

PSA 2010 Program

Acknowledgements:

Having witnessed and aided in the preparation for PSA2010 over the past two years, I am far more aware than I could have been in 2008 of the planning, effort, and dedication required to produce a biennial meeting of the Philosophy of Science Association. A great portion of that work has been done by the Program Committee for PSA2010, chaired by Stephen Downes of the University of Utah. Amidst his many other responsibilities, Steve assembled the committee and then guided them through the horrifying task of selecting the finest contributed papers and symposia from a record number of submissions. He did so with characteristic finesse, insight, and Duhemian *bon sens*. The excellent program you hold in your hands is a testament to that committee's hard work on behalf of the PSA; its members deserve our deepest thanks.

I also happily thank Jay Malone, Executive Director of the History of Science Society, and his staff at the HSS, especially Gregory Macklem. Per agreement with the HSS much of the planning and implementation for the PSA's biennial meetings—the negotiation of hotel contracts, meeting registration, and program production, for example—is undertaken by Jay's office. Consequently, the PSA has benefitted daily from Jay's expert understanding of the mechanics, dynamics, and vagaries of an academic conference, not to mention his remarkable memory (well, compared to mine) and preternatural calm.

I thank the Governing Board of the PSA, especially President Nancy Cartwright and Vice-President Jim Woodward, for constant support, insights, suggestions, and initiative. Greg McWhirter of the University of California—Irvine, the PSA's webmaster, created the PSA2010 webpage and then kept it up-to-date with unnerving alacrity. And PSA2010 participants would have been at risk of overlooking Montreal's extraordinary charms but for the equally extraordinary efforts of the Local Arrangements Committee, chaired by Nicholas Dew of McGill University. Nicholas' restaurant guide to Montreal, in particular, sets the standard for future guides.

Finally, and yet foremost, I again thank the members of the PSA. Without you PSA2010 is just some nice rooms in a nice hotel in a nice city. With you it is three days of remarkable insights, rejuvenating discussion, and passionate debate about science—its accomplishments, nature, limits, and future. That makes it worth the work by far.

Gary Hardcastle
Executive Secretary and Treasurer
Philosophy of Science Association

PSA 2010 Program Chair's Acknowledgements.

I first want to thank Nancy Cartwright and the Governing Board of PSA for selecting me to run the program this year and for their support along the way in dealing with various procedural problems. This year's Program Committee put in an enormous amount of work refereeing a huge number of papers and symposium proposals; I could not have wished for a better team and cannot thank them enough. Gary Hardcastle provided invaluable day-to-day support and put in a lot of work helping me put the final program together; thanks Gary. I worked closely with Jeff Barrett who, along with Tucker Lentz, helped me understand the inner workings of Editorial Manager. Without their help and the use of *Philosophy of Science's* editorial program, I would not have been able to put the program together. I am grateful to Jeff Barrett, Miriam Solomon and Alan Richardson, who all shared helpful information about the running of previous PSA meetings. Thanks in part to some funds from PSA, I was ably assisted by University of Utah graduate student David Drake during the refereeing process. Robert (Jay) Malone secured us enough rooms to have seven consecutive session per time slot;

thanks Jay. Finally, I want to thank all the philosophers of science for submitting the contributed papers and symposia that make up this year's excellent program.

Stephen M. Downes, PSA 2010 Program Committee Chair

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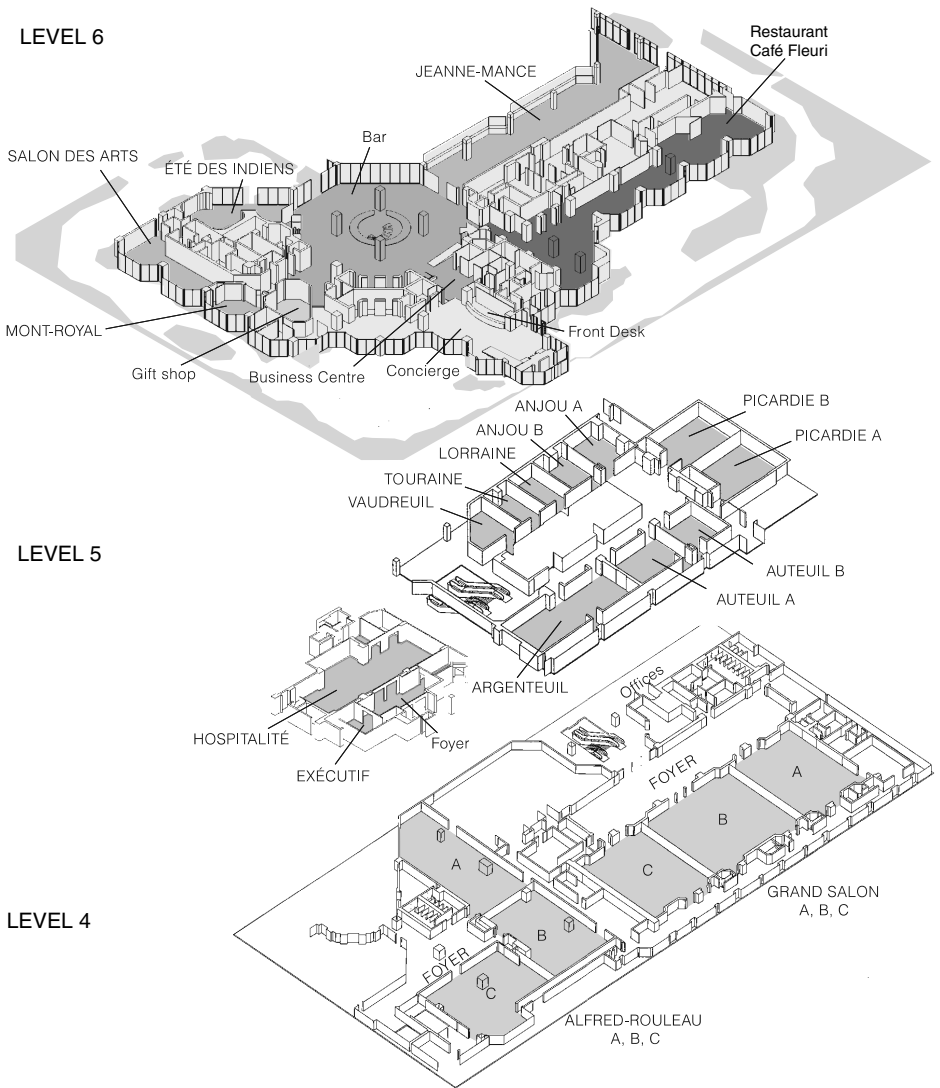
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Hotel under renovation; floor plans may not be completely accurate.

