

Workshop

Interpreting Quantum Mechanics: Old and New Philosophical Problems

Politecnico di Milano, Department of Mathematics: March 11, 2019

Quantum Mechanics is our most successful theory to account for the microscopic world. Yet, it is still beset with outstanding interpretational questions that have intrigued physicists, mathematicians and philosophers for almost a century. The present workshop aims at exploring some of the major foundational problems that arose already in the early formulations of the theory and continue to plague our understanding of quantum probabilities. The invited speakers are Michael Cuffaro (Western Ontario\Munich\Vienna), Molly Kao (Montreal), Miklos Rédei (London\MCMP) and Jos Uffink (Minnesota).

Venue: Department of Mathematics, via Bonardi 9, Building 14 “La Nave” Campus Leonardo, Aula Consiglio, 7th floor

Program

10:15-10:30 Welcome and Introduction

10:30-11:30 Molly Kao (University of Montreal): “Background assumptions and reasoning to new theories: Einstein and the case of blackbody radiation”

11:30-12:30 Jos Uffink (University of Minnesota): “Schrödinger and the prehistory of the EPR argument”

14:30-15:30 Michael Cuffaro (University of Western Ontario\MCMP\IQOQI Vienna): “Putting probabilities first: how Hilbert space generates and constrains them”

15:30-16:30 Miklos Rédei (London School of Economics\MCMP): “Structural similarities and interpretational differences between classical and quantum probability theory”