

Curriculum Vitæ - Josef Kiendl

Personal data and contact information

Born: December 16, 1980 in Deggendorf, Germany
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Education and Academic Positions

since 2022 Dean of Studies at the Department of Civil Engineering and Environmental Sciences, University of the Bundeswehr Munich
since 2020 Full professor at the Institute of Engineering Mechanics Structural Analysis, Department of Civil Engineering and Environmental Sciences, University of the Bundeswehr Munich
2020-2023 Adjunct Associate Professor at the Department of Marine Technology, NTNU Trondheim
2016-2019 Associate Professor (Onsager fellowship) at the Department of Marine Technology, NTNU Trondheim
2015-2016 Assistant Professor (Juniorprofessor) at the Institute for Applied Mechanics, Department of Civil Engineering, TU Braunschweig
2012-2015 Postdoctoral Researcher at the Department of Civil Engineering and Architecture, Computational Mechanics and Advanced Materials Group, University of Pavia, Italy
2011 PhD with highest distinction (summa cum laude). Thesis: *Isogeometric Analysis and Shape Optimization of Shell Structures*, TU Munich, Germany
2007-2011 PhD student of the *International Graduate School of Science and Engineering* (IGS-SE), at the Chair of Structural Analysis, TU Munich, Germany
2005 Master's Degree
2000-2005 Student of civil engineering at TU Munich, Germany

Non-academic professional experience

2011 Project manager at DrillTec GmbH for the Poland Shale Gas drilling project, Malbork, Poland
2005-2007 Project engineer at Max Streicher GmbH for the Adriatic LNG pipeline project in Porto Viro, Italy

Research stays abroad

2022	Invited visiting professor (4 weeks) at University of Calabria, Italy
2014	Visiting scholar (2 weeks) at Prof. Hughes, ICES, University of Texas at Austin
2013	Visiting scholar (1 month) at Prof. Hughes, ICES, University of Texas at Austin
2010	Visiting scholar (1 month) at Prof. Bazilevs, Department of Structural Engineering, University of California, San Diego (UCSD)
2009	Visiting scholar (2 months) at Prof. Bazilevs, Department of Structural Engineering, University of California, San Diego (UCSD)

Awards

2019	<i>ERC Consolidator grant</i>
2017	<i>Highly Cited Researcher</i> according to Clarivate Web of Science
2016-2019	<i>Onsager Fellowship</i> of NTNU, awarded to young, internationally recognized researchers to strengthen the university's academic community.
2016	<i>Richard-von-Mises Prize</i> , awarded by the International Association of Applied Mathematics and Mechanics (GAMM) in acknowledgment of scientific achievement in the area of applied mathematics and mechanics.
2013	<i>GAMM Award 2013</i> for organizing a Young Researcher Minisymposium at the 84th Annual Meeting of the International Association of Applied Mathematics and Mechanics (GAMM)
2011	<i>PhD Dissertation Award</i> of the Association of Friends of the Technical University of Munich to the six best PhD dissertations at TU Munich in 2011
2007-2011	<i>PhD stipend</i> of the International Graduate School of Science and Engineering (IGSSE) at TU Munich

Publications and citations

76 papers in peer-reviewed international journals, a detailed list is found attached
8122 citations, h-index 43 according to *Google Scholar*
6027 citations, h-index 38 according to *Scopus*

Research projects and third-party funding

2020-2026	ERC Consolidator Grant of the European Research Council: <i>Structural multiscale modelling of extrusion-based 3D and 4D printed materials</i> . Funding: €2,000,000. Role: Principal Investigator
2020-2026	DTEC-FLAB3D: <i>Research laboratory for additive manufacturing</i> . Funding: €14,240,000. Role: Leader of one work package, supervisor of one Postdoc
2021-2025	BRASSCO-NG: <i>Semi-automated bridge assessment</i> . Funding: €1,270,000. Role: Principal Investigator for the software development, supervisor of one PhD student (value of sub-project €670,000)

- 2017-2020 Knowledge-Building Project for Industry of the Norwegian Research Council (NRC): *Flexible propulsors for marine applications*. Partners: Sintef Ocean, Rolls Royce Marine. Funding: NOK 16,550,000 (€1,700,000) Role: Leader of one work package, supervisor of one PhD student
- 2019-2020 Mobility grant of the German Academic Exchange Service (DAAD) and Norwegian Research Council (NRC): *Spline-based Methods for Fluid-Structure Interaction in liquid storage tanks under seismic loading*. Funding: €20.700 Euro. Role: Principal Investigator Norwegian side
- 2018-2019 NTNU-internal call for funding research projects: *3D printing of bio-inspired architected materials*. Funding: NOK 2,330,000 (€240,000) Role: Principal Investigator
- 2018-2019 Mobility grant of the German Academic Exchange Service (DAAD) and Norwegian Research Council (NRC): *Isogeometric phase-field modeling of fatigue in slender structures*. Funding: €18.500 Euro. Role: Principal Investigator Norwegian side
- 2018 Funding by the Norwegian Shipowners Association for financing a FFF 3D-printer. Sum: NOK 30,000 (€3,100). Role: Principal Investigator

