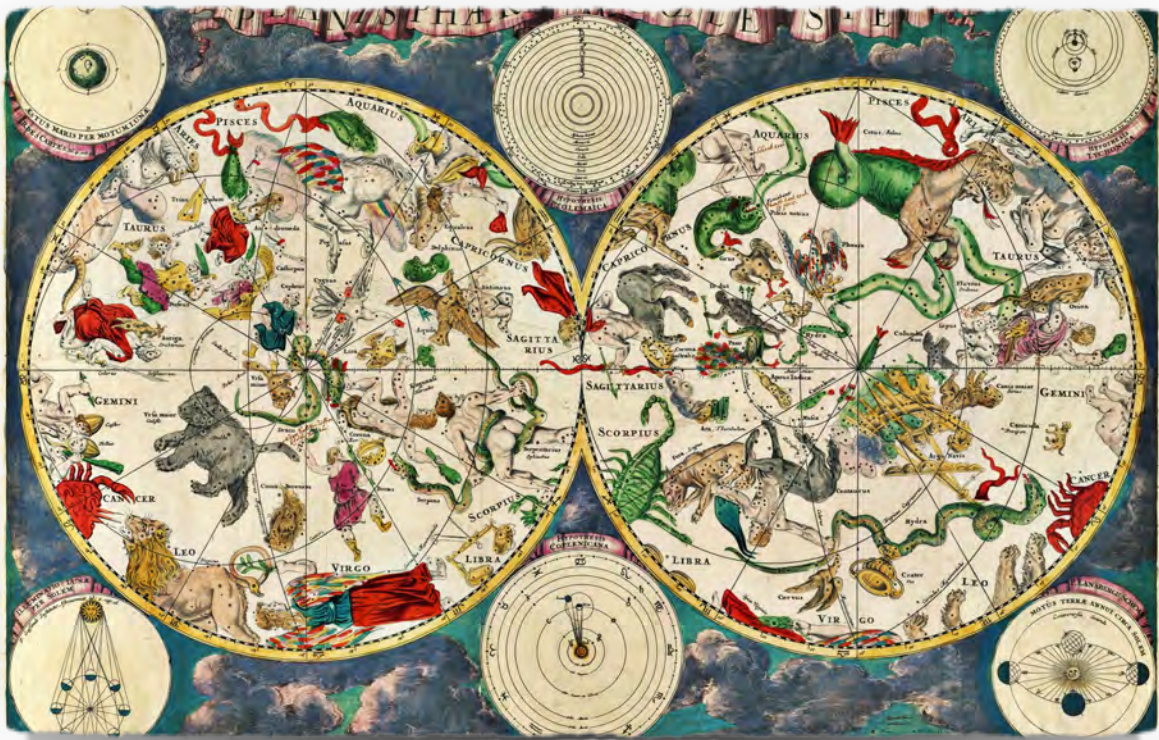


HOPPOS 2016

International Society for the History of
Philosophy of Science Biennial Meeting



22-25 June 2016

Minneapolis, Minnesota

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Welcome

HOPOS

Alan Richardson (President)



On behalf of the HOPOS Steering Committee, allow me to welcome you all to Minneapolis for our eleventh biennial meeting. The delights of the conference are due to the excellent efforts of the program and local organizing committees. We give our special thanks to the program co-chairs, Maarten van Dyck and Lydia Patton, and the local organizing co-chairs, Geoff Gorham and Alan Love. We also thank all the sponsors of the conference. Minneapolis is a special place for HOPOS. The Twin Cities have a particularly lively community of scholars working in our field and employed in many different institutions. The Minnesota Center for Philosophy of Science, in particular, is both important in the history of philosophy of science in the twentieth and twenty-first centuries and, crucially, supportive of research on history of philosophy of science. Minneapolis is also where Don Howard called the first organizational meeting of the then working group in history of philosophy of science. That was at the 1990 PSA meeting. It is especially gratifying to return to Minneapolis a quarter century later having become such a robust community of scholars. Those of us at the 1990 meeting could not have envisioned this level of success.

President: Alan Richardson (University of British Columbia)

Vice-President: Helen Hattab (University of Houston)

Past President: Janet Folina (Macalester College)

Steering Committee: Zvi Biener (University of Cincinnati); Katherine Brading (University of Notre Dame); Cristina Chimisso (Open University); Dana Jalobeanu (University of Bucharest); Andrew Janiak (Duke University); David Marshall Miller (Iowa State University)

Program Committee

Lydia Patton and Maarten Van Dyck (Co-Chairs)



Welcome to HOPOS 2016! Our conference is the eleventh international congress of the International Society for the History of the Philosophy of Science (HOPOS). This conference marks twenty years since the first HOPOS meeting in Roanoke, Virginia, hosted by Virginia Tech. HOPOS was formed to encourage and support research that confronts inaccurate, simplified stories about the development, context, interpretation, and impact of the philosophy of science, and that tests these stories against thorough historical accounts and arguments that engage scientific, philosophical, social, and political structures, problems, and relationships. The program of HOPOS 2016 reflects the formation, over the past twenty years, of a community of scholars who have taken up this challenge with enthusiasm and expertise. It also reflects the sure guidance and direction of HOPOS, especially HOPOS President Alan Richardson, Vice President Helen Hattab, and the Steering Committee, during their organization and planning of the conference. Collaborating with the local organizers,

including faculty and affiliates of the Minnesota Center for Philosophy of Science (MCPS, now in its 63rd year), the University of Minnesota, University of St. Thomas, St. Olaf College, St. Cloud State University, Macalester College, and Hamline University, has been a real pleasure. The members of the Program Committees for "Kant and Before" and for "After Kant" were generous with their time, conscientious in their judgments, and always concerned with how contributions to the conference promote the aims and mission of HOPOS scholarship. On behalf of the Program Committee, welcome to Minneapolis! Enjoy the Vienna Circle exhibit, the banquet at Surly Brewing Company, the receptions, but most of all, the talks and sessions that are the engine of the progress of the Society. Welcome, and come back.

Kant and Before: Maarten van Dyck (Ghent University); Karen Detlefsen (University of Pennsylvania); Andrea Falcon (Concordia University); Sophie Roux (École Normale Supérieure, Paris); Marius Stan (Boston College)

After Kant: Lydia Patton (Virginia Tech); Janet Folina (Macalester College); Greg Frost-Arnold (Hobart and William Smith Colleges); Matthias Neuber (Universität Tübingen); Jonathan Tsou (Iowa State University)

Local Organizing Committee

Geoff Gorham and Alan Love (Co-Chairs)



On behalf of the Local Organizing Committee for HOPOS 2016, welcome to Minneapolis (and St. Paul - the Twin Cities)! It is a privilege and an honor to host the eleventh biennial meeting of HOPOS. There are many ways that the Twin Cities are well suited to HOPOS. In terms of heritage, the Minnesota Center for Philosophy of Science (MCPS) stems from the dispersal of members of the Vienna Circle, one of the key moments in the history of philosophy of science of the 20th century. Herbert Feigl came to the University of Minnesota in 1940 and started MCPS in 1953. In conjunction with this history, we are proud to bring you the first international exhibition of "The Vienna Circle: Exact Thinking in Demented Times," which showcases some of this history and the unique connection of Minneapolis to it.

However, the suitability of the Twin Cities also pertains to the present array of scholars from in and around the region who concentrate on HOPOS topics. You can see some of this represented in the diversity of our local organizing committee membership. Through their help and the assistance of many others, we have put together a special meeting that we hope will be memorable, both for the scholarship represented and the distinctiveness of the event itself. Take time to enjoy the Twin Cities while you are here and we look forward to seeing you again soon.