Twenty-Second Biennial Meeting of the Philosophy of Science Association
Montréal, Québec, November 4-6, 2010

Program Overview

Registration -- Grand Salon Foyer (Level 4)

Thursday, 12:00 PM – 7:00 PM

Friday, 8:00 AM – 5:00 PM

Saturday, 8:00 AM – 5:00 PM

Sunday, 8:00 AM -- 12:00 PM

Book Exhibit – see page 8

Thursday, November 4, 10:00 AM-2:00 PM

PSA Governing Board Meeting (Mont Royal, Level 6)

Thursday, November 4, 2:00-4:00 PM

Contributed Papers: Biology: Evolution and Selection (*Argenteuil*)

Contributed Papers: Quantum Physics (*Anjou A/B*)

Contributed Papers: Explanation (*Auteuil B*)

Contributed Papers: Physics (*Auteuil A*)

Contributed Papers: Reduction, Structure and Realism (*Vaudreuil*)

Contributed Papers: Biology and Medicine (*Picardie A*)

Contributed Papers: Mechanisms and Representation (*Picardie B*)

COFFEE BREAK 4:00 – 4:30 PM

Thursday, November 4, 4:30-6:45 PM

Symposium: Rediscovering Human Nature (*Picardie B*)

Symposium: Breaking Mechanisms: Philosophy in the Higgs Sector (*Vaudreuil*)

Symposium: Forging Model/World Relations (*Picardie A*)

Symposium: The CRU E-mails: Perspectives from Philosophy of Science (*Argenteuil*)

Symposium: Becoming Scientific: How Everyday Things Travel To Science and Back (Session co-sponsored with the History of Science Society) (*Auteuil A*)

Contributed Papers: Physics and Geophysics (*Anjou A/B*)

Contributed Papers: Scientific Realism (*Auteuil B*)

Thursday, November 4, 5:30 – 7:00 PM

Plenary Session: The Challenges and Opportunities of Interdisciplinary Teaching (Co-sponsored with the History of Science Society) (*Grand Salon B*)

Thursday, November 4, 7:30-8:30 PM

PSA/HSS Reception (*Grand Salon Foyer and Grand Salon A, Level 4*)
Cash bar

Friday, November 5, 7:45-8:45 AM

Philosophy of Science Editorial Board meeting (*Picardie A*)

Friday, November 5, 9:00-11:45 AM (COFFEE BREAK 10:00-10:15, *Book Exhibit Area, Level 4*)

Symposium: Sewall Wright's F-statistics: Measurement of Biological Population Structure and Its Causes (*Auteuil A*)

Symposium: New Directions Concerning Quantum Indistinguishability (*Argenteuil*)

Symposium: Fictions and Scientific Realism (*Auteuil B*)

Symposium: Philosophy of Commercialized Science (*Picardie A*)

Symposium: Is It the Case? Epistemological Reflections on the Use of Case Studies in the Sciences (*Picardie B*)

Contributed Papers: Methodology (*Anjou A/B*)

Contributed Papers: Kinds: Chemical, Biological and Social (*Vaudreuil*)

Friday, November 5, 1:30-3:10 PM

Contributed Papers: Quantum Mechanics (*Picardie B*)

Contributed Papers: Evolution, Probability and Inference (*Vaudreuil*)

Contributed Papers: Laws, Causes, and Empirical Significance (*Picardie A*)

Contributed Papers: Cognitive Science (*Argenteuil*)

Contributed Papers: Models and Modeling (*Anjou A/B*)

Contributed Papers: Time and Space-Time (*Auteuil A*)

Contributed Papers: Realism (*Auteuil B*)

COFFEE BREAK **3:10-3:30 PM** (*Book Exhibit Area, Level 4*)

Friday, November 5, 3:30-5:30 PM

Symposium: Building Trees: The Philosophy of Methodology in Systematics (*Anjou A/B*)

Symposium: Why I Care About What I Don't Yet Know: Initial Conditions and Physical and Cognitive Asymmetries in Time (*Picardie B*)

Symposium: Causal Reasoning: What Can Philosophy Learn from Psychology, and What Can Psychology Learn from Philosophy (*Argentueil*)

Symposium: Author Meets Critics: Janet Kourany's *Philosophy of Science after Feminism* (*Picardie A*)

Symposium: The Environmental Sciences at the Interface of Modeling and Policy Advice (*Auteuil A*)

Contributed Papers: Biology: Evolution, Genomes and Biochemistry (*Vaudreuil*)

Contributed Papers: Physics (*Auteuil B*)

