

Thomas Juffmann, Univ. Prof. Dr. Dipl.-Ing.

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[Quantum Optics and Microscopy](#)



universität  
wien

#### Faculty of Physics

Quantum Optics, Quantum  
Nanophysics and Quantum Information

#### Max Perutz Labs

Department of Structural  
and Computational Biology

## RESEARCH AND WORK EXPERIENCE

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03/2025 - now	Univ. Prof. for 'Quantum Optics and Microscopy' at the Faculty of Physics and the Max Perutz Labs – <b>Univ. of Vienna</b>
10/2021 – 03/2025	Associate Prof. at the Faculty of Physics and the Max Perutz Labs – <b>Univ. of Vienna</b>
10/2021	Co-founder of <b>NDx Bio GmbH</b>
03/2019 – 10/2021	Assistant Prof. at the Faculty of Physics and the Max Perutz Labs – <b>Univ. of Vienna</b>
03/2018 – 02/2019	Group leader 'Quantum Microscopy and Biophysics' – <b>Univ. of Vienna</b>
01/2017 – 03/2018	Fellow of the Human Frontier Science Program – Lab. Kastler Brossel, <b>École normale supérieure</b> , Paris (Prof. S. Gigan)
04/2013 – 12/2016	Postdoc at <b>Stanford Univ.</b> (physics - Prof. M. Kasevich)
06/2008 – 01/2013	Ph.D. at the <b>Univ. of Vienna</b> (Prof. M. Arndt)
12/2006 – 06/2008	Master thesis at the <b>Univ. of Vienna</b> (Prof. M. Arndt) and the <b>Vienna Univ. of Technology</b> (Prof. J. Schmiedmayer).
04/2006 – 06/2006	Internship at the Laboratoire de Physique des Solides of the <b>Université Paul Sabatier in Toulouse</b> , France

## EDUCATION

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06/2008 – 01/2013	<b>Ph.D., Physics</b> , Univ. of Vienna, Austria.
10/2002 – 06/2008	<b>Bachelor &amp; Masters, Applied Physics</b> , Vienna Univ. of Technology, Austria

## RESEARCH INTERESTS

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- Light and Electron microscopy
- Quantum metrology
- Biophysics

## AWARDS AND HONORS

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- 2025 EIC Pathfinder grant
- 2024 UNIVIE Teaching Award
- 2022 ERC PoC grant
- 2021 FET proactive grant
- 2017 ERC starting grant
- 2017 Stanford Arts and Science Prize
- Results of PhD thesis in physics textbooks:
  - *Experimentalphysik 3, Atome, Moleküle und Festkörper* by Demtröder,
  - *Quantum Mechanics for Engineers and Material Scientists*, Anantram and Shiri
  - *Modern Quantum Theory*, Bertlmann and Friis, and (4) on the cover of Nature Nanotechnology
- *Poster prize* at the ICAP 2012, French Physical Society
- *2012 micrograph award*, Australian Microscopy & Microanalysis Research Facility
- *ESG-Nano-Prize 2010*, Erwin Schrödinger Society for Nanosciences



## PUBLICATIONS / PRESENTATIONS / PATENTS

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> **40 publications** in peer-reviewed journals (see <https://orcid.org/0000-0002-7098-5736>)

> **70 invited talks** at international conferences and seminars

**3 patents, 1 patent application**

## TEACHING

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Courses taught at the University of Vienna:

- Fundamentals of Quantitative Biology
- Classical and Quantum Optics
- Advanced Atomic Physics
- The Physics of Matter Waves
- Introduction to 3D cryo-electron microscopy
- Various seminars on matter waves, microscopy, and quantum measurement

## OUTREACH

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- [WIENERWISSEN](#): An art-science project realizing murals with scientific content, bringing Viennese science to the Viennese.
- [SEEC Photography](#): An art-science project imaging the propagation of light across everyday objects; Exhibitions, events, and talks at Aggregate Space Gallery, Berkeley Art Museum and Pacific Film Archive, Ars Electronica, Science @ Cal, SF Exploratorium, Univ. of San Francisco, Stanford University, Univ. of Vienna, Naturhistorisches Museum Wien, the European Capital of Culture 2024, the World Expo Osaka 2025,...
- [Music video](#) with the Austrian soul band '5/8erl in Ehr'n'
- Youtube videos on experimental results with millions of views.

