

HANNES PICHLER, PHD

Professor for Theoretical Physics
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RESEARCH INTERESTS

- Quantum optics and quantum information
- Atomic physics, Rydberg physics
- Many-body physics, non-equilibrium dynamics

RESEARCH EXPERIENCE

- 2020 - **Full Professor**, Institute for Theoretical Physics, (tenured March 2023)
University of Innsbruck, Austria,
- 2020 - **Junior Research Associate**, Institute for Quantum Optics and Quantum Information,
Austrian Academy of Sciences, Austria
- 2019 - 2020 **Moore Postdoctoral Scholar in Theoretical Physics**, Division of Physics, Mathematics and
Astronomy,
California Institute of Technology, Pasadena, USA
- 2016 - 2019 **ITAMP Postdoctoral Researcher**, Institute for Theoretical Atomic, Molecular and Optical
Physics and Department of Physics,
Harvard University, Cambridge, USA
- 2015 - 2016 **Postdoctoral Researcher**, Institute for Quantum Optics and Quantum Information,
Austrian Academy of Sciences, Austria

EDUCATION

- 2011 - 2015 **Ph.D. in Physics**,
Faculty of Mathematics, Computer Science and Physics,
University of Innsbruck, Austria
Thesis: Atomic Quantum Simulators: Detecting Entanglement and Designing Open Many-
Body Dynamics
Advisor: Peter Zoller, Professor of Theoretical Physics
- 2008 - 2011 **M.Sc. in Physics**,
Faculty of Mathematics, Computer Science and Physics,
University of Innsbruck, Austria
Thesis: Heating of many body states in optical lattices via spontaneous emission
Advisor: Peter Zoller, Professor of Theoretical Physics
- 2005 - 2008 **B.Sc. in Physics**,
Faculty of Mathematics, Computer Science and Physics,
University of Innsbruck, Austria

PUBLICATIONS

Since 2010:

- 53 articles in peer-reviewed journals, 6 preprints, h-index = 38, 9600 total citations (Google Scholar).
- Publications by journal: 6×Nature, 3×Science, 2×Nature Physics, 2×PNAS, 14×PRL, 6×PRX, 1×PRX Quantum, 11×PRA, 5×PRB, 1×PRR, 1×NJP, 1×QST
- Co-filed three patents.

For a complete list of publications see my [Google Scholar profile](#),

PRESENTATIONS

Since 2010: > 70 oral presentations at international conferences, workshops, colloquia and seminars (>50 invited)

GRANTS, HONORS AND FELLOWSHIPS

- *New Horizons Prize in Physics* (2022)
Breakthrough Prize Foundation
- *Hans and Walter Thirring Award* (2022)
Austrian Academy of Sciences
- *ERC Starting Grant* (2021)
European Research Council, Brussels, Belgium
- *ESQ Discovery Grant* (2021)
Erwin Schrödinger Center for Quantum Science and Technology, Vienna, Austria
- *Moore Fellowship* (2019)
Division of Physics, Mathematics and Astronomy, California Institute of Technology, Pasadena, USA
- *Futura-Award* (2018)
Association of Hoteliers and Innkeepers (HGV), Italy
- *ITAMP Fellowship* (2016)
Institute for Theoretical Atomic, Molecular and Optical Physics, Harvard- Smithsonian Center for Astrophysics, Cambridge, USA
- *Scholarship for academic excellence* (yearly 2006-2011).
University of Innsbruck & Province of Bozen.

PROFESSIONAL SERVICE

Reviewing activities

Nature, Nature Physics, Proceedings of the National Academy of Sciences of the United States of America, Physical Review Letters, Physical Review X, Physical Review Quantum, Physical Review A, Physical Review B, New Journal of Physics, Annalen der Physik, Optics Letters, Quantum Science and Technology, Journal of Physics B: Atomic, Molecular and Optical Physics, European Journal of Physics: Quantum Technology.

Organization of conferences, workshops and schools

- *Frontiers of Interacting Systems of Rydberg Atoms*,
2-day international workshop at the ITAMP, Harvard University (June 2017).
Co-organizers: Hannes Bernien, Ahmed Omran, Hossein Sadeghpour, Mikhail Lukin
- *Frontiers of Interacting Systems of Rydberg Atoms II*,
2-day international workshop at the ITAMP, Harvard University (June 2023).
Co-organizers: Hannes Bernien, Giulia Semeghini, Hossein Sadeghpour, Mikhail Lukin
- *Quantum Many-Body Phenomena out of Equilibrium: from Chaos to Criticality*,
2-week summer School, SISSA Trieste (August 2023)
Co-organizers: Alessandro Silva, Zala Lenarcic, Soonwon Choi
- *Frontiers in Rydberg physics: From few-body interactions to many-body quantum simulation: CATMIN III*,
4-day international workshop at University College London (July 2023).
Co-organizers: Hossein Sadeghpour, Stephen Hogan