

Curriculum Vitae

Gerhard A. Holzapfel, Ph.D.
Professor of Biomechanics

Office Graz	Graz University of Technology Institute of Biomechanics Stremayrgasse 16-II A-8010 Graz, Austria <i>Phone</i> <i>Fax</i> <i>E-mail</i> <i>URL</i>
Office Trondheim	Norwegian University of Science and Technology, Faculty of Engineering Science and Technology 7491 Trondheim, Norway

Education

1996	Habilitation in „ <i>Mechanics</i> “, Vienna University of Technology, Austria
1993 – 1995	Post-Doctoral Fellow at the Division of Applied Mechanics, Department of Mechanical Engineering, Stanford University; with late Prof. JC Simo
1990	Ph.D. Mechanical Engineering, Graz University of Technology (TU Graz), Austria; with distinction
1985	M.Sc. Civil Engineering, TU Graz, Austria; with distinction
1980	Graduation certificate from High School; with distinction

Professional Appointments

Since 4/16	Adjunct Full Professor in Biomechanics, Norwegian University of Science and Technology, Faculty of Engineering Science and Technology, Trondheim, Norway
Since 2/07	Full Professor of Biomechanics – Head of the Institute, Graz University of Technology, Austria
2/07 – 10/13	Adjunct Full Professor and Chair of Biomechanics, Royal Institute of Technology (KTH), Department of Solid Mechanics, Stockholm, Sweden
12/04 – 1/07	Full Professor and Chair of Biomechanics, KTH, Stockholm, Sweden
1/98 – 11/04	Associate Professor and Head of the Research Group “Computational Biomechanics”, Institute of Structural Analysis, TU Graz, Austria
5/87 – 12/97	Assistant at the Institute of Strength of Materials, TU Graz (1991 on leave, P.R. China; 1993-1995 on leave, USA)
1991	Visiting Scholar at University of Shenyang, P.R. China

Awards and Honors (partial)

6/24	Honoris Causa Doctorate, Institut Mines-Télécom, École des Mines de Saint-Étienne, Fr
6/22	Eugenio Beltrami Senior Scientist Prize
2021	Warner T. Koiter Medal from the American Society of Mechanical Engineers (USA)
2021	William Prager Medal from the Society of Engineering Science (USA)
3/19	Ordinary Member of the European Academy of Sciences and Arts Class VI: Technical and Environmental Sciences
1/18	Leverhulme Trust Visiting Professorship for the UK, University of Portsmouth The Leverhulme Trust was established in 1925 under the will of Viscount Leverhulme (William Lever)
9/15	Fellow of EUROMECH – European Mechanics Society
10/14	Highly Cited Researcher in Engineering (2014), by Thomson Reuters (later by Clarivate Analytics); listed as “The World’s Most Influential Scientific Minds: 2014” Worldwide there were 187 selected in Engineering, including one from Austria with this designation in this field. Highly Cited Researchers 2014 represents some of world’s leading scientific minds. They were determined by

- analyzing papers indexed within the Web of Science between 2002 and 2012, and they rank among the top 1% most cited in their specific field.
- 8/14 Elected member of the Academia Europaea
Section: Physics and Engineering Sciences
- 5/12 Corresponding Member of the Austrian Academy of Sciences
Section: Mathematics and the Natural Sciences
- 3/12 Founding Fellow of EAMBES (European Alliance for Medical and Biol Engrg & Science)
An EAMBES fellowship is indented "for individuals who have distinguished themselves by identifiable contributions or accomplishments in Medical and Biological Engineering and Science"
- 11/11 Erwin Schrödinger Prize 2011, Austrian Academy of Sciences
Annual award presented by the Austrian Academy of Sciences for lifetime achievements by Austrians in the fields of mathematics and natural sciences. The prize was established in 1956, and was first awarded to Erwin Schrödinger.
- 11/08 Research Award 2008 of the State of Styria, Austria, for Simulation and Modeling
- 12/07 Member of the young curia of the Austrian Academy of Sciences
The Young Curia ("Junge Kurie") is a panel of outstanding young scientists who should actively participate within the academy. It is an autonomous instrument that exists besides the Section for Mathematics and the Natural Sciences, and the Section for the Humanities and the Social Sciences.
- 3/03 Awarded with the "Josef-Krainer Würdigungspreis for exceptional achievements in the field of Biomechanics"
The prize-winners are selected among scholars from all disciplines by an interdisciplinary Jury after peer review.
- 7/97 START-Award 1997, granted by the Chancellor of the Republic of Austria and the Ministry for Education, Science and Culture
A START-Award is Austria's most prestigious research award for "outstanding young researchers of any discipline" and is selected by an International Jury. It supports research for 6 years.
- 92-93 Erwin Schrödinger Scholarship for foreign countries
An Erwin Schrödinger Scholarship for foreign countries is for young graduates of all disciplines who have distinctive qualifications.