Functions of academic self-administration

- since 2022 Dean of Studies at the Department of Civil Engineering and Environmental Sciences, UniBw Munich
- since 2022 Head of the Strategic Committee of the Department of Civil Engineering and Environmental Sciences, UniBw Munich
- 2019 Member of the Strategic Committee of the Department of Marine Technology, NTNU Trondheim

Conference contributions

- 1 Plenary lecture, at the ECCOMAS thematic conference IGA 2019
- 2 Semiplenary lectures, one at the ECCOMAS congress 2022
- 5 Keynote lectures
- 42 Contributions as first author, of which 36 invited

A detailed list is found in the attached list of conferences

Invited talks at seminars and workshops

- 2024 Seminar at the Department of Applied Mathematics of TU Delft, The Netherlands
- 2023 Seminar at the “Mechanik Kolloquium” at TU Darmstadt, Germany
- 2022 Seminar at the University of Calabria, Rende, Italy
- 2022 Seminar at the Fraunhofer Ernst-Mach-Institut (EMI), Freiburg, Germany
- 2019 Lecture for the *EU regional school* at Aachen Institute for Advanced Study in Computational Engineering Science (AICES), RWTH Aachen University, Aachen, Germany

- 2018 Presentation at the first KSCM-GACM Joint Workshop, Seoul, South Korea
- 2018 Seminar at the Chair of Numerical Modelling and Simulation of EPFL Lausanne, Switzerland
- 2018 Seminar at the Aachen Institute for Advanced Study in Computational Engineering Science (AICES), RWTH Aachen University, Aachen, Germany
- 2017 Seminar at the Digital Manufacturing and Design (DManD) Centre, Singapore University of Technology and Design (SUTD), Singapore
- 2017 Seminar at the Centre for Advanced Structural Analysis (CASA), NTNU Trondheim, Norway
- 2017 Seminar at the Department of Civil Engineering and Architecture, University of Pavia, Italy
- 2017 Seminar at the Aachen Institute for Advanced Study in Computational Engineering Science (AICES), RWTH Aachen University, Aachen, Germany (*declined due to illness*)
- 2014 Seminar at the Department of Civil Engineering and Architecture of Aalto University, Espoo, Finland
- 2014 Seminar at the Aerospace Engineering Department of Iowa State University, Ames, USA
- 2013 Seminar at the International School of Advanced Studies (SISSA), Trieste, Italy
- 2012 Lecture at the Summer School *IsoGeometric Analysis: a New Paradigm in the Numerical Approximation of PDEs* of the International Mathematical Summer Center (CIME), Cetraro, Italy
- 2011 Lecture for the *Seminar of the Department of Structural Mechanics*, TU Kaiserslautern, Germany
- 2010 Presentation at *FE im Schnee*, Hirschegg, Austria:
- 2009 Presentation at the *International Workshop on Environment and Alternative Energy (organized by NASA, G3P, and GE)*, Munich, Germany
- 2009 Presentation at the *First International Workshop on Computational Engineering - Special Topic Fluid-Structure-Interaction*, Herrsching, Germany
- 2009 Presentation at the *International Workshop, Technology and Society*, Weimar, Germany

Organization of congresses and symposia

- 2026 Minisymposium *Large deformation beams and shells: formulation advances and innovative applications* within WCCM-ECCOMAS2026: 17th World Congress on Computational Mechanics and 10th European Congress on Computational Methods in Applied Sciences and Engineering, Munich, Germany
- 2026 Minisymposium *Isogeometric Analysis of Thin Structures* within WCCM-ECCOMAS2026: 17th World Congress on Computational Mechanics and 10th European Congress on Computational Methods in Applied Sciences and Engineering, Munich, Germany
- 2025 Minisymposium *IGA for thin structures* within IGA2025: 13th International Conference on Isogeometric Analysis, Eindhoven, The Netherlands
- 2025 Minisymposium *Structural Mechanics* within GAMM 2025: 95th Annual Meeting of the International Association of Applied Mathematics and Mechanics, Poznan, Poland
- 2024 Minisymposium *IGA for thin structures* within IGA2024: 12th International Conference on Isogeometric Analysis, St. Augustine, USA
- 2023 Minisymposium *Solids and Structures* within IGA2023: 11th International Conference on Isogeometric Analysis, Lyon, France
- 2022 Minisymposium *IGA for Solids and Structures* within the 10th International Conference on Isogeometric Analysis, Banff, Canada
- 2022 Minisymposium *Non-material modelling of axially moving continua: Arbitrary Lagrangian-Eulerian description in structural mechanics*, within WCCM-APCOM 2022: the joint 15th World Congress on Computational Mechanics and 8th Asian Pacific Congress on Computational Mechanics, Yokohama, Japan
- 2022 Minisymposium *Nonlinear mechanics of beam, plate, membrane and shell structures: models and methods*, within ICoNSoM 2022: International Conference on Nonlinear Solid Mechanics, Sardinia, Italy
- 2020 Minisymposium *IGA for Solids and Structures* within the USACM thematic conference on Isogeometric Analysis, Banff, Canada
- 2020 Minisymposium *Computational analysis and methods for solids, structures, and metamaterials within generalized continua*, within the joint 14th World Congress in Computational Mechanics and ECCOMAS Congress, Paris, France
- 2019 Minisymposium *Collocation*, within the 7th International Conference on Isogeometric Analysis, Munich, Germany

