

# Univ.-Prof. Dr.rer.nat. Dr.techn.h.c. Dr.-Ing.E.h. Thomas Ertl

## Current Position

Full Professor for Visualization and Interactive Systems, Computer Science Department and Visualization Research Center of the University of Stuttgart, Germany

## Academic Degrees

1976-1980 Study of Physics and Computer Science, University of Erlangen-Nürnberg  
1980-1982 Study of Computer Science at the University of Colorado, Boulder, USA  
1982 Master of Science in Computer Science, University of Colorado, Boulder, USA  
1988 PhD at the Faculty of Physics at the University of Tübingen  
2011 Honorary Doctorate of the University of Technology, Vienna, Austria  
2014 Honorary Doctorate of the University of Magdeburg, Germany

## Professional and Academic Career

1983 - 1991 Researcher at the Institute for Theoretical Astrophysics, University of Tübingen  
1992 - 1993 General Manager science+computing GmbH, Tübingen (1989-2000 part-time)  
1994 - 1999 Professor (C3) for Computer Graphics and Visualization at the Institute for Computer Science IX at the University of Erlangen-Nürnberg  
since 1999 Professor (C4/W3) for Practical Computer Science at the University of Stuttgart  
2000-2006 Head of Research and Innovation and Member of the Board of science+computing ag (part-time)  
2006-2008 Member of the Supervisory Board of science+computing ag  
2002-2016 Director of the Institute for Visualization and Interactive Systems (VIS)  
since 2006 Director of the Visualization Research Center of the University Stuttgart (VISUS)  
2006-2010 Vice-Dean of the Faculty for Computer Science and Electrical Engineering  
2013-2015 Dean of the Faculty for Computer Science and Electrical Engineering  
2015-2018 Vice-President for Research and Advanced Graduate Education  
2019- Spokesperson Cluster of Excellence *Data-integrated Simulation Science*  
2019- Director of the Stuttgart Center for Simulation Sciences (SC SimTech)

## Awards

- PhD Scholarship of the Studienstiftung des Deutschen Volkes (1984-1986)
- Outstanding Technical Contribution Award 2006 of the Eurographics Association
- Technical Achievement Award 2006 of the IEEE (VGTC)
- Outstanding Service Award 2010 of the IEEE (VGTC)
- Regular Member of the Heidelberger Academy of Sciences (since 2007)
- Distinguished Career Award 2016 of the Eurographics Association
- Visualization Career Award 2019 of the IEEE (VGTC)

## Research Areas

- Scientific Visualization and Visual Analytics
- Computer Graphics, especially GPU-based Techniques
- Human-Computer Interaction and interactive Systems

## Publications

Co-author of more than 500 peer-reviewed scientific publications.

h-index: 68, more than 18000 citations in total (Google Scholar)

## Projects (third-party funding)

Funding by the German Research Foundation (DFG) and by German Federal Ministry of Research (BMBF), State of Baden-Württemberg, European Union, and Industry:

DFG Excellence Cluster EXC 2075 *Data-integrated Simulation Science*

DFG Excellence Cluster EXC 310 *Simulation Technology (SimTech)*

DFG Graduate School GSC 262 *Advanced Manufacturing Engineering (GSaME)*

DFG SFB 716 *Dynamic Simulation of Systems with Large Number of Particles*

DFG SFB 1244 *Adaptive Hulls and Structures for the Tomorrows Built Environment*  
DFG SFB 1313 *Interface-Driven Multi-Field Processes in Porous Media*  
DFG SFB/Transregio 75 *Droplet Dynamics under Extreme Ambient Conditions*  
DFG SFB/Transregio 161 *Quantitative Methods for Visual Computing*  
DFG GRK 2106 *Droplet Interaction Technologies*  
DFG Priority Program SPP 1335 *Scalable Visual Analysis Techniques*  
DFG Priority Program SPP 1648 *Software for Exascale*  
BMBF CRETA: *Center for Reflective Text Analysis*  
BMBF HONK: *Industrial Numerics for Complex Flows in Hydraulic Systems*  
BMBF VASA: *Visual Analytics for Security Applications*  
BMBF ePoetics: *Corpus Development and Visualization of German poetics*  
EU iPatDoc: *Workbench for Interactive Contrastive Analysis of Patent Documentation*  
EU SAPPAN: *Sharing and Automation for Privacy Preserving Attack Neutralization*

## **Scientific Leadership**

Principal Investigator and Spokesperson of the Cluster of Excellence „*Data-integrated Simulation Science*“ at the University of Stuttgart (since 2019)  
Principal Investigator and Member of the Directorate of the Cluster of Excellence „*Simulation Technology*“ at the University of Stuttgart (2007-2018)  
Principal Investigator of the Graduate School „*Advanced Manufacturing Engineering*“ at the University of Stuttgart (2007-2018)  
Vice Coordinator of the DFG Collaborative Research Center 716 “*Dynamic Simulation of Systems with Large Number of Particles*” at the University of Stuttgart (2006-2017)  
Steering Committee DFG Priority Program „*Scalable Visual Analysis Techniques*“ (2008-2014)  
Steering Committee IEEE Visualization Conference (2004-2011)  
Steering Committee Eurographics Working Group on Data Visualization (2003-2012)  
Steering Committee IEEE Visual Analytics Science and Technology (2008-2010)  
Editor-in-Chief of the IEEE Transactions on Visualization and Computer Graphics (2007-2010)  
Editorial Board IEEE Transactions on Visualization and Computer Graphics (2003-2006)  
Paper Co-Chair: Supercomputing 2018 SciVis SC, Eurographics 2012, IEEE PacificVis 2009, IEEE VAST 2008, EuroVIS 2006, IEEE VolVis 2004, IEEE Visualization 2000/2001  
Conference Chair: PacificGraphics 2016, IEEE PacificVis 2011, Volume Graphics 2005/2006, Graphics Hardware 2002, Dagstuhl SciVis Seminar 2003/2005, VMV 2001

## **Advisory Boards, Reviewing, Academic Roles**

Selection Committee of the DFG Heinz Maier-Leibnitz Prize (since 2021)  
Member of the Computer Science Review Board of the DFG (2012-2020)  
Member of the ERC Advanced Grant Panel Computer Science 2011, 2013, 2015  
Member Scientific Advisory Board, Computer Science, University of Vienna (since 2017)  
Scientific Advisory Board VRVis, Vienna (since 2001)  
Scientific Advisory Board Science Campus Tübingen (2011-2016)  
Chairman Scientific Advisory Board Welsh Research Institute of Visual Computing (2009-2014)  
Advisory Board des Max-Planck-Centers for Visual Computing (2004-2009)  
Executive Committee of the Eurographics Association (since 2004)  
Vice Chairman of the Eurographics Association (2007-2010)  
Chairman of the Eurographics Association (2011-2012)

Reviewer for the DFG, the Federal Ministry for Education and Research, the European Union, the Austrian FWF, the Canadian NSERC, the Research Council of Norway, the Dutch National Science Foundation, and others.

## **Dissertations and Habilitations**

1 Habilitation and 51 PhD Dissertations supervised, additionally 48 PhD Dissertations co-supervised, currently 15 PhD researchers