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## Wolfgang A. Wall (Prof. Dr.-Ing.)

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Full Professor for Computational Mechanics  
Founding Director of Institute for Computational Mechanics  
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Personal: born in Salzburg (Austria), Austrian Citizen  
married, 3 children

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### Education, professional career (selection)

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#### *Education*

- 1983 Matura, Höhere Technische Bundeslehranstalt Salzburg (A), (with distinction)
- 1991 Graduation (Dipl.-Ing.) from University of Innsbruck (A), (with distinction)
- 1999 Ph.D. (Dr.-Ing.), University of Stuttgart (advisor: E. Ramm), Thesis: Fluid structure interaction with stabilized finite elements, (with distinction ‘summa cum laude’)

#### *Professional career, employment history*

- 1983 - 1984 Engineer in engineering consulting office, Salzburg (A)
- 1990 Visiting researcher, Princeton University (USA)
- 1992 - 1994 University assistant, Institute of Mechanics, University of Innsbruck (A)
- 1994 - 1997 DFG doctoral scholar – GK “Modeling and discretization methods for continua and fluids”, University of Stuttgart
- 1997 - 1999 Research assistant and team leader, Institute for Structural Mechanics, University of Stuttgart
- 1999 - 2003 Vice head of Institute for Structural Mechanics, University of Stuttgart
- 2003 - Full Professor (Ordinarius) for Computational Mechanics, Founding Director of Institute for Computational Mechanics, Technical University of Munich
- 2010 - 2012 Founding Director of *Munich School of Engineering*
- 2011 Co-Founder of company *AdCo Engineering<sup>GW</sup> GmbH*
- 2012 Founding Director of *Center for Computational Biomedical Engineering, CBME*
- 2019 Co-Founder of company *Ebenbuild GmbH*

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### Scientific community (selection)

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#### *Appointments, elected positions (selection)*

- 2004 - 2020 Member of Executive Council of German Association for Computational Mechanics (GACM)
- 2004 - Member of General Council of International Association for Computational Mechanics (IACM)
- 2003 - Honorary Member of Technology Network Alliance (TechNet)

- 2006 - Member of Scientific Council of International Centre for Mechanical Sciences (CISM), Udine, Italy
- 2008 - 2018 Member of Selection Committee “Landesforschungspreis Baden-Württemberg” (most prestigious (highest endowment) state research award in Germany)
- 2008 - Member of Foundation Board of Timoshenko-Föppl-Foundation
- 2008 Member of Committee on Fluid-Structure Interaction of Applied Mechanics Division, American Society of Mechanical Engineers (ASME)
- 2008 - 2012 Vice-President of German Association for Computational Mechanics (GACM)
- 2010 - Member of ECCOMAS CFD Committee
- 2011 - 2012 Member of Advisory Council of TUM President for German Excellence Initiative
- 2011 - 2017 Member of the Advisory Council of TUM Institute for Advanced Studies
- 2011 - 2017 Member of the Munich School of Engineering Executive Board
- 2012 - 2020 Chairman of ECCOMAS (European Community on Computational Methods in Applied Sciences and Engineering) CFD Committee
- 2012 - 2018 Member of Executive Council of International Association for Computational Mechanics (IACM)
- 2012 - 2016 Member of Advisory Council of the Leibniz Supercomputing Centre
- 2012 - 2020 Member (co-opted) of ECCOMAS Executive Council
- 2013 - 2016 President of German Association for Computational Mechanics (GACM)
- 2014 - 2017 Member of Founding Board of the TUM School of Bioengineering
- 2014 - Board Member for Research & Technology of Graz University of Technology (TU Graz, Austria)
- 2015 - Corresponding Member Abroad of Austrian Academy of Sciences
- 2015 - 2017 Editor-in-Chief of International Journal for Numerical Methods in Fluids
- 2015 - 2020 Member (& later Deputy Panel Chair) of ERC Advanced Grant Panel
- 2016 - Member of TUM Appointment and Tenure Board
- 2017 - Rector of International Centre for Mechanical Sciences (CISM), Udine, Italy
- 2017 - Member of the Bavarian Academy of Sciences and Humanities
- 2019 - Member of the Technical Scientific Council of Helmholtz-Zentrum Geesthacht (HZG, Centre for Materials and Coastal Research)
- 2020 - Chairman of Technical Scientific Council of Helmholtz-Zentrum Hereon GmbH
- 2021 - Member of Munich Institute of Biomedical Engineering (MIBE)
- 2021 - Member of Munich Institute of Robotics and Machine Intelligence (MIRMI)
- 2021 - Core Member of Munich Data Science Institute (MDSI)
- 2022 - Supervising lecturer of Austrian Study Foundation
- 2021 - Core Member of Institute on Materials, Energy and Process Engineering (MEP)
- 2022 - Member of Advisory Board of Leibniz Supercomputing Centre (LRZ)

