

Short CV of Christian Hellmich

Christian Hellmich is full professor at Technische Universität Wien (TUW, Vienna, Austria), directing there the Institute for Mechanics of Materials and Structures. At TUW, he received his (civil) engineering diploma (1995), his Dr.techn. (PhD, 1999), and his habilitation (2004). Being on leave from his academic position at TUW, he was Postdoctoral Fellow at M.I.T. from 2000 to 2002; and over the years, he has held several short-term visiting professorships in France, Italy, and Germany.

Together with collaborators across the globe, he has developed (micro)structural bio-chemo-mechanical models, in terms of theoretical foundations, computational realization, and experimental validation for various biological and man-made systems; including bone and soft tissues, cement and concrete, wood and wood composites, rock and soil, brick, steel, rubber, graphene, DNA, as well as metal-, mineral-, polymer-, and glass-based biomaterials. These mathematical models are employed in concrete, tunnel, pipeline, and biomedical engineering.

Also trained as a violinist, he has been active at the crossroads of Science and Arts, from which he takes a broad cultural perspective on the nature of universities and their role in society. This is also reflected by his interdisciplinary work integrating engineers, physicists, chemists, biologists, and medical doctors.

Christian Hellmich has co-authored 160 peer-reviewed publications; and about the same amount of book chapters and proceedings papers; he has given more than 300 presentations at international conferences and universities, often as invited, keynote, or plenary speaker.

He serves in editorial roles for several peer-reviewed journals, including Journal of Engineering Mechanics (ASCE), Mechanics of Materials, and AIP Applied Physics Reviews. He has provided extensive reviewing and advisory service for various universities and science foundations, including his role as a panel member for the European Research Council (ERC). He has also served in the Engineering Mechanics Institute of the American Society of Civil Engineers (EMI-ASCE), in particular so in the Board of Governors and in various technical committees, as president of the International Association for Concrete Creep (IA-CONCREEP), as president of the Austrian Chapter of the European Society of Biomechanics (ESB), as symposium organizer for the Materials Research Society (MRS), and in the Board of Directors of the Young Academy of the Austrian Academy of Sciences (ÖAW).

His activities have been recognized through several national and international awards, such as the Kardinal Innitzer Advancement Award of the Archdiocese of Vienna (2004), the Science Recognition Award of the Region of Lower Austria (2005), the Zienkiewicz Award of the European Community on Computational Methods in Applied Sciences (ECCOMAS, 2008), an ERC grant (2010), and the Walter L. Huber Research Prize of ASCE (2012); moreover, he was named Fellow of EMI (2014), Fellow of the European Alliance of Medical and Biological Engineering & Sciences (EAMBES, 2019), and corresponding member of ÖAW (2019).

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