

## JOHN SYMONS

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### ACADEMIC APPOINTMENTS

- 2012 - present Professor, Department of Philosophy, University of Kansas  
Chair, Department of Philosophy (2012-2017)
- 2018 - present Professor, Information & Telecommunications Technology Center, University of Kansas
- 2009 - present External Faculty, Centro de Filosofia das Ciências da Universidade de Lisboa, Lisbon
- 2014 - present External Faculty, Department of Information Science and Technology, ISCTE, Lisbon University Institute, Lisbon
- 2007 - 2012 Associate Professor, University of Texas at El Paso  
Chair, Department of Philosophy (2008-2012)
- 2002 - 2007 Assistant Professor, University of Texas at El Paso
- 2005 Visiting Professor, Institute of Foreign Philosophy, Peking University, Beijing

### EDUCATION

Ph.D. Philosophy, Boston University, 2002

B.A. Philosophy, Connecticut College, 1994

### EDITORSHIPS AND EDITORIAL BOARD MEMBERSHIPS

- 2014 - present Editorial Board Member *Science, Religion, & Culture*
- 2012 - present Editorial Board Member *Axiomathes: An International Journal in Ontology & Cognitive Systems*
- 2010 - present Advisory Board Member *Logos & Episteme: An International Journal of Epistemology*
- 2009 - present Editorial Board Member *Kairos: A Journal of Philosophy & Science*
- 2007 - 2010 Editorial Board Member *International Journal of Agent Technologies & Systems*
- 2005 - present Editor-in-Chief *Texts in Philosophy Book Series*, College Publications
- 2004 - 2012 Editor-in-Chief, *Logic, Epistemology and the Unity of Science Book Series*, Springer
- 2002 - 2011 Editor-in-Chief, *Synthese: An International Journal for Epistemology, Methodology and Philosophy of Science*
- 2002 - 2013 Editor-in-Chief, *Synthese Library Book Series*, Springer

### SCHOLARSHIPS, HONORS, GRANTS, AND AWARDS

- 2018-2023 United States Department of Defense, *Formal Approaches to the Ontology and Epistemology of Resilience*, 1000122 DOD Task C.3 (\$500,000)
- 2017-2018 Big Twelve Faculty Fellow: Baylor University Department of Philosophy
- 2018 Center For Teaching Excellence Course Redesign Award, University of Kansas
- 2017 Center For Teaching Excellence Assessment Award, University of Kansas.
- 2015 Shulenburg Award for Innovation & Advocacy in Scholarly Communication

2010 - 2011 Fundación Séneca-Agencia de Ciencia y Tecnología de la Región de Murcia, Project 11944/PHCS/09 (€35,000)(Paco Calvo and John Symons)

2009 - 2010 John Templeton Foundation Individual Research Award (\$67,000)

2009 - 2011 CETAL Faculty, Center for Excellence in Teaching and Learning

2005 Large Class Academy Stipend, Center for Excellence in Teaching and Learning, University of Texas at El Paso

2002 - 2003 University of Texas System, University Research Institute Award

1998 - 1999 Dibner Predoctoral Fellowship, Massachusetts Institute of Technology

1998 Humanities Foundation Award, Boston University

1997 - 1998 Junior Fellowship, Institut für die Wissenschaften vom Menschen, Vienna

1997 Peter Bertocci Scholarship, Boston University

1997 Machette Prize for best graduate student paper of 1996-97, Boston University

1994 Oakes and Louise Ames Prize for best undergraduate thesis at Connecticut College

1993 Suzanne K. Langer Award, Connecticut College

## PROFESSIONAL ASSOCIATIONS AND OFFICES

2017 - 2018 World Congress of Philosophy (Beijing)  
Co-chair for Philosophy of the Life Sciences

2015 - present University of Kansas Committee on Open Access

2014 - 2017 Hall Center for the Humanities  
Advisory Board Member

2013 - present Southwest Philosophical Society  
Executive Committee

2012 - present Kansas Philosophical Society  
Executive Committee (2012-2018)

2012 - 2013 World Congress of Philosophy (Athens)  
Co-chair for Philosophy of the Life Sciences

2010 - 2013 American Philosophical Association  
Committee on International Cooperation (2010-2013)  
Ad-hoc committee on journal practices (2010-2011)

2007 - 2009 New Mexico-Texas Philosophical Association  
President (2008-9)  
Vice President (2007-2008)

2005 - present Institut Internationale de Philosophie, Permanent Member  
Treasurer (2018-present)

2005 - 2009 Institut d'Histoires et de Philosophie des Sciences et des Techniques, Associate Member

## PUBLICATIONS

### Books

*Machine Learning and Inquiry* (With Jack Horner) in preparation

*Formal Reasoning: A Guide to Critical Thinking* (Dubuque: Kendall Hunt 2017)

*On Dennett*, (Belmont CA: Wadsworth, 2002).

