

CHARLES H. PENCE

Université catholique de Louvain
Institut supérieur de philosophie
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APPOINTMENTS

- **Université catholique de Louvain** 2018–present
Chargé de cours (Assistant Professor), Institut supérieur de philosophie et Faculté de philosophie, arts et lettres
- **Université catholique de Louvain** 2018–present
Directeur, Centre de philosophie des sciences et sociétés (CEFISES)
- **Louisiana State University** 2018–2019
Assistant Professor — Research (for NSF grant)
- **Louisiana State University** 2017–2018
Director, LSU Ethics Institute
- **Louisiana State University** 2014–2018
Assistant Professor, Department of Philosophy and Religious Studies

AFFILIATIONS

- Member, Research Group on Data, Robotics, Artificial Intelligence, Law & Society (DRAILS) 2021–present
Université catholique de Louvain
- Membre affilié, Centre de recherche en éthique de la santé (HELESI) 2020–present
Université catholique de Louvain
- Research Fellow, Emerging Technologies of National Security and Intelligence, John J. Reilly Center for Science, Technology, and Values 2013–present
University of Notre Dame

EDUCATION

- **University of Notre Dame** 2007–2014
Ph.D. in History and Philosophy of Science
M.A. in Philosophy
 - Dissertation: *Chance in Evolutionary Theory: Fitness, Selection, and Genetic Drift in Philosophical and Historical Perspective*
 - Advisor: Grant Ramsey
 - Committee: Anjan Chakravartty (Philosophy), Phillip Sloan (Program in Liberal Studies), Fritz Warfield (Philosophy)
- **Princeton University** 2003–2007
A.B. in Philosophy, cum laude
 - Senior Thesis: *Spacetime and Natural Law* (award received)
 - Advisor: Adam Elga

RESEARCH AND TEACHING INTERESTS

- **Areas of Specialization**
 - Philosophy and history of biology
 - General philosophy of science
 - Digital humanities (esp. text mining, textual analysis)
 - Ethics of science and technology
- **Areas of Competence**
 - Philosophy of physics
 - Metaphysics
 - Epistemology
- **Areas of Special Teaching Interest**
 - Logic / Philosophy of mathematics
 - Medical ethics

BOOKS AND EDITED COLLECTIONS

- Pence, C.H., editor. Under contract [2025]. *Scientific Methodology in Nineteenth-Century Britain*. 4 vols. London: Routledge.
- Pence, C.H. Under contract [2022/23]. *Breadth: Explanatory Virtues in the Life Sciences*. Cham: Springer.
- Pence, C.H. 2022. *The Rise of Chance in Evolutionary Theory: A Pompous Parade of Arithmetic*. London: Academic Press/Elsevier.
- Pence, C.H. 2021. *The Causal Structure of Natural Selection*. Cambridge: Cambridge University Press.
- Pence, C.H. and Rivelli, L., editors. Open for submission. Topical collection of *Synthese: Digital Studies of Digital Science*. Springer.
- Ramsey, G. and Pence, C.H., editors. 2016. *Chance in Evolution*. Chicago: University of Chicago Press. DOI: 10.7208/chicago/9780226401911.001.0001.

