

General Information

Born: 31.10.1974 in Rostock
Nationality: German

Address

Max Planck Institute for Informatics
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Current Position

Senior researcher at the Max Planck Institute for Informatics
Head of the research group “Feature-Based Data Analysis for Computer Graphics and Visualization”

Education

University Education

- 10/2003 – 03/2008 University Magdeburg, Germany
Dr.-Ing., Ph.D. in Computer Science
Thesis title: Extraction of Topological Structures in 2D and 3D Vector Fields
Referees: Prof. Holger Theisel, Prof. Thomas Ertl, Prof. Alex Pang
Grade: summa cum laude
- 10/1994 – 07/2000 University Rostock, Germany
Dipl.-Inf., M.Sc. in Computer Science
with honors

School Education

- 06/1993 **Abitur,** High school diploma
Grade: 1.0 (best mark)
- 1989 – 1993 High school in Rostock, Germany
School for distinguished education in mathematics, natural sciences, and engineering. (Spezialschule mathematisch-, naturwissenschaftlich-, technischer Richtung; later: Christophorus Gymnasium)
- 1981 – 1989 Primary school in Rostock, Germany

Languages

German, English, basic Russian.

Awards

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| 2010 | Best Paper Award for <i>Streak Lines as Tangent Curves of a Derived Vector Field</i> at IEEE Visualization 2010 (with Holger Theisel) |
| 2009 – 2011 | Feodor Lynen Research Fellowship of the Alexander von Humboldt Foundation |
| 2008 | Karin-Witte-Award of the Otto-von-Guericke University Magdeburg |
| 2008 | Best doctoral candidate of the faculty of computer science, Otto-von-Guericke University Magdeburg |
| 2002 | Gallery of Fluid Motion Award, American Physical Society, Division of Fluid Dynamics, Dallas, Texas, USA (with Bernd R. Noack, Hans-Christian Hege, Michael Schlegel & Andreas Dillmann) |

Funded Projects

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| 2009 – 2011 | <i>Feature-Based Mesh Processing</i> , Feodor Lynen Research Fellowship of the Alexander von Humboldt Foundation, €72k |
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I was substantially involved in writing the proposals for the following projects that built the basis for the funding of my work at Zuse Institute Berlin:

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| 2007 – 2010 | Feature-Based Analysis and Comparison of Coherent Structures in Parameter-Dependent Flows, DFG Collaborate Research Center “Control of Complex Turbulent Shear Flows” (SFB 557) |
| 2004 – 2007 | Simulation and Feature-Based Analysis of High-Lift Configurations with Active Flow Control, DFG Collaborate Research Center “Control of Complex Turbulent Shear Flows” (SFB 557) |

Work Experience

Teaching

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| Winter 2011/12 | Scientific Visualization (with Jens Krüger)
Saarland University, Saarbrücken, Germany |
| Spring 2010 | Visualization
New York University, U.S.A. |

Employment

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|-------------------|---|
| 05.2011 – present | Max Planck Institute for Informatics, Saarbrücken, Germany
Senior Researcher
Head of the research group “Feature-Based Data Analysis for Computer Graphics and Visualization” |
| 01.2010 – 06.2010 | Courant Institute of Mathematical Sciences, New York University, U.S.A.
Adjunct Assistant Professor |

- 03.2009 – 02.2011 Courant Institute of Mathematical Sciences, New York University, U.S.A.
Postdoctoral Researcher
- 04.2001 – 02.2009 Zuse Institute Berlin, Germany
Researcher
- 11.2000 – 12.2000 Forschungsgesellschaft für Energie- und Umwelttechnologie mbH, Berlin, Germany
3D visualization of landscapes and simulation data
- 09.1997 – 02.1998 Siemens AG, Munich, Germany
Research internship

Professional Activities

Program Chair

- 2012 EuroVis Short Papers (Co-Chair with Miriah Meyer)

Program committee member

- 2012 PacificVis, Papers
Spring Conference on Computer Graphics, Papers
International Symposium on Visual Computing, Papers
IVAPP - International Conference on Information Visualization Theory and Applications, Papers
- 2011 Shape Modeling International, Papers
EuroVis, Papers
Vision, Modeling, and Visualization Workshop, Papers
TopoInVis, Papers
Spring Conference on Computer Graphics, Papers
International Symposium on Visual Computing, Papers
IVAPP - International Conference on Information Visualization Theory and Applications, Papers
- 2010 Eurographics and ACM SIGGRAPH Symposium on Geometry Processing, Papers
EuroVis, Papers
Spring Conference on Computer Graphics, Papers
International Symposium on Visual Computing, Papers
IVAPP - International Conference on Information Visualization Theory and Applications, Papers
- 2009 IEEE Visualization, Papers
EuroVis, Papers
Vision, Modeling, and Visualization Workshop, Papers
Spring Conference on Computer Graphics, Papers
International Symposium on Visual Computing, Papers
- 2008 EuroVis, Papers
SimVis, Papers
International Symposium on Visual Computing, Papers
IADIS International Conference on Computer Graphics and Visualization, Papers