Translated into Slovak by Juraj Hvorecky as *Dennett* (Bratislava: Albert Marenin 2004)

Translated into French by Mathieu Aury with additional chapters on Quinean naturalism, as *Dennett: Un naturalisme en chantier*. (Paris: Presses Universitaire de France, 2005)

### Edited Volumes

*The Architecture of Cognition: Rethinking Fodor and Pylyshyn's Systematicity Challenge* Co-edited with Paco Calvo (Cambridge: MIT press 2014)

*Daniel Dennett: Critical Assessments of Leading Philosophers* (New York: Routledge 2014)

*Special Sciences and the Unity of Science* Co-edited with Olga Pombo, Shahid Rahman, and Juan Manuel Torres (New York: Springer 2012)

*Philosophy of Physics; 5+1 Questions*. Co-edited with Juan Ferret (Automatic Press, 2010)

*Otto Neurath and the Unity of Science*. Co-edited with Olga Pombo (New York: Springer 2010)

*Routledge Companion to the Philosophy of Psychology*. Co-edited with Paco Calvo (New York: Routledge, 2009)

Second Edition. Co-edited with Sarah Robins in preparation (expected 2019)

*Masses of Formal Philosophy*. Co-edited with Vincent Hendricks (Automatic Press, 2006)

*Formal Philosophy*. Co-edited with Vincent Hendricks (Automatic Press, 2005)

*Questions, Quantifiers and Quantum Physics: Essays on the Philosophy of Jaakko Hintikka*. Co-edited with Dan Kolak (New York: Springer, 2004)

*Logic, Epistemology and the Unity of Science*. Co-edited with Jean Paul van Bendegem, Dov Gabbay and Shahid Rahman (Dordrecht: Kluwer, 2004)

## Journal special issues edited

*Between Logic and Intuition: The Philosophy of David Lewis*, a special issue of *Synthese* March 2013

Social Structures in Communication Networks a special issue of *International Journal of Agent Systems and Technologies* 1(4) [2009]

## Articles and Book Chapters

“Hintikka’s view of logic” (Under Review)

“Meaning and Ultimate Value” (Under Review)

“Technological Diversity in IoT can Promote System-Level Resilience: A Simulation and Analysis Approach” (With Amir Moderrasi and James Sterbenz) (Under Review)

“Should Physical Computation be Understood Mechanistically?” *APA Newsletter on Philosophy and Computers* (forthcoming)

“Understanding error rates in software engineering: Conceptual, empirical, and experimental approaches” (With Jack Horner) *Philosophy and Technology* (forthcoming)

“Why there is no general solution to the problem of software verification” (with Jack Horner) *Foundations of Science* (forthcoming)

“Epistemic entitlements and the practice of computer simulation” (with Ramón Alvarado) *Minds and Machines* (2019). <https://doi.org/10.1007/s11023-018-9487-0>

“Epistemic Logic” (with Rasmus Rendsvig) *Stanford Encyclopedia of Philosophy*

“Brute Facts About Emergence.” In Elly Vintiadis (ed) *Brute Facts*. Oxford: Oxford University Press (2018) pp.177-196

“Metaphysical and scientific approaches to emergence: Varieties of fundamentality and theoretical completeness” in Saurabh Mittal, Saikou Diallo, Andreas Tolk (eds.) *Emergent Behavior in Complex Systems Engineering: A Modeling and Simulation Approach* Wiley (2018) pp. 1-32

“Software Error as a Limit to Inquiry for Finite Agents: Challenges for the Post-human Scientist” (with Jack Horner) In T. Powers, ed. *Philosophy and Computing: Essays in Epistemology, Philosophy of Mind, Logic, and Ethics*. Springer. 2017 pp. 85-99

“Can we Trust Big Data? Applying Philosophy of Science to Software” (with Ramon Alvarado) *Big Data and Society*. July-December 2016 pp.1-17