Members: Victor Boantza (History of Science, Technology, and Medicine, University of Minnesota); William Branson (Mathematics, St. Cloud State University); Roy Cook (Philosophy, University of Minnesota); Peter Distelzweig (Philosophy, University of St. Thomas); Janet Folina (Philosophy, Macalester College); Geoffrey Gorham (Philosophy, Macalester College); Alan Love (Philosophy, University of Minnesota); David Miller (Philosophy, Iowa State University); Michael Shaffer (Philosophy, St. Cloud State University); Ed Slowik (Philosophy, Winona State University); Jos Uffink (Philosophy, University of Minnesota)

General Information

Campus and Rooms

All activities (except the Banquet) will take place on the West Bank campus of the University of Minnesota in the Hubert H. Humphrey (HHH) School of Public Affairs. Parallel sessions will be held in a set of rooms on the Ground Floor (accessible via elevator or stairs). Plenary sessions will be held in HHH Auditorium (First Floor). Coffee breaks and the Main Reception will happen in the Atrium on the First Floor and the Vienna Circle Exhibit will be available for viewing continuously during the conference within the Atrium.

All rooms have standard A/V equipment (though no built-in computer): PC Laptop/Apple Device Projection; Network connection (wired and wireless); Document Camera; DVD player; Auxiliary Video; Widescreen Controls; HDMI High Definition Connection. For those using digital projection, we recommend session participants load their presentation onto a laptop before your session begins. Session chairs should arrive early to their session to coordinate with speakers. Each presenter has 30 minutes total (~20 minutes for the presentation and ~10 minutes for discussion). Signs indicating the time remaining will be in each room for use by the session chair.

For WiFi, connect to “UofM Guest” and follow the instructions to sign in. Alternatively, for those whose home institutions supports it, EduRoam is available. Social media: Twitter @HOPOS2016 and facebook.com/HOPOS2.

Registration and Book Table

Registration is open Wednesday 16:00-18:30, Thursday 8:30-16:30, and Friday 8:30-16:30 on the First Floor of HHH. Registration is mandatory for all participants and their guests. You will receive a welcome package, name tag, and program at the registration desk. Please wear your name tag at all times during the conference. Additional Banquet tickets may be purchased until 14:00 on Friday at the registration desk.

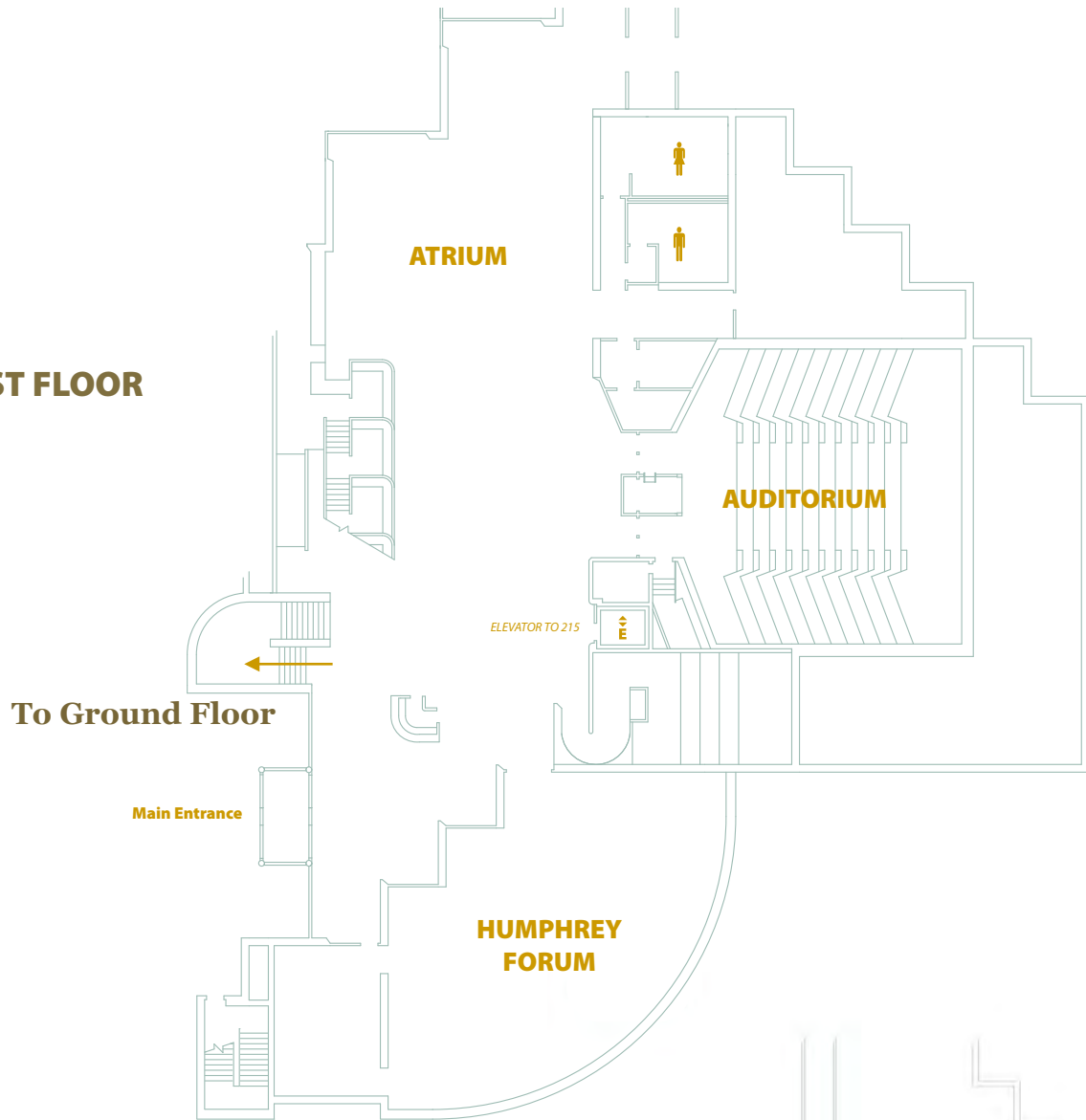
All publishers exhibiting at HOPOS 2016 are in the Humphrey Forum, which will be open from 8:30-16:30 on Thursday, Friday, and Saturday. Publishers hosting book tables include: Springer, University of Chicago Press, and the University of Minnesota Press, as well as Scholars Choice (representing multiple academic publishers).

Navigation

The following pages have a variety of maps to help you navigate HHH, the West Bank campus, and Minneapolis locations related to HOPOS 2016, including different hotels and the Banquet. Light Rail tickets are \$1.75 regular (\$2.25 rush-hour) and provide access to all conference venues (see map below for stations). Nice Ride is a non-profit bike sharing system with daily passes for purchase. Simply take a bike when you need one, and return it to any station in the system when you arrive at your destination. Taxis and Uber services are available as well.

