

Anton Tkachuk

Curriculum Vitae

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Profile

- research in field of the computational mechanics
- acquiring of funding from German Research Foundation (DFG)
- supervision of DFG-funded and industrial projects
- frequent reviewer of scientific papers and grants
- co-organizer of summer schools for doctorate students, conferences and minisymposia
- building academic exchange via German Academic Exchange Service (DAAD) and Erasmus
- author of 25 research items with h-index 8 (via Scopus) <https://www.scopus.com/authid/detail.uri?authorId=7005003265>

Education

- 2022 **Habilitation**, *Computational Mechanics*, University of Stuttgart.
Title: Parametrized variational principles in dynamics
- 2013 **Dr.-Ing, summa cum laude**, *Institute for Structural Mechanics*, University of Stuttgart.
Title: Variational methods for consistent singular and scaled mass matrices
- 2009 **M.Sc. honor roll**, *Computational Mechanics*, University of Stuttgart.

Work experience

- 2021– **Senior lecturer**, *Mechanical and Materials Engineering*, Karlstad University.
- Present Teaching Solid mechanics, Finite element method, Modeling and simulation. Setting up research in structural optimization, digitalization and applied finite element analysis.
- 2015–2020 **PostDoc**, *Institute for Structural Mechanics*, University of Stuttgart.
- 2014–2015 **PostDoc**, *Department of Aerospace Engineering*, University of Colorado at Boulder.
Topology optimization of active printed composites, Air Force Office of Scientific Research.
- 2009–2014 **PhD candidate**, *Institute for Structural Mechanics*, University of Stuttgart.

Acquired research funding

- 2020 **Temporary Position for PI**, *Project TK 63-3/1*, **ca. 280T€**, finalized after 6 months due accepted position at Karlstad University.
Title: Heuristic dispersion design for discrete systems and acoustic metamaterials via matrix rank minimization.
- 2017–2019 **Temporary Position for PI**, *Project TK 63-1/1*, **ca. 188T€**.
Title: Methods for selective scaling of strain and inertia for explicit dynamics with tetrahedral finite elements.
- 2016–2019 **DAAD-project for research mobility**, *Project-ID 57219898*, **ca. 7T€**, with Ph.D. R. Kolman, Stuttgart/Prague.
7 participants, 15 visits with overall duration of ca. 170 days.
- 2015–2019 **Individual personal project of DFG**, *together with Prof. M. Bischoff, Project BI 722-10/1*, **ca. 200T€**.
Title: Variational Methods for Mass Scaling.

Awards

- 2019 **DAAD-Internship for student groups**, *Project-ID 57480787*, **ca. 7T€**.
2015 **JMD Editors' Choice Paper Award**.
2015 **DAAD-Internship for student groups**, *Project-ID 57194684*, **ca. 10T€**.
2007–2009 **DAAD-Scholarship for master studies**, *at the University of Stuttgart*, **15 T€**.
2005–2007 **Scholarship of the President of Ukraine**, *for excellent performance at studies*.

Languages

English	Fluent written and spoken	
German	C1 level	<i>exam passed at Deutsch-Kollegs Stuttgart (2013)</i>
Ukrainian	native speaker	
Russian	native speaker	
Swedish	Basic	<i>Basic words and phrases only</i>

Reviewer

- Proposals for DFG (Germany), GACR (Czech Republic) and NRFU (Ukraine)
- International Journal for Numerical Methods in Engineering (IJNME)
- Advances in Engineering Software (AES)
- Applied Mathematics and Computation (AMC)
- Applied Mathematical Modelling (APM)

Organization of Summer Schools and Conferences

- Organized 3 summer schools for doctorate students in advanced methods in dynamics, Prague, Czech Republic in 2016, 2018 and 2020 (ca. 35 participants each year) with R. Kolman, K.C. Park and J. Kruis
- Organizer of a minisymposium at COMPDYN 2019, Crete, MS with J. Naprstek, R. Kolman, J.A. Gonzalez, K.C. Park
- Member of the Scientific Committee of the ECCOMAS Regional Conference, "The 2nd International Conference on Advanced Modelling of Wave Propagation in Solids". Prague, 2018 (ca. 50 participants)
- Member of the local organizing committee and organizer of a minisymposium at GACM 2017 (ca. 250 Participants), Stuttgart, MS with A. Popp, Ch. Hesch, Ch. Wilking about Computational Contact Mechanics (15 contributions)
- Organizer of a minisymposium at COMPDYN 2017, Rhodos, MS with J. Naprstek, R. Kolman, K.C. Park
- Organizer of a minisymposium at WCCM 2016, Seoul, MS with S.S. Cho, R. Kolman, K.C. Park
- Organizer of a minisymposium at joint YIC ECCOMAS 2015 and GACM 2015, Aachen, MS with R. Kolman
- Member of the local organizing committee of ECCOMAS Thematic conference, Particles 2013, Stuttgart (ca. 250 participants)