- “Teleosemantics and Natural Information” In Luciano Floridi (ed) *Routledge Companion to Philosophy of Information* (2016) pp. 263-277.
- “Physicalism, Scientific Respectability, and Strongly Emergent Properties.” In Tudorel Dima and Mihaela Luca (eds.) *Cognitive Sciences: An Interdisciplinary Approach*. Bucharest: Pro Universitaria (2015) pp. 14-37
- “Software Intensive Science” (with Jack Horner) *Philosophy and Technology*, Volume 27, Issue 3, pp 461-477, 2014
- “Reply to Angius and Primiero on Software Intensive Science” (with Jack Horner) *Philosophy and Technology* Volume 27, Issue 3, pp 491-494, 2014
- “Computing with Bodies: Morphology, Function, and Computational Theory.” in Charles Wolfe (ed.) *Brain Theory: Essays in Critical Neurophilosophy* New York: Palgrave pp. 91-106, 2014
- “The Emergence of Systematicity in Minimally Cognitive Agents” (with Paco Calvo and Emma Martin) in *The Architecture of Cognition: Rethinking Fodor and Pylyshyn’s Systematicity Challenge* Co-edited with Paco Calvo Cambridge: MIT press 397-434, 2014
- “Systematicity: An Overview” (with Paco Calvo) in *The Architecture of Cognition: Rethinking Fodor and Pylyshyn’s Systematicity Challenge* Co-edited with Paco Calvo Cambridge: MIT press 3-30, 2014
- “How computational models predict the behavior of complex systems” *Foundations of Science* (with Fabio Boschetti) *Foundations of Science* 18 (4), 809-821, 2013.
- “Applying Logic: Some Remarks on the Reciprocal Influence of Experimental and Formal Investigations of Identification.” *Acta Philosophica Fennica*, 90, 99-111, 2013.
- “What is a Model, Why People Don’t Trust Them, and Why They Should.” (with Boschetti F, Fulton E.A., Bradbury, R.H.) In *Negotiating Our Future: Living scenarios for Australia to 2050*, Vol 2. Australian Academy of Science 107-119, 2012
- “Beyond Error Correction” *Frontiers in Theoretical and Philosophical Psychology* doi: 10.3389/fpsyg.2012.00423 September, 2012 (with Paco Calvo and Emma Martin)
- “Thinking about Pain in Hell: Identifying Qualia Across Possible Worlds.” *Southwest Philosophical Studies*. 32: 1-11 2012
- ‘Borders’ (with Josiah Heyman) in *A Companion to Moral Anthropology*. Didier Fassin ed. Wiley-Blackwell 540-559, 2012
- “Limiting Skepticism” (with Vincent Hendricks) *Logos and Episteme* 2, 2 211-224, 2011
- “Six Questions on Complex Systems’ *Numerical Analysis and Applied Mathematics ICNAAM 2011* 389, 956-958, 2011

“Novel properties generated by interacting computational systems: A minimal model” (with Fabio Boschetti *Complex Systems* 20, 151-164, 2011

“Logic and Formal Semantics for Epistemology” in *Routledge Companion to Epistemology*. Duncan Pritchard and Sven Bernecker (eds) New York: Routledge. 571-586, 2011

“Ontology and Methodology in the Analytic Philosophy” in *Theories and Applications of Ontology Vol. 1* J. Seibt and R. Poli (eds.) New York: Springer. 349-394, 2010.

“The Individuality of Organisms and Artifacts” *History and Philosophy of the Life Sciences* Vol. 32, no. 2-3, 233-47, 2010

“Teleology in Biology: Haddox on the Basic Principles of the Living World” in *Thought and Social Engagement in the Mexican-american Philosophy of John H. Haddox: A Collection of Critical Appreciations*. Carlos Alberto Sanchez and J.Simon ed. Lewiston, New York: Edwin Mellen Press, 2010

“Epistemic Logic” (with Vincent Hendricks) in *The Stanford Encyclopedia of Philosophy (Spring 2009 Edition)*, Edward N. Zalta (ed.), URL =<http://plato.stanford.edu/archives/spr2009/entries/logic-epistemic/>

“Supervenience” in *The Encyclopedia of Neuroscience*. New York: Springer, vol. 19, 3901-3903, 2009

“What has Philosophy of Psychology Become?” *Routledge Companion to Philosophy of Psychology*. John Symons and Paco Calvo (eds.) New York: Routledge xxi-xxiv, 2009

“Inquiry and Functionalism” in Cédric Dégrement, Laurent Kieff and Helge Rückert (eds.) *Dialogues, Logic and Other Strange Things; Essays in Honour of Shahid Rahman*. London: College Publications 385-393, 2008

“Intuition and Philosophical Methodology” *Axiomathes* 18: 67-89, 2008

“Detecting Emergence in the Interplay of Networks” *Interplay of Networks*, in Goran P. Trajkovski and Samuel G. Collins (eds.) (2008) *Emergent Agents and Socialities: Social and Organizational Aspects of Intelligence, AAAI Technical Report FS-07-04*. Menlo Park, California: The AAAI Press. 86-93

“Computational Models of Emergent Properties” *Minds and Machines* 18, 4: 475-491, 2008  
Reprinted in Nigel Gilbert (ed.) *Computational Social Science*. London: Sage publications 2010

“A Computational Modeling Strategy for Levels” *Philosophy of Science* 75, 608-620. 2008

“Understanding the Complexity of Information Processing Tasks in Vision.” In Carlos Gershenson, Diederik Aerts, and Bruce Edmonds (eds.) *Philosophy and Complexity: Essays on Epistemology, Evolution, and Emergence*. Singapore: World Scientific 300-314, 2007

“Towards a General Description of Physical Invariance in Category Theory” (with Vladik Kreinovich and Julio Urenda) *Journal of Uncertain Systems* 1: 170-175, 2007

“Pattern-oriented analysis of communication flow: the case study of *Cicada barbara lusitanica*.” (with

Louçã, J, Rodrigues, D., Morais, A.) *Proceedings of the 21st European Conference on Modelling and Simulation ECMS 2007*, Ivan Zelinka, Zuzana Oplatková, Alessandra Orsoni, ed. Prague: ECMS pp. 229-234, 2007

