

Books

From Data to Quanta: Niels Bohr's Vision of Physics

University of Chicago Press, 2021.

Kvantna revolucija, Smederevo: Heliks, 2019.

Trnovit put do Higsovog bozona, Smederevo: Heliks, 2015.

Reference works

Experiments in Physics

(with Allan Franklin)

Stanford Encyclopedia of Philosophy.

Experiments in Physics

Oxford Bibliographies (Philosophy), Oxford University Press.

Epistemology of experimentation

Observation, Experiment, and Scientific Practice

International Studies in Philosophy of Science, 34 (1), 1-10, 2021.

How Theories of Induction Can Streamline Measurements of Scientific Performance

(with V. Sikimic)

Journal For General Philosophy of Science, Vol. 51 (2): 267-291, 2020.

Egalitarian Paradise or Factory Drudgery? Organizing Knowledge in High Energy

Physics (HEP) Laboratories

Social Epistemology, Vol. 32 (4), 241-261, 2018.

When Should We Stop Investing in a Scientific Project? The Halting Problem in

Experimental Physics

(with V. Sikimic and S. Radovanovic)

Empirical Research in Psychology Conference Proceedings, Institute for Psychology and

Laboratory for Experimental Psychology, University of Belgrade, 2018.

Experimenter's Regress Argument, Empiricism, And the Calibration of the Large Hadron Collider

Synthese, Vol. 194 (2): 313-332, 2017.

Optimal Research Team Composition: Data Envelopment Analysis of Fermilab

Experiments

(with S. Radovanovic, V. Sikimic and A. Berber)

Scientometrics, Vol. 108, Issue 1, pp 83-111, 2016.

What Makes a Good Experiment?

(with Allan Franklin)

Theoria (Spain), Vol. 30, No.2, 2015.

Missing Experimental Challenges to the Standard Model of Particle Physics

Studies in History and Philosophy of Science, Part B (Studies in History and Philosophy of Modern Physics), Vol. 42, 32-42, 2011.

Philosophy of biology

Prebiotic decluttering: The thermodynamic tail-wind to asymmetric

autocatalysis. International Journal of Astrobiology, 22(1), 15-32, 2023.

Symmetry breaking and functional incompleteness in biological systems

(with Andrej Korenić, Milan Ćirković, Paul-Antoine Miquel)

Progress in Biophysics and Molecular Biology, Vol. 150, pp. 1-12, 2020.

The complexity-based explanatory strategy, biological levels, and the origin of life

Rivista di Estetica, 69/3, 2018.

Causes and Entities in Biology

in G. Bianco, O. Švec, C. Jeler, A. François, I. Vuković, eds., French Epistemology, Erraphis -

University of Toulouse, and Institute for Philosophy, University of Belgrade, 2014.

The rebirth of the morphogenetic field as an explanatory tool in biology

Filozofija i društvo, 24(4), 181-198, 2013.

Fine-Tuning Nativism: 'Nurtured Nature' and Innate Cognitive Structures

(with L. Radenovic)

Phenomenology and the Cognitive Sciences, Vol, 10, Number 3, 399-417, 2011.

Gene's Action and Reciprocal Causation

(with Paul-Antoine Miquel)

Foundations of Science, Vol. 16, February 1, 31-46, 2011.

The Limitations of Kim's Reductive Physicalism in Accounting for Living Systems and an

Alternative Nonreductionist Ontology

Acta Biotheoretica, Vol. 55 (September), 243-267, 2007.

History and philosophy of quantum mechanics

Niels Bohr's Complementarity and Quantum Tunneling

in H. Folse and J. Faye eds., Niels Bohr and the Philosophy of Physics: Twenty-First Century

Perspectives, Bloomsbury, 2017. (link for the preprint)

Emergence of Complementarity and the Baconian Roots of Niels Bohr's Method

Studies in History and Philosophy of Science, Part B (Studies in History and Philosophy of

Modern Physics) 44 (3): 162-173, 2013.

Why Were Matrix Mechanics and Wave Mechanics Considered Equivalent?

Studies in History and Philosophy of Science, Part B (Studies in History and Philosophy of

Modern Physics), Vol. 39, 444-461, 2008. (The paper highlighted in Nature Physics 4, 349,

2008)

Why Were Two Logically Distinct Theories Deemed Equivalent in Quantum Mechanics?

First Annual Conference in the Foundations and History of Quantum Physics, Max Planck

Institute for History of Science Conference Proceedings, Vol. 2, 2008.

Schrödinger's Interpretation of Quantum Mechanics and the Relevance of Bohr's

Experimental Critique

Studies in History and Philosophy of Science, Part B, (Studies in History and Philosophy of

Modern Physics), Vol. 37/2, pp. 275-297, 2006.

A Recent Revival of Schrödinger's Ideas on Interpreting Quantum Mechanics, and Their

Early Experimental Critique

Khrennikov, A., ed., Foundations of Probability and Physics – 3, American Institute of

Physics Conference Proceedings Series, 750, pp. 316-21, February 2005.

Schrödinger's and Everett's Interpretations of Quantum Mechanics

in Khrennikov, A., ed., Quantum Theory: Reconsideration of Foundations –

2. Mathematical Modeling in Physics, Engineering and Cognitive Science, Växjö: Växjö

University Press, V.10, pp. 747-67, 2003. - For the preprint click here.

History and philosophy of cosmology

Alternative Explanations of the Cosmic Microwave Background: A Historical and an

Epistemological Perspective (with Milan M. Ćirković)

Studies in History and Philosophy of Science, Part B (Studies in History and Philosophy of Modern Physics), 62, 1-18, 2018.