Maps

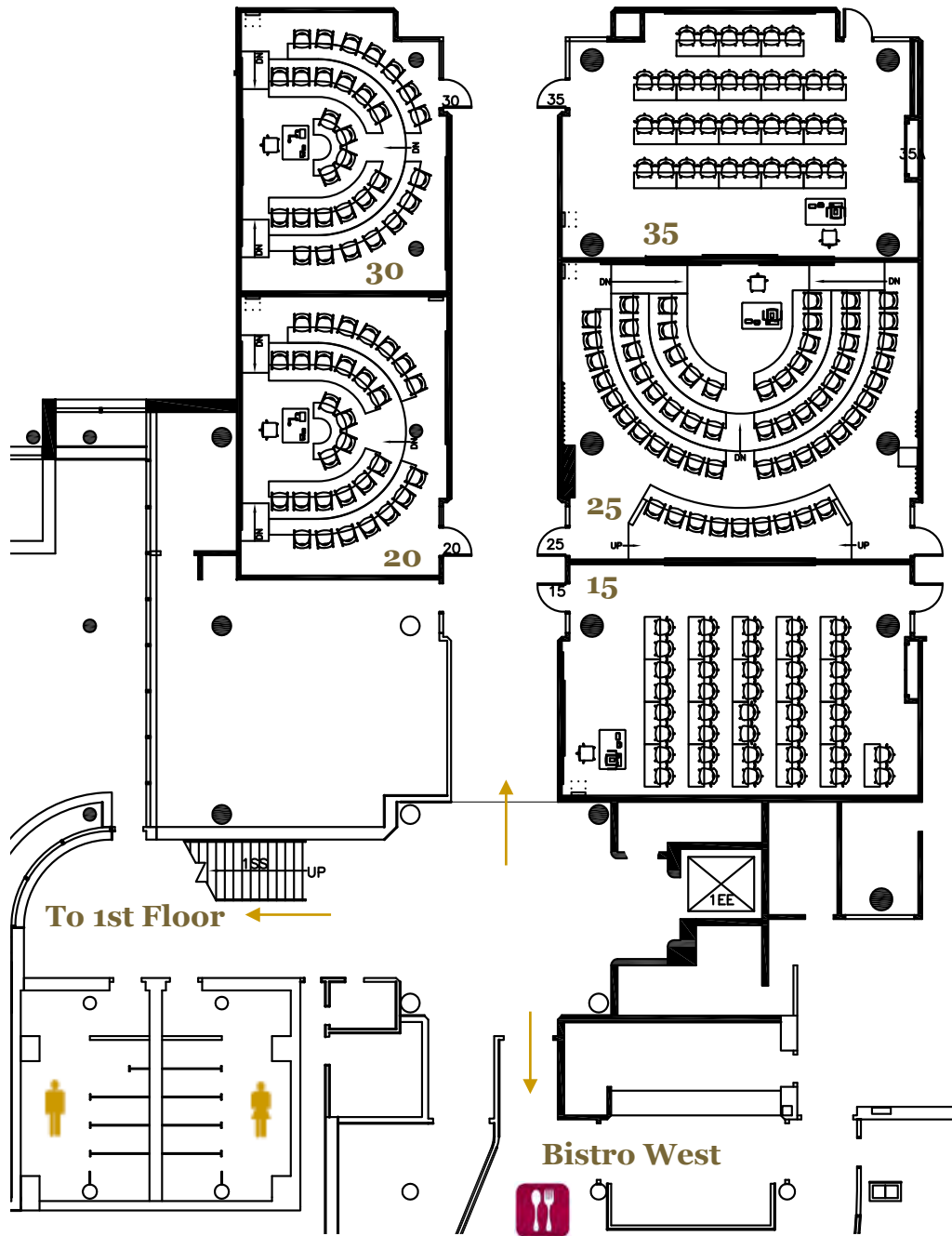
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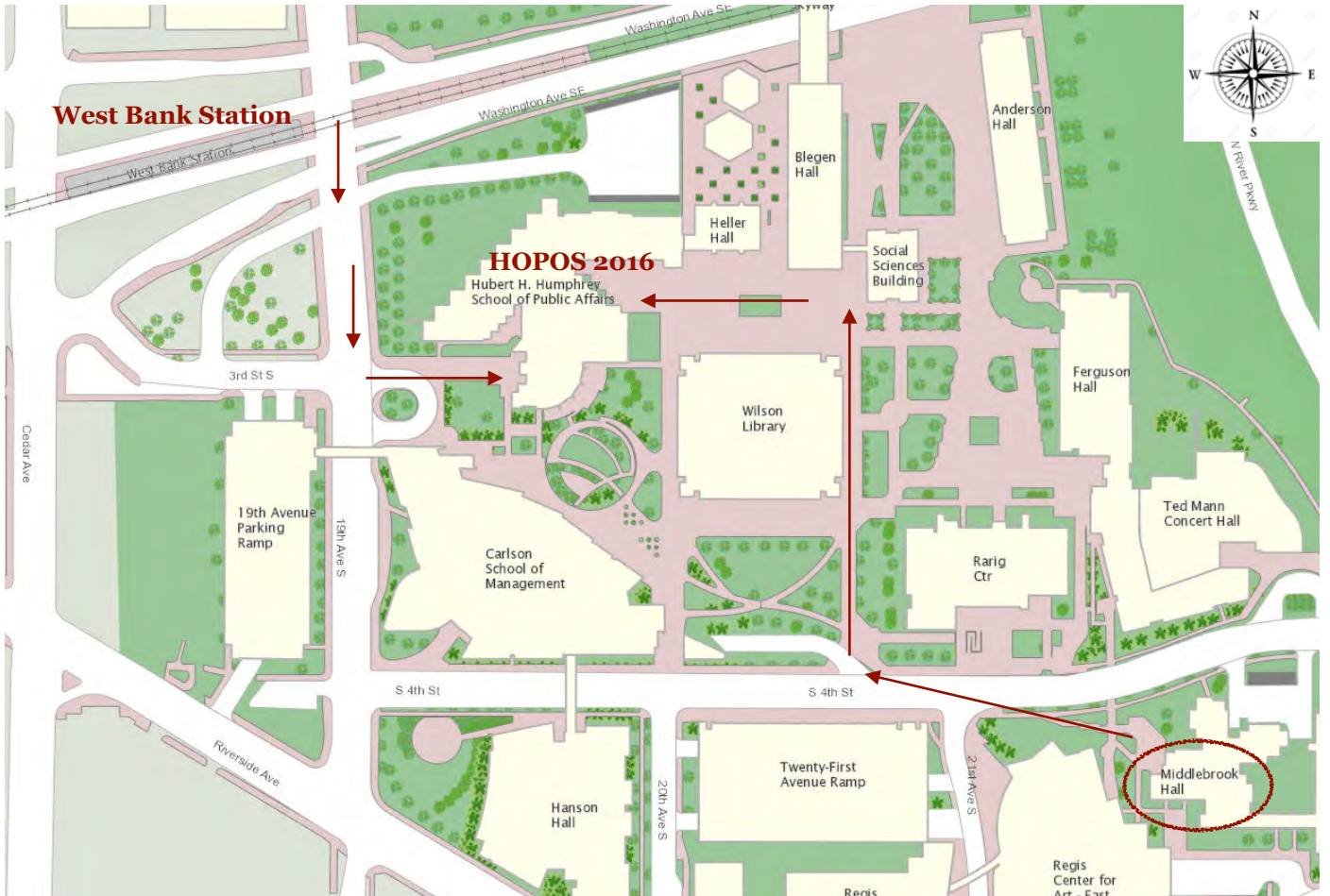


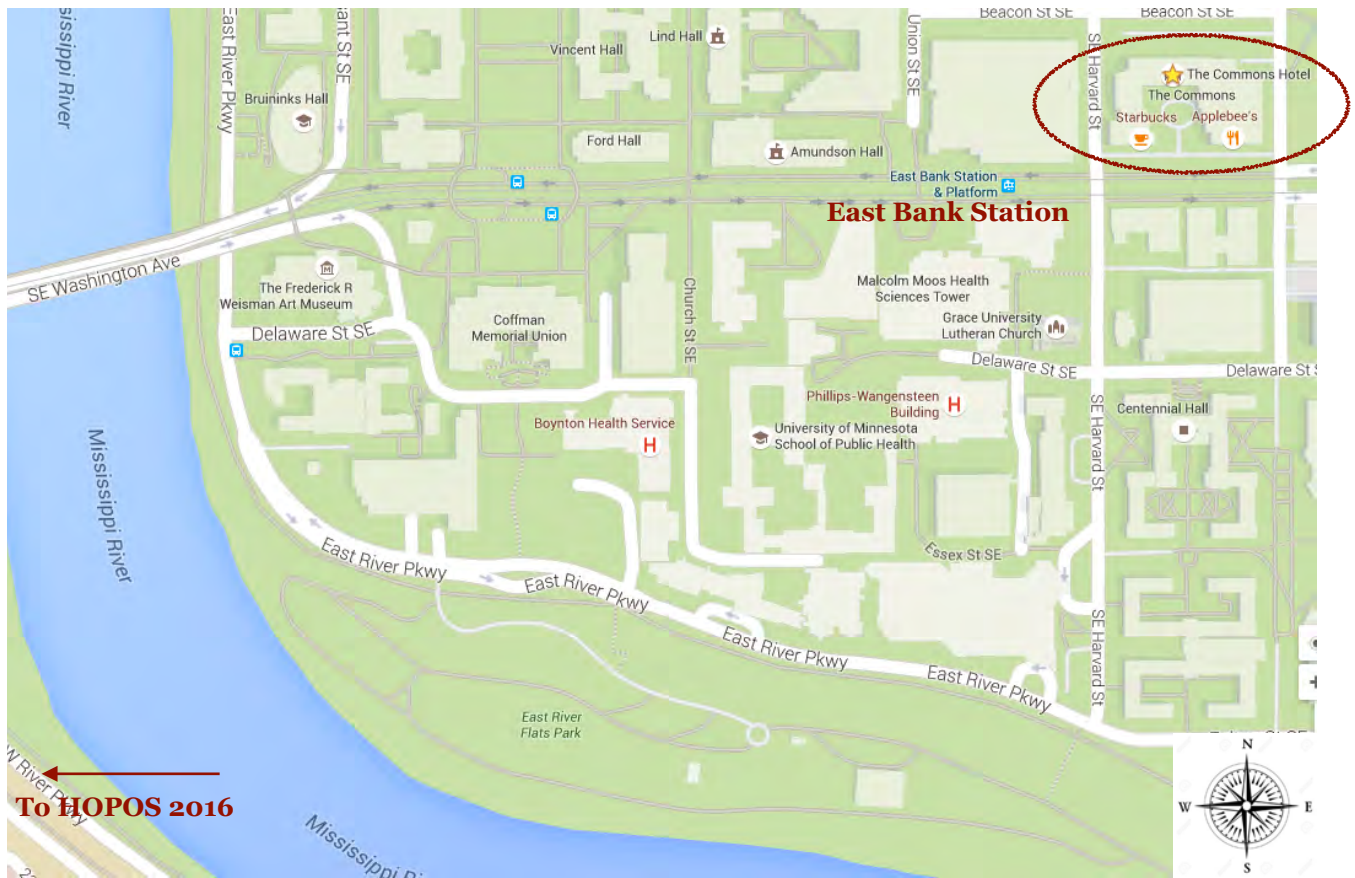
Hubert H. Humphrey (HHH)
School of Public Affairs