“Quine, Barcan-Marcus and Kripke on Modality” *Southwest Philosophical Studies* 29, 49-54, 2007

“No Mere Formality: On Why Formal Philosophy Matters” (with Vincent Hendricks) *The Philosophers' Magazine* 3rd quarter 35-38, 2007

“Where's the Bridge? Epistemic logic and epistemology” (with Vincent Hendricks) *Philosophical Studies* 128:137-167, 2006

“The Results are in: On the scope and import of Hintikka's philosophy”, (With Daniel Kolak) in *Questions, Quantifiers and Quantum Physics*. New York: Springer 190-258, 2004

“Systems of visual identification in neuroscience: Lessons from epistemic logic.” With Jaakko Hintikka *Philosophy of Science* 70: 89-104, 2003 Reprinted in Hintikka, J. *Socratic Epistemology: Explorations of Knowledge-Seeking by Questioning*. Cambridge : Cambridge University Press. 2007

“Logic, Epistemology and the Unity of Science: An Encyclopedic Project in the Spirit of Diderot and Neurath” With Shahid Rahman in *Logic, Epistemology and the Unity of Science*. Dordrecht: Kluwer Academic Publishers: 4-36, 2003

“Emergence and Reflexive Downward Causation” *Principia* 6: 14-39, 2002

“Information, Representation, and the Dynamic Systems Approach to Language: Commentary on Shanker and King”, *Behavioral and Brain Sciences* 25 640-641, 2002

“Explanation, Representation and the Dynamical Hypothesis” *Minds and Machines* 11: 521-541, 2001

“What can Neuroscience Explain?” *Brain and Mind* 2: 243-248, 2001

## Book reviews

“Review of Yoav Shoham and Kevin Leyton-Brown *Multiagent Systems - Algorithmic, Game-Theoretic, and Logical Foundations*.” *International Journal of Agent Technologies and Systems* 1 (4) 68-70, 2009

“Review of Giandomenico Sica (ed.) *What is Category Theory?*” *Studia Logica* 89 (2) 285-289, 2008

“Review of Steven Wolfram, *A New Kind of Science*”, *International Journal of Philosophical Studies* 12 (4) 504-508, 2004

“Review of Jean Gayon, *Darwinism's Struggle for Survival: Heredity and the Hypothesis of Natural Selection*” *International Journal of Philosophical Studies* 9 (1), 90-94, 2001

## PRESENTATIONS

Imagining the Thinking Thing; on the role of Imagination in Descartes' *Meditations*  
Twentieth World Congress of Philosophy, Boston MA (August 16, 1998)

Explanation in Neuroscience: Complex Systems and Cognition  
Second International Conference on Complex Systems, Nashua NH (October 29, 1998)

Emergentism and Levels-Talk  
Department of Philosophy, Connecticut College, New London (February 18, 1999)

Levels of Explanation in the Brain Sciences  
Center for Theoretical Studies, Charles University, Prague. (October 10, 1997)  
Boston Colloquium for the Philosophy and History of Science, Boston (November 17, 1999)

Prosthetic eyes, plastic brains and the taste of beer  
Department of Philosophy, University of Texas, El Paso (March 14, 2001)  
Clark University, Worcester (March 2, 2001)

Structure-function problems: emergent properties in physics and biology.  
International Society for the Philosophy History and Social Study of Biology, New Haven. (July 19, 2001)

Epistemic Logic: Implications for the neuroscience of the visual system.  
IHPST seminar, Paris (February 12 2002)  
Université de Lille- Séminaire Interdisciplinaire (February 13, 2002)

Marr's computational functionalism  
Boston Colloquium for the Philosophy and History of Science (March 25 2002)

Qualia inversion and burdens of proof  
Philosophy Department Colloquium, New Mexico State University (September 25, 2002)

What is an emergentist explanation?  
Colloque franco-finlandais de philosophie des sciences, Institut Finlandais, Paris (March 15, 2003)

Functionalism factored out: Functionalist metaphysics and the research program of cognitive science  
Brazilian International Conference on Cognitive Science, Sao Paulo (August 22, 2003)  
Department of Philosophy, University of Cincinnati (January 16, 2004)  
Department of Philosophy, Brandeis University (March 18, 2004)  
2004-5 Phi Sigma Tau Distinguished Lecture Series "Minds, Brains and Knowledge" Hartwick College, Oneonta, New York (November 12, 2004)  
Philosophy Colloquium, Roskilde University, Roskilde (December 5, 2004)



Kripke and Hintikka on Identity and Identification

Problèmes ouverts en épistémologie / Open Problems in Epistemology, UNESCO Paris (November 20, 2003)

Computational physics and the logic of emergence

Department of Physics Colloquium, University of Texas at El Paso (February 4, 2004)

CNRS conference on emergence, Ecole Normale Supérieure, Paris (April 27, 2004)

