

Fifth International Conference on the Nature and Ontology of Spacetime

Conference program

Talks - 40 min + 20 min questions

Only a laptop (with a projector) for the presentations will be available

Monday, May 14, 2018

8:30 - Registration

8:55 - 9:00 Welcome Remarks

Chair: Tomasz Placek (Jagiellonian University)

9:00-10:00 - Marco Giovanelli (University of Tuebingen), 'Like classical Thermodynamics before Boltzmann'. Why did Einstein Compare Relativity Theory with Thermodynamics?

10:00-10:30 - Coffee break and free discussions

10:30-11:30 - Pablo Acuna (Pontificia Universidad Catolica de Valparaiso), Dynamics and chronogeometric structure in spacetime theories

11:30-12:30 - Fedde Benedictus (Managing editor, Foundations of Physics), Kant, Einstein, Reichenbach

12:30-13:30 - Lunch

13:30-15:00 - Free discussions

Chair: Mohammed Sanduk (University of Surrey)

15:00-16:00 - Damian Luty (Adam Mickiewicz University in Poznan), Too distant worlds. Spacetime Structural Realism and Physicality

16:00-17:00 - Garnet Ord (Ryerson University), Algorithms, theories and ontology; spacetime from the perspective of statistical mechanics

17:00-17:30 - Coffee break and free discussions

17:30-18:30 - Uri Ben-Ya'acov (School of Engineering, Kinneret Academic College on the Sea of Galilee), Proper-time measurement in accelerated relativistic systems

$$d\tau = \sqrt{dt^2 - dx^2 - dy^2 - dz^2}$$

Tuesday, May 15, 2018

Chair: Pablo Acuna (Pontificia Universidad Catolica de Valparaiso)

9:00-10:00 - Tomasz Placek (Jagiellonian University), Tenses modally introduced: a reductio argument?

10:00-10:30 - Coffee break and free discussions

10:30-11:30 - Pieter Thyssen (KU Leuven, Institute of Philosophy), Conventionality and Reality

11:30-12:30 - Anguel S. Stefanov (Institute for the Study of Societies and Knowledge at BAS), The growing block can hardly explain the experience of time flow

12:30-13:30 - Lunch

13:30-15:00 - Free discussions

Chair: Antoine van de Ven (Fontys University)

15:00-16:00 - Vesselin Petkov (Minkowski Institute, Montreal), Can a worldview contradict experiment: can experiment decide whether spacetime represents an evolving present, a block universe or a growing block universe?

16:00-17:00 - Cristi Stoica (National Institute of Physics and Nuclear Engineering - Horia Hulubei, Bucharest), The post-determined block universe

17:00-17:30 - Coffee break and free discussions

17:30-18:30 - Uri Ben-Ya'acov (School of Engineering, Kinneret Academic College on the Sea of Galilee), The implication of Gödel's incompleteness theorem on our apprehension of the nature of space-time

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Wednesday, May 16, 2018

Chair: Marco Giovanelli (University of Tuebingen)

9:00-10:00 - Niels Martens (RWTH Aachen University) & Dennis Lehmkuhl (California Institute of Technology), Dark Matter = Modified Gravity? Scrutinising the spacetime-matter distinction through the modified gravity / dark matter lens

10:00-10:30 - Coffee break and free discussions

10:30-11:30 - Alexei Kojevnikov (University of British Columbia), Space-Time in Upheaval: Relativistic Cosmology and the End of a Static Universe

11:30-12:30 - Daniel Coumbe (Niels Bohr Institute), Renormalizing Spacetime (time and day will be changed shortly)

12:30-13:30 - Lunch

13:30-15:00 - Free discussions

Chair: Ivan A. Karpenko (National Research University Higher School of Economics, Moscow)

15:00-16:00 - Antoine van de Ven (Fontys University), Extended Space-Propertime Diagrams

16:00-17:00 - Doug Sweetser, Enforcing the Unity of Space and Time using Quaternions

17:00-17:30 - Coffee break and free discussions

17:30-18:30 - Colin MacLaurin, Slicing the Schwarzschild spacetime block

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Thursday, May 17, 2018

Chair: Garnet Ord (Ryerson University)

9:00-10:00 - Peter Bongaarts (Leiden, Rotterdam), Is Special Relativity in Contradiction with Quantum Mechanics?

10:00-10:30 - Coffee break and free discussions

10:30-11:30 - Mohammed Sanduk (University of Surrey), The ontology of spacetime and the ontology of the wave function!

11:30-12:30 - Ivan A. Karpenko (National Research University Higher School of Economics, Moscow), Physics theories in the context of multiverse

12:30-13:30 - Lunch

14:00-15:00 - Free discussions - Special session on the Nature of Time

Chair: Peter Bongaarts (Leiden, Rotterdam)

15:00-16:00 - Jan Pilotti, How Einstein and Minkowski missed real valued Lorentz transformations for $v > c$ which are possible in 2D and in extended special relativity to 6D spacetime (three space three time) and its possible relation to the nature of spacetime and consciousness

16:00-17:00 - Philip Carter, For Imaginary Dimensions and Causal Brane-Worlds

17:00-17:30 - Coffee break and free discussions

17:30-18:30 - Nick Astraeus, A Ridiculous Theory of Dark Energy

$$d\tau = \sqrt{dt^2 - dx^2 - dy^2 - dz^2}$$