

Third International Conference on the Nature and Ontology of Spacetime

Conference Program

Invited Talks - 50 min; question period - 20 min; Session Talks - 40 min; question period - 10 min

Friday, June 13, 2008

8:00 - Registration

8:45 - 9:00 Welcome Remarks

Chair: Christian Wuethrich (Department of Philosophy, University of California, San Diego)

9:00 - 10:10 Peter Minkowski (Institute for Theoretical Physics, University of Bern) - **Room H 767**
On Heraklitean Space-time

10:10 - 10:40 Coffee break - **Room H 763**

Session I - Room H 767	Session II - H 760
<p>Chair: Christian Wuethrich (Department of Philosophy, University of California, San Diego)</p> <p>10:40 - Dennis Dieks (Department of History and Foundations of Science, Utrecht University) <i>The Adolescence of Relativity: From Einstein to Minkowski</i></p> <p>11:30 - Michel Janssen and Robert Rynasiewicz (University of Minnesota and Johns Hopkins University) <i>Minkowski and the development of relativistic mechanics</i></p> <p>12:20 - Joseph K. Cosgrove (Department of Philosophy, Providence College) <i>Husserl, Jacob Klein, and Minkowski Space-Time</i></p> <p>13:10 - 14:30 Lunch break</p>	<p>Chair: Paul O'Hara (Department of Mathematics, Northeastern Illinois University)</p> <p>10:40 - Wolfgang Pietsch (Department of Philosophy of Science, Universität Augsburg) <i>Reversibility reconsidered – a role for history</i></p> <p>11:30 - Eleanor Knox (New College, Oxford University) <i>General Relativity by another name? A look at Teleparallel Gravity</i></p> <p>12:20 - Hanoeh Ben-Yami (Central European University) <i>Bacward-light-cone simultaneity, with special application to the twin paradox</i></p> <p>13:10 - 14:30 Lunch break</p>

Chair: John Corbett (Department of Mathematics, Macquarie University, Australia)

14:30 - 15:40 Leo Corry (Cohn Institute for History and Philosophy of Science, Tel-Aviv University)
Hermann Minkowski and Relativity: Geometry and Axiomatics

15:40 - 16:10 Coffee break

Session I - Room H 767	Session II - H 760
<p>Chair: John Corbett (Department of Mathematics, Macquarie University, Australia)</p> <p>16:10 - John Earman (Department of History and Philosophy of Science, University of Pittsburgh) <i>Reassessing the Prospects of C. D. Broad's Growing Block Model of the Universe</i></p> <p>17:00 - Vesselin Petkov (Concordia University) <i>Can the Growing Block Model of the Universe Save the Objectivity of Becoming?</i></p>	<p>Chair: Edward Slowik (Department of Philosophy, Winona State University)</p> <p>16:10 - Erik Curiel <i>On the Existence of Spacetime Structure</i></p> <p>17:00 - Gordon Belot (Department of Philosophy, New York University) <i>Geometric Possibility</i></p>

17:50 - Daniel Peterson and Michael Silberstein (Swarthmore College and Department of Philosophy, Elizabethtown College)
Relativity of Simultaneity and Eternalism: In Defense of Blockworld

17:50 - Mark Shumelda (Department of Philosophy, University of Toronto)
Not the hole story: relationalism and loop quantum gravity

18:45 - Reception - **Room H 763**

Saturday, June 14, 2008

Chair: Maureen Donnelly (Department of Philosophy, University at Buffalo)

9:00 - 10:10 John D. Norton (Department of History and Philosophy of Science, University of Pittsburgh) - **Room H 767**
Einstein Discovering Special Relativity

10:10 - 10:40 Coffee break

Session I - Room H 767	Session II - H 760
<p>Chair: Maureen Donnelly (Department of Philosophy, University at Buffalo)</p>	<p>Chair: James Overduin (Gravity Probe B Theory Group, Stanford University)</p>
<p>10:40 - Richard T. W. Arthur (Department of Philosophy, McMaster University) <i>Minkowski's Proper Time and the Clock Hypothesis</i></p>	<p>10:40 - Alfonso Rueda (Department of Electrical Engineering, California State University Long Beach) <i>Inertia and the physical medium pervading Minkowski spacetime</i></p>
<p>11:30 - Mauro Dorato (Department of Philosophy, University of Rome Three) <i>Should we represent the experienced present in Minkowski spacetime?</i></p>	<p>11:30 - Paul O'Hara (Department of Mathematics, Northeastern Illinois University) <i>The Metrics of General Relativity and Quantum Mechanics</i></p>
<p>12:20 - Yuri Balashov (Department of Philosophy, University of Georgia) <i>Coexistence in Minkowski Spacetime</i></p>	<p>12:20 - John Corbett¹, Thomas Durt² (¹Mathematics Department, Macquarie University, Australia; ²TENA-TONA Free University of Brussels) <i>Quantum real number Minkowski spacetime</i></p>
<p>13:10 - 14:30 Lunch break</p>	<p>13:10 - 14:30 Lunch break</p>
<p>Chair: W.M. Stuckey (Department of Physics, Elizabethtown College)</p>	<p>Chair: Jonathan Bain (Department of Humanities and Social Sciences, Polytechnic University, Brooklyn, New York)</p>
<p>14:30 - Graham Nerlich (University of Adelaide) <i>Why spacetime is not a hidden cause: a realist story</i></p>	<p>14:30 - Stephen N. Lyle <i>Rigidity in Relativity</i></p>
<p>15:20 - Robert DiSalle (Department of Philosophy, University of Western Ontario) <i>Minkowski's space-time and the interpretation of physical theory</i></p>	<p>15:20 - Michael Ibison (Institute for Advanced Studies at Austin) <i>A New Case for Direct Action</i></p>
<p>16:10 - 16:40 Coffee break</p>	<p>16:10 - 16:40 Coffee break</p>
<p>16:40 - Nick Huggett (Department of Philosophy, University of Illinois at Chicago) <i>(Again) A Philosopher Looks at String Theory</i></p>	<p>16:40 - James Overduin (Gravity Probe B Theory Group, Stanford University) <i>The Experimental Verdict on Spacetime from Gravity Probe B</i></p>
<p>17:30 - Christian Wuethrich (Department of Philosophy, University of California, San Diego) <i>No presentism in quantum gravity</i></p>	