Kim's objections to emergence

Dynamic Ontology 2004, Trento University (September 10, 2004)

Hintikka on quantifier independence

APA Eastern Division, Special session in honor of Jaakko Hintikka, Boston (December 28, 2004)

Emergence and individuation

New Mexico-West Texas Philosophical Society, El Paso (April 14, 2005)

Department of Foreign Philosophy, Peking University (May 21, 2005)

IIP meeting / Department of Philosophy, UNAM Mexico City (August 26th, 2005)

Karl Popper Seminar Series, Department of Philosophy, London School of Economics, London (November 22, 2005)

Intuitive content: Kripke and common sense

New Mexico/West Texas Philosophical Association, Las Cruces (April 8, 2006)

Emergence and explanation

Department of Philosophy Colloquium, University College Dublin (July 7, 2006)

Lisbon Colloquium for the Philosophy of Science, Lisbon (October 27, 2006)

Cellular automata as models of nature

Philosophy of Science Association Biennial Meeting, Vancouver (November 2, 2006)

Dispositional properties and simple structures

Philosophy Department Colloquium, Roskilde University, Roskilde (December 15, 2006)

Limiting skepticism (Jointly written with Vincent Hendricks)

Tri-City Philosophical Society, El Paso (March 17, 2005) (with Vincent Hendricks)

Philosophy and History of Science Seminar, Bristol University Department of Philosophy. (Presented by Vincent Hendricks) (January 30, 2007)

Jack Haddox and the philosophy of biology

Jack Haddox: Celebrating 50 years of Philosophy at UTEP. University of Texas at El Paso (March 3, 2007)

Inquiry and minimal functionalism

New Mexico- West Texas Philosophical Association, Austin (March 31, 2007)

Society for Exact Philosophy, Vancouver (May 17, 2007)

Modal logic, set theory, and category theory in contemporary philosophy  
Mathematics Department Colloquium, New Mexico State University, Las Cruces NM. (May 3, 2007)

Pattern-oriented analysis of communication flow  
21st European Conference on Modelling and Simulation, Prague (June 5, 2007) [Presented by Jorge Louca]

Emergence in social networks: modeling the properties of multi-agent systems  
Complexity Sciences: Mathematics and Innovation Arrabida, Portugal. (July 4, 2007)  
The Fourth Conference of the European Social Simulation Association, Toulouse (September 10-14, 2007) [Presented by Jorge Louca]

Detecting emergence in the interplay of networks  
UACJ, Ciudad Juarez (September 22, 2007)  
Levels of Reality Conference, Bolzano (October 18, 2007)  
Emergent Agents and Socialities: Social and Organizational Aspects of Intelligence, Association for the Advancement of Artificial Intelligence, Washington D.C. (November 8-11, 2007)

Models of emergence  
ICC Workshop on Complexity in Social Systems, Lisbon (Keynote Speaker) (January 11, 2008)

Collective agency and sampling; the benefits of sortition  
Seminario Permanente sobre Dominación en la Organización, UACJ, Ciudad Juarez (April 25, 2008)

Identity, cross identification and the attitudes  
76e Congrès de l'Acfas (Association francophone pour le savoir), Québec City (May 9, 2008)

Pain and Embodiment  
Philosophy department colloquium, New Mexico State University, Las Cruces NM. (December 4, 2007)  
New Mexico-West Texas Philosophical Society (April 7, 2008)  
NEUPHI: Boston University/MIT Philosophy of Neuroscience Colloquium (April 18, 2008)  
Week of the Humanities. Keynote. UACH, Chihuahua. (October 11, 2008)  
Departmental Colloquium, University of Nevada, Las Vegas (May 8, 2009)

Do petabyte level resources make any qualitative difference to scientific inquiry?  
Physics department colloquium, University of Texas at El Paso (September 10, 2008)  
Joint Fall 2008 Meeting of the Texas and Four Corner Sections of APS, AAPT, and  
Zones 13 and 16 of SPS, and the Societies of Hispanic & Black Physicists  
(With Vladik Kreinovich and John McClure) (October 17, 2008)

Fission and the identity of individual organisms  
Philosophical and historical perspectives on the organism, Sorbonne, Paris (December 13, 2008)  
Centro de Filosofia das Ciências da Universidade de Lisboa (CFCUL) Colloquium (January 12, 2009)  
Presidential Address, New Mexico-West Texas Philosophical Society, Houston (March 22, 2009)

An introduction to information theoretic measures of emergence

Lisbon University Institute, PhD program in complexity. (July 4, 2009)  
Emergence in the physical and social sciences, Arrabida <http://www.assystcomplexity.eu/video.jsp?id=13>  
(July 7, 2009)

What are complexity and emergence? Some reflections on entropy and individuation in toy worlds.'  
University of Sydney, Department of Philosophy Colloquium. (August 5, 2009)

Network dynamics and computational models of emergence  
University of Pittsburgh, Center for Philosophy of Science 'Emergence and Reduction in the  
Sciences' (December 12, 2009)  
University of Lisbon, Faculty of Sciences, Department of History and Philosophy of Science (January 18,  
2010)  
Lehigh University, Department of Philosophy Colloquium, (February 12, 2010)

The incompleteness of physicalism  
University of Southern Illinois, (July 17, 2010)

Complexity and the laws of nature  
European Conference on Complex Systems (September 13, 2010)

Reversibility and transients in computational models  
'The Limits of the Knowledge Society' The Romanian Academy, Iasi, Romania. (October 8 2010) Delivered  
by videoconference.