ARTICLES AND BOOK CHAPTERS

- Pence, C.H. “Herschel and Professional Scientists.” Under contract to appear in Verburgt, L.M. and Case, S., eds., *Cambridge Companion to John Herschel*. Cambridge: Cambridge University Press.
- Pence, C.H. “Of Stirps and Chromosomes: Generality Through Detail.” Forthcoming in *Studies in History and Philosophy of Science*.
- Pence, C.H. “From Old Objections to Novel Explanations: Darwin on the Fossil Record.” Forthcoming in de Brzezinski Prestes, Maria Elice, ed., *Teaching and Learning Evolution with Darwin: Reading the Origin in a Contextual Science Education*. Springer.
- Pence, C.H. “Popper and the Propensity Interpretation of Probability.” [To be published in Spanish translation.] Forthcoming in Gimeno-Simó, J., Luque, V.J., & Pérez-González, S., eds., *Karl Popper y el legado del Positivismo Lógico*. Valencia: Editorial Tirant Lo Blanch.
- Lean, O.M., Rivelli, L., and Pence, C.H. “Digital Literature Analysis for Empirical Philosophy of Science.” Forthcoming in *British Journal for the Philosophy of Science*. DOI: 10.1086/715049.
- Pence, C.H. “How Not to Fight About Theory: The Debate Between Biometry and Mendelism in *Nature*, 1890–1915.” Forthcoming in Ramsey, G. and De Block, A., eds., *The Dynamics of Science: Computational Frontiers in History and Philosophy of Science*. Pittsburgh: University of Pittsburgh Press.
- Pence, C.H. 2022. “Testing and Discovery: Responding to Challenges in Digital Philosophy of Science.” *Metaphilosophy* 53(2–3):238–253. DOI: 10.1111/meta.12549.
- Pence, C.H. 2022. “Whatever Happened to Reversion?” *Studies in History and Philosophy of Science*

- 92:97–108. DOI: 10.1016/j.shpsa.2022.01.019.
- Pence, C.H. 2021. “W.F.R. Weldon Changes His Mind.” *European Journal for Philosophy of Science* 11(3):61. DOI: 10.1007/s13194-021-00384-3.
 - Pence, C.H. 2019. “Locating Uncertainty in Stochastic Evolutionary Models: Divergence Time Estimation.” *Biology & Philosophy* 34:21. DOI: 10.1007/s10539-019-9683-1.
 - Pence, C.H. and Ramsey, G. 2018. “How to Do Digital Philosophy of Science.” *Philosophy of Science* 85(5):930–941. DOI: 10.1086/699697.
 - Pence, C.H. 2018. “Sir John F.W. Herschel and Charles Darwin: Nineteenth-Century Science and its Methodology.” *HOPOS: The Journal of the International Society for the History of Philosophy of Science* 8(1):108–140. DOI: 10.1086/695719.
 - Pence, C.H. and Swaim, D.G. 2018. “The Economy of Nature: The Structure of Evolution in Linnaeus, Darwin, and the Modern Synthesis.” *European Journal for Philosophy of Science* 8(3):435–454. DOI: 10.1007/s13194-017-0194-0.
 - Pence, C.H. 2017. “Is Genetic Drift a Force?” *Synthese* 194(6):1967–1988. DOI: 10.1007/s11229-016-1031-2.
 - Mendelson, T.C., Fitzpatrick, C.L., Hauber, M.E., Pence, C.H., Rodriguez, R.L., Safran, R.J., Stern, C.A., and Stevens, J.R. 2016. “Cognitive Phenotypes and the Evolution of Animal Decisions.” *Trends in Ecology and Evolution* 31(11):850–859. DOI: 10.1016/j.tree.2016.08.008.
 - Ramsey, G. and Pence, C.H. 2016. “Chance in Evolution from Darwin to Contemporary Biology.” In Ramsey, G. and Pence, C.H., eds., *Chance in Evolution*, pp. 1–11. Chicago: University of Chicago Press. DOI: 10.7208/chicago/9780226401911.003.0001.
 - Ramsey, G. and Pence, C.H. 2016. “evoText: A New Tool for Analyzing the Biological Sciences.” *Studies in History and Philosophy of Biological and Biomedical Sciences* 57:83–87. DOI: 10.1016/j.shpsc.2016.04.003.
 - Pence, C.H. 2016. “RLetters: A Web-Based Application for Text Analysis of Journal Articles.” *PLoS ONE*. DOI: 10.1371/journal.pone.0146004.
 - Pence, C.H. and Ramsey, G. 2015. “Is Organismic Fitness at the Basis of Evolutionary Theory?” *Philosophy of Science* 82(5):1081–1091. DOI: 10.1086/683442.
 - Pence, C.H. 2015. “The Early History of Chance in Evolution.” *Studies in History and Philosophy of Science* 50:48–58. DOI: 10.1016/j.shpsa.2014.09.006.
 - Pence, C.H. 2015. “Military Genomic Testing: Proportionality, Expected Benefits, and the Connection between Genotypes and Phenotypes.” *Journal of Law and the Biosciences* 2(1):85–91. DOI: 10.1093/jlb/lso035.
 - Pence, C.H. and Ramsey, G. 2013. “A New Foundation for the Propensity Interpretation of Fitness.” *British Journal for the Philosophy of Science* 64(4):851–881. DOI: 10.1093/bjps/axs037. (Awarded the 2013 Sir Karl Popper Prize from the British Society for the Philosophy of Science, and *Editor’s Choice* for *BJPS* vol. 64, no. 4.)
 - Ramsey, G. and Pence, C.H. 2013. “Fitness: Philosophical Problems.” *eLS*. Chichester: John Wiley and Sons. DOI: 10.1002/9780470015902.a0003443.pub2.
 - Pence, C.H. and Buchak, L. 2012. “Oyun: A New, Free Program for Iterated Prisoner’s Dilemma Tournaments in the Classroom.” *Evolution: Education and Outreach* 5(3):467–476. DOI: 10.1007/s12052-012-0434-x.
 - Philip, J.T., Pence, C.H., and Goodson, H.V. 2012. “MTBindingSim: Simulate Protein Binding to Microtubules.” *Bioinformatics* 28(3):441–443. DOI: 10.1093/bioinformatics/btr684.
 - Pence, C.H. 2011. “‘Describing our Whole Experience’: The Statistical Philosophies of W.F.R. Weldon and Karl Pearson.” *Studies in History and Philosophy of Biological and Biomedical Sciences* 42(4):475–485. DOI: 10.1016/j.shpsc.2011.07.011.
 - Pence, C.H. 2011. “Nietzsche’s Aesthetic Critique of Darwin.” *History and Philosophy of the Life Sciences* 33(2):165–190.