2007 TopoInVis, Papers
International Symposium on Visual Computing, Papers
IADIS International Conference on Computer Graphics and Visualization, Papers

Reviewer

SIGGRAPH, SIGGRAPH Asia, Eurographics, IEEE Visualization, IEEE Transactions on Visualization and Computer Graphics, Eurographics and ACM SIGGRAPH Symposium on Geometry Processing, EuroVis, Shape Modeling International, Pacific Graphics, PacificVis, Computer Graphics International, Computer Aided Geometric Design, Computers & Graphics, VMV Workshop, Experiments in Fluids, SimVis, TopoInVis, Spring Conference on Computer Graphics, Computer Graphics Forum, International Symposium on Visual Computing, IADIS International Conference on Computer Graphics and Visualization, IVAPP - International Conference on Information Visualization Theory and Applications, International Journal of Image and Graphics.

Research visits and collaborations

03.2011 Visual Computing group, University Magdeburg, Germany
Prof. Dr. Holger Theisel
Analysis of time lines and new types of characteristic curves

07.2010 Center for Computation & Technology, Louisiana State University, Baton Rouge, USA
Dr. Werner Benger
Software design

05.2010 Visual Computing group, University Magdeburg, Germany
Prof. Dr. Holger Theisel
Analysis of characteristic curves of vector fields

10.2008 Courant Institute of Mathematical Sciences, New York University, U.S.A.
Prof. Olga Sorkine
Mesh processing

01.2007 Visualization and Interactive Systems Group & Institute of Aerodynamics and Gasdynamics, University Stuttgart, Germany
Prof. Dr. Thomas Ertl and Prof. Dr. Ulrich Rist
Vortex analysis and visualization

11.2006 Center for Computation & Technology, Louisiana State University, Baton Rouge, USA
Dr. Werner Benger and Prof. Brygg Ullmer
Flow analysis

09.2005 Max-Planck-Institut für Informatik, Saarbrücken, Germany
Dr. Holger Theisel and Prof. Dr. Hans-Peter Seidel
Vortex extraction schemes

07.2003 Max-Planck-Institut für Informatik, Saarbrücken, Germany
Dr. Holger Theisel and Prof. Dr. Hans-Peter Seidel
Higher-order topology

Invited talks and Tutorials

- 04.2012 Invited talk at the GMSV Summit 2012 of KAUST, Saudi Arabia
- 10.2011 Invited talk at the Joint MPI-INF/MPI-SWS Lecture Series, Saarbrücken, Germany
- 08.2011 Invited talk at the International Research Training Group of the University of Kaiserslautern, Germany
- 06.2011 Invited talk at the Dagstuhl Seminar “Scientific Visualization”, Germany
- 07.2010 Invited talk at the Center for Computation & Technology, Louisiana State University, Baton Rouge, USA
- 05.2010 Invited talk at the research seminar of the Visual Computing group, University Magdeburg, Germany
- 05.2009 Invited talk at the dissertation colloquium of the Gesellschaft für Informatik e.V. (the German association of computer science), Dagstuhl, Germany
- 10.2008 Invited talk at the Computational Topology, Algebra and Geometry Seminar, Courant Institute of Mathematical Sciences, New York University, New York, U.S.A.
- 09.2008 Invited talk at the VRVis-Forum, VRVis, Wien, Austria
- 06.2007 Invited talk at International Workshop on Visualization of High-resolution 3D Turbulent Flows, Ecole Normale Supérieure, Paris, France
- 01.2007 Invited talk at Visualization and Interactive Systems Group, University Stuttgart, Germany
- 11.2006 Invited talk at Center for Computation & Technology, Louisiana State University, Baton Rouge, USA
- 10.2006 Tutorial at IEEE Visualization 2006, Baltimore, USA
- 06.2005 Invited lecture at Technical University Berlin, Germany
- 11.2003 Invited talk at the Institute for Computer Graphics, University Rostock, Germany
- 05.2003 Invited talk at the Hermann Föttinger Institute, SFB 557, TU Berlin, Germany