Professorships

- Since 4/16: International Chair of Biomechanics, Norwegian University of Science and Technology, Faculty of Engineering Science and Technology, Trondheim
- Since 4/09: Visiting Professor, University of Glasgow, Scotland
- Since 2/07: Chair of Biomechanics, Graz University of Technology, Austria
- 5/13: Offer of a Chair in Biomedical Engineering, College of Science & Engineering, School of Engineering, University of Glasgow, UK (not accepted)
- 2/07 – 10/13: Adjunct Full Professor of Biomechanics, Royal Institute of Technology (KTH), Department of Solid Mechanics, Stockholm, Sweden
- 5/07 – 6/07: Visiting Professor, University of Zaragoza, Spain
- 12/04 – 1/07: Full Professor of Biomechanics, KTH, Stockholm, Sweden
- 7/03: Offer of a Chair (C4) in Continuum Mechanics, U of Kassel, Germany (not accepted)
- 4/03 – 5/03: Visiting Professor, Universidad Politécnica de Cataluña, Barcelona, Spain
- 11/02: Offer for a Visiting Professorship, University of Trento, Italy (not accepted)
- 5/01: Offer for a Visiting Professorship, Polish Academy of Sciences, Warsaw (not accepted)

Publications

8 books; 29 book chapters; 290 Peer-Reviewed Articles; 10 Editorials; 71 Conference Proceedings (Full Papers); 600+ abstracts for oral and Poster Presentations in 32 countries

28 Plenary lectures (e.g., 14th Int Conf Mech Beh Mat, Santiago, *Chile*; 7th Int Conf Biomat & Tissues, Waikoloa, Hawaii, *USA*; 14th + 11th + 10th Int Conf Comp Plasticity, Barcelona, *Spain*; 15th Int Conf Biomed Engrg, *Singapore*; 4th Can Conf Nonlin Solid Mech, Montréal, *Canada*; 6th Eur Solid Mech Conf, Budapest, *Hungary* ...)

81 Keynote and special invitation lectures at international conferences (e.g., 8th World Cong Biomech, Dublin, *Ireland*; The 2017 Utah Bioeng Conf, Salt Lake City, *USA*; 2nd Oxford Brain Mech Worksh, *UK*; IUTAM Symposium on Comp Mod Biomech, Stanford U, *USA*; 47th Ann Tech Meet SES, Iowa, *USA*; 19th Nordic Sem Comp Mech, Lund, *Sweden* ...)

76 Endowed lectures at Universities (e.g., Cambridge, Oxford, Glasgow, Southampton ... in *UK*; Yale, Stanford, Berkeley, Boston, Georgia Tech, U Michigan, Tucson ... in *USA*; ETH Zurich and EPFL in *Switzerland*; Tokyo in *Japan*; Bilkent U and Koç U in *Turkey*; Cape Town in *South Africa*; Madrid, Zaragoza, Sevilla, Granada, Barcelona ... in *Spain*; Hannover, Munich, Berlin, Heidelberg, Aachen, Darmstadt, Stuttgart ... in *Germany*)

Professional Service (partial)

Editorial and Advisory Boards to Journals/Lecture Notes

- Co-Editor-in-Chief and co-founder, Biomechanics and Modeling in Mechanobiology, since 2002
- Associate Editor, Mechanics of Soft Materials, since 2018
- Advisory Board: Journal of the Mechanical Behavior of Materials, since 2013
- Advisory Board: Transactions of FAMENA, since 2015
- Editorial Board: (i) Zeitschrift für Angewandte Mathematik und Mechanik, since 2006; (ii) Acta Technica Napocensis, Series: Applied Mathematics, Mechanics and Engineering, 2009-18; (iii) International Journal for Numerical Methods in Biomedical Engineering, since 2010; (iv) Lecture Notes in Computational Vision and Biomechanics, since 2012; (v) Artery Research, since 2013; (vi) American Journal of Physiology: Heart and Circulatory Physiology, 2013-15; (vii) International Biomechanics, since 2014; (viii) Journal of Elasticity, since 2016; (ix) International Journal for Computational Vision and Biomechanics, since 2017; (x) Brain Multiphysics, since 2019; (xi) Life – Open Access Journal, since 2020; (xii) Discover Mechanical Engineering, since 2022

Organizer and Chairman of Symposia (since 1996)

- Since 2001 coordinator of 10 Summer Schools on Solid Biomechanics in Graz and Udine
- Organizer and Chairman of the 8th European Solid Mechanics Conference, Graz, Austria, July 9-12, 2012 (1200+ participants from 61 nations)
- Co-organizer and co-chairman of the 82nd Annual Meeting of the International Association of Applied Mathematics and Mechanics (2011), Graz, Austria (1000+ participants)
- Co-organizer and co-chairman of IUTAM-Symposia, Stanford U (2011) and Graz (2004)
- Co-organizer and co-chairman of 70 Mini-Symposia at International Conferences and workshops

Leadership in National and International Committees and Panels (since 2001)

- Member of the ERC Advanced Grant Panel PE8: 2017, 2019, 2021, 2023
- Chair of Scientific Committee: 11th European Solid Mechanics Conference, Ireland, 2022
- Chairman of the European Solid Mechanics Conference Committee, since 2018
- Member of Working Party on Biomechanics (WP6) within IUTAM (2003-2012), Chair 2006-2012
- Member of World Council of Biomechanics, 2014-2026
- Member of other ~90 Scientific Committees, 10+ Advisory Committees, 10 Program Committees of conferences

Research Grants

PI and Co-I of 30+ research grants: TUGraz, Austrian Science Fund, Austrian Academy of Sciences, Austrian Exchange Service; Royal Institute of Technology, Swedish Research Council; National Institutes of Health (NIH); The Royal Society, Carnegie Trust; European Commission; industry

Supervisor – Assigned Examiner

2 Habilitation Thesis, 21 Post-Doctoral Fellows (thereof 18 finished); 37 Doctoral Students (thereof 29 defended); 50+ Assignments as examiner and expert for PhD-Thesis

Teaching Experience

Graz University of Technology, Austria; Royal Institute of Technology, Sweden; NTNU, Trondheim, Norway; University of Zaragoza and Universidad Politécnica de Cataluña, Spain; Vienna University of Technology, Austria; University of Shenyang, P.R. China – Lecturer of 17 Advanced Schools