BOOK REVIEWS

- Pence, C.H. 2022. “The Proof of the Pudding. [Review of Yafeng Shan, *Doing Integrated History and Philosophy of Science: A Case Study of the Origin of Genetics.*]” *Metascience*. DOI: 10.1007/s11016-022-00744-6.
- Pence, C.H. 2020. “[Review of] *How Biology Shapes Philosophy.*” *The BJPS Review of Books*. <http://www.thebsps.org/bjps-rob/pence-on-smith/>.
- Pence, C.H. 2020. “[Review of] *Evolutionary Causation: Biological and Philosophical Reflections.*” *The Quarterly Review of Biology* 95(2):150–151. DOI: 10.1086/709062.
- Pence, C.H. 2018. “[Review of] *Buckets from an English Sea: 1832 and the Making of Charles Darwin.*” *The Quarterly Review of Biology* 93(4):356. DOI: 10.1086/700773.
- Pence, C.H. 2018. “[Review of] *Origins of Darwin’s Evolution: Solving the Species Puzzle Through Time and Place.*” *The Quarterly Review of Biology* 93(2):128–129. DOI: 10.1086/698027.
- Pence, C.H. 2017. “[Review of] Robert J. Richards and Michael Ruse, *Debating Darwin.*” *HOPOS: The Journal of the International Society for the History of Philosophy of Science* 7(2):397–400. DOI: 10.1086/693430.
- Pence, C.H. 2015. “The Many Chances of Charles Darwin. [Essay Review.]” *Studies in History and Philosophy of Biological and Biomedical Sciences* 53:107–110. DOI: 10.1016/j.shpsc.2015.07.008.
- Pence, C.H. 2015. “[Review of] *Darwin’s Dice: The Idea of Chance in the Thought of Charles Darwin.*” *Reports of the National Center for Science Education* 35(6):11.
- Pence, C.H. 2014. “Busting Myths about ‘Species’ [Review of *Species: A History of the Idea*, by John Wilkins].” *Evolution: Education and Outreach* 7:21. DOI: 10.1186/s12052-014-0021-4.
- Pence, C.H. 2013. “[Review of] Staffan Müller-Wille and Hans-Jörg Rheinberger, *A Cultural History of Heredity.*” *HOPOS: The Journal of the International Society for the History of Philosophy of Science* 3(1):168–172. DOI: 10.1086/668913.
- Hollocher, H., Pence, C.H., Ramsey, G., and Wirth, M.M. 2013. “A Path to Success? A Review of *Evolution, Development, and the Predictable Genome* by David L. Stern.” *Evolution and Development* 15(1):80–82. DOI: 10.1111/ede.12016.
- Pence, C.H., Hollocher, H., Nichols, R., Ramsey, G., Siu, E., and Sportiello, D.J. 2011. “[Review of] Elliott Sober: *Did Darwin Write the Origin Backwards? Philosophical Essays on Darwin’s Theory.*” *Philosophy of Science* 78(4):705–709. DOI: 10.1086/661775.
- Hollocher, H., Fuentes, A., Pence, C.H., Ramsey, G., Sportiello, D.J., and Wirth, M.M. 2011. “[Review of] *On the Origin of Stories: Evolution, Cognition, and Fiction.*” *The Quarterly Review of Biology* 86(2):137–138. DOI: 10.1086/659913.
- Ramsey, G., Hollocher, H., Fuentes, A., Pence, C.H., and Siu, E. 2010. “[Review of] *Darwinian Populations and Natural Selection.*” *The Quarterly Review of Biology* 85(4):499–500. DOI: 10.1086/656856.

