, Conferences, etc.

03/2018	**M2 Oberseminar**, *Active subspaces for Bayesian inversion, Application for a methane hydrate model*, Garching (slides)
09/2017	**FrontUQ** (Frontiers of Uncertainty Quantification in Engineering), Munich

Trainings

| 03/2017 | **Parallel Programming of High Performance Systems**, Leibniz Computing Centre (LRZ) |
| 02/2017 | **Advanced C++ with Focus on Software Engineering**, Regionales RechenZentrum Erlangen (RRZE) |

Experience

02/2019 – 03/2018	**Research stay abroad**, University of Texas at Austin (UT), Project: UNcertainties due to boundary conditions in predicting MIXing in groundwater (UNMIX)
06/2016 – 09/2016	**Student assistant**, HM, Research project: Modeling and simulation of pedestrian movement
04/2016 – 05/2016	**Research internship**, Yale University (USA), Image processing of nanoscopic images in cell biology
10/2012 – 11/2013	**Student assistant**, HM, Research project: Modeling and simulation of pedestrian movement

Munich, March 18, 2019