Friday, November 5, 6:00-7:30 PM

PSA Reception (*Jeanne-Mance, Level 6*) – Cash bar

Saturday, November 6, 7:30-8:50 AM

PSA Women's Caucus Breakfast (*Jeanne-Mance, Level 6*)

Saturday, November 6, 9:00-11:45 AM (COFFEE BREAK 10:00-10:15 AM, *Book Exhibit Area, Level 4*)

Symposium: Heterogeneous Individuals (*Vaudreuil*)

Symposium: The Emergence of Spacetime in Quantum Theories of Gravity (*Picardie B*)

Symposium: Three Aspects of Theories of Imprecise Probabilities (*Auteuil A*)

Symposium: Improving Peer Review in the Sciences (*Argentueil*)

Symposium: Methodological Issues in Cognitive Neuroscience (*Picardie A*)

Contributed Papers: Explanation and Reduction (*Anjou A/B*)

Contributed Papers: Thermodynamics and Chemistry (*Auteuil B*)

Saturday, November 6, 1:30-3:45 PM

Symposium: Exploring the Complementarity between Economics and Recent Evolutionary Theory (*Auteuil B*)

Symposium: Boltzmann's Legacy: Outstanding Philosophical Issues in Modern Approaches to Statistical Mechanics (*Anjou A/B*)

Symposium: Author Meets Critics: Eric Barnes' *The Paradox of Predictivism* (*Picardie A*)

Symposium: Values in Science and Public Policy: Building on Douglas's *Science, Policy, and the Value-Free Ideal* (*Argentueil*)

Symposium: Category Theoretical Reflections on the Foundations of Physics (*Vaudreuil*)

Contributed Papers: Evidence, Prediction, and Chance (*Picardie B*)

Contributed Papers: Cognitive Sciences and Neuroscience (*Auteuil A*)

Saturday, November 6, 4:30-6:00 PM

PSA Presidential Address (*Grand Salon B, Level 4*)

Saturday, November 6, 7:30-9:30

PSA/HSS Dinner (*Complexe Desjardins, off of Level 4*)

Twenty-Second Biennial Meeting of the Philosophy of Science Association
Montréal, Québec, November 4-6, 2010
Program

(Please note: Unless otherwise indicated, all PSA sessions are on Level 5 – one level below the hotel lobby on Level 6)

Thursday, November 4, 10:00 AM-2:00 PM

PSA Governing Board Meeting (Mont Royal, Level 6)

Thursday, November 4, 2:00-4:00 PM

Contributed Papers: Biology: Evolution and Selection (Argenteuil)

Trevor Pearce (University of Chicago), “Evolution and Constraints on Variation: Variant Specification and Range of Assessment”

Joshua Filler (University of Wisconsin, Madison), “Underdetermination, Pluralism, and the Levels of Selection”

Clement Loo (Indiana University, Bloomington), “Invasive Species and Evaluating Relative Significance of the Shifting Balance Theory”

Jonathan Kaplan (Oregon State University), “Relevant Similarity and the Causes of Biological Evolution: Selection, Fitness, and Statistically Abstractive Explanations”

Jay Odenbaugh (Lewis and Clark College), Chair

Contributed Papers: Quantum Physics (Anjou A/B)

Edward Slowik (Winona State University), “A Pre-History of Quantum Gravity: Newton, Leibniz, and the Deep Metaphysics of Space”

Jill North (Yale University), “The Structure of a Quantum World”

Meinard Kuhlmann (University of Bremen), “A Trope Bundle Interpretation of Algebraic Quantum Field Theory”

Michael David Silberstein (Elizabethtown College) and Mark Stuckey (Elizabethtown College), “A New Path Integral Based Interpretation of Quantum Field Theory”

Louis Vervoort (University of Montreal), Chair

Contributed Papers: Explanation (Auteuil B)

Jonah N. Schupbach (University of Pittsburgh), “Comparing Probabilistic Measures of Explanatory Power”

Nicolas Fillion (University of Western Ontario) and Robert Moir (University of Western Ontario), “Explanation and Abstraction: The Case of Backward Error Analysis”

Jan Sprenger (Tilburg University), “Towards a Bayesian Account of Explanatory Power”

Arnon Levy (Van Leer Jerusalem Institute), “Idealization in Explanation: A Two-Dimensional View”

Michael Trestman (University of Utah), Chair

Contributed Papers: Physics (Auteuil A)

Gordon Belot (University of Michigan), “A Didactic Rant, or, Of Symmetry”

Mathias Frisch (University of Maryland), “From Boltzmann to Arbuthnot: Higher-Level laws and the Best System”

Vincent Lam (University of Queensland), “Gravitational and Non-Gravitational Energy: The Need for Background Structures”

Christopher Smeenk (University of Western Ontario) and Christian Wuthrich (University of California, San Diego), “Determinism and General Relativity”

Mara Harrell (Carnegie Mellon University), Chair

Contributed Papers: Reduction, Structure and Realism (Vaudreuil)

- Joel Press (California University of Pennsylvania), “On the Virtues of Cursory Scientific Reductions”
Matteo Morganti (University of Konstanz), “Is There a Compelling Argument for Ontic Structural Realism?”
Scott Tanona (Kansas State University), “Theory-Phenomenon Correspondence and Structural Continuity”
Alberto Cordero (CUNY, Graduate Center), “Scientific Realism and the Divide et Impera Strategy: The Ether Saga Revisited”
Tucker Lentz (University of California--Irvine), Chair

Contributed Papers: Biology and Medicine (Picardie A)