AWARDS AND HONORS

- LSU Tiger Athletic Foundation Undergraduate Teaching Award 2015–2016
- Most-Read Paper, July 2014, *British Journal for the Philosophy of Science*, “A New Foundation for the Propensity Interpretation of Fitness” 2014
- 2013 Sir Karl Popper Prize, British Society for the Philosophy of Science, for “A New Foundation for the Propensity Interpretation of Fitness” 2013
- Editor’s Choice article, *British Journal for the Philosophy of Science*, vol. 64, no. 4, for “A New Foundation for the Propensity Interpretation of Fitness” 2013
- Phillip R. Sloan Prize, Notre Dame Program in History and Philosophy of Science 2012
- Lilly Presidential Graduate Fellowship, Graduate School, University of Notre Dame 2007–2012
- Second Place – Humanities, Notre Dame Graduate Research Symposium 2012
- Best Presentation – Forum Topic: Reimagining School, Notre Dame Graduate Research Symposium 2012
- Striving for Excellence in Teaching Certification, Notre Dame Kaneb Center for Teaching & Learning 2012
- J. Walker Tomb Senior Thesis Prize, Philosophy Department, Princeton University 2007

GRANTS

- “DisSurvey — Taxonomic Disorder: Mapping & Response,” Fonds de la recherche scientifique (FNRS, Fédération Wallonie-Bruxelles), Projet de Recherche (PDR) Grant T.0177.21 2021–2024
- “Mechanisms and Ontic Causation in Life Sciences,” Fonds de la Recherche Scientifique (FNRS) – Ministry of Science and Technology (MOST, Taiwan), Bilateral Research Mobility Project 2021–2022
- “HYBRIDA — Embedding a Comprehensive Ethical Dimension to Organoid-Based Research and Resulting Technologies,” European Commission Horizon 2020 Science with and for Society (SwafS) Grant #101006012 2020–2023
- “PHILONUM — Forage de texte et approches numériques en histoire et philosophie des sciences,” Wallonie-Bruxelles-Québec projet de coopération Grant RECH-INNO-05 2019–2021
- “DHPB — Digital History and Philosophy of Biology / Histoire et philosophie numériques de la biologie,” Fonds de la recherche scientifique (FNRS, Fédération Wallonie-Bruxelles), Mandat d’Impulsion Scientifique (MIS) Grant F.4526.19 2019–2021
- “L’histoire des premiers jours de la génétique : ressources d’enseignement secondaire et bachelier,” UCLouvain, Université numérique 2019
- “The Development of Chance and Statistics in Evolutionary Biology,” US National Science Foundation HPS Scholars’ Award Grant #1826784 2018–2019
- Manship Summer Research Fellowship, LSU College of Humanities and Social Sciences (for W.F.R. Weldon archival work) 2017
- Consultant to “Safeguarding Cyberspace with Ethical Rules for Cyberwarfare” Grant (US National Science Foundation Collaborative Project Grant #1318126, #1317798, and #1318270; Cal Poly, Naval Postgraduate School, and Western Michigan University) 2016
- “The evoText Project,” US National Science Foundation HPS Scholars’ Award Grant #1456573 2015–2016

