

Second International Conference on the Ontology of Spacetime

Conference Program

(Session Talks - 45 min; question period - 15 min)

Friday, June 9, 2006

8:00 - Registration

8:45 - 9:00 Welcome Remarks

Chair: Robert Rynasiewicz (Department of Philosophy, Johns Hopkins University)

9:00 - 10:30 Robert P. Geroch (Department of Physics, University of Chicago) - **Room H 767**

Whither Determinism?

10:30 - 11:00 Coffee break

Session I - Room H 767	Session II - H 760
<u>Chair: Robert Rynasiewicz (Department of Philosophy, Johns Hopkins University)</u>	<u>Chair: Peter Forrest (Department of Philosophy, The University of New England, Australia)</u>
11:00 - Steven Savitt (Department of Philosophy, University of British Columbia) <i>Time in the Special Theory of Relativity</i>	11:00 - Jan Faye (Department of Media, Cognition, and Communication; Section of Philosophy, University of Copenhagen) <i>Time, Abstracts, and Cosmology</i>
12:00 - Mauro Dorato (Department of Philosophy, University of Rome Three) <i>Is Structural Spacetime Realism Relationism in disguise?</i>	12:00 - Edgar Eslava (Departamento de Filosofía, Universidad del Rosario, Colombia) <i>Two ways to miss a target: Time symmetry and the cosmological arrow of time</i>
13:00 - 14:30 Lunch break	13:00 - 14:30 Lunch break

Chair: Richard T. W. Arthur (Department of Philosophy, McMaster University)

14:30 – 16:00 Robert Brandenberger (Department of Physics, McGill University)

A New View of Space from String Theory and String Cosmology

16:00 - 16:30 Coffee break

Session I - Room H 767	Session II - H 760
<u>Chair: Richard T. W. Arthur (Department of Philosophy, McMaster University)</u>	<u>Chair: Kent A. Peacock (Department of Philosophy, University of Lethbridge)</u>
16:30 - Robert Rynasiewicz (Department of Philosophy, Johns Hopkins University) <i>Simultaneity in Spatially Closed Manifolds Admitting a Flat Lorentzian Metric</i>	16:30 - Joy Christian (Perimeter Institute and University of Oxford) <i>Heraclitean Generalization of Special Relativity</i>
17:30 - Vesselin Petkov (Department of Philosophy, Science College, and Liberal Arts, Concordia University) <i>One-way Velocity of Light, Conventionality of Simultaneity, Dimensionality, and Existence</i>	17:30 - Ludwik Kostro (Department for Logic, Methodology and Philosophy of Science, University of Gdansk, Poland) <i>Ultrareferential physical space-time conceived as a new ether - the opinion of Albert Einstein</i>

19:30 - Reception - **Room H 763**

Saturday, June 10, 2006

Chair: Carolyn Brighthouse (Department of Philosophy, Occidental College)

9:00 - 10:30 Harvey Brown (Sub-Faculty of Philosophy, University of Oxford) - **Room H 767**

Why is relativity theory geometrical in nature?

10:30 - 11:00 Coffee break

Session I - Room H 767	Session II - H 760
<p><u>Chair: Carolyn Brighthouse (Department of Philosophy, Occidental College)</u></p> <p>11:00 - John Earman (Department of History and Philosophy of Science, University of Pittsburgh) <i>Why Branching Spacetime Is a Bad Idea</i></p> <p>12:00 - Storrs McCall (Department of Philosophy, McGill University) <i>Branching spacetime and a new interpretation of probability</i></p> <p>13:00 - 14:30 Lunch break</p> <p><u>Chair: Andrew Wayne (Department of Philosophy, University of Guelph)</u></p> <p>14:30 - Robert DiSalle (Department of Philosophy, University of Western Ontario) <i>Space-time ontology after general relativity: metaphysical vs. methodological legacies</i></p> <p>15:30 - Christopher Smeenk (Department of Philosophy, UCLA) <i>Gravitational Energy and Substantivalism</i></p> <p>16:30 - 17:00 Coffee break</p> <p>17:00 - Kent A. Peacock (Department of Philosophy, University of Lethbridge) <i>Quantum mechanics and the open future</i></p>	<p><u>Chair: Jan Faye (Department of Media, Cognition, and Communication; Section of Philosophy, University of Copenhagen)</u></p> <p>11:00 - Peter Forrest (Department of Philosophy, The University of New England, Australia) <i>Who's Afraid of Special Relativity?</i></p> <p>12:00 - Yuri Balashov (Department of Philosophy, University of Georgia) <i>Enduring, Perduring and Exduring Objects in Spacetime</i></p> <p>13:00 - 14:30 Lunch break</p> <p><u>Chair: Yuri Balashov (Department of Philosophy, University of Georgia)</u></p> <p>14:30 - Juan Ferret (Department of Philosophy, University of Texas at El Paso) <i>The Ontological Status of Entities in Canonical Approaches to Quantum Gravity</i></p> <p>15:30 - Alexis de Saint-Ours (Philosophy Department, University of Paris VIII) <i>Relation and quantum gravity in the light of Simondon and Bachelard's philosophies</i></p> <p>16:30 - 17:00 Coffee break</p> <p>17:00 - Hans Westman (Perimeter Institute) <i>Events and observables in general relativity</i></p>