- Stephen Morris (College of Staten Island/CUNY), “Preserving the Concept of Race: A Medical Expedient, a Sociological Necessity”
Sharyn Clough (Oregon State University), “Gender, Germs, and Dirt”
Elselijn Kingma (Kings College, London), “Functions Revisited: What Philosophers of Biology Can Learn from Philosophers of Medicine”
Lara Huber (Mainz University) and Lara K. Kutschenko (Mainz University), “On the Epistemic Specificity of Animal Models in Biomedical Research: The Case of ‘Alzheimer Mice’”
Anya Plutynski (University of Utah), Chair

Contributed Papers: Mechanisms and Representation (Picardie B)

- Jeremy Howick (University College London), “Exposing the Vanities--and a Qualified Defense--of Mechanistic Reasoning in Clinical Decision-Making”
Lane DesAutels (University of Maryland, College Park), “Against Regular and Irregular Characterizations of Mechanisms”
James Alexander Overton (University of Western Ontario), “Mechanisms, Types, and Abstractions”
Zachary Clint Irving (University of Toronto), “Style, But Substance: On Graphical versus Numerical Representations in Scientific Practice”
Julian Reiss (Erasmus University), Chair

COFFEE BREAK 4:00 – 4:30 PM

Thursday, November 4, 4:30-6:45 PM**Symposium: Rediscovering Human Nature (Picardie B)**

- Karola Stotz (University of Sydney), “The Nurturing of Human Nature via Developmental and Cognitive Niche Construction”
Merlin Donald (Queen’s University), “Cognitive Evolution and the Definition of Human Nature”
Paul E. Griffiths (University of Sydney), “A More Biological Approach to Human Diversity”
Maria Kronfeldner (University of Bielefeld), “The Causal Conception of Human Nature in the Postgenomic Era”
Richard Samuels (Ohio State University), “Do Human Beings Have a Nature?”

Symposium: Breaking Mechanisms: Philosophy in the Higgs Sector (Vaudreuil)

- Chris Smeenk (University of Western Ontario), “Higgs and Confinement”
Michael Stoltzner (University of South Carolina), “The Higgs Mechanism as a Constraint? Or: How an Axiomatic Perspective May Ease Ontological Worries”
Doreen Fraser (University of Waterloo), “SSB: QFT vs. QSM”
Wade Struyve (Katholieke Universiteit Leuven), “Spontaneous Symmetry Breaking and the Higgs Mechanism”

Symposium: Forging Model/World Relations (Picardie A)

- Isabelle Peschard (San Francisco State University), “Data Models, Reliability, and the Neglected Relevance of Relevance”
Bas van Fraassen (San Francisco State University), “Modeling and Measurement: The Criterion of Empirical Grounding”
Martin Thomson-Jones (Oberlin College), “Modeling Without Mathematics”
Michael Weisberg (University of Pennsylvania), “Getting Serious About Similarity”
Andrea Woody (University of Washington), Chair

Symposium: The CRU E-mails: Perspectives from Philosophy of Science (Argenteuil)

- Naomi Oreskes (University of California, San Diego), “The Climate Model E-mails: Normal Science or Ethical Dilemma?”
Wendy S. Parker (Ohio University), “The Context of Climate Science: Norms, Pressure and Progress”
Kristin Shrader-Frechette (University of Notre Dame), “Scientifically Legitimate Ways to Cook and Trim Data: The Hacked and Leaked Climate Emails”
James McAllister (University of Leiden), “Errors, Blunders, and the Construction of Climate Change Facts”
Kathleen Okruhlik (University of Western Ontario), Chair

Symposium: Becoming Scientific: How Everyday Things Travel To Science and Back (Session co-sponsored with the History of Science Society) (Auteuil A)

- Hasok Chang (Cambridge University), “Acidity: the Persistence of the Everyday in the Scientific”
Sophia Efstathiou (Southampton University), “Using ‘Race’ in Medicine: Founding a Ballung Concept”
Gregory Radick (University of Leeds), “Heredity’s Baggage”
Anna Alexandrova (University of Missouri, St Louis), “Values and the Science of Wellbeing: How Should They Mix?”

Contributed Papers: Physics and Geophysics (Anjou A/B)

- Wesley Van Camp (George Mason University), “On Kinematic vs. Dynamic Approaches to Special Relativity”
Matthew Thomas Gorski (University of Notre Dame), “Brown and Janssen on the Arrow of Explanation in Special Relativity”
Dennis Lehmkuhl (University of Wuppertal, IZWT), “Kinds of Unified Field Theories”
Teru Miyake (Stanford University), “Underdetermination in Geophysics”
Carolyn Brighthouse (Occidental College), Chair

Contributed Papers: Scientific Realism: (Auteuil B)

- Darrell Rowbottom (University of Oxford), “The Instrumentalist’s New Clothes”
Jeff Kochan (University of Konstanz), “Rouse’s Reluctant Realism”
Samuel Gahan Ruhmkorff (Bard College at Simon’s Rock), “Some Difficulties for the Problem of Unconceived Alternatives”
Ludwig Fahrbach (University of Konstanz), “Theory Change and Degrees of Success”
Gary Hardcastle (Bloomsburg University of Pennsylvania), Chair

Special Note: *The Philosophy of Science Association is pleased to co-sponsor the following plenary session with the History of Science Society. This session is scheduled within the framework of the HSS Program; see the HSS Program for additional information.*

Thursday, November 4, 5:30-7:00 PM – Grand Salon B

The Challenges and Opportunities of Interdisciplinary Teaching (Sponsored by the HSS Committee on Education)

Hanne Andersen (University of Aarhus, Denmark), “Making Better Scientists: HPS in the Science Curriculum”

Melinda Gormley (University of Puget Sound), “Applied History of Science”

Andrew Hamilton (Arizona State University), “HPS in the Science Curriculum: History and Philosophy at the Lab Bench”

Kristin Johnson (University of Puget Sound), “Why Do I Have to Take This STS Class?”