- Manship Summer Research Fellowship, LSU College of Humanities and Social Sciences (for evoText) 2015

RESEARCH VISITS

- National Evolutionary Synthesis Center (NESCent), Pre-Doctoral Visiting Fellow Aug–Dec, 2013

INVITED AND KEYNOTE PRESENTATIONS

- Natural Selection and the Metaphysics of Causation (keynote) June, 2022
Causation in Life Sciences, University of Kent
- L'ascension du hasard dans l'évolution (keynote) May, 2022
Société d'histoire et d'épistémologie des sciences de la vie — Shesvie
- The Rise of Chance in Evolutionary Theory April, 2022
Department of Psychometrics and Statistics, University of Groningen [online]
- Digital Literature Analysis for Empirical Philosophy of Science March, 2022
Research Group on History and Philosophy of Science, University of Copenhagen [online]
- The Rise of Chance in Evolutionary Theory February, 2022
Department of Cognitive and Information Sciences, University of California, Merced [online]
- Breadth in Scientific Explanation: The Case of Natural History December, 2021
Departmental Seminar, Department of Philosophy, University of Bielefeld [online]
- Breadth in Scientific Explanation: The Case of Natural History November, 2021
Work in Progress Seminar, Centre de philosophie des sciences et sociétés, UCLouvain
- Round Table: Digital Futures in the History of Science and Technology November, 2021
History of Science Society Meeting — HSS 2021 [online]
- Topic Modeling and Optimization, or How We Scheduled ISHPSSB2021 (invited community/skill-building session) July, 2021
International Society for the History, Philosophy, and Social Studies of Biology Meeting — ISHPSSB 2021 [online]
- Hypothesis-Driven Digital Philosophy (keynote) July, 2021
Summer School on Methodologies for the History of Philosophy, University of Groningen [online]
- Hypothesis-Driven Digital Philosophy of Science May, 2021
New Directions in Metaphilosophy, University of Kent
- The Greatly Exaggerated Reports of the Death of Biometry March, 2021
Philosophy Department Colloquium, McMaster University, Ontario [online]
- Sciveyor: From Corpora to Philosophy of Science October, 2020
TU Eindhoven Philosophy and Ethics Group [online]
- Big Data, Natural History, and Breadth in Biological Explanations October, 2020
BIG Seminar, Faculté de biologie et de médecine, Université de Lausanne [online]
- Of Stirps and Chromosomes: Abstraction Through Detail September, 2020
PHILBIO Seminar, IHPST, Université Paris 1 Panthéon-Sorbonne [online]
- evoText: Intro and Future Directions May, 2020
Digital Humanities Brown Bag Lunch, MPIWG, Berlin [online]

