Curriculum Vitae

Priv.-Doz. Dipl.-Ing. Dr.techn. Johannes Daniel Leitner
Born on January 5th 1979 in Salzburg, Austria
Marital status: Married, two daughters
Citizenship: Austria

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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, concentration in Mathematical Computer Science, Vienna University of Technology
10/1997–06/2004	Studies of Technical Mathematics, concentration in Mathematical Computer Science, Vienna University of Technology

Professional Experience

01/2017–dato	Starting-up the enterprise Simulationswerkstatt that offers software development and 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 (in Python and C++).
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: Segmentation of zebra-fish confocal microscopy data. Implementation of prototypes in Matlab.
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 (in Python and C++).
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. Implementation of prototypes in Matlab.
11/2008–01/2009	Postdoc at the Centre for Mathematical Biology at the University of Oxford. Mathematical model development in Matlab and Comsol Multiphysics.
10/2008–02/2009	Academic visitor at the Centre for Mathematical Biology at the University of Oxford. Mathematical model development in Matlab and Comsol Multiphysics.
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 (in Matlab and C++).

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. Software development in Java and Matlab.
10/2003–09/2004	AIT Austrian Institute of Technology, Biomedical Systems, Master thesis: data acquisition, segmentation and visualization for medical simulation, software development in Java.

Research Projects Funded

10/2012	FWF project (P25190): The roots of drought resistance (Co-Principal Investigator)
01/2012	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

Organisation of Conferences and Workshops

06/2013	Minisymposium at CSASC 2013: Mathematical methods in image processing
07/2012	Minisymposium at ECMI 2012: Mathematical methods for cell segmentation and tracking
04/2012	Project kickoff meeting at the Institute of Hydraulics and Rural Water Management: Root architecture modelling in heterogeneous soils

Reviewing for Journals

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

Guest Associate Editor for Frontiers in Functional Plant Ecology

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