- 2019 Minisymposium *Novel Formulations and Discretization Methods for Thin-walled Structures*, within the 8th GACM Colloquium on Computational Mechanics, Kassel, Germany
- 2019 Minisymposium *Complex Structures and Microarchitectures of Metamaterials*, within the International Conference on Nonlinear Solid Mechanics, Rome, Italy
- 2018 Minisymposium *Solids and Structures* within the USACM thematic conference IGA 2018: Integrating Design and Analysis, Austin TX, USA
- 2018 Minisymposium *Computational analysis and methods for solids and structures within generalized continua*, within the 6th European Conference on Computational Mechanics, Glasgow, United Kingdom
- 2017 Minisymposium *Non-standard Formulations and Discretization Methods for Thin-walled Structures*, within the 7th GACM Colloquium on Computational Mechanics, Stuttgart, Germany
- 2017 Thematic Session *IGA of solids and structures*, within the ECCOMAS Thematic Conference on Isogeometric Analysis, Pavia, Italy
- 2016 Thematic Session *IGA and Meshfree methods for thin structures*, within the USACM Thematic Conference on Isogeometric Analysis and Meshfree Methods, La Jolla, USA
- 2015 Minisymposium *Isogeometric Methods for Structural Mechanics*, within the joint conference 3rd ECCOMAS Young Investigators Conference (YIC) and 6th GACM Colloquium on Computational Mechanics, Aachen, Germany
- 2014 Minisymposium *Isogeometric Methods*, within the conference WCCM 2014 - World Congress on Computational Mechanics, Barcelona, Spain
- 2013 Minisymposium *Advanced Methods for Computational Mechanics: Beyond Classical Finite Elements*, within the 21st Congress of the Italian Association of Theoretical and Applied Mechanics (AIMETA), Turin, Italy
- 2013 Young Researcher Minisymposium *Isogeometric Methods*, within the 84th Annual Meeting of the International Association of Applied Mathematics and Mechanics (GAMM), Novi Sad, Serbia

Participation in congress scientific boards

- 2025 IGA2025: International Conference on Isogeometric Analysis, Eindhoven, The Netherlands
- 2023 IGA2023: International Conference on Isogeometric Analysis, Lyon, France
- 2022 USACM Thematic Conference on Isogeometric Analysis, Banff, Canada
- 2021 VIGA2021: Virtual International Conference on Isogeometric Analysis, Lyon, France
- 2019 International Conference on Isogeometric Analysis, Munich, Germany
- 2018 USACM Thematic Conference on Isogeometric Analysis, Austin (TX), USA
- 2017 ECCOMAS Thematic Conference on Isogeometric Analysis, Pavia, Italy
- 2016 USACM Thematic Conference on Isogeometric Analysis and Meshfree Methods, San Diego, USA

Reviewer for international journals

- Computer Methods in Applied Mechanics and Engineering
- Proceedings of the National Academy of Sciences of the United States of America
- Proceedings of the Royal Society B
- Archives of Computational Methods in Engineering
- Computational Mechanics
- International Journal for Numerical Methods in Engineering
- Computer-Aided Design
- Computers and Mathematics with Applications
- Biomechanics and Modeling in Mechanobiology
- Computers and Structures
- Marine Structures
- Fatigue & Fracture of Engineering Materials & Structures
- Engineering Structures
- Applied Mathematical Modelling
- European Journal of Mechanics - A/Solids
- Finite Elements in Analysis and Design
- Computer Aided Geometric Design
- Mechanics Research Communications
- Journal of Mechanics of Materials and Structures
- International Journal of Architectural Heritage
- Part C: Journal of Mechanical Engineering Science
- Engineering Computations
- Journal of Manufacturing Science and Engineering
- Journal of Theoretical, Computational and Applied Mechanics
- Journal of Theoretical and Applied Mechanics
- Mechanics Based Design of Structures and Machines
- Applied Composite Materials
- Acta Mechanica
- Meccanica
- Archives of Applied Mechanics
- Engineering with Computers
- Biomedical Engineering/Biomedizinische Technik
- Journal of Materials Research and Technology