- Toward a New Picture of the Causalist/Statisticalist Debate January, 2020
UNED, Madrid
- Lessons from the Case of the Life Sciences: Thinking toward Philosophy of Science as Interdisciplinarity December, 2019
Historical Epistemology of the Final Theory Program, Max Planck Institute for the History of Science, Berlin
- The Challenge of Breadth: From Darwin to Big Data November, 2019
21st EMBL PhD Symposium: Facing the Future, EMBL Heidelberg
- Of Stirps and Chromosomes: Early Attempts at Grounding Statistical Inheritance November, 2019
New Directions in the Historiography of Genetics, Cohn Institute, Tel Aviv University
- Analyzing the Biological Literature with evoText November, 2019
Digital History and Philosophy of Science, Université de Québec à Montréal
- Digital Humanities as Empirical Philosophy of Science (with Oliver Lean and Luca Rivelli) October, 2019
XPhiSci 2019 — Workshop on Experimental Philosophy of Science, Aarhus University
- John Herschel and Nineteenth-Century Scientific Methodology (roundtable) July, 2019
History of Science Society Meeting — HSS 2019
- From the Biological World to Statistical Theories: Nineteenth-Century Lessons for Twenty-First-Century Philosophy of Biology July, 2019
International Society for the History, Philosophy, and Social Studies of Biology Meeting — ISHPSSB 2019
- Robots, Artificial Intelligence, and Moral Responsibility April 2019
Journée d'étude, "Faire exister les IA-robots-cyborgs: un nouveau projet humaniste pour l'Europe?"
- Dual-Use Research and the "Scientific Community" April, 2019
Delft University of Technology
- "The Wonderful Form of Cosmic Order": Bringing Statistics to Evolution March, 2019
Louvain Institute of Biomolecular Science and Technology (LIBST) and Earth and Life Institute-Biodiversity (ELI-B) Seminar, UCLouvain
- Causation and Metaphysics in Evolutionary Biology March, 2019
VUB/Ghent Seminar in Philosophy of Science
- "The Wonderful Form of Cosmic Order": Bringing Statistics to Evolution March, 2019
PhilInBioMed, Université de Bordeaux
- "The Wonderful Form of Cosmic Order": Bringing Statistics to Evolution February, 2019
Work in Progress Seminar, Centre de philosophie des sciences et sociétés, UCLouvain
- Mental Properties and Computer Code: An Analogy for Bridging the Natural and Social Sciences February, 2019
INSOSCI Symposium, University of Witten/Herdecke
- Causation and Metaphysics in Evolutionary Biology December, 2018
KU Leuven Center for Logic and Philosophy of Science Seminar
- 'Like Somebody Who Has Seen Thousands of Trees but Has Never Seen a Forest': The Critical Role of History and Philosophy of Science in Science Education November, 2018
History of Science Society Meeting — HSS 2018
- The Development of Darwin's Views of Chance October, 2018
Center for Science Studies, Aarhus University

- Darwin on Mind, Ethics, and Animals September, 2018
CEFISES Seminar, Groupe de recherche interdisciplinaire sur la crise écologique, UCLouvain
- Archives to Networks and Back Again (keynote) November, 2017
History of Science Society, THATCampHSS
- Syntheses that Weren't: W.F.R. Weldon's Abandoned "Synthesis" of Biometry and Mendelism July, 2017
International Society for the History, Philosophy, and Social Studies of Biology Meeting — ISHPSSB 2017
- Theories Under Stress: Evolution in the Late Nineteenth Century May, 2017
University of Leeds HPS Centre Seminar
- Theories Under Stress: Evolution in the Late Nineteenth Century May, 2017
University College London
- Evolution and Chance: From Darwin to the Pioneers of Statistics in Biology February, 2017
Darwin Day, Stephen F. Austin State University
- Fitness and Prediction in Evolutionary Theory January, 2017
London School of Economics
- Theories Under Stress: Evolution in the Late Nineteenth Century (keynote) October, 2016
The Science of Evolution and the Evolution of the Sciences Conference
- The Economy of Nature and the Structure of Evolution October, 2016
KU Leuven Center for Logic and Analytic Philosophy (CLAW) Seminar
- Introduction to Text Mining February, 2016
LSU Digital Scholarship Lab
- Adaptive Dynamics, Chaos, Chance, and Fitness November, 2015
Mississippi State University Philosophy Colloquium
- Quantitative Textual Analysis and Philosophy: Hypothesis-Testing and Data-Mining Philosophical Ideas April, 2015
American Philosophical Association Pacific Division Meeting
- Commentator: Ethics of Emerging Weapons Technologies March, 2015
Reilly Center 30th Anniversary Celebration
- Is Organismic Fitness at the Basis of Evolutionary Theory? October, 2014
LSU Philosophy Salon
- Background Briefing: Attribution & Repression in Cyberwarfare May, 2014
International Committee of the Red Cross
- Ethics of Emerging Weapons Technologies: A Pedagogical Approach May, 2014
Fondation Brocher
- Coming to Terms with Chance in Evolutionary Theory February, 2014
Louisiana State University