*Awards (selection)*

- 1986, 1987, 1988 Excellency in Studying Awards (~ top 1%)
- 1991 Best graduation ever in Civil Engineering at Innsbruck University
- 1988-1991 Scholar of “Pro Scientia“
- 1994 European Academic Software Award
- 2000 Fritz-Peter-Müller Award, University of Karlsruhe
- 2000 Rotary Award for doctoral thesis, Stuttgart
- 2005 - Many (Golden) teaching Awards (from TUM students)

2008	Fellow Award of the International Association of Computational Mechanics
2011	Chuo University (Tokyo) Guest professorship Award for outstanding international scientists
2012	IACM Computational Mechanics Award
2013	Heinz Maier-Leibnitz Medal
2015	Elected as Corresponding Member abroad of Austrian Academy of Sciences
2016	Prandtl Medal (ECCOMAS)
2017	Elected as Member of the Bavarian Academy of Sciences and Humanities
2018	EUROMECH (Solid Mechanics) Fellows Award (European Mechanics Society)
2019	Several high rank awards for our start-up Ebenbuild in top start-up competitions
2021	European Research Council (ERC) Advanced Grant
2022	JSCES Grand Prize (highest award from the Japan Society for Computational Engineering and Science)

Regularly invited as plenary & keynote lecturer at major international conferences in Computational Mechanics, Computer Methods in Applied Science and Engineering, Biomechanics & Biomedical Engineering, etc.

Numerous high level awards (like Richard-von-Mises award, ECCOMAS Best PhD award, Bavarian teaching award, etc.) by scientific co-worker

#### *Editorial activities (selection)*

Editorial Board member of *International Journal for Numerical Methods in Engineering*, IJNME

Editorial Board member of *Computer Methods in Applied Mechanics and Engineering*, CMAME

Editorial Board member of *International Journal for Numerical Methods in Fluids*, IJNMF

Editorial Board member of *International Journal for Numerical Methods in Biomedical Engineering*, IJNMBE

Editorial Board member of *Advanced Modelling and Simulation in Engineering Sciences*, AMSES

Editorial Board member of *Acta Mechanica*

Editorial Board member of *Mechanics of Advanced Materials and Structures*

Editorial Board member of *International Journal for Coupled Systems Mechanics*, CSM

Advisory Editorial Board member of *Computer Assisted Methods in Engineering and Science*

Editorial Board member of *European Journal of Computational Mechanics*

Editor of Springer Book Series *CISM International Centre for Mechanical Sciences – Courses and Lectures*

#### *Reviewing activities*

Regular reviewer for more than 40 international scientific journals

Regular reviewer for a variety of national and multi-national funding agencies, research centres, international universities and governments

#### *Publications*

Hundreds of publications in peer-reviewed international journals (top journals in the fields)

- Scopus lists over 290 publications with an h-index of 48 (and an i10-index of 154)
- ISI / publons lists over 270 publications with an h-index of 45 (i10: 140)
- Google scholar lists an h-index of 63 (i10: 217)

Co-Author of textbook series on Engineering Mechanics (available in German and in English; the German version (now in its' 14<sup>th</sup> edition) is the best selling (across all disciplines/publishers) technical textbook series in German language)

*Research funding*

PI in a multitude of research projects funded by different funding agencies (e.g. German Science Foundation (DFG), European Science Foundation etc.) as well as in a variety of research projects directly funded by industry

*And many further services in Scientific and Academic Communities*

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**Research fields & Teaching activities**

For an overview on current activities please have a look at our webpages

- Home: <http://www.epc.ed.tum.de/lnm/home/>
- Research: <http://www.epc.ed.tum.de/lnm/research/> & <http://www.epc.ed.tum.de/lnm/publications/>
- Teaching: <http://www.epc.ed.tum.de/lnm/teaching/>

*Brief research statement*

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Research interests of Wolfgang A. Wall and his group can be described as “application motivated fundamental research” in a broad range of areas in computational mechanics, with applications spanning all fields of engineering and the applied sciences. With a strong basis in a variety of advanced single field problems (like computational solid/structural, fluid and transport dynamics), the current focus lies on coupled multifield and multiscale problems (like fluid-structure interaction, contact dynamics, thermo-structure interaction, electro-chemo-mechano-thermo interaction, opto-acoustics, porous media, multiphase transport, etc.) as well as on computational biophysics (on sub-cellular and cellular scale) and biomedical engineering (like modelling of respiratory and cardiovascular systems, cancer growth, etc.). In all these areas his group covers the full spectrum from advanced modeling and the development of novel computational methods to sophisticated software development and application-oriented simulations on high performance computing systems. Meanwhile, their research activities also include optimization, inverse analysis, uncertainty quantification, machine learning as well as experimental work. In collaboration with leading researchers worldwide as well as national and international industrial partners, LNM expedites projects at the front line of research.