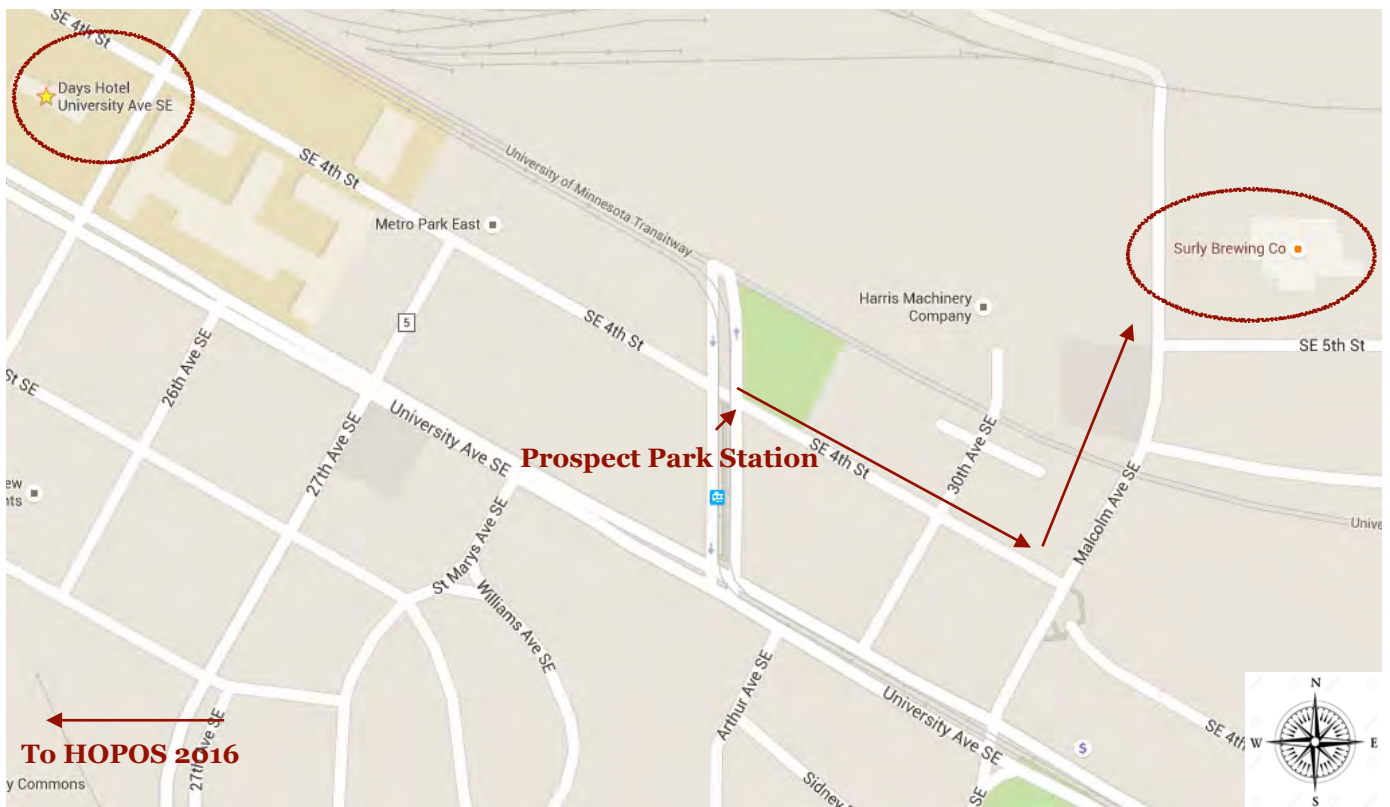


**Hubert H. Humphrey (HHH)
School of Public Affairs**

Ground Floor









West Bank: HOPOS 2016 Conference Site (HHH), Courtyard Marriott, Middlebrook Hall

East Bank: Commons Hotel

Stadium Village: Days Inn

Prospect Park: Banquet (Surlly Brewing)

US Bank Stadium: change from Green Line to Blue Line (or *vice versa*)

Food and Dining

The Cedar-Riverside area has a number of restaurants within easy walking distance of the Hubert H. Humphrey School of Public Affairs, where the conference is being held. Immediately adjacent to the ground floor session rooms is the Bistro West, which serves both salads, sandwiches, and hot meals at lunchtime (closed Saturday). Below is a non-exhaustive catalog of a variety of options for food, drink, and dining during HOPOS 2016 (see map for locations).

Name	Style	Price Range (Food)	Notes
<u>Acadia</u>	Pub/Bar and Grill	\$8-\$12	Lots of types of beer
<u>Afro Deli and Coffee</u>	Cafe	\$5-\$9	Vegetarian options
Baarakallah Restaurant	East African/Somali	\$8-\$12	
<u>Dilla's Restaurant</u>	Ethiopian/Somali	\$5-\$15	Vegetarian options
<u>Hard Times Cafe</u>	Vegetarian/Vegan Cafe	\$4-\$8	Cash only
<u>Humble Cup</u>	Cafe/Bakery	\$4-\$8	
<u>Jewel of India</u>	Indian	\$10-\$15	Vegetarian options
<u>Keefer Court Bakery</u>	Chinese/Bakery	\$4-\$12	Cash only
<u>Lucky Dragon Cafe</u>	Chinese/Vietnamese	\$5-\$10	
Maashaa'allah Restaurant	East African/Somali	\$10-\$15	
<u>Malabari Kitchen</u>	Indian/Malabari	\$6-\$12	Vegan options
<u>Mango Factory</u>	Sushi/Sashimi	\$5-\$20	
<u>Mapps Coffee and Tea</u>	Cafe/Bakery	\$4-\$8	
<u>Mediterranean Deli</u>	Deli (pizza/sandwiches)	\$4-\$8	
<u>Nomad World Pub</u>	Pub/Bar and Grill	\$8-\$12	Lots of types of beer
<u>Palmer's Bar</u>	Bar	n/a	
<u>Republic</u>	Pub/Bar and Grill	\$8-\$20	Lots of types of beer
<u>The Corner Bar</u>	Pub/Bar and Grill	\$8-\$20	
<u>The Red Sea</u>	Ethiopian	\$10-\$15	Also a nightclub
<u>The Wienery</u>	Hot dogs/Sausages	\$4-\$8	Breakfast all day
<u>Town Hall Brewery</u>	Pub/Bar and Grill	\$8-\$12	Lots of types of beer