Reviewer for international research funding agencies

- German Science Foundation (DFG)
- Austrian Science Fund (FWF)
- European Science Foundation (ESF)
- European Energy Research Alliance (EERA)
- Netherlands Organisation for Scientific Research (NWO)
- Swedish Research Council (SRC)
- Italian Ministry of Public Education (MIUR)
- Research Grant Council (RGC) of Hongkong

Reviewer in PhD and Habilitation committees

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| 2026 | PhD thesis on <i>Variationally Consistent Approaches for Numerical Modeling of Membrane Wrinkling</i> , UniBw M, Germany |
| 2026 | PhD thesis on <i>Digital Surface Finishing of Curved Surfaces Using Drop-on-Demand Inkjet Technology: Approaches and Methods for Industrialization</i> , UniBw M, Germany |
| 2025 | PhD thesis on <i>Isogeometric methods for the study of fracture mechanics via phase-field modeling</i> , University of Pavia, Italy |
| 2024 | PhD thesis on <i>Isogeometric analysis of wrinkling</i> , TU Delft, The Netherlands |
| 2024 | PhD thesis on <i>Hierarchic shell formulations for nonlinear static and dynamic analyses</i> , University of Stuttgart, Germany |
| 2024 | PhD thesis on <i>Mixed Formulations to Alleviate Locking in Finite Element Analysis and Isogeometric Analysis</i> , Indian Institute of Technology Guwahati, India |
| 2023 | PhD thesis on <i>Higher-order accurate and locking-free explicit dynamics in isogeometric structural analysis</i> , TU Darmstadt, Germany |
| 2020 | Habilitation thesis on <i>Multifield Modelling in Computational Mechanics</i> , University of Innsbruck, Austria |
| 2020 | PhD thesis on <i>CAD-integrated Isogeometric Analysis and Design of Lightweight Structures</i> , TU Munich, Germany |
| 2019 | PhD thesis on <i>Isogeometric Modeling for the Optimal Design of Aerostructures</i> , INSA Lyon, France |
| 2017 | PhD thesis on <i>Phase-field modeling and computations of brittle and ductile fracture for solids and shells</i> , TU Braunschweig, Germany |
| 2017 | PhD thesis on <i>Isogeometric mortar methods with applications in contact mechanics</i> , University of Pavia, Italy |
| 2016 | PhD thesis on <i>CAD-Integrated Design and Analysis of Shell Structures</i> , TU Munich, Germany |

Supervision of PhD students and Postdocs

currently	Main supervisor of 8 PhD students and 3 Postdocs
past	Main supervisor of 5 PhD students (graduated) and 3 Postdocs, Co-supervisor of 3 PhD students at University of Pavia, TU Braunschweig, University of Florence

Teaching experience

since 2020	Lecturer for various courses in Structural Analysis and Finite Element Analysis, UniBw Munich (in German)
2017-2019	Lecturer for <i>Finite Element Methods for Structural Analysis</i> , NTNU Trondheim (in English)
2017-2019	Lecturer for <i>Marine Structures, Specialization Project</i> , NTNU Trondheim (in English)
2016	Lecturer for <i>Isogeometric Methods</i> , TU Braunschweig (in English)
2015-2016	Lecturer for <i>Numerical Methods in Engineering</i> , TU Braunschweig (in German)
2012-2015	Teaching assistant for <i>Mechanics of Solids and Structures</i> , University of Pavia (in Italian)
2009-2010	Teaching assistant for <i>Modeling and Simulation</i> , TU Munich (in English)
2008-2010	Teaching assistant for <i>Advanced Finite Element Methods</i> , TU Munich (in English)
2008-2009	Teaching assistant for <i>Finite Element Methods</i> , TU Munich (in English)
2002-2004	Tutor for <i>Mechanics of Solids and Structures</i> , TU Munich (in German)

Teaching training courses

2018	PEDUP: NTNU's Educational Program for New Academic Staff (seminar spanning two semesters, in total 100 hours)
2016	CDIO Workshop <i>The Teaching Trick</i> held at NTNU Trondheim

Affiliations

- International Association for Applied Mathematics and Mechanics (GAMM)
- German Association for Computational Mechanics (GACM)

Language skills

- German (native)
- English (excellent)
- Italian (excellent)
- Norwegian (intermediate)
- French (basic)