

Lea Boßmann

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Academic positions

- 2/2024–now **Johannes Gutenberg-Universität Mainz**
Junior professor for Analysis (W1 with tenure track to W2)
Parental leave: 3/2024–10/2024
- 10/2022–1/2024 **Ludwig-Maximilians-Universität München**
Postdoctoral fellow with Prof. Dr. Phan Thành Nam
- 11/2019–9/2022 **Institute of Science and Technology Austria**
Postdoctoral fellow with Prof. Dr. Robert Seiringer
Parental leave: 3/2021–10/2021

Education

- 10/2016–10/2019 **PhD (Mathematics)**, Eberhard Karls Universität Tübingen
Advisor: Prof. Dr. Stefan Teufel
Dissertation: *Effective dynamics of interacting bosons: Quasi-low-dimensional gases and higher order corrections to the mean-field description*
Grade: summa cum laude
- 04/2014–08/2016 **Master of Science (Theoretical and Mathematical Physics)**,
Ludwig-Maximilians-Universität München and Technische Universität München
Thesis: *On the Dipole Approximation* (Advisor: Prof. Dr. Detlef Dürr)
Grade: 1.0
- 09/2013–03/2014 **Study abroad**, The Queen's University of Belfast
- 10/2010–07/2013 **Bachelor of Science (Physics)**, Ludwig-Maximilians-Universität München
Thesis: *Study on the distinction of down and strange quark jets originating from the top quark decay* (Advisor: Prof. Dr. Otmar Biebel)
Grade: 1.0

Honors

- **Early Career Scientist Prize 2024 in Mathematical Physics**
Awarded by the International Union of Pure and Applied Physics
- **Invited speaker at the International Congress on Mathematical Physics 2021**
Thematic session *Many-body Quantum Systems and Condensed Matter Physics*
- **Dissertation Prize 2020**
Awarded by the Faculty of Science of the University of Tübingen

Grants and Fellowships

- 10/2022–9/2023 **MCQST Distinguished Postdoc**
German Research Foundation (DFG) within the cluster of excellence *Munich Center of Quantum Science and Technology* under Germany's Excellence Strategy (EXC2111).
- 11/2019–6/2022 **ISTplus postdoctoral fellowship**
IST Austria and the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No. 754411
- 6/2022 **Research in Pairs, Mathematisches Forschungsinstitut Oberwolfach**
Research fellowship with Dr. Nikolai Leopold (Universität Basel), Prof. Dr. Sören Petrat (Jacobs University Bremen), and Dr. Simone Rademacher (IST Austria)
- 10/2010–4/2016 **Max Weber Program of the State of Bavaria**
Scholarship within the Elite Network of Bavaria

Selected talks

Invited conference talks (Selection)

- *Spectral Analysis of Schrödinger Operators*, ICERM, Brown University, Providence, 8/2024
- *Workshop for young researchers in Analysis and Mathematical Physics*, LMU, Munich, 10/2023
- *DMV Annual Meeting*, Ilmenau, 9/2023
- *Beyond IID in Information Theory*, Tübingen, 8/2023
- *Workshop of Young Researchers in Mathematical Physics*, Westerham, 7/2023
- *Correlations in Mathematical Quantum Mechanics*, University of Copenhagen, 6/2023
- *Many-body quantum problems and dispersive PDEs*, University of Warwick, 6/2023
- *Solid Math – Mathematical and numerical results for Solid State Physics*, SISSA, Trieste, 9/2022
- *Laws of Nature conference remembering Detlef Dürr*, LMU, Munich, 8/2022
- *AMS-SMF-EMS joint international meeting*, Université de Grenoble-Alpes, Grenoble, 7/2022
- *International Congress on Mathematical Physics (ICMP)*, Geneva, 8/2021
- *Minisymposium Nonlinear Dynamics in Quantum Mechanics*, online, 10/2020
- *AMS Fall Southeastern Sectional Meeting*, University of Florida, Gainesville, 11/2019
- Oberwolfach meeting *Many-Body Quantum Systems*, MFO, Oberwolfach, 9/2019
- *Workshop on Analysis, PDE and Mathematical Physics*, CCNU, Wuhan, 7/2019
- *On mathematical aspects of interacting systems in low dimension*, FernUniversität in Hagen, 6/2019