Schedule

Time	22 June (Wed)	23 June (Th)	24 June (Fri)	25 June (Sat)
8:30		Registration (until 16:30pm)	Registration (until 16:30pm)	
9:00		Parallel Session I	Parallel Session IV	Parallel Session VIII
9:30				
10:00				
10:30		Coffee Break	Coffee Break	Coffee Break
11:00		Parallel Session II	Parallel Session V	Parallel Session IX
11:30				
12:00				
12:30		Lunch (until 14:00)	Lunch (until 14:00)	Lunch (until 14:00)
13:00	Lunch (until 14:00)			
13:30		HOPOS Steering Committee II	HOPOS Journal Editorial Meeting	HOPOS General Business Meeting
14:00	HOPOS Steering Committee I	Parallel Session III	Parallel Session VI	Parallel Session X
14:30				
15:00				
15:30		Coffee Break	Coffee Break	Coffee Break
16:00				
16:30				
17:00	Registration	Plenary I	Parallel Session VII	Plenary II
17:30				
18:00			Reception	Banquet
18:30				
19:00				
19:30				
20:00				

Overview of Sessions

Wednesday - 22 June

HOPOS Steering Committee I (14:00-16:00): 737 Heller Hall

Registration (16:00-18:30): HHH Atrium

Thursday - 23 June

Registration (8:30-16:30): HHH Atrium

Parallel Session I (9:00-10:30)

- | | | |
|------------|---------------|---|
| 1.1 | HHH 25 | Symposium: Post-Aristotelian Science in the Fourteenth Century |
| 1.2 | HHH 35 | Contributed Papers: Life Sciences |
| 1.3 | HHH 15 | Contributed Papers: Early Modern Perception and Reference |

Coffee Break (10:30-11:00): HHH Atrium

Parallel Session II (11:00-12:30)

- | | | |
|------------|---------------|---|
| 2.1 | HHH 25 | Symposium: After Newton and Leibniz: Kantian Foundations for Early Classical Physics |
| 2.2 | HHH 35 | Symposium: What Drives Philosophical Progress? |
| 2.3 | HHH 15 | Contributed Papers: History and Laws in Hempel and Kuhn |
| 2.4 | HHH 20 | Contributed Papers: Chaos, Geometry, and Objectivity |

Lunch (12:30-14:00)

HOPOS Steering Committee II (13:00-14:00): HHH 215

Parallel Session III (14:00-16:00)

- | | | |
|------------|---------------|---|
| 3.1 | HHH 25 | Contributed Papers: Newton |
| 3.2 | HHH 15 | Symposium: Hylomorphism and Extension in Late Medieval and Early Modern Natural Philosophy |
| 3.3 | HHH 35 | Contributed Papers: Mid-Twentieth-Century Philosophy of Science |
| 3.4 | HHH 20 | Contributed Papers: Revolutionary HOPOS |

Coffee Break (16:00-16:30): HHH Atrium

Plenary Session I (16:30-18:00): HHH Auditorium

Reception (18:00-20:00): HHH Atrium

Friday - 24 June

Registration (8:30-16:30): HHH Atrium

Parallel Session IV (9:00-10:30)

- | | | |
|-----|--------|---|
| 4.1 | HHH 25 | Symposium: From Powers to Forces: The Difficult Legacy of Aristotelianism in Early Modern Natural Philosophy |
| 4.2 | HHH 35 | Symposium: Fourteenth-Century Theories of Logical Consequence |
| 4.3 | HHH 15 | Contributed Papers: Models and Representation |
| 4.4 | HHH 20 | Symposium: Nature and Life in Classical German Philosophy |

Coffee Break (10:30-11:00): HHH Atrium

Parallel Session V (11:00-12:30)

- | | | |
|-----|--------|---|
| 5.1 | HHH 20 | Symposium: Dedekind's Mathematical Structuralism: 100 Years Later |
| 5.2 | HHH 15 | Contributed Papers: Aristotle, Harvey, and Cavendish |
| 5.3 | HHH 25 | Contributed Papers: Language and Imagination: Hobbes, Kant, Berkeley |
| 5.4 | HHH 35 | Contributed Papers: Reichenbach and Philosophy of Science |

Lunch (12:30-14:00)

HOPOS Journal Editorial Board Meeting (13:00-14:00): HHH 215

Parallel Session VI (14:00-16:00)

- | | | |
|-----|--------|--|
| 6.1 | HHH 25 | Symposium: The Causal Powers Debate: Historical and Conceptual Perspectives |
| 6.2 | HHH 15 | Symposium: Carnap and Quine on the Analytic/Synthetic Distinction |
| 6.3 | HHH 35 | Contributed Papers: Neo-Kantianism |

Coffee Break (16:00-16:30): HHH Atrium

Parallel Session VII (16:30-18:00)

- | | | |
|-----|--------|---|
| 7.1 | HHH 35 | Contributed Papers: Philosophy of Mathematics |
| 7.2 | HHH 15 | Contributed Papers: Measurement and Realism |
| 7.3 | HHH 20 | Contributed Papers: Descartes and Gassendi |
| 7.4 | HHH 25 | Contributed Papers: Causation and Laws of Nature |

Banquet (18:30-21:30): Scheid Hall at Surly Brewing

Saturday - 25 June

Parallel Session VIII (9:00-10:30)

- | | | |
|------------|---------------|---|
| 8.1 | HHH 15 | Contributed Papers: Psychology |
| 8.2 | HHH 25 | Contributed Papers: Mathematics and Method from the 16th to the 18th Centuries |
| 8.3 | HHH 35 | Contributed Papers: Victorian HOPOS |

Coffee Break (10:30-11:00): HHH Atrium

Parallel Session IX (11:00-12:30)

- | | | |
|------------|---------------|---|
| 9.1 | HHH 25 | Symposium: Naturalistic Accounts of the Mind, 1850-1900 |
| 9.2 | HHH 20 | Symposium: Scientific Explanation in Early Modern Europe |
| 9.3 | HHH 15 | Contributed Papers: History of Philosophy of Biology |
| 9.4 | HHH 35 | Contributed Papers: Carnap, Explication, and Frameworks |

Lunch (12:30-14:00pm)

HOPOS General Business Meeting (13:00-14:00): HHH 25

Parallel Session X (14:00-16:00)

- | | | |
|-------------|---------------|--|
| 10.1 | HHH 35 | Symposium: The Natural and the Normative at 25: Psychology, Perception, and Measurement in Kant and Helmholtz |
| 10.2 | HHH 15 | Symposium: Logical Empiricism and the German Youth Movement |
| 10.3 | HHH 20 | Contributed Papers: Ancient HOPOS |
| 10.4 | HHH 25 | Contributed Papers: Mathematics and Method in the 18th Century |

Coffee Break (16:00-16:30pm): HHH Atrium

Plenary Session II (16:30-18:00): HHH Auditorium

Full Program

Thursday - 23 June (Parallel Session I)

Parallel Session I (9:00-10:30)

1.1 Symposium: Post-Aristotelian Science in the Fourteenth Century (HHH 25)

Session Chair: Jacob Archambault (Fordham University)

Petrus Thomae and Early Scotist Theories of Analogy

- Garrett R. Smith (University of Notre Dame)

Toward a Conception of Force: Peter Auriol's Critique of the Aristotelian View that Action is Motion

- Gloria Frost (University of St. Thomas)

Nicholas Bonetus' Doctrines of Natural and Mathematical Space and Time

- William O. Duba (Radboud Universiteit Nijmegen)

1.2 Contributed Papers: Life Sciences (HHH 35)

Session Chair: Thomas Bunce (Durham University)

Ethology as a Goethian Science: Method, Intuition, and the Science of Life

- Shane Zappettini (Indiana University)