Embodied computation  
University of Pittsburgh 'Workshop on embodied cognition' (March 20, 2011)

Predictions from computational models: Some epistemic and political challenges  
Keynote Address. 'Politics and Knowledge' Romanian Academy, Iasi, Romania. (November 30, 2011)

Why models' outputs should be interpreted as predictions (with Fabio Boschetti)  
MODSIM International Conference on Modelling and Simulation, (Modelling and Simulation Society of  
Australia and New Zealand) Perth (December 13, 2011) (Presented by Fabio Boschetti)

Physicalism in twentieth century philosophy.  
Keynote address to the Encuentro Binacional de Filosofía. UACJ, Ciudad Juárez, Chihuahua. (March 29,  
2012)

An Emergentist's Guide to Fundamentalism.  
Department of Philosophy, University of Kansas (April 12, 2012)

Embodied Computation  
New Mexico West Texas Philosophical Society, College of San Antonio (March 23, 2013)

...and no surprises, please. Physicalism, Information Loss, and Emergence.  
Fifth Workshop on Philosophy of Information, University of Hertfordshire (March 28, 2013)

Meaningful interactions for minimally cognitive agents.  
Interactivist Summer Institute, University of South Florida (August 4, 2013)

Physicalism and Scientific Evidence  
Invited Lecture in Arts and Sciences, Des Moines Area Community Colleges, Ankeny Branch (November 25, 2013)  
Lisbon Colloquium for the Philosophy of Science, Lisbon (December 5, 2013)

Posthuman Science  
Invited Lecture, Apollonia University, Iasi, Romania (February 28, 2014)

Formalism for Debiasing.  
Pacific Division Meeting, APA, San Diego (April 18, 2014)

Carving Causes at the Joints: Mathematical Invariance and Invariant Relations between Events  
Causation in Science: Powers, Mechanism, Singularism, Norwegian University of the Life Sciences  
(September 16, 2014)

Open Problems in Complex Systems Science.  
Galilei-Turing Round-Table, 2014 Interdisciplinary Symposium on Complex Systems (ISCS'14) University of Florence, Italy. (September 18, 2014)

What can we Teach our Posthuman Descendants?  
Hall Center Lecture in the Humanities, University of Kansas (October 7, 2014)  
Café Scientifique, Universidade Federal da Bahia, Salvador, Bahia, Brazil (May 18, 2015)

The Limits of Information Processing in Software Intensive Science  
Eastern Division Meeting, APA, Philadelphia (December 28, 2014)

Debiasing and Formalism Graduate Workshop  
Institute of Biology, Universidade Federal da Bahia, Salvador, Bahia, Brazil (May 17-25, 2015)

Norms and Formal Methods in Ameliorative Epistemology. (Keynote Address)  
Thinking and Bias – Graduate and Post-Graduate Conference, University of Alberta, Canada. (June 12-14 2015)

Overview of the Metaphysics and Epistemology of Mind For Cognitive Scientists. (Workshop)  
International Summer School Cognitive Science, Romanian Academy of Science (June 27, 2015)

Brute Facts About Emergence

Department Colloquium, Department of Philosophy, University of Bucharest, Department of Philosophy.  
(November 26, 2015)

Progress in Posthuman Science.

Instituto de Investigaciones Filosóficas - Universidad Nacional Autónoma de México. (October 19, 2015)

Institute for Research in the Humanities, University of Bucharest (IRH-ICUB) (November 28, 2015)

Hintikka as Philosophical Nonconformist

American Philosophical Association Pacific Division. (April 2, 2016)

Hintikka's view of logic

Memorial Conference on Hintikka. University of Helsinki (September 9, 2016)

Brute Facts

Midwest Annual Workshop on Metaphysics, University of Nebraska (October 14, 2016)

Dark Laws and Brute Facts

Mississippi State Philosophy Colloquium (November 16, 2016)

Brute Facts About Emergence

Department of Philosophy, University of Mississippi (November 18, 2016)

Formal Reasoning as a Guide to Critical Thinking

Reasonfest, University of Kansas (April 14, 2017)

Good to Know: Epistemic Virtues and Formal Methods for Critical Thinking

Humanities and Philosophy Conference, Houston Community College (November 3, 2017)

Dark Laws: Epistemic Opacity and Trade-offs

Mellon-Sawyer Seminar, Boston University/Harvard (November 27, 2017)

