

Press Release November 22, 2019

Joint Symposium "History for Physics" at the Max Planck Institute for Gravitational Physics in Potsdam

Max Planck Institute for the History of Science (MPIWG) and Institute for Quantum Optics and Quantum Information (IQOQI) Vienna to host a symposium to explore the importance of history for current physics research at the Max Planck Institute for Gravitational Physics (Albert Einstein Institute, AEI) in Potsdam on November 28–29, 2019.

The joint MPIWG and AEI Max Planck Research Group "Historical Epistemology of the Final Theory Program" and the Institute for Quantum Optics and Quantum Information Vienna (IQOQI-Vienna) of the Austrian Academy of Sciences are organizing a series of symposia on the history for physics. This exciting initiative aims at demonstrating the importance of the history of physics for current research in physics itself.

Following a successful launch at the Faculty for Physics at the University of Vienna in September, the second symposium, to take place at the Albert Einstein Institute on November 28–29, 2019, will focus on "Quantum Gravity." Each session will pair two talks ("tandems")—one given by a physicist on a current research topic, the other by a historian of physics on its historical context—followed by discussion. In addition, a panel debate will explore the role of the history of physics in research and academic structures.

"This is a unique event where physics and its history are discussed in an integrated way, recognising the disciplines' interdependency," says Dr. Alexander Blum, leader of the Max Planck Research Group "Historical Epistemology of the Final Theory Program." "With this joint symposium we want to bring together both the physics and the history of physics community to think collectively and foster fruitful cooperation," adds Dr. Bernadette Lessel, organizer of the symposium.

Historical Epistemology of the Final Theory Program

It is now more than 100 years since Albert Einstein cautiously suggested for the first time that it would be necessary to merge his newly-constructed general theory of relativity with the emerging quantum theory. As is well known, this challenge has not been answered, and the problem of constructing a theory of quantum gravity has become synonymous with physicists' search for a final, fundamental theory. The Max Planck Research Group "Historical Epistemology of the Final Theory Program," a joint research group at the MPIWG in Berlin and the AEI in Potsdam, is investigating this century-long search from a historical and philosophical perspective, where the driving



philosophical questions are not ontological (e.g., What would the world be like if string theory were really true?), but rather epistemological in nature: Why did the search for a quantum theory of gravity turn out to be so hard? Are physicists still looking for the same thing they were looking for 50 years ago? What sort of knowledge was created in this search, in spite of the absence of ultimate success?

Tandems

- Alexander Blum (MPIWG and AEI) and Hermann Nicolai (AEI)
- Thiago Hartz (Universidade Federal do Rio de Janeiro) and Claus Kiefer (University of Cologne)

Panel

- Moderator: Pablo Ruiz de Olano (MPIWG)
- Arianna Borrelli (Leuphana University Lüneburg)
- Alexander Blum (MPIWG and AEI)
- Roberto Lalli (MPIWG)

Contributed Talks

- J. Brian Pitts (University of Cambridge)
- Pablo Ruiz de Olano (MPIWG)
- Alessio Rocci (University of Padova)
- Juliusz Doboszewski (University of Bonn)

Location

Max Planck Institute for Gravitational Physics (Albert Einstein Institute), Am Mühlenberg 1, 14476 Potsdam

Further Information & Registration

Events are free of charge and open to all. We particularly welcome students and practitioners of physics who have not yet dealt with the history of their subject. Please register in advance by emailing https://www.mpiwg-berlin.mpg.de. Further details about the History for Physics symposium series can be found on the MPIWG website at https://www.mpiwg-berlin.mpg.de/event/history-physics.

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