Monkeys and Monads: The Unexpected Marriage between Darwinian Evolutionary Theory and Leibnizian Metaphysics

- Jeremy Dunham (University of Sheffield)

1.3 Contributed Papers: Early Modern Perception and Reference (HHH 15)

Session Chair: Patrick Connolly (Iowa State University)

Perception by Patterning: Cavendish against Hobbes on Perception

- Marcus Adams (State University of New York, Albany)

Perception as a Two-Stage Process: A Reidean Account

- Marina Folescu (University of Missouri)

Common Sensibles and Molyneux's Problem

- Andrei Marasoiu (University of Virginia)

Thursday - 23 June (Parallel Session II)

Parallel Session II (11:00-12:30)

2.1 Symposium: After Newton and Leibniz: Kantian Foundations for Early Classical Physics (HHH 25)

Session Chair: Bennett McNulty (University of Central Arkansas)

Reconciling Leibniz and Newton: Kant and du Châtelet

- Katherine Dunlop (University of Texas, Austin)

Continuity of Change in Kant's Dynamics

- Bennett McNulty (University of Central Arkansas)

Absolute Time from Kant's Metaphysics

- Marius Stan (Boston College)

2.2 Symposium: What Drives Philosophical Progress? (HHH 35)

Session Chair: Adrian Currie (University of Calgary)

Epistemology, Methodology and Philosophical Progress

- Kirsten Walsh (University of Bucharest)

Modernity and the History of Philosophy (1613-1779)

- Kenneth Pearce (Valparaiso University)

Progress, the Microscope, and Utopia in Margaret Cavendish

- Michael Deckard (Lenoir-Rhyne University & University of Bucharest)

2.3 Contributed Papers: History and Laws in Hempel and Kuhn (HHH 15)

Session Chair: Thomas Uebel (University of Manchester)

HOPOA: Hempel's Impacts on Archaeological Theory and Practice

- William Krieger (University of Rhode Island)

Historicizing Historical Explanation: the Origins of Hempel's Covering Law Model

- Fons Dewulf (Ghent University)

The Search for Kuhn-loss: A New Strategy for HPS

- Jamie Shaw (Western University)

2.4 Contributed Papers: Chaos, Geometry, and Objectivity (HHH 20)

Session Chair: Michael Cuffaro (LMU München)

Chaos Regained: On the Possibility of a New Era of Orbital Dynamics

- Isaac Wilhelm (Rutgers University)

Impurity of Methods: Finite Geometry in the Early Twentieth Century

- Douglas Marshall (Carleton College)

Redrawing Mathematical Objectivity: Jean Cavaillés and Gilles-Gaston Granger; From the Philosophy of the Concept to a Philosophy of Style

- Jean-Paul Cauvin (University of Pennsylvania)

Thursday - 23 June (Parallel Session III)

Parallel Session III (14:00-16:00)

3.1 Contributed Papers: Newton (HHH 25)

Session Chair: Ed Slowik (Winona State University)

What Newton Meant by 'True and Absolute Motion'

- Robert Rynasiewicz (Johns Hopkins University)

The Newtonian Equivalence Principle: How Issac Newton's Discovery of the Relativity of Acceleration Led Him to Discover the Equivalence of Inertial and Gravitational Mass

- Craig Fox (Western University)

Newtonian Idealizations

- Monica Solomon (University of Notre Dame)

The Parallelogram Rule from Pseudo-Aristotle to Newton

- David Miller (Iowa State University)

3.2 Symposium: Hylomorphism and Extension in Late Medieval and Early Modern Natural Philosophy (HHH 15)

Sponsor: Consortium for the Study of the Premodern World, University of Minnesota

Session Chair: Helen Hattab (University of Houston)

The New Conception of Material Substance in the Fourteenth Century

- Henrik Lagerlund (Western University)

John Buridan on the (Meta)Physics of Extension

- Francesca Bruno (Cornell University)

Crathorn on Extension

- Magali Roques (University of Geneva)

Matter, Quantity and Extension in Gorlaeus and Descartes

- Helen Hattab (University of Houston)

3.3 Mid-Twentieth-Century Philosophy of Science (HHH 35)

Session Chair: Peter Olen (Lake Sumter State College)

Defining the Field: Early Venues for the Philosophy of Science

- David Stump (University of San Francisco)

Churchman and Philosophers, or Some of the Average-Sized Mortals who Founded Mid-20th-Century American Philosophy of Science

- Alan Richardson (University of British Columbia)

The Philosophy of Science in the Habermas-Luhmann Debates, 1971-1998

- Gregory Moynahan (Bard College)

Ordinary Language Philosophy & Mid-20th Century Philosophy of Science

- Paul Franco (University of Washington)

3.4 Revolutionary HOPOS (HHH 20)

Session Chair: Christian Damböck (Institute Vienna Circle)

Flippant Anarchism: Feyerabend and the Student Movement

- Matteo Collodel (MIUR)

Scientific Philosophy in the Schlick Zirkel

- Thomas Oberdan (Clemson University)

Thursday - 23 June (Plenary Session I)

Plenary Session I (16:30-18:00): HHH Auditorium

Karine Chemla (ERC Project SAW & SPHERE, CNRS, and Université Paris Diderot)

Generality as a Value in Various Epistemological Cultures

The talk will put forward theses with respect to generality on the basis of two key examples. One, taken from the mathematical corpus that has come down to us from ancient China, will give us the opportunity to examine different practices of generality with respect to numbers and operations. This example also raises the theoretical problem of analyzing how actors understood and practiced generality, when generality can mainly (but not only) be grasped through its effects on the mathematical knowledge presented in a certain number of writings. The second example will take us to the 19th century in Europe, and will allow us to examine how actors understood and practiced generality in geometry. These examples will illustrate how we can gain a much more detailed understanding of the meanings and values actors attached to generality in scientific practice, if we focus on epistemological cultures, in a sense that will be discussed. The local approach to generality I advocate will also allow us to show how actors' philosophical work on generality in a specific mathematical context was read as such and adopted in another mathematical context, where it allowed practitioners to achieve major new scientific developments. Finally, in the two examples examined, generality will appear as an element in a set of epistemological values. We will outline how actors appear to have understood the relationships between these various values and also the structure of these sets of values.



Friday - 24 June (Parallel Session IV)

Parallel Session IV (9:00-10:30)

4.1 Symposium: From Powers to Forces: The Difficult Legacy of Aristotelianism in Early Modern Natural Philosophy (HHH 25)

Sponsor: Consortium for the Study of the Premodern World, University of Minnesota

Session Chair: Jennifer McKittrick (University of Nebraska at Lincoln)

Two Aristotelian Responses to Mechanization: Kenelm Digby and John Sergeant on Substantial Forms

- Han Thomas Adriaenssen (University of Groningen)

Maupertuis and the Leibnizian Living Force

- Christian Leduc (Université de Montréal)

Sine qua non Causation: Kant and the Legacy of a Scholastic and Early Modern Debate

- Andrea Sangiacomo (University of Groningen)

4.2 Symposium: Fourteenth-Century Theories of Logical Consequence (HHH 35)

Session Chair: Marina Folescu (University of Missouri)

Ockham and Buridan on the Distinction between Formal and Material Consequences

- Milo Crimi (UCLA)

Consequence and Formality in the Logic of Walter Burley

- Jacob Archambault (Fordham University)

4.3 Contributed Papers: Models and Representation (HHH 15)

Session Chair: Jordi Cat (Indiana University, Bloomington)

Disciplining Little Models: Epistemology and Scale Models from the 17th Century to the Present

- Susan Sterrett (Wichita State University)

On the Analogy between Scientific Models and Maps: Insights from Medieval Cartography and Post-Representational Cartographic Epistemology

- Guilherme S. Oliveira (University of Cincinnati)

4.4 Symposium: Nature and Life in Classical German Philosophy (HHH 20)

Session Chair: Liesbet De Kock (Vrije Universiteit Brussel)

A Material Correlate of the Transcendental Unity of Apperception: Reconciling Nature and Consciousness in the Opus postumum

- Michael Olson (Macquarie University)