REFEREED CONFERENCE PRESENTATIONS

- Gain-of-Function Research and Model Organisms in Virology
Enjeux épistémiques et éthiques autour de la pandémie de COVID-19 February, 2022
- Breadth in Scientific Explanation
Société de philosophie des sciences — SPS 2021 September, 2021
- Darwin, Natural History, and Explanatory Breadth
International Society for the History, Philosophy, and Social Studies of Biology Meeting — ISHPSSB 2021 [online] July, 2021
- From the Biological World to Statistical Theories: Nineteenth-Century Lessons for Twenty-First-Century Philosophy of Biology
European Philosophy of Science Association — EPSA 2019 September, 2019
- Reversion and Deep Ancestry in Early Genetics
Integrated History and Philosophy of Science Workshop June, 2019
- Chance, Statistics, and Experiment in Early Evolutionary Biology
History of the Philosophy of Science — HOPOS 2018 July, 2018
- Darwin and Evolution: Using Historical Critiques and Responses to Address Student Misunderstandings
National Science Teachers Association Conference on Science Education November, 2017
- C'mon, Neil! Why Good Philosophy of Science is Part of Good Science Teaching and Science
National Science Teachers Association Conference on Science Education November, 2017
- evoText and the Philosophy of Science
Philosophy of Science Association Meeting November, 2016
- The Economy of Nature: Structure in Biology from Linnaeus, to Darwin, to the Modern Synthesis
The History of Science and Contemporary Scientific Realism February, 2016
- Charles Darwin and Sir John F.W. Herschel: Nineteenth-Century Science and its Methodology
European Philosophy of Science Association — EPSA 2015 September, 2015
- Charles Darwin and Sir John F.W. Herschel: Nineteenth-Century Science and its Methodology
15th Congress of Logic, Methodology, and Philosophy of Science — CLMPS 2015 August, 2015
- Adaptive Dynamics, Chaos, Chance, and Fitness
International Society for the History, Philosophy, and Social Studies of Biology Meeting — ISHPSSB 2015 July, 2015
- Is Organismic Fitness at the Basis of Evolutionary Theory?
Philosophy of Science Association Meeting November, 2014
- Models, Probability, and the Deep Past
Models and Simulations 6 May, 2014
- Process and Product Concepts of Natural Selection and Genetic Drift
European Philosophy of Science Association Meeting August, 2013
- Process and Product Concepts of Natural Selection and Genetic Drift
International Society for the History, Philosophy, and Social Studies of Biology Meeting — ISHPSSB 2013 July, 2013
- Symposium: It's Okay to Call Genetic Drift a "Force" (commentators: Lindley Darden and Lindsay Craig)
American Philosophical Association Eastern Division Meeting December, 2012