Chair: John Lynch, Arizona State University

Organizers: Kristin Johnson, University of Puget Sound; John Lynch Arizona State University

Thursday, November 4, 7:30-8:30 PM

PSA/HSS Reception (Grand Salon Foyer and Grand Salon A, Level 4)
Cash Bar

Friday, November 5, 7:45-8:45 AM

Philosophy of Science Editorial Board meeting (Picardie A)

Friday, November 5, 9:00-11:45 AM (COFFEE BREAK 10:00-10:15, Book Exhibit Area, Level 4)

Symposium: Sewall Wright’s F-statistics: Measurement of Biological Population Structure and Its Causes (Auteuil A)

Yoichi Ishida (University of Pittsburgh), “The Origins of F-statistics: Sewall Wright and Gustave Malécot on Inbreeding and Relationship”

Bruce Weir (University of Washington), “The Estimation of F-statistics: An Historical View”

Kent Holsinger (University of Connecticut), “A Bayesian Approach to Geographical Genetics: What in the FST is Going On?”

Marshall Abrams (University of Alabama at Birmingham), “Implications of Use of Wright’s FST for the Role of Probability and Causation in Evolution”

Symposium: New Directions Concerning Quantum Indistinguishability (Argenteuil)

Paolo Zanardi (University of Southern California), “Quantum Tensor Product Structures Are Observable-Induced”

John Earman (University of Pittsburgh), “The Concept of Indistinguishable Particles in Quantum Mechanics”

Nick Huggett (University of Illinois at Chicago) and Tom Imbo (University of Illinois at Chicago), “Expanding the Horizons of Quantum Statistical Mechanics”

Jeremy Butterfield (Cambridge University) and Adam Caulton (Cambridge University), “On the Physical Content of the Indistinguishability Postulate”

Symposium: Fictions and Scientific Realism (Auteuil B)

Alisa Bokulich (Boston University), “Explanatory vs. Non-Explanatory Fictions”

Arnon Levy (Van Leer Institute), “Two Modes of Fiction and Two Forms of Realism”

Uskali Mäki (University of Helsinki), “Vaihingerian Realism”

Mauricio Suarez (Complutense University of Madrid), “Fictions, Idealizations, and Scientific Realism”

Symposium: Philosophy of Commercialized Science (Picardie A)

Sergio Sismondo (Queen’s University), “Corporate Interests and Medical Science: Beyond Truth or Falsity”

Rebecca Kukla (University of South Florida), “The Decentralization of Epistemic Labor in Contemporary Biomedical Research”

Justin Biddle (Georgia Institute of Technology), “Does Commercialization Inhibit the Sharing of Information?”

Hans Radder (Vrije Universiteit Amsterdam), “Philosophical Issues in Scientific Patenting”

Tarja Knuuttila (University of Helsinki), “Contradictions of Commercialization: The Norms of Scientific Research Revealed?”

Torsten Wilholt (Bielefeld University), “Commercialized Science and the Very Idea of Disinterested Research”

Symposium: Is It the Case? Epistemological Reflections on the Use of Case Studies in the Sciences (Picardie B)

Rachel Ankeny (University of Adelaide), “Using Case Studies as Evidence of Phenomena: Examples from Molecular Biology”

Sharon Crasnow (Norco College), “The Role of Case Studies in Political Science Research”

Carlo Gabbani (University of Florence), “Epistemology and Clinical Case Studies: Towards a Multilevel Approach”

Mary Morgan (London School of Economics), “Case Studies: One Observation or Many?”

Contributed Papers: Methodology (Anjou A/B)

Stephanie Ruphy (University of Provence), “From Hacking’s Plurality of Styles of Scientific Reasoning to ‘Foliated’ Pluralism, a Philosophically Robust Form of Ontologico-Methodological Pluralism”

Conor Mayo-Wilson (Carnegie Mellon University), “The Problem of Piecemeal Induction”

Daniel Hicks (University of Notre Dame), “On the Ideal of Autonomous Science”

David Stump (University of San Francisco), Chair

Contributed Papers: Kinds: Chemical, Biological and Social (Vaudreuil)

Nora Berenstain (University of Texas, Austin), “Necessary Laws and Chemical Kinds: A Case Study in A Posteriori Necessity”

Makmiller Pedrosa (University of Calgary), “Essentialism, History, and Biological Taxa”

Matthew H. Slater (Bucknell University), “A Different Kind of Property Cluster Kind”

Thomas Reydon (Leibniz University Hannover), “Classifying Artifacts Is Like Classifying People: Looping Effects for Artifact Kinds”

Matt Haber (University of Utah), Chair

Friday, November 5, 1:30-3:10 PM

Contributed Papers: Quantum Mechanics (Picardie B)

Craig Callender (University of California, San Diego) and Elias Okon (Universidad Nacional Autónoma de México), “Does Quantum Mechanics Clash with the Equivalence Principle—and Does it Matter?”

Peter Lewis (University of Miami), “Can Transactional Description of Quantum-Mechanical Reality Be Considered Complete?”

Bryan W. Roberts (University of Pittsburgh), “How to Time-Reverse a Quantum System”

Gemma Murray (University of Cambridge), “Is Quantum Mechanics About Quantum Information?”

