THURSDAY, OCTOBER 26th 2017

CHAIR JAN WALLECZEK
08:45 – 09:00 Welcome Address
09:00 – 09:30 Jan Walleczek, Phenoscience Laboratories, Berlin, DE
Towards Ontology of Quantum Mechanics and the Conscious Agent
09:30 – 10:15 KEY NOTE LECTURE
Basil Hiley University of London, UK
Bohm, Physicist–Philosopher: The Battle to find a Satisfactory Quantum Ontology

COFFEE BREAK
10:30 – 11:00
Howard Wiseman
Griffith University, Brisbane, AU
Relativistic Causality and Bell’s Theorems
11:00 – 11:30 Shan Gao
Shanghai University, CN
A Particle Ontological Interpretation of the Wave Function
11:30 – 12:00 Roderich Tumulka
University of Tübingen, DE
Bohmian Trajectories as the Foundation of Quantum Mechanics and Quantum Field Theory

LUNCH BREAK
12:00 – 14:00

CHAIR HOWARD WISEMAN
13:30 – 14:15 KEY NOTE LECTURE
Aephraim Steinberg
University of Toronto, CA
Experimental studies of quantum reality
14:15 – 14:35 Chu-Feng Li
USTC, Hefei, CN
Experiment on nonlocal steering of Bohmian trajectories
14:35 – 15:05 Lev Vaidman
Tel Aviv University, IL
Are expectation values and weak values properties of single quantum systems?

COFFEE BREAK
15.20 – 15.50
Herman Batelaan
University of Nebraska-Lincoln, USA
Quantum forces and non-disperiveness in the Aharonov-Bohm effect
15.50 – 16.10 Peter Barker
University College London, UK
Weak Measurements of Atomic Momentum
16.10 – 16.30 Robert Flack
University College London, UK
Observation of the weak value of spin using a metastable form of helium
16.30 – 16.50 Markus Arndt
University of Vienna, AT
What quantum-interference assisted molecule metrology can tell us about reality and non-locality?

COFFEE BREAK
17.05 – 17.50
KEY NOTE LECTURE
Matthew Leifer
Chapman University, Orange, USA
The Problem of Fine-Tuning in Quantum Theory
17.50 – 18.20 Basil Hiley
University of London, UK
Aspects of Non-commutative Geometry: Deformation Quantum Mechanics
18.20 – 18.50 Gerhard Grössing
AIDS, AT
Vacuum Landscaping: Cause of Nonlocal Influences without Signalling
19.00 – 21.00 Poster Presentations, Dinner Buffet, Discussion

FRIDAY, OCTOBER 27th 2017

CHAIR MARKUS ARNDT
09:00 – 09:45 KEY NOTE LECTURE
Yakir Aharonov
Tel Aviv University, IL
Finally making sense of the double-slit experiment
09:45 – 10:15 KEY NOTE LECTURE
Jeff Tollaksen
Chapman University, Orange, USA
A Completely Top-Down Hierarchical Structure in Quantum Mechanics

COFFEE BREAK
10:30 – 11:00
Nicolas Gisin
University of Geneva, CH
Non-determinism in Newtonian mechanics and the classical „measurement” problem
11:00 – 11:20 Thomas Flick
University of Freiburg, DE
A quantum ontology based on a relational notion of space
11:20 – 11:40 Ana Maria Cetto
Universidad Nacional Autónoma de México, MX
Quantum interconnectedness and induced nonlocality
11:40 – 12:00 Tim Palmer
University of Oxford, UK
Does Bohmian Theory Have to Be Nonlocal? New Directions for Analysing the Bell Theorem

LUNCH BREAK
12:00 – 14:00

CHAIR NICOLAS GISIN
13:30 – 14:15 KEY NOTE LECTURE
Max Tegmark
MIT, Cambridge, USA
Space-Time Quantum Non-Locality: Does Palatial Twistor Theory Suggest an Objective Mathematical Framework?
14:15 – 14:45 Stuart Hameroff
University of Arizona, Tucson, USA
Anesthesia, Consciousness, Bohm and Penrose
14:45 – 15:15 Paavo Pylkkänen
University of Helsinki, FI
The quantum potential – classical or something entirely new?

COFFEE BREAK
15.30 – 16.00
William Seager
University of Toronto, CA
One or Many
16.00 – 16.20
Nikolaus von Stillfried
Phenoscience Laboratories, Berlin, DE
Does the wave function refer to the (proto)phenomenal? Exploring a radical hypothesis about consciousness based on a Bohm-type interpretation of quantum physics
16.20 – 16.40
Andrei Khrennikov
Linnaeus University, Växjö, SE
Bohmian model outside of physics
16.40 – 16.50
Anthony Aguirre, Max Tegmark, Jan Walleczek
Foundational Questions Institute (FQXi) – Fetzer Franklin Fund (FFT)
Joint Grant Awards Program Launch

COFFEE BREAK
17:00 – 17:30

CHAIR JEFF TOLLAKSEN
15:20 – 15:50 Anthony Aguirre
University of California, Santa Cruz, USA
Observer-dependent entropy and the Second Law
15:50 – 16:10 Hans-Thomas Elze
University of Pisa, IT
On the question of ontological states in simple (pre-)quantum models
16:10 – 16:30 Maurice de Gosson
University of Vienna, AT
What happens to quantum states if Planck’s constant changes?

COFFEE BREAK
16:45 – 17:30
KEY NOTE LECTURE
Tim Maudlin
New York University, USA
Ontological Clarity, Electromagnetism and the Aharonov-Bohm Effect
from 17.30
Open Evening

SATURDAY, OCTOBER 28th 2017

CHAIR PAAVO PYLKKÄNEN
09:00 – 09:15 Paavo Pylkkänen & Jan Walleczek
Introduction to Day Three of the EmQM17 Symposium
09:15 – 10:00 KEY NOTE LECTURE
Huw Price
University of Cambridge, UK
Two Paths to the Parisian Zigzag
10:00 – 10:30 Kenneth Wharton
San Jose State University, USA
Live Options for Spacetime-Based Physics

COFFEE BREAK
10:45 – 11:15
Emily Adlam
University of Cambridge, UK
A Tale of Two Arachronisms
11:15 – 11:35
Nathan Argaman
Nuclear Research Center Negev, Beer Sheva, IL
A Lenient Causal Arrow of Time?
11:35 – 12:00
Jan Walleczek
Phenoscience Laboratories, Berlin, DE
Nonlocality or Local Retrocusquiality? – The Non-signalling Theorem in Ontological Quantum Mechanics

LUNCH BREAK
12:00 – 14:00

CHAIR JAN WALLECZEK
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Sir Roger Penrose
University of Oxford, UK
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Closing Ceremony & Book Announcement
19:00 – 23:00 Gala Dinner