Schelling's Freiheitschrift and the Inevitability of Teleological Reason

- Ashley Vaught (Independent Scholar)

The Logic of Life and the Life of Logic: Hegel on the Continuity between the Organic and the Spiritual

- Raoni Padui (St John's College, Santa Fe)

Friday - 24 June (Parallel Session V)

Parallel Session V (11:00-12:30)

5.1 Symposium: Dedekind's Mathematical Structuralism: 100 Years Later (HHH 20)

Session Chair: Lydia Patton (Virginia Tech)

Steht es alles schon bei Dedekind? Dedekind's place in the history of structuralism

- José Ferreirós (Universidad de Sevilla)

Dedekind's structuralism: Creating concepts and deriving theorems

- Rebecca Morris (Carnegie Mellon University) and Wilfried Sieg (Carnegie Mellon University)

On Reconstructing Dedekind Abstraction Logically

- Erich Reck (University of California, Riverside)

5.2 Contributed Papers: Aristotle, Harvey, and Cavendish (HHH 15)

Session Chair: Isaac Wilhelm (Rutgers University)

The Oriel Noetics, Aristotle, and Newton

- Joseph Milburn (University of Pittsburgh)

William Harvey and Margaret Cavendish on the Generation of Animals: Materialist and Aristotelian Models of Explanation

- Benjamin Goldberg (University of South Florida)

Cavendish on Accidents: Identification and Reduction Strategies

- Jonathan Shaheen (Ghent University)

5.3 Contributed Papers: Language and Imagination: Hobbes, Kant, Berkeley (HHH 25)

Session Chair: Domenica Romagni (Princeton University)

Language, Memory and Universality in Hobbesian Scientia

- Peter Distelzweig (University of St. Thomas)

The Category-Theoretic Space of Kant's Imagination

- Susan V. H. Castro (Wichita State University)

Berkeley's Theory of Quasi-Entities

- Kenneth Pearce (Valparaiso University)

5.4 Contributed Papers: Reichenbach and Philosophy of Science (HHH 35)

Session Chair: Kirsten Walsh (University of Bucharest)

Reichenbach vs. Russell: the Metaphysics of Induction

- Michael Shaffer (St. Cloud State University)

From Peirce's Abduction to Lipton's Inference to the Best Explanation: How Two Historical Developments Fill the Gap

- Mousa Mohammadian (University of Notre Dame)

The Reichenbach-Einstein Debate on the Geometrization of the Electromagnetic Field

- Marco Giovanelli (Universität Tübingen)

Friday - 24 June (Parallel Session VI)

Parallel Session VI (14:00-16:00)

6.1 Symposium: The Causal Powers Debate: Historical and Conceptual Perspectives (HHH 25)

Session Chair: Elise Frketich (KU Leuven)

Aristotelian Powers and the Rise of Mechanism

- Henrik Lagerlund (University of Western Ontario)

Occasionalism and the Critique of Causal Powers: A Cautionary Tale

- Benjamin Hill (University of Western Ontario)

Resurgent Powers

- Jennifer McKittrick (University of Nebraska, Lincoln)

6.2 Symposium: Carnap and Quine on the Analytic/Synthetic Distinction (HHH 15)

Session Chair: Greg Frost-Arnold (Hobart and William Smith Colleges)

Carnap, Einstein, and the Empirical Foundations of Space-time Geometry

- Robert DiSalle (University of Western Ontario)

Carnap, Quine, Analyticity and the Foundations of Mathematics

- Gregory Lavers (Concordia University)

The Evolution of Quine's Revisability Thesis vs. Carnap

- Yousuf Hasan (University of Western Ontario)

What Are the Prospects for Analyticity?

- Richard Creath (Arizona State University)

6.3 Contributed Papers: Neo-Kantianism (HHH 35)

Session Chair: Nathan Sasser (University of South Carolina)

Cassirer, Kaila, and Helsinki Realism

- Matthias Neuber (University of Tübingen)

Cassirer on the Teleology of Mathematics and Science

- Samantha Matherne (University of California, Santa Cruz)

The Origins of Hermann Cohen's Logic of Pure Knowledge

- Scott Edgar (St. Mary's University)

(Neo-)Kantian Frameworks for the Foundations of Quantum Mechanics

- Michael Cuffaro (LMU München)

Friday - 24 June (Parallel Session VII)

Parallel Session VII (16:30-18:00)

7.1 Contributed Papers: Philosophy of Mathematics (HHH 35)

Session Chair: Thomas Staley (Virginia Tech)

19th century roots of Suppes' semantic conception

- Wilfried Sieg (Carnegie Mellon University) and Aeyaz Kayani (Carnegie Mellon University)

The Ontogeny of Quine's Ontology: Nominalism, Pythagoreanism, Platonism

- Greg Frost-Arnold (Hobart and William Smith Colleges)

Frege's Begriffsschrift notation: Design Principles and Trade-offs

- Dirk Schlimm (McGill University)

7.2 Contributed Papers: Measurement and Realism (HHH 15)

Session Chair: Robert Rynasiewicz (Johns Hopkins University)

Rethinking Duhem's Antirealism

- Meghan Page (Loyola University Maryland)

The Structure and Epistemic Import of Empirical Multiple Determination: The Case of Jean Perrin

- Klodian Coko (Indiana University)

Poincaré and Renouvier on Conventions in the Sciences: A Comparison

- Warren Schmaus (Illinois Institute of Technology)

7.3 Contributed Papers: Descartes and Gassendi (HHH 20)

Session Chair: Magali Roques (University of Geneva)

The Scientific Basis of Cartesian Sensory Skepticism

- Anthony Crifasi (Benedictine College)

Gassendi's Two Geometries

- Delphine Bellis (Radboud University Nijmegen)

7.4 Contributed Papers: Causation and Laws of Nature (HHH 25)

Session Chair: Don Howard (University of Notre Dame)

Intimate Connections: Wigner's Views on Symmetries and Conservation Laws

- Pablo Ruiz de Olano (University of Notre Dame)

Max Born's Philosophy of Causation

- Thomas Bunce (Durham University)

John Dewey on Causation and Laws of Nature

- Matthew J. Brown (University of Texas, Dallas)

Saturday - 25 June (Parallel Session VIII)

Parallel Session VIII (9:00-10:30)

8.1 Contributed Papers: Psychology (HHH 15)

Session Chair: Alexander Klein (Cal State Long Beach)

James on Instincts and Motivation

- Kyle Bromhall (Independent Scholar)

Fichte's Articulated Body as a Tertium Quid between Idealism and Early Psychophysiology: A Study of the Principle of Apperception in Fichte and Wundt

- Liesbet De Kock (Vrije Universiteit Brussel)

Behaviorism, Rationalism, and Explanation

- Peter Olen (Lake Sumter State College)

8.2 Contributed Papers: Mathematics and Method from the 16th to the 18th Centuries (HHH 25)

Session Chair: Delphine Bellis (Radboud University Nijmegen)

Giordano Bruno's Geometrical Atomism and 16th Century Mathematics

- Paolo Rossini (Scuola Normale Superiore di Pisa)

Explanatory Virtues in the 17th Century: Kepler and Mersenne's Competing Theories of Musical Consonance

- Domenica Romagni (Princeton University)

's Gravesande's Empirical Concept of Laws of Nature and its Origins in Natural Law Theories

- Jip Van Besouw (Vrije Universiteit Brussel)

8.3 Contributed Papers: Victorian HOPOS (HHH 35)

Session Chair: Wilfried Sieg (Carnegie Mellon University)

'Numerical Syllogism,' Probabilities, and Actuarial Science: Augustus De Morgan's Contribution to Victorian Logic

- Anna-Sophie Heinemann (Universität Paderborn)

Herschel and Whewell on Residual Phenomena

- Teru Miyake (Nanyang Technological University)

The 'Two Aspects' Theory: Some Controversies over Neutral Monism and Pragmatism in Late Victorian & Edwardian Mental Philosophy

- Thomas Staley (Virginia Tech)

Saturday - 25 June (Parallel Session IX)