Formal Approaches to the Ontology and Epistemology of Resilience

Science of Security Lablet Kickoff, National Security Agency University of Maryland (March 13, 2018)

Compression and Irreversibility in Prediction

International Symposium on Forecasting, University of Colorado, Boulder (June 18, 2018)

Meaning and Ultimate Value

Kansas Workshop on Well-being (August 3, 2018)

Hintikka and Quine on Henkin Quantifiers (Plenary)

International Conference on Hintikka, Logic, and Philosophy, Beijing (August 22, 2018)

Resilience and Emergence

Social Ontology Workshop, St Louis University (October 13, 2018)

Methodological School in Social and Human Sciences, Moldova State University (November 16, 2018 – By videoconference)

Mechanistic Approaches to Physical Computation

Eastern Division Meeting, American Philosophical Association (January 9, 2019)

Resilience and the Limitations of Graph Theoretical Network Analysis

Department of Computer Science Colloquium, Kansas State University (February 1, 2019)

## Commentaries

[1] Response to Peter Swiggart 'Skepticism at Harvard: The Quinean Tradition. David Hall Memorial Lecture Series, University of Texas at El Paso (April 5, 2002)

[2] Georgalis on Intentional Objects in psychological explanation. Southern Society for Philosophy of Psychology, New Orleans (April 9, 2004)

[3] Polger on Multiple Realizability. APA Central Division Meeting, Chicago (April 29, 2005)

[4] Cesarz on Leibniz, McTaggart and Broad' APA Eastern Division Meeting. New York (December 27, 2005)

[5] Comments on J-P Vessel's "Defending a Possibilist Insight in Consequentialist Thought." New Mexico – West Texas Philosophical Association, Las Cruces (April 7, 2006)

[6] Comments on Bill Springer's "Aristotle on Substantial Change" Departmental Colloquium, University of Texas at El Paso (November 11, 2008)

[7] Comments on Susanna Badiola's "Necessity and the apriori" New Mexico West Texas Philosophical Society, Abilene (March 26, 2010)

[8] Comments on Pablo Zavala's "Ideally Necessary Laws" New Mexico West Texas Philosophical Society, El Paso (April 9, 2011)

[9] Comments on Joeseph Ulatowski's "Taking Ordinary Intuitions Seriously" New Mexico West Texas Philosophical Society, El Paso (March 25, 2012)

[10] Comments of Derek McAllister's "Did Gettier Give Us Justified True Belief? What Does Smith Really Believe?" APA Eastern Division Meeting, Atlanta (December 30, 2012)

[11] Comments on Andrew Higgins' "The Special Composition Question and the Question of Novel Existence."  
Kansas Philosophical Society Meeting, Kansas State University (February 15, 2014)

## **Presentations on teaching and learning**

[1] 'Evaluating Interdisciplinary Student Work.' Sun Conference on Teaching and Learning, El Paso  
(March 9, 2002)

[2] 'Some advice on preparing your work for publication' 3rd Annual Graduate Student Conference in Philosophy,  
History of Ideas and History of Science. The Institute of Philosophy and Religious  
Studies, The University of Southern Denmark – Odense (December 3, 2004)

[3] 'Big science, hyper-specialization and interdisciplinarity' Minority Access to Research Careers  
Seminar, University of Texas at El Paso (April 21, 2005)

[4] 'Arguing with 400 people: philosophy in the age of mass education' 2006 International SUN  
Conference on Teaching and Learning, El Paso (March 3, 2006)

[5] 'Maintaining High Intellectual Standards in Very Large Classes' Center for Excellence in Teaching and Learning,  
UTEP, Large Class Academy (August 9, 2006)

[6] 'Majoring in Philosophy at UTEP' Presentation to College of Liberal Arts advising group, UTEP (October 13,  
2006)

[7,8] 'Applying to Graduate Programs in Philosophy'  
Workshop for UTEP Philosophy Students (April 11, 2007)  
Workshop for UTEP Philosophy Students (May 5, 2008)

[9] 'Pedagogy and content in teaching the history of 19th century mathematics in the secondary education  
geometry curriculum' With Marie De Billie and Olga Kosheleva. Third International College of Education Summer  
Research symposium. Cruzando Fronteras, El Paso TX (June 18-19, 2007)

[10] 'Teaching Large Introductory Courses Effectively: Collaborating with teaching assistants,  
incorporating technology and developing team-based learning.' With Juan Ferret. Workshop presentation for the  
Center for Excellence in Teaching and Learning, UTEP (April 25, 2008)

[11,12] 'Evaluating evidence, justifying arguments, reasoning about risks, and understanding  
relationships'  
CETAL enhanced Student Learning workshop 4, UTEP (November 9, 2009)  
CETAL enhanced Student Learning workshop 4, UTEP (January 28, 2011)

[13] 'Problems with partially hybrid critical thinking courses – and some solutions' KU Course Redesign Seminar  
(October 4, 2016)

[14] 'PHIL 148: Improving DFW Rates and Learning Outcomes with a Hybrid Course' CTE Celebration of Teaching, University of Kansas (April 4, 2018)

### University of Kansas Dissertation Supervision (First Reader)

Completed:

- Ian McDaniel, *Life and Death Issues in Bioethics: Abortion, Persistent Vegetative State, and the Definition of Death*
  - Completed Spring 2015  
Currently: Lecturer, Department of Philosophy, Sam Houston College, Huntsville Texas.
- Andrew McFarland, *Metaphysics and natural kinds: slingshots, fundamentality, and causal structure*
  - Completed Spring 2014  
Currently: Assistant Professor (Tenure Track), Department of Philosophy, LaGuardia Community College, New York, New York.

