

PHILOSOPHY OF SCIENCE CONFERENCE

on the Occasion of the 140th Anniversary of Niels Bohr's Birth

OCTOBER 15-16, 2025

HALL 2, RECTORATE OF SOFIA UNIVERSITY BULGARIA

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Philosophy of Science Conference on the Occasion of the 140th Anniversary of Niels Bohr's Birth

Program

October 15 -16, 2025 Hall 2, Rectorate of Sofia University "St. Kliment Ohridski" 15 Tzar Osvoboditel Blvd. 1504 Sofia Bulgaria

October 15, 2025

9.20 - 9.30 Conference Opening (all times are EEST (Eastern European Summer Time) GMT/UTC+3)

Moderator: Assoc. Prof. Boris Grozdanoff

9.30 - 10.30 Prof. Jan Faye (University of Copenhagen) - *Is Bohr's Philosophy Relevant Today?* (keynote speaker, online)

10.30 - 11.30 Prof. Anguel Stefanov (Bulgarian Academy of Sciences) - *The Cognitive Status of the Principle of Complementarity* (keynote speaker)

11.30 - 11.40 Coffee Break

11.40 - 12.10 Dr. Gary Graham (University of Toronto) - *Kant, Heisenberg, and the Apple: The Metaphysics of Mediating Objects*

12.10 - 12.40 Noemi Bolzonetti (Utrecht University) - *Bohr and Heisenberg: Debate on the* Γ -*Ray Microscope* (online)

12.40 - 14.30 Lunch Break

Moderator: Asst. Prof. Vera Lyubenova

14.30 - 15.00 Ivo Valkov (Sofia University) - *Is Time an Axiom? Rethinking Its Foundations in Physics and Metaphysics*

15:00 - 15.30 Prof. Antonino Drago (University "Federico II" of Naples) - *The Lack of an Exact Logical Language in the First Builders of Quantum Theory: The Case of Bohr* (online)

15.30 - 16.00 Prof. Partha Ghose (Tagore Centre for Natural Sciences and Philosophy, Kolkata) - Context and Complementarity: Formalizing Bohr's Vision through Many-Valued Contextual Logic (online)

16.00 - 16.10 Coffee Break

16.10 - 16.40 Prof. Ryan Miller (University of St. Thomas) - *No Metaphysical Advantage for Bohmians* (online)

16.40 - 17.10 Assoc. Prof. Boris Grozdanoff (Institute of Philosophy and Sociology - BAS) - *Beyond Space and Time: Worldvolume Descriptions of Entangled Quantum Systems*

17.10 - 17.40 Prof. Hong Deng (Guangzhou University) - *A Theory of Rational Completeness and the Default Reference of Space and Time* (online)

October 16, 2025

Moderator: Assoc. Prof. Julia Vasseva-Dikova

9.00 - 10.00 Prof. Vesselin Petkov (Minkowski Institute) - *Einstein-Podolsky-Rosen Argument, Bohr's Response and in What Sense Quantum Mechanics is Fundamentally Incomplete* (keynote speaker)

10.00 - 10.30 Assoc. Prof. Victor Atanasov (Sofia University) - Gravitation Is Not Causing the Collapse of the Wave-Function (online)

10.30 - 11.00 Prof. Lilia Gurova (New Bulgarian University) - *Bohr's Correspondence Principle: A Century of Life of its Own*

11.00 - 11.10 Coffee Break

11.10 - 11.40 Abraham Hernández (Universidad de La Laguna) - *Niels Bohr and Rudolf Carnap: Conceptual Frameworks and Scientific Language* (online)

11.40 - 12.10 Asst. Prof. Vera Lyubenova (Institute of Philosophy and Sociology - BAS) - *Bohr's Epistemological Lesson: How is Sellars's Stereoscopic Image of the World Possible?*

12.10 - 12.50 Joshua Jose R. Ocon (University of the Philippines) - *Bohr Saves the Phenomena: Complementarity in Constructive Empiricism* (online)

12.50 - 13.20 Niccolò Covoni, University of Urbino / University of Italian Switzerland: Relational *Quantum Mechanics and (Soft) Perspectivism* (online)

13.20 - 15.30 Lunch Break

Moderator: Dr. Nikola Pirovski

15.30 - 16.00 Asst. Prof. Dr. Fabien Kunis (Sofia University) - *Quantum Strangeness in the Classroom – Bohr's Philosophy and the Role of AI and STEM in Education*

16.00-16.30 Kolyo Dankov (Sofia University) - *Quantum Entanglement: A Historical Perspective and Philosophical Implications*

16.30 - 16.40 Coffee Break

16.40 - 17.10 R. Asya Ciftci (McGill Univeristy) - *Weak Measurements and the Epistemic Boundaries of Quantum Reality* (online)

17.10 -18.10 Prof. Christopher Fuchs (University of Massachusetts - Boston) - *What would Bohr think of QBism?* (keynote speaker, online)

18.10 - 18.15 Closing Session

Organizing Team:

Chairs: Prof. DSc. Anguel Stefanov - Bulgarian Academy of Sciences (BAS) and Asst. Prof. Dr. Vera Lyubenova - IPS - BAS

Members: Assoc. Prof. Dr. Boris Grozdanoff - IPS - BAS, Assoc. Prof. Dr. Vladimir Bozhilov - Sofia University, Assoc. Prof. Dr. Julia Vasseva-Dikova - IPS - BAS, Dr. Nikola Pirovski - IPS - BAS

The conference is organized under the projects "Theoretical Models and Scientific Methods in Contemporary Philosophy of Science" (2024–2026) and "Metaphysical and Axiological Analyses of Science as Creativity and Results" (2024–2027) of the Philosophy of Science Department at the Institute of Philosophy and Sociology (Bulgarian Academy of Sciences) with the support of the Faculty of Physics at Sofia University "St. Kliment Ohridski".