

Curriculum Vitae

**Gerhard A. Holzapfel,
Ph.D.**

Professor of Biomechanics

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Personal Data

Date of Birth May 22, 1961
Place of Birth Graz, Austria
Citizenship Austria

Education

1996 Habilitation in „*Mechanics*“, 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
6/86 – 1/87 National Service at Red Cross
1985 M.Sc. Civil Engineering, TU Graz, Austria; with distinction
1980 Graduation certificate from High School; with distinction

Professional Appointments

Since 02/07 Full Professor of Biomechanics – Head of the Institute, Graz University of Technology, Austria
Since 02/07 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 and Docent 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

11/11	Erwin Schrödinger Prize 2011, Austrian Academy of Sciences
11/08	Research Award 2008 of the State of Styria, Austria, for Simulation and Modeling – Basic Research and University Research
Since 12/07	Member of the young curia of the Austrian Academy of Sciences
3/03	Awarded with the "Josef-Krainer Würdigungspreis 2003 for exceptional achievements in the field of Biomechanics"
7/97	START-Award 1997, granted by the Chancellor of the Republic of Austria and the Ministry for Education, Science and Culture
1992 – 1993	Erwin Schrödinger Scholarship for foreign countries
1983	Winner of the Amann-Foundation

Professorships

- Since 4/09: Visiting Professor, University of Glasgow, Scotland
- Since 2/07: Full Professor of Biomechanics, Graz University of Technology, Austria
- Since 2/07: 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, University 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)

Editorial Appointment

Co-Founder and Co-Editor of the International Scientific Journal “*Biomechanics and Modeling in Mechanobiology*”, Springer-Verlag, since 2002; appears 6x per year www.springeronline.com/journal/10237 (2010 impact factor: 3.162).

Publications

5 books; 15 book chapters; 100+ Peer-Reviewed Articles; 42 Conference Proceedings (Full Papers); 250+ Oral and Poster Presentations; 45 Invited Lectures at Universities

Four References to Papers

G.A. Holzapfel, T.C. Gasser and R.W. Ogden: A new constitutive framework for arterial wall mechanics and a comparative study of material models. *Journal of Elasticity*, **61** (2000) 1–48.

T.C. Gasser, R.W. Ogden and G.A. Holzapfel: Hyperelastic modelling of arterial layers with distributed collagen fibre orientations. *Journal of the Royal Society Interface*, **3** (2006) 15–35.

G.A. Holzapfel, G. Sommer, C.T. Gasser and P. Regitnig: Determination of layer-specific mechanical properties of human coronary arteries with nonatherosclerotic intimal thickening, and related constitutive modeling. *American Journal of Physiology – Heart and Circulatory Physiology*, **289** (2005) H2048–2058.

G.A. Holzapfel and R.W. Ogden: Constitutive modelling of arteries. *Proceedings of the Royal Society of London A*, **466** (2010) 1551–1597.

Total Citations, Hirsch Index (ISI Web of Science)

Total Citation: 3774 (from February 18, 2012)
H-Index: 26
Average Citations per Item: 24.08

Research Grants

PI, Co-I of 20 research grants: TU Graz, Austrian Science Fund, Austrian Academy of Sciences, State of Styria, Österreichische Nationalbank (Jubiläumsfonds), Austrian Exchange Service, KTH, Swedish Research Council, National Institutes of Health (NIH), The Royal Society, Carnegie Trust, European Commission, industry

Service to the Scientific Community

Co-organizer of 44 Symposia; Member of 67 Boards, Committees, Panels and Societies; Lecturer of 10 Advanced Schools; Reviewer of 65 Scientific Journals; Grant Reviewer of 22 different grant organizations

Supervisor – Assigned Examiner

6 Post-Doctoral Fellows (thereof 3 finished); 18 Doctoral Students (thereof 11 defended); 20+ Assignments as examiner and expert for PhD-Thesis

Teaching Experience

Graz University of Technology, Austria; Royal Institute of Technology, Sweden; University of Zaragoza and Universidad Politécnic de Cataluña, Spain; Vienna University of Technology, Austria; University of Shenyang, P.R. China

Research Interest

Experimental and computational biomechanics and mechanobiology; analyses of growth and remodeling; mechanics of soft biological tissues; cardiovascular mechanics; arterial mechanics (atherosclerotic plaques, aneurysms); balloon angioplasty and stent implantation; MRI; medical image processing; continuum mechanics; constitutive theory; finite elasticity; nonlinear finite element methods; fracture and material failure.