In Progress:

- Ramón Alvarado *Epistemic Opacity in Software Intensive Systems*
- Hassan Alsharif *Open Mindedness*
- Francisco Pipa
- Ojas Patel

### University of Kansas Dissertation Supervision (Committee Member)

Completed:

Martin Rule, *Anomalous Monism*  
Completed Summer 2016

Dongsheng Zhang, *Modeling Critical Node Attacks in Mobile Wireless Networks*  
Electrical Engineering & Computer Science University of Kansas  
Completed Spring 2015

Justin Clarke, *The Primitive Thesis: Defending a Davidsonian Conception of Truth*  
Completed Spring 2015

Sean Meseroll, *Happiness and Welfare*  
Completed Spring 2014

In Progress:



Kamuran Osmanoglu, *Definitions of Race*

Polo Camacho, *Reassessing the Central Dogma in Biology*

Nadia Ruiz, *Neuroeconomics and Realism*

Minxing Huang, *Dualism in the Phaedo*

Gareth Fuller, *Scientific Realism*

Amir Moderassi, Resilience in smart cities

### **Other Dissertation Supervision**

Christel Grimaud, *Logical modelling of reasoning and learning: a bio-inspired approach.*  
Université Lille Nord de France (Committee Member) Spring 2016

Alicia Coram, *Patterns in Mind: Systematicity in the Extended Mind*  
Philosophy, University of Melbourne (External Evaluator) Spring 2014

Erich Rast, *Reference and Indexicality*  
Department of Philosophy, Roskilde University (Assessment Committee  
Member/Opponent) Fall 2006

### **Post-doctoral supervision**

[1] Gil Costa Santos. *Emergence, mechanism and non-linearity.*  
Center for Philosophy of Science, University of Lisbon.

[2] João L Cordovil. *Caracterização de uma ontologia relacional e dinamista das entidades físicas.*  
[Characterizing a relational and dynamical ontology of physical entities.]  
Center for Philosophy of Science, University of Lisbon.

### **SERVICE (PAST FIVE YEARS)**

#### **DEPARTMENT**

2012-2017 Department Chair, Department of Philosophy, University of Kansas.

Major achievements in this capacity:

- Conducted 6 tenure track hires (initiated one more) in a department of 14 tenure track faculty
- Grew semester credit hour production to levels surpassing and History rivaling English

- Managed five successful tenure and/or promotion processes
- Redesigned our graduate and undergraduate curricula
- Created the first 4+1 MA program at the University of Kansas
- Dramatically improved our standing in Academic Analytics and reputational surveys
- Improved placement of PhD graduates
- Increased the number of undergraduate majors significantly
- Increased the percentage of women and minority students majoring in the discipline significantly
- Recruited one of the most diverse graduate student populations in any PhD program in the country.
- Raised roughly \$280,000 in philosophy endowment funds

2017-present Admissions and Awards Committee

2017- present Graduate Student Teaching Supervisory Committee

## COLLEGE AND UNIVERSITY

2018 - present Dean's Task Force on Chairs and Directors

2017 - present College Research Excellence Fund

2016 - present Discussion Club

2015 - 2017 Chairs Course Redesign Working Group

2015 - 2018 University of Kansas Open Access Advisory Board

2014 - 2017 Hall Center for the Humanities  
Advisory Board Member

### Numerous ad hoc committee memberships including:

2014 Dean's Committee on commercial online education providers/vendors

2015 Hiring Committee for Associate Dean for Humanities

2017-present Research Excellence Award Committee.

### Referee Service (2015-present)

2015- 2018 Mellon ACLS dissertation fellowship referee

Referee work (2015-8):

Books Refereed:

Routledge, MIT Press, Oxford University Press, Columbia University Press, SUNY press

Journals:

*Axiomathes, Big Data and Society, Body and Society, British Journal for the Philosophy of Science, Erkenntnis, Human Organization, International Journal of Agents, Technology and Systems, International Journal of Forecasting, Mind, Minds and Machines, Philosophical Psychology, Philosophy and Technology, Philosophy of Science, PlosOne, Synthese,*

Tenure and Promotion External Evaluators

Marquette, Rutgers (Newark), Sienna College, Salve Regina College, New Mexico State

Program Review:

UACH (Autonomous University of Chihuahua) Philosophy Department external review committee. Chihuahua City, Mexico. (2014)