- It's Okay to Call Genetic Drift a "Force" November, 2012
Philosophy of Science Association Meeting
- Oyun: Prisoner's Dilemma Tournaments in the Philosophy of Science July, 2012
American Association of Philosophy Teachers Meeting
- The Early History of Chance in Evolution: Causal and Statistical in the 1890s June, 2012
History of the Philosophy of Science — HOPOS 2012
- Software Demo: RLetters June, 2012
Digital Humanities Summer Institute Colloquium
- Four Conflated 'Chance'-Like Concepts in Evolutionary Theory April, 2012
Indiana Philosophical Association
- Biology and Metaphysics: The Causalist/Statisticalist Debate April, 2012
PhiloSTEM-3
- The Early History of Chance in Evolution: Causal and Statistical in the 1890s March, 2012
Integrated History and Philosophy of Science — &HPS4
- Chance in Evolution: A Reassessment July, 2011
International Society for the History, Philosophy, and Social Studies of Biology Meeting — ISHPSSB 2011
- Biometry and Mendelism: A Philosophical Controversy July, 2009
International Society for the History, Philosophy, and Social Studies of Biology Meeting — ISHPSSB 2009
- W.F.R. Weldon, Karl Pearson, and Causation May, 2009
MBL-ASU History of Biology Summer Seminar
- Toward a New Picture of Logical Reduction April, 2008
University of Western Ontario Logic, Mathematics and Physics Graduate Philosophy Conference

ORGANIZED AND CO-ORGANIZED CONFERENCES

- Organizing Committee, Société d'histoire et d'épistémologie des sciences de la vie (Shesvie) 2022 June, 2022
UCLouvain, 80 attendees
- Program Committee, International Society for the History, Philosophy, and Social Studies of Biology (ISHPSSB) 2021 July, 2021
Online, 433 attendees
- Organizer, DS²: Digital Studies of Digital Science March, 2021
Online, 28 talks, 250 attendees
- Program Committee, Clash Between the Scientific and the Manifest Image of the World May, 2020
UCLouvain
- Scientific Committee, Explaining Explanation Using New Developments in Logic and Formal Semantics May, 2019
UCLouvain
- Scientific Committee, IX Conference of the Spanish Society for Logic, Methodology, and Philosophy of Science November, 2018
UNED, Madrid

ORGANIZED AND CO-ORGANIZED SESSIONS AND SEMINARS

- GRICE Research Group (Groupe de recherche interdisciplinaire sur la crise écologique, co-organizer) 2019–present
UCLouvain
- Post-Darwinian Societies Seminar (co-organized with Gregory Ponthière) 2022
CEFISES and Chaire Hoover, UCLouvain
- Monthly Seminar, Artifacts of Scientific Practice 2019–2020
CEFISES, UCLouvain
- Workshop on Text Mining in Philosophy (co-organized with Christophe Malaterre) 2019
Université du Québec à Montréal
- Monthly Seminar, Historical Explanation 2018–2019
CEFISES, UCLouvain

CHAired CONFERENCE SESSIONS

- Neuroeconomics as a Case of Mechanistic Integration, Caterina Marchionni February, 2019
INSOSCI Symposium, University of Witten/Herdecke
- Developing a Normative Framework for Cyberwarfare November, 2016
United States Naval Academy

POSTER PRESENTATIONS

- K-12 Science Teachers: Unsuspecting Philosophers of Science November, 2018
Philosophy of Science Association — PSA 2018 (with Greg Macklem and Erik Peterson)
- evoText: Digital Humanities Meets Evolutionary Biology February, 2012
Notre Dame Graduate Research Symposium (awards received)
- MTBindingSim: A Program to Simulate Protein Binding to Microtubules March, 2011
Chicago Cytoskeleton (with Julia Philip and Holly Goodson)

MEDIA COVERAGE

- Interviewed on being an American researcher in Belgium, RTBF 2022
- On the paper by Lean, Rivelli, and Pence: “Digital Humanities and the Philosophy of Science,” *BJPS Short Reads* 2021
- Commissioned article for *Cubix*, UCLouvain student-run science magazine, October 2021
- Interviewed on digital humanities in philosophy, *fncs.news*, June 2021
- Interviewed on research ethics, *La Libre*, April 30 2019
- Interviewed on Darwin Day lecture, KTRE (local ABC affiliate) 2017
- Interviewed on the ethics of technology: “The Bright Ages,” *Legacy Magazine*, fall issue 2015
- On teaching Ethics of New Weapons Technologies (at