Parallel Session IX (11:00-12:30)

9.1 Symposium: Naturalistic Accounts of the Mind, 1850-1900 (HHH 25)

Session Chair: Jonathan Tsou (Iowa State University)

The Curious Case of the Decapitated Frog

- Alexander Klein (Cal State Long Beach)

'The Ordinary Cock-sure Evolutionist': Pragmatism, Naturalism, Adaptationism

- Trevor Pearce (University of North Carolina, Charlotte)

Vera Causa Reasoning in the Debate Over Human Uniqueness

- Hayley Clatterbuck (University of Rochester)

9.2 Symposium: Scientific Explanation in Early Modern Europe (HHH 20)

Session Chair: Katherine Brading (University of Notre Dame)

Naturalistic Explanation as Epistemological Firebreak for Hume and Boyle

- Richard Fry (Southern Illinois University, Edwardsville) and James Mattingly (Georgetown University)

Cartesian Cryptography and Norms of Scientific Explanation

- Dana Matthiessen (University of Pittsburgh)

Metaphysics and Explanation in Richard Bentley's Boyle Lectures

- Patrick Connolly (Iowa State University)

9.3 Contributed Papers: History of Philosophy of Biology (HHH 15)

Session Chair: Samantha Matherne (University of California, Santa Cruz)

Joseph Needham's Contributions to the Development of the Levels Concept in Biology (1929-1945)

- Daniel Brooks (Konrad Lorenz Institute for Evolution and Cognition)

The Operon Model and Scientific Explanation

- Melinda Fagan (University of Utah)

The Use of Karl Popper in Ecology

- William Bausman (University of Minnesota)

9.4 Contributed Papers: Carnap, Explication, and Frameworks (HHH 35)

Session Chair: Gregory Lavers (Concordia University)

Reconsidering Friedman's Neo-Kantian Reading of the Early Carnap

- Nathan Sasser (University of South Carolina)

Moving Beyond Antiquarianism: Explication and the Future of Philosophy of Science

- Christopher French (University of British Columbia)

Hilbert's Axiomatic Method and Carnap's General Axiomatics

- Michael Stoeltzner (University of South Carolina)

Saturday - 25 June (Parallel Session X)

Parallel Session X (14:00-16:00)

10.1 Symposium: The Natural and the Normative at 25: Psychology, Perception, and Measurement in Kant and Helmholtz (HHH 35)

Session Chair: Scott Edgar (St. Mary's University)

Empirical and Transcendental Psychology

- Corey Dyck (Western Ontario)

The Natural and the Normative Reconciled: Helmholtz's Theory of Measurement

- Francesca Biagioli (Universität Konstanz)

Helmholtz on Sensory Complexity

- Lydia Patton (Virginia Tech)

The Natural and the Normative and The Facts in Perception: Two Works Revisited

- Gary Hatfield (University of Pennsylvania)

10.2 Symposium: Logical Empiricism and the German Youth Movement (HHH 15)

Session Chair: Michael Stoeltzner (University of South Carolina)

'Pacifist, Anti-militarist, Anti-monarchist, perhaps also Socialist': Carnap (and other Prominent Members of the German Youth-Movement) facing World War I

- Hans-Joachim Dahms (Institute Vienna Circle)

Carnap, Reichenbach, Freyer. The Social Adaptiveness of Values, in the Context of Logical Empiricism and the German Youth Movement

- Christian Damböck (Institute Vienna Circle)

Rudolf Carnap and the Erlangen Conference (1923)

- Christoph Limbeck-Lilienau (Institute Vienna Circle)

Carnap's Turn to Philosophy of Science from the Perspective of his Diaries, Reading Lists and Personal Letters

- Lois Marie Rendl (Institute Vienna Circle)

10.3 Contributed Papers: Ancient HOPOS (HHH 20)

Session Chair: Benjamin Goldberg (University of South Florida)

Galen on Analytical Method in On the Diagnosis and Cure of the Soul's Errors

- Donald Morrison (Rice University)

Aristotle on the Domain Specificity of Scientific Inquiry

- James Lennox (University of Pittsburgh)

A Sliding Scale of Experiment-Kinds in Ancient Greek Science

- Paul Keyser (Google, Inc. - Chicago)

Aristotle, Pluralism, and the Essentialism Story

- Justin Bzovy (Western University)

10.4 Contributed Papers: Mathematics and Method in the 18th Century (HHH 25)

Session Chair: Janet Folina (Macalester College)

Émilie du Châtelet on the Fundamentality of Change

- Aaron Wells (University of Notre Dame)

Émilie Du Châtelet on Scientific Methodology

- Katherine Brading (University of Notre Dame)

Wolff and Kant on the Mathematical Method

- Elise Frketich (KU Leuven)

Epistemological and Methodological Ramifications of the New Mathematical Approach in Eighteenth Century Mechanics

- Yannick Van den Abbeel (Vrije Universiteit Brussel)

Saturday - 25 June (Plenary Session II)

Plenary Session II (16:30-18:00): HHH Auditorium

Thomas Uebel (University of Manchester)

Philosophy of History and History of Philosophy of Science

Philosophy of history and history of philosophy of science make for an interesting case of “mutual containment”: the former is an object of inquiry for the latter and the latter is subject to the demands of the former. This talk will discuss a past seminal turn in philosophy of history with an eye to the practice of historians of philosophy of science. The narrative turn by Danto and Mink represents both a liberation for historians and a new challenge to the objectivity of their findings. I will claim that good sense can be made of “working historical veins of possibility” (contrary to how the phrase was originally intended) and that already Danto and Mink provided materials (though they did not quite deploy them this way) to assuage fears of a reconstructionist free-for-all.



The Vienna Circle: Exact Thinking in Demented Times

As part of the 650 year anniversary of the University of Vienna, the exhibition “The Vienna Circle” was displayed there from May 20th, 2015 until October 31st, 2015. The Vienna Circle, a group of outstanding thinkers, played an important part in philosophy and science in the 1920s and 1930s. The group’s discussions and philosophical approaches set the cornerstones for important developments in a multitude of fields of science. The objects and documents in the exhibition mostly focus on the philosophical questions the Vienna Circle discussed: How can the efficiency of mathematics be explained? What is the role of logical propositions? What is the basis of scientific knowledge?

We are delighted to have the first international display of a portion of “The Vienna Circle” exhibition for HOPOS 2016, in part because of the direct connection between Herbert Feigl and the Minnesota Center for Philosophy of Science. Feigl was an active member of the Vienna Circle, which met weekly throughout the 1920s to discuss current issues and philosophical approaches to complex fields of science. He studied physics and philosophy at the University of Vienna with Moritz Schlick, receiving his doctorate in 1927. Famously, Feigl argued in favor of adopting the label “logical empiricism” to distinguish contemporary philosophy of science with its increasingly realist orientation from an older, positivist outlook. He emigrated to the United States in 1931 and took up a position at the University of Iowa. In 1940, Herbert Feigl accepted a position as professor of philosophy at the University of Minnesota, where he remained for 31 years. He founded the Minnesota Center for Philosophy of Science in 1953 and the first installment of the *Minnesota Studies in Philosophy of Science* appeared in 1956 (*Foundations of Science & the Concepts of Psychology and Psychoanalysis*). Volume 20, *The Language of Nature: Reassessing the Mathematization of Natural Philosophy in the Seventeenth Century*, was published in 2016.



Picture: Herbert Feigl and Moritz Schlick (Photo Credit: Institut Wiener Kreis)

Exhibition Curators: Karl Sigmund, Friedrich Stadler, and Christoph Limbeck-Lilienau

Graphic Design: Hermann Czech and Bea Laufersweiler

Minneapolis Financial Sponsors: Center for Austrian Studies, College of Liberal Arts, Gary Cohen, Minnesota Center for Philosophy of Science, Office for the Vice President of Research, and Penny Winton

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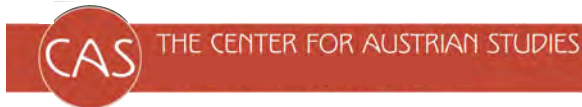


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