Jeff Barrett (University of California, Irvine), Chair

Contributed Papers: Evolution, Probability and Inference (Vaudreuil)

Eric Desjardins (University of Western Ontario), “Reflections on Path Dependence and Irreversibility: Lessons from Evolutionary Biology”

Isabelle Drouet (Université Catholique de Louvain la Neuve) and Francesca Merlin (University of Paris-Sorbonne), “The Propensity Interpretation of Fitness and the Propensity Interpretation of Probability”

Bengt Autzen (London School of Economics), “Prior Probabilities in Bayesian Phylogenetics”

Armin Schulz (London School of Economics and Political Science), “Gigerenzer’s Evolutionary Arguments Against Rational Choice Theory: An Assessment”

Patrick Forber (Tufts University), Chair

Contributed Papers: Laws, Causes, and Empirical Significance (Picardie A)

James Justus (Florida State University), “The Search for a Formal Criterion of Empirical Significance: A Reconsideration”

Charles R. Twardy (George Mason University), “Token Causation by Probabilistic Active Paths”

Alexander Reutlinger (University of Muenster), “A Theory of Non-Universal Laws”

Wayne Myrvold (University of Western Ontario), “Deterministic Laws and Epistemic Chances”

Monika Piotrowska (University of Utah), Chair

Contributed Papers: Cognitive Science (Argenteuil)

Marcus P. Adams (University of Pittsburgh), “Modularity, Theory of Mind, and Autism Spectrum Disorder”

Collin Rice (University of Missouri), “Massive Modularity, Content-Integration, and Language”

Corinne Bloch (Tel Aviv University), “Towards a Unified Approach to Concepts”

Elizabeth O’Neill (University of Pittsburgh), “Innateness as End-State Insensitivity with Respect to Specified Environmental Variation”

J.D. Trout (Loyola University Chicago), Chair

Contributed Papers: Models and Modeling (Anjou A/B)

Jay Odenbaugh (Lewis and Clark), “True Lies: Realism, Robustness, and Models”

Gordon Michael Purves (University of South Carolina), “Finding Truth in Fictions: Identifying Non-Fictions in Imaginary Cracks”

Ashley Graham Kennedy (University of Virginia), “Models and Scientific Understanding”

Anna-Mari Rusanen (University of Helsinki), “An Information Semantic Account of Scientific Models”

Heather Douglas (University of Tennessee–Knoxville), Chair

Contributed Papers: Time and Space-Time (Auteuil A)

John Manchak (University of Washington), “Time Travel: Why It May Not Pay to Work Out All the Kinks”

Eran Tal (University of Toronto), “How Accurate is the Standard Second?”

F.A. Muller (Utrecht University), “How to Discern Space-Time Points Structurally in the General Theory of Relativity”

Andreas Bartels (University of Bonn), “Dispositions, Laws, and Spacetime”

Nick Huggett (University of Illinois at Chicago), Chair

Contributed Papers: Realism (Auteuil B)

Greg Frost-Arnold (Hobart and William Smith Colleges), “From the Pessimistic Induction to Semantic Anti-Realism”

Muhammad Ali Khalidi (York University), “The Pitfalls of Microphysical Realism”

Ioannis Votsis (University of Düsseldorf), “The Prospective Stance in Realism”

Leah Henderson (Massachusetts Institute of Technology), “No Miracles, No Fallacies”

Anjan Chakravartty (University of Toronto), Chair

Friday, November 5, 3:30-5:30 PM

Symposium: Building Trees: The Philosophy of Methodology in Systematics (Anjou A/B)

- Marc Ereshefsky (University of Calgary), "Evolution and the Triumph of Homology"
Richard A. Richards (University of Alabama), "Against Methods: Phylogenetic Inference and the Material Theory of Induction"
Matt Haber (University of Utah), "Multi-Dimensional Evolutionary Trees: Simultaneously Tracking Multi-Level Lineages"
Joel David Velasco (Stanford University), "Tree-Thinking Without the Tree"

Symposium: Why I Care About What I Don't Yet Know: Initial Conditions and Physical and Cognitive Asymmetries in Time (Picardie B)

- Craig Callender (University of California, San Diego) and Chris Suhler (University of California, San Diego), "Thank Goodness That Argument is Over: Explaining the Temporal Value Asymmetry"
Mathias Frisch (University of Maryland), "A Neo-Einsteinian Account of the (Classical) Asymmetry of Radiation"
Owen Maroney (University of Sydney), "A Broken Arrow: There's No Route from Thermodynamics to the Information Asymmetry"
David Wallace (University of Sydney), "The Logic of the Past Hypothesis"

Symposium: Causal Reasoning: What Can Philosophy Learn from Psychology, and What Can Psychology Learn from Philosophy (Argenteuil)

- Christopher Hitchcock (California Institute of Technology), "Actual Causation, Norms, and Models"
Alison Gopnik (University of California, Berkeley), "When Children are Better Scientists than Scientists Are: Randomness and Rationality"
Josh Tenenbaum (Massachusetts Institute of Technology), "The Nature and Origins of Abstract Causal Knowledge"
Jim Woodward (University of Pittsburgh), "Causation: Interactions between Philosophical Theories and Psychological Research"

Symposium: Author Meets Critics: Janet Kourany's *Philosophy of Science after Feminism* (Picardie A)

- Kristina Rolin (Aalto University), "Normative Approaches to Values in Science"
John Dupré (University of Exeter), "Problems with the Ethical Component of Scientific Theory"
Ronald Giere (University of Minnesota), "A New Program for the Philosophy of Science"
Miriam Solomon (Temple University), "Socially Responsible Science and the Unity of Values"
Janet Kourany (University of Notre Dame), "Reply to Critics"

Symposium: The Environmental Sciences at the Interface of Modeling and Policy Advice (Auteuil A)