Invited seminar talks (Selection)

- *Mathematical Challenges in Quantum Mechanics*, PhD lecture, online, 3/2024
- Oberseminar *Mathematical Physics*, Universität Tübingen, 12/2022
- *One World IAMP Mathematical Physics Seminar*, online, 11/2021
- *Séminaire Maths-Physique*, Institut de Mathématiques de Toulouse, 2/2021
- *Seminar Analysis and Mathematical Physics*, Universität Basel, 12/2020

- *Analysis seminar*, University of Texas at Austin, 11/2019
- *Mathematical Physics seminar*, Rutgers University, New Jersey, 10/2019
- *Mathematical and Theoretical Physics seminar*, Jacobs University, Bremen, 9/2019
- *Zürich–Tübingen meeting in mathematical physics*, Universität Zürich, 11/2018
- *Mathematical Research Seminar*, Duke Kunshan University, 10/2018
- Oberseminar *Calculus of Variations and Applications*, LMU, München, 6/2018

Selected research visits

- **Jacobs University**, Bremen, Germany (15.–20.9.2019 and 15.–19.9.2020)
Invited by Prof. Dr. Sören Petrat
- **Central China Normal University**, Wuhan, China (24.7.–2.8.2019)
Invited by Prof. Dr. Avy Soffer and Prof. Dr. Xiaohua Yao
- **Duke Kunshan University**, Kunshan, China (26.8.–20.10.2018)
Invited by Prof. Dr. Peter Pickl
- **Gran Sasso Science Institute**, L'Aquila, Italy (16.–21.4.2018)
Invited by Dr. Serena Cenciampio

Teaching experience

Lecturer

WiSe 24/25	<i>Mathematical Quantum Mechanics</i> , JGU Mainz
WiSe 23/24	<i>Mathematics I for Natural Scientists</i> , LMU Munich

Teaching assistant

WiSe 20/21	<i>Mathematics of quantum many-body systems II</i> , IST Austria
SoSe 20	<i>Mathematics of quantum many-body systems I</i> , IST Austria
WiSe 18/19	<i>Mathematical foundations I</i> , Duke Kunshan University
SoSe 18	Seminar <i>Funktionentheorie</i> , Universität Tübingen
WiSe 15/16	<i>Quantenmechanik</i> , LMU
WiSe 14/15	<i>Quantenmechanik</i> , LMU
SoSe 14	<i>Theoretische Mechanik</i> , LMU
SoSe 13	<i>Mathematik für Physiker II</i> , LMU
WiSe 12/13	<i>Mathematik für Physiker I</i> , LMU

Further education

2023	<i>Diversity in Leadership</i> One-semester program on diversity and inclusion in the academic context, MCQST
2017	<i>Teaching Mathematics</i> Two-day seminar on university didactics in Mathematics, Universität Tübingen
2013	<i>Mit Stimme und Körpersprache zum Erfolg</i> Multi-day seminar on voice and body language for teaching, Elite Network of Bavaria

Academic services

- Co-organizer *Emergent phenomena in many-body quantum systems*, CIRM, Marseille (12/2025)
- Committee member *Association of Women in Mathematical physics* (3/2023–present) and *Austrian Association of Women in Mathematics* (11/2021–10/2022)
- Co-organizer *LMU–TUM Junior Researcher Seminar* (2022–23)
- Referee for *Communications in Partial Differential Equations*; *Mathematical Physics, Analysis and Geometry*; *Discrete and Continuous Dynamical Systems*; *Annales Henri Poincaré*; *Journal of Statistical Physics*; *Letters in Mathematical Physics*.
- Contribution to the IAMP News Bulletin: *Voices of women in mathematical physics: A series of five interviews* (IAMP News Bulletin, April 2022, pp. 53–66)

July 10, 2024