19:00 - Poster Session and Reception - **Room H 763**

Sunday, June 11, 2006

Session I - Room H 767	Session II - H 760
<p><u>Chair: Christopher Smeenk (Department of Philosophy, UCLA)</u></p> <p>9:00 - Dennis Dieks (Department of History and Foundations of Science, Utrecht University) <i>Another look at the equivalence of frames of reference in General Relativity</i></p> <p>10:00 - Gordon Belot (Department of Philosophy, New York University) <i>Artificial General Covariance and the Problem of Time</i></p> <p>11:00 - 11:30 Coffee break</p> <p>11:30 - Carolyn Brighthouse (Department of Philosophy, Occidental College) <i>Understanding Indeterminism</i></p> <p>12:30 – 14:00 Lunch break</p> <p><u>Chair: Joy Christian (Perimeter Institute and University of Oxford)</u></p> <p>14:00 - Oliver Pooley (Oriol College, Oxford University) <i>Background independence: What's special about general relativity?</i></p> <p>15:00 - Dean Rickles (Department of Philosophy, University of Calgary) <i>Who is Afraid of Background Independence</i></p> <p>16:00 - 16:30 Coffee break</p> <p>16:30 - Luca Lusanna¹ and Massimo Pauri² (¹INFN Firenze, Italy; ²Department of Physics, University of Parma) <i>A dis-solution of the Hole Argument</i></p> <p>17:30 - Richard T. W. Arthur (Department of Philosophy, McMaster University) <i>The Degeneracy of Time: Proper Time and Becoming in Einstein-Minkowski Spacetime</i></p>	<p><u>Chair: Juan Ferret (Department of Philosophy, University of Texas at El Paso)</u></p> <p>9:00 - Jonathan Bain (Humanities and Social Sciences, Polytechnic University, Brooklyn) <i>Condensed Matter Physics and the Nature of Spacetime</i></p> <p>10:00 - Tomasz Bigaj (Institute of Philosophy, Warsaw University) <i>On EPR, Counterfactuals, and Relation Between Quantum Mechanics and Relativity</i></p> <p>11:00 - 11:30 Coffee break</p> <p>11:30 - Ioan Muntean (Department of Philosophy, University of California, San Diego) <i>Unification and explanation in Kaluza-Klein formalism</i></p> <p>12:30 - 14:00 Lunch break</p> <p><u>Chair: Hans Westman (Perimeter Institute)</u></p> <p>14:00 - Andrew Wayne (Department of Philosophy, University of Guelph) <i>Spacetime Relationalism and Classical Fields</i></p> <p>15:00 - Bradford Skow (Department of Philosophy, University of Massachusetts) <i>Extrinsic Temporal Metrics</i></p> <p>16:00 - 16:30 Coffee break</p> <p>16:30 - Vincent Lam (Université de Lausanne) <i>Singular structure and the nature of space-time</i></p> <p>17:30 - Dennis Lehmkuhl (Oxford University) <i>Is spacetime a field?</i></p>

19:30 - Public Lecture - organized by the *International Society for the Advanced Study of Spacetime* and *TaU, Time and Universe* - **Room H 110**

Speaker: Robert Geroch (Department of Physics, University of Chicago)
Title: Time Travel