

Łukasz Rudnicki

Date of birth: 25.03.1985

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Google Scholar : [Łukasz Rudnicki](https://scholar.google.de/citations?user=o_Q_CEUAAAAJ&hl=en)¹

Research merits: theory of quantum information, quantum optics, classical and quantum gravity.

ACADEMIC DEGREES

11.2017 **Habilitation** – Faculty of Physics, Astronomy and Applied Computer Science, Jagiellonian University

Dissertation: „*Quantum uncertainty relations offering insights into physics*”

12.2012 **PhD in Physics** – Faculty of Physics, University of Warsaw

Dissertation: „*Electron-positron pair creation, electric conductivity in graphene and the classical limit of the Dirac operator in terms of the Dirac-Heisenberg-Wigner function*”

Advisor: prof. Iwo Białynicki-Birula

EDUCATION

10.2004 – 07.2009 Faculty of Physics, University of Warsaw
Master's program (five years), final grade: very good.

Dissertation: „*Dynamical Casimir effect in uniformly accelerated media*”

Advisor: prof. Iwo Białynicki-Birula

¹ https://scholar.google.de/citations?user=o_Q_CEUAAAAJ&hl=en

PROFESSIONAL EXPERIENCE

- 07.2019 – present University of Gdańsk
- **associate professor**
 - **group leader** at International Centre for Theory of Quantum Technologies (2 postdocs + 3 PhD students)
 - **deputy director** of National Quantum Information Center in Poland
- 12.2019 – present Polish member in Quantum Community Network (body of **Quantum Flagship**)
- 04.2017 – 06.2019 Max-Planck-Institut für die Physik des Lichts in Erlangen
position: senior scientist
- 02.2016 – 03.2017 Faculty of Physics, University of Cologne
position: postdoc with Prof. David Gross
- 10.2014 – 02.2016 Faculty of Physics, University of Freiburg
position: postdoc with Prof. David Gross
- 04.2013 – 09.2014 FRIAS, University of Freiburg
position: postdoc with FRIAS junior fellow Dr. Florian Mintert
- 08.2009 – present Center for Theoretical Physics, PAS, Warsaw
positions: **assistant professor** (adiunkt) – since 03.2017
(currently on leave of absence)
research assistant – since 08.2009
research training – until 07.2009

HONOURS & AWARDS

- 06.2016 Selected by McKinsey&Company to the panel “*Decoding science leadership*” during **66th Lindau Nobel Laureate Meeting**
- 05.2015 A laureate of a one-year START scholarship for young, talented researchers, by Foundation for Polish Science
- 06.2009 Maria Bardadin-Otwinowska prize for outstanding master thesis in physics at the University of Warsaw

GRANTS (as principal investigator)

10.2020 – present “*STORMYTUNE: Spectral-Temporal Metrology with Tailored Quantum Measurements*”

source: European Commission (FET Open under Horizon 2020)
total budget: approximately 3 750 000 €
role played: **PI of local node**

03.2020 – present “*ApresSF: Application-ready superresolution in space and frequency*”

source: QuantERA under ERA-NET Cofund Programme in the
field of Quantum Technologies
total budget: approximately 1 000 000 €
role played: **consortium coordinator and PI of local node**

Former projects:

02.2015 – 10.2018 “*Decoherence properties of non-Gaussian states*”

source: National Science Center, Poland
budget: 199 300 PLN (approximately 47 700 €)

04.2012 – 04.2015 “*Collectibility - a new entanglement test based on uncertainty relations*”

source: Polish Ministry of Science and Higher Education
budget: 146 900 PLN (approximately 35 500 €)

12.2010 – 04.2013 “*Entanglement criteria for quantized electromagnetic field based on entropic uncertainty relations*”

source: Polish Ministry of Science and Higher Education
budget: 89 000 PLN (approximately 22 100 €)

SERVICE

- 03.2021 – present Member of the *World Quantum Day* community
01.2018 – present Advisory Panel of Journal of Physics A
04.2011 – present Scientific Council of Center for Theoretical Physics PAS

Peer review

- 05.2011 – present regular referee in many journals, in particular in:
- Physical Review Letters
 - Physical Review A
 - Nature Communications
 - New Journal of Physics
 - Journal of Physics A
 - Physics Letters A
 - Journal of Optics