18:30 - Poster Session and Reception - **Room H 763**

Sunday, June 15, 2008

Chair: Joseph K. Cosgrove (Department of Philosophy, Providence College)

9:00 - 10:10 William G. Unruh (Department of Physics & Astronomy, University of British Columbia) - **Room H 767**
What are the Problems of Time in Quantum Gravity?

10:10 - 10:40 Coffee break

Session I - Room H 767	Session II - H 760
<p><i>Chair:</i> Joseph K. Cosgrove (Department of Philosophy, Providence College)</p> <p>10:40 - Hans H. Grelland (Quantum Chemistry and Physics, University of Agder) <i>Husserl, Einstein, Weyl, and the Concepts of Space, Time, and Space-Time</i></p> <p>11:30 - Ronny Desmet (Center for Logic and Philosophy of Science, Vrije Universiteit Brussel) <i>About "Minkowski's Influence on Whitehead"</i></p> <p>12:20 - James Mattingly (Philosophy Department, Georgetown University) <i>Weyl's refutation of conventionalism</i></p> <p>13:10 - 14:30 Lunch break</p> <p><i>Chair:</i> Wolfgang Pietsch (Department of Philosophy of Science, Universität Augsburg)</p> <p>14:30 - Flavia Padovani (Department of Philosophy, University of Geneva) <i>Topologies of Time in the 1920s: Reichenbach, Carnap, Lewin</i></p> <p>15:20 - Edward Slowik (Department of Philosophy, Winona State University) <i>The fate of mathematical place: ontology, objectivity, and the theory of lived-space from Husserl to Casey</i></p> <p>16:10 - 16:40 Coffee break</p> <p>16:40 - Maureen Donnelly (Department of Philosophy, University at Buffalo) <i>Region-Relative Parthood</i></p> <p>17:30 - Bradford Skow (Department of Philosophy, University of Massachusetts) <i>Local and Global Relativity Principles</i></p>	<p><i>Chair:</i> Alfonso Rueda (Department of Electrical Engineering, California State University Long Beach)</p> <p>10:40 - Jonathan Bain (Department of Humanities and Social Sciences, Polytechnic University, Brooklyn, New York) <i>Relativity and Quantum Field Theory</i></p> <p>11:30 - Michael Silberstein¹ and W.M. Stuckey² (¹Department of Philosophy and ²Department of Physics, Elizabethtown College and Department of Physics, Elizabethtown College) <i>RBW: an Acausal Conspiracy Theory</i></p> <p>13:10 - 14:30 Lunch break</p> <p><i>Chair:</i> Michael Ibison (Institute for Advanced Studies at Austin)</p> <p>14:30 - Hilary Greaves (Philosophy Department, Rutgers University) <i>How can there be a CPT theorem?</i></p> <p>15:20 - Juan Ferret (Department of Philosophy, University of Texas at El Paso) <i>The Impact of the Energy-Time Indeterminacy Relation on the Ontology of Spacetime</i></p> <p>16:10 - 16:40 Coffee break</p> <p>16:40 - Jan Faye (Department of Media, Cognition, and Communication, University of Copenhagen) <i>What Mirrors the Mirror? Space-Time Structure as an Abstract Entity</i></p> <p>17:30 - Dennis Lehmkuhl (Oxford University) <i>Geometrization(s) of Matter</i></p>

19:30 - Public Lecture - Room H 110

Organized by the *International Society for the Advanced Study of Spacetime* and the *Montreal Inter-University Seminar on the History and Philosophy of Science*.

Speaker: Vesselin Petkov (Concordia University)

Title: *Spacetime and Reality: Hermann Minkowski's Discovery of Spacetime and its Implications for our Understanding of Reality*