Curriculum Vitae

PERSONAL INFORMATION
Name: Borivoje Dakić
Date of birth: 30.10.1980
Nationality: Serbian
ORCID: 0000-0001-9895-4889
URL: https://dakic.univie.ac.at/
email: borivoje.dakic@univie.ac.at

- **MAIN AREAS OF RESEARCH**

    - Quantum information theory / Quantum foundations / Applied quantum information.

More details on research activities can be found here.

- **EDUCATION**

2011	PhD in Physics, Faculty of Physics, University of Vienna, Austria. Supervisor: Prof. Časlav Brukner
2007	M.Sc. in Physics, Faculty of Physics, University of Belgrade, Serbia. Supervisor: Prof. Ivanka Milošević
2004	B.Sc. in Physics, Faculty of Physics, University of Belgrade, Serbia. Supervisor: Prof. Milan Damnjanović

- **CURRENT POSITION**

2023 –	Associate professor, Faculty of Physics, University of Vienna,
2023 –	CEO, QUBO Technology Gmbh (https://www.qubo.technology/),
2022 –	Speaker of the Vienna Centre for Quantum Technologies (https://vcq.quantum.at/),
2022 –	Vice-Speaker of the Quantum Group (https://quantum.univie.ac.at/), Faculty of Physics, University of Vienna.

- **PREVIOUS POSITIONS**

2018 – 2023	Assistant professor, Faculty of Physics, University of Vienna,
2014 – 2018	Senior Postdoc, Institute for Quantum Optics and Quantum Information (IQOQI), Austrian Academy of Sciences, Vienna, Austria,
2013 – 2014	Academic Visitor, Department of Physics, University of Oxford, UK,
2013 – 2014	Research Fellow, Centre for Quantum Technologies, National University of Singapore,
2012 – 2013	Postdoctoral Researcher, Faculty of Physics, University of Vienna, Austria.

- **HONORS/AWARDS/FELLOWSHIPS**

2022	Teaching Award, Faculty of Physics, University of Vienna, Austria,
2016 –	Elected member of Foundational Question Institute (FQXi),

2013 – 2014 Wolfson College Visiting Scholar, University of Oxford, UK,
2010 Harvard Visitor, CoQuS Secondment Program supported by FWF (Austrian Science Foundation),
2007 – 2011 FWF Fellow (CoQuS Doctoral Program).

- **TEACHING ACTIVITIES**

2024 – Visiting professor, University of Gdansk, Poland,
2017 – Professor, Faculty of Physics, University of Vienna, Austria,
2016 – Visiting lecturer, Faculty of Physics, University of Belgrade, Serbia.

- **REFEREE ACTIVITY**

Proceedings of the National Academy of Sciences (PNAS), Proceedings of the Royal Society, Nature Photonics, Nature Communications, Physical Review Letters, Physical Review A, New Journal of Physics, Physics Letters A, Annals of Physics, Optics Communications, Europhysics Letters, Foundations of Physics, International Journal of Quantum Information, and Journal of Physics A: Mathematical and Theoretical.

- **EDITORIAL BOARDS**

2022 – Editor at Quantum (https://quantum-journal.org/).

- **EVALUATOR**

  - Slovak Academy of Sciences, Foundation for Polish Science.

- **FUNDING**

Past and ongoing grants

Project Title	*Funding source*	*Amount*	*Period*	*Role*
The notion of predictability in physics	Foundational Question Institute (FQXi)	$ 3 500,00	2018	PI
Information-theoretic foundations of quantum particle statistics	Austrian Academy of Sciences	€ 95 360,00	2019-2020	PI
BeyondC (I): Quantum Information Systems Beyond Classical Capabilities	Austrian Science Fund	€ 387 376,50	2019-2023	PI
BeyondC (II): Quantum Information Systems Beyond Classical Capabilities	Austrian Science Fund	€ 419 296,50	2023-2026	PI

Information-theoretic foundations of quantum interference	Austrian Science Fund	€ 399 987,00	2023-2026	PI
Local operations on quantum fields	Cluster of Excellence QuantA	€ 109 125,00	2023-2025	PI

- **SELECTED PUBLICATIONS**

- A. Gočanin, I. Šupić, and B. Dakić, *Sample-efficient device-independent quantum state verification and certification,* PRX Quantum **3**, 010317 (2022), doi: 10.1103/PRXQuantum.3.010317,
- J. Morris, V. Saggio, A. Gočanin, and B. Dakić, *Quantum verification and estimation with few copies*, Adv. Quantum Technol. **5**, 2100118 (2022), doi: https://doi.org/10.1002/qute.202100118,
- M. Gallego and B. Dakić, *Macroscopically nonlocal quantum correlations*, Phys. Rev. Lett. **127**, 120401 (2021), doi: 10.1103/PhysRevLett.127.120401,
- F. Del Santo and B. Dakić, *Coherence Equality and Communication in Quantum Superposition*, Phys. Rev. Lett. **124**, 190501 (2020), doi: 10.1103/PhysRevLett.124.190501,
- J. Morris and B. Dakić, *Selective Quantum State Tomography*, arXiv:1909.05880 (2019), https://arxiv.org/abs/1909.05880.
- V. Saggio, A. Dimić, C. Greganti, P. Walther, and B. Dakić, *Experimental few-copy multi-particle entanglement detection*, Nature Physics **15**, 935 (2019), doi: 10.1038/s41567-019-0550-4,
- A. Dimić and B. Dakić, *Single-copy entanglement detection*, npj Quantum Information **4**, 11 (2018), doi:10.1038/s41534-017-0055-x.
- F. del Santo and B. Dakić, *Two-way communication with a single quantum particle*, Phys. Rev. Lett. **120**, 060503 (2018), doi: 10.1103/PhysRevLett.120.060503.
- B. Dakić and M. Radonjić, *Macroscopic superpositions as quantum ground states*, Phys. Rev. Lett. **119**, 090401 (2017), doi: 10.1103/PhysRevLett.119.09040.
- M. Tillmann, B. Dakić, R. Heilmann, S. Nolte, A. Szameit, and P. Walther, *Experimental Boson Sampling*, Nature Photonics **7**, 540-544 (2013), doi: 10.1038/nphoton.2013.102.
- B. Dakić, V. Vedral, and Č. Brukner, *Necessary and sufficient condition for non-zero quantum discord*, Phys. Rev. Lett. **105**, 190502 (2010), doi: 10.1103/PhysRevLett.105.190502.
- B. Dakić, and Č. Brukner, *The classical limit of a physical theory and the dimensionality of space*, In Quantum Theory: Informational Foundations and Foils, Eds. G. Chiribella, and R. Spekkens, Springer, 2016, https://doi.org/10.1007/978-94-017-7303-4_8,
- B. Dakić and Č. Brukner, *Quantum Theory and Beyond: Is Entanglement Special?*, In Deep Beauty: Understanding the Quantum World Through Mathematical Innovation, edited by H. Halvorson, Cambridge University Press, 2011, https://doi.org/10.1017/CBO9780511976971.011.

The complete list of publications is given here (preprints available here).