

Curriculum vitae

Personal data

Name: Timon Rabczuk
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Professional Experience

- 12/1997 Dipl.-Ing. in Structural Engineering, University of Karlsruhe (nowadays called KIT), Germany
- 02/1998-12/2001 Scientific co-worker (PhD student) at the 'Institute of Concrete Structures and Materials Science' at the University of Karlsruhe
- 01/2002-02/2002 Postdoctoral Fellow at the Fraunhofer Institut für Kurzzeitdynamik-Fraunhofer (Ernst Mach) with Prof. K. Thoma
- 01/2002 PhD-defense: Numerische Untersuchungen zum Fragmentierungsverhalten von Beton mit Hilfe der SPH-Methode (Numerical analysis of concrete fragmentation using SPH)
- 02/2002-09/2005 Postdoctoral fellow at Northwestern University, Department of Mechanical Engineering, Group of Computational Mechanics, Evanston, Illinois, USA with Prof. T. Belytschko
- 10/2005-01/2007 Postdoctoral fellow at the Chair of Computational Mechanics, Department of Mechanical Engineering, Technical University of Munich, Germany
- 02/2007-02/2009 Senior Lecturer at the University of Canterbury, Department of Mechanical Engineering, Christchurch, New Zealand
- since 02/2009 Univ.-Professor (full professor) at the Bauhaus University of Weimar, chair of Computational Mechanics, Institute of Structural Mechanics, Department of Structural Engineering, Weimar, Germany
- since 06/2023 Vice President of Research and Projects at Bauhaus University Weimar

Membership and awards

- 07/2005 Awarded Marie-Curie Intra-European Fellowship (not used)
- Editorial Board member of several journals such as 'Computer Methods in Applied Mechanics and Engineering', 'Applied Physics A', 'Composite Structures', 'Computational Materials Science', 'Finite Elements in Analysis and Design', 'Computers & Structures', 'Theoretical and Applied Fracture Mechanics', 'Engineering with Computers', 'Mechanics of Advanced Composite Structures' or 'Journal of Computational Design and Engineering (JCDE)'
- since 01/2015 Executive Editor of 'Frontiers of Structural and Civil Engineering' (Journal of the Chinese Academy of Engineering) (IF=2.37)

since 09/2016	Associate Editor of 'International Journal of Impact Engineering' (IF=4.208)
since 03/2018	Editor-in-chief of 'Computers, Materials & Structures' (CMC) (IF=3.772)
since 01/2021	Associate Editor of 'Applied Physics A' (IF=2.584)
since 01/2022	Associate Editor of 'International Journal of Mechanics and Materials in Design' (IF=4.011)
since 04/2022	Associate Editor for 'Underground Space' (IF=2.824)
since 05/2022	Associate Editor for 'Defense Technology' (IF=3.172)
2014-2021	Listed as ISI-Highly Cited Researcher in the categories 'Computer Science' and 'Engineering'

Professional Services

Reviewer for more than 50 journals and several funding agencies including the German Research Foundation (DFG), the ERC (European Research Council), Swiss National Science Foundation (SNSF), Independent Research Fund Denmark, CSF (Czech Science Foundation), FWF (Förderung der wissenschaftlichen Forschung) in Austria, the Research Council for Natural Sciences and Engineering at the Academy of Finland, the U.S. Army Research Office, the U.S. Department of Energy Office of Science and Ministry of Education and Science of the Russian Federation, the United States-Israel Binational Science Foundation, the National Research Foundation of Korea (NRF), ANR French Research Agency, FWO Exertpanel member Chemical Engineering and Materials Science (Belgium), Panel Member of 'La Caixa' Fellowships (Spain) and committee member of numerous recruitment committees within Europe.

up to now	Completed 38 PhD students
currently	Supervisor of 20 PhD students and 5 postdocs

Selected Research Grants

2017-2022	H2020-MSCA-RISE-2016: Environmentally best practices and optimisation in hydraulic fracturing for shale gas/oil development (BESTOFRAC)
2014-2019	ERC-CoG Computational Modeling and Design of Lithium-ion Batteries (COMBAT)
01/2012-12/2015	Coordinator of the FP7-ITN (Initial Training Network): Integrating Numerical Simulation and Geometric Design Technology (INSIST)
since 202	Carl-Zeiss Stiftung 'Durchbrüche - Exzellenz in der Forschung': Funktionalisierung smarterer Werkstoffe unter Mehrfeldanforderungen für die Verkehrsinfrastruktur, (PI)

Research Interests

Computational Science (Modeling and Simulation)

Computational Mechanics (Computational Solid Mechanics and Computational Fluid-Structure-Interaction)

Computational Materials Design

Integrated Computational Materials Engineering

Numerical Methods (especially for the solution of partial differential equations)

Challenging applications in engineering and materials science including modeling and computational design/optimization of composites, flexoelectric materials, 2D materials and battery materials.

Biomechanical Engineering (biomembranes and vesicles)

Weimar, 28.6.2023