

Curriculum Vitae

Priv.-Doz. Dipl.-Ing. Dr.techn. Johannes Daniel Leitner

E-Mail: daniel.leitner@simwerk.at

Education

- 10/2015 Habilitation in Computational Science at the University of Vienna
- 10/2007 Ph.D. (Dr.techn.) in Technical Mathematics (with distinction), Vienna University of Technology
- 10/2004 Master (Dipl.-Ing.) in Technical Mathematics, Vienna University of Technology
- 10/1997–06/2004 Studies of Technical Mathematics, focus on Computer Science, Vienna University of Technology

Professional Experience

- 01/2017–dato Starting-up the enterprise Simulationswerkstatt that offers mathematical consulting services for scientific projects
- 09/2016–11/2016 Parental leave
- 10/2015–12/2016 Assistant Professor at the Computational Science Center, University of Vienna in collaboration with Research Center Jülich: Water and solute transport in soil
- 07/2014–12/2014 Parental leave
- 11/2012–08/2013 Assistant Professor at the Computational Science Center, University of Vienna: Image analysis using partial differential equations
- 01/2012–09/2015 Recipient of an APART-fellowship of the Austrian Academy of Sciences at the Computational Science Center, University of Vienna: Plant root architecture modelling in heterogeneous soils
- 08/2011–12/2011 Postdoc at the Radon Institute for Computational and Applied Mathematics (RICAM): Image analysis of zebrafish confocal microscopy data using partial differential equations
- 11/2008–01/2009 Postdoc at the Centre for Mathematical Biology at the University of Oxford
- 10/2008–02/2009 Academic visitor at the Centre for Mathematical Biology at the University of Oxford
- 03/2008–05/2011 Postdoc at the Institute of Soil Science, BOKU University of Natural Resources and Applied Life Sciences, Vienna: Development of plant and soil interaction models

- 03/2005–03/2006 Lecturer at the Institute for Analysis and Scientific Computing, Vienna University of Technology
- 10/2004–10/2007 AIT Austrian Institute of Technology, Biomedical Systems, Ph.D. thesis: research in cardiovascular simulation; realization, validation and verification of mathematical models
- 10/2003–09/2004 AIT Austrian Institute of Technology, Biomedical Systems, Master thesis: data acquisition, segmentation and visualization for medical simulation

Research Projects Funded

- 10/2012 FWF project (P25190): The roots of drought resistance (Co-Principal Investigator)
- 11/2011 APART-fellowship of the Austrian Academy of Sciences: Root architecture modelling in heterogeneous soils

Teaching

Universtiy of Vienna: Mathematical Modelling, Continuous Optimization, Numerical Methods for the Solution of Differential Equationsm, Numerical Methods II, Numerical Methods III - Optimization

BOKU University of Natural Resources and Life Sciences, Vienna: Ecology and Management of the Rhizosphere in Ecological Engineering

Vienna University of Technology: Exercises for Mathematics for Electrical Engineers I & II

Reviewing for Journals

Plant and Soil, Vadoze Zone Journal, Plants, Interface, Ecological Modelling, Computers and Electronics in Agriculture

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