- Jan Sprenger (Tilburg University), "Local vs. Global Approaches in Decision Theory: An Environmental Perspective"
James Justus (Florida State University), "Inferential Robustness in Environmental Modeling and Decision-Making"
Helen Regan (University of California, Riverside), "Dealing with Uncertainty in Conservation Management Decision"
Katie Steele (London School of Economics), "The Scientist qua Policy Advisor Does Make Value Judgments"

Contributed Papers: Biology: Evolution, Genomes and Biochemistry (Vaudreuil)

- Laura Perini (Pomona College), "Sequence Matters: Genomic Research and the Gene Concept"
Tudor Baetu (University of Maryland), "A Defense of Syntax-Based Gene Concepts in Postgenomics: 'Genes as Modular Subroutines in the Master Genomic Program'"
William Goodwin (Rowan University), "Structure, Function, and Protein Taxonomy"
Christophe Malaterre (University of Paris), "When Does Chemical Evolution Become Biological?"
Jim Tabery (University of Utah), Chair

Contributed Papers: Physics (Auteuil B)

- Foad Dizadji-Bahmani (London School of Economics), "The Aharanov Approach to Equilibrium"
Olimpia Lombardi (CONICET/University of Buenos Aires), Sebastian Fortin (CONICET/University of Buenos Aires), Mario Castagnino (CONICET/University of Buenos Aires), and Juan Sebastián Ardenghi (CONICET/University of Buenos Aires), "Compatibility Between Environment-Induced Decoherence and the Modal-Hamiltonian Interpretation of Quantum Mechanics"
Armond Duwell (University of Montana), "Can Pitowsky's Quantum Subjectivism Be Justified?"
Ioan Muntean (Indiana University-Purdue University Fort Wayne), "String Theory: Explanations and Foundationalism"
James Weatherall (University of California–Irvine), Chair

Friday, November 5, 6:00-7:30 PM

PSA Reception (Jeanne-Mance, Level 6) – Cash bar

Saturday, November 6, 7:30-8:50 AM

PSA Women's Caucus Breakfast (Jeanne-Mance, Level 6)

Saturday, November 6, 9:00-11:45 AM (COFFEE BREAK 10:00-10:15 AM, Book Exhibit Area, Level 4)

Symposium: Heterogeneous Individuals (Vaudreuil)

- Thomas Pradeu (Paris Sorbonne University), "Immunology and the Individuation of Heterogeneous Organisms"
John Dupré (University of Exeter), "Concepts of the Organism"
Frédéric Bouchard (University of Montreal), "Motley Crews of Nature: How to Individuate and Count Symbiotic Communities"
Ellen Clarke (University of Bristol), "Individuals and the Homogeneity Assumption"

Symposium: The Emergence of Spacetime in Quantum Theories of Gravity (Picardie B)

- Christian Wüthrich (University of California, San Diego), "A Priori vs. A Posteriori Non-Fundamentality of Spacetime"
Nick Huggett (University of Illinois, Chicago), "Emergence and Dualities in String Theory"
Sean Carroll (California Institute of Technology), "The Future of Time"
Tim Maudlin (Rutgers University), "Can Spacetime Emerge?"

Symposium: Three Aspects of Theories of Imprecise Probabilities (Auteuil A)

- Horacio Arlo-Costa (Carnegie Mellon University) and Jeff Helzner (Columbia University), "Ellsberg's Choices: Behavioral 'Anomalies' or New Normative Insights?"
Jim Joyce (University of Michigan), "The Challenge of Dilation for Theories of Inductive Reasoning and Decision Making"
Glenn Shafer (Rutgers University), "Interpreting Game-Theoretic Probability"
Teddy Seidenfeld (Carnegie Mellon University), Chair

Symposium: Improving Peer Review in the Sciences (Argenteuil)

Edward Hackett (Arizona State University), "Competing Values of Peer Review"

Fred Kronz (National Science Foundation), "Constructive Criticisms of NSF's Intellectual Merit Criterion"

Carole Lee (University of Washington), "Empirical Research on the Normative Functioning of Peer Review"

Helen Longino (Stanford University), "Peer Review and the Structure of Inquiry"

Miriam Solomon (Temple University), Chair

Symposium: Methodological Issues in Cognitive Neuroscience (Picardie A)

Colin Klein (University of Illinois at Chicago), "Cognitive Ontology and Region-versus Network-Oriented Analyses"

Clark Glymour (Carnegie Mellon University), "On the Limits of Psychology"

Edouard Machery (University of Pittsburgh), "Aggregated Data in Psychology and Cognitive Neuroscience"

Tal Yarkoni (Columbia University), "On the Rampant Inflation of fMRI Effects (and What to Do About It)"

Contributed Papers: Explanation and Reduction (Anjou A/B)

Andrew Wayne (University of Guelph), "Expanding the Scope of Explanatory Idealization"

Laura Felline (University of Cagliari), "Scientific Explanation Between Principle and Constructive Theories"

Matthew C. Haug (College of William & Mary), "Abstraction and Explanatory Relevance, or Why Do the Special Sciences Exist?"

Sorin Bangu (University of Illinois at Urbana-Champaign), "On the Role of Bridge Laws in Inter-theoretic Relations"

Samuel Schindler (University of Konstanz), Chair

Contributed Papers: Thermodynamics and Chemistry (Auteuil B)

Kevin Davey (University of Chicago), "Thermodynamic Entropy and Its Relation to Probability"

Tarun Menon (University of California, San Diego), "The Second Law and the Asymmetry of Agency"

Daniel Parker (Virginia Tech), "On an Unbelievably Short Proof of the 2nd Law"

Karen Rae Zwier (University of Pittsburgh), "Dalton's Chemical Atoms vs. Duhem's Chemical Equivalents"

Saturday, November 6, 1:30-3:45 PM

Symposium: Exploring the Complementarity between Economics and Recent Evolutionary Theory (Auteuil B)

Philippe Huneman (Paris-Sorbonne University), "Formal Darwinism and the Organisms in Evolutionary Theory: Answering Some Challenges"

Jean Gayon (University of Paris), "Economic Natural Selection: The Problem of Inheritance"

Sacha Bourgeois-Gironde (Ecole Normal Supérieure de Lyon) and Cintia Retz Lucci (Jean Nicodé Institute), "The Economic Agent: Adapted or Irrational?"

Andy Gardner (University of Oxford), "Adaptation of Genes, Individuals and Groups"

Symposium: Boltzmann's Legacy: Outstanding Philosophical Issues in Modern Approaches to Statistical Mechanics (Anjou A/B)

Wayne Myrvold (University of Western Ontario), "On the Time-Asymmetry of the Stosszahlansatz, and Its Justification"

Jos Uffink (Utrecht University), "Will Someone Say Exactly What the H-theorem Proves?"

Giovanni Valenté (University of Pittsburgh), "Can Lanford's Theorem Be Extended in Time?"

Roman Frigg (London School of Economics) and Charlotte Werndl (London School of Economics),
“Justifying the Second Law: From Dynamics To Typicality and Back Again”

Symposium: Author Meets Critics: Eric Barnes’ The Paradox of Predictivism (Picardie A)

P.D. Magnus (State University of New York, Albany), “Miraculous Endorsement and the Limits of Expertise”

Sherrilyn Roush (University of California, Berkeley), “Individualists Can be Predictivists Too”

Clark Glymour (Carnegie Mellon University), “Prediction, Accommodation, and the Impossibility of Science”

Eric Barnes (Southern Methodist University), “Replies”

Symposium: Values in Science and Public Policy: Building on Douglas’s Science, Policy, and the Value-Free Ideal (Argenteuil)

Kathleen Okruhlik (University of Western Ontario), “Risk Assessment: Science, Values, and Science Policy”

Helen Longino (Stanford University), “Individual and Social Accounts of Objectivity in Science”

Hugh Lacey (Swarthmore College), “The Responsibilities of Scientists and the Old Ideal of the Neutrality of Science”

Heather Douglas (University of Tennessee), “Theorizing Science in Society”

Kevin Elliott (University of South Carolina), Chair

Symposium: Category Theoretical Reflections on the Foundations of Physics (Vaudreuil)

Bob Coecke (Oxford University), “Quantum Pictorialism”

Klaas Landsmann (Radboud University), “Topos Theory and the Copenhagen Interpretation of Quantum Mechanics”

Jeffrey Morton (University of Western Ontario), “Groupoidification in Physics”

Gonzalo Reyes (University of Montreal), “From Laws of Motion to Vacuumfield Equations”

Steve Awodey (Carnegie Mellon University) and Hans Halvorson (Princeton University), Chairs

Contributed Papers: Evidence, Prediction, and Chance (Picardie B)

P. Kyle Stanford (University of California, Irvine), “Projective Evidence and the Heterogeneity of Scientific Confirmation”

Matthew Kopec (University of Wisconsin Madison), “A More Fulfilling (and Frustrating) Take on Reflexive Predictions”

Joshua Haddock (University of Cincinnati), “The Principal Principle and Theories of Chance: Another Bug?”

David Marshall Miller (Duke University), “Friedman’s Dynamics of Reason, Galileo’s Archimedean Approximation, and Reciprocal Iteration”

Laurent Jodoin (University of Montreal), Chair

Contributed Papers: Cognitive Sciences and Neuroscience (Auteuil A)

Kent Johnson (University of California, Irvine), “A Lot of Data”

Jonathan Livengood (University of Pittsburgh), “Folk Intuitions and Theories of Actual Causation: A Hitch in Hitchcock’s Account”

Adrienne Prettyman (University of Toronto), “Investigating Intrinsic Brain Activity: A Role for Exploratory Introspection”

William Bechtel (University of California, San Diego), “What Causes You to Sleep? Ask a Fly”

David Danks (Carnegie Mellon University), Chair

Saturday, November 6, 4:30-6:00 PM

PSA Presidential Address (Grand Salon B, Level 4)

Saturday, November 6, 7:30-9:30

PSA/HSS Dinner (Complexe Desjardins, off of Level 4)

Wine for this dinner is provided by an anonymous donor in honor of Allan Rex Sandage, maven of the Hubble constant

The **Complexe Desjardins** in downtown Montréal houses the offices of several companies, including the Desjardins bank (the largest association of credit unions in North America, founded in 1900) and some branches of the Québec government. It also houses the Hyatt Regency Hotel, this year's HSS/PSA meeting location. Especially useful in winter, the Complexe is an important node in the Montréal's underground city (RÉSO), the largest indoor "city" in the world. The large atrium built at the center of the Complexe, where the HSS/PSA dinner will be held, is used year round to host a variety of spectacles and exhibitions, record television shows, and launch music records from Québécois artists. Spacious, multifunctional, and well sunlit, this atrium has become over time a carrefour of Montréal's cultural and community life. We have chosen the Atrium because it is the only venue close to the hotel that could fulfill the capacity requirements of the HSS-PSA for the Saturday-night event.

FALL BACKWARDS

***(PLEASE NOTE: Montréal will switch back to EST time Sunday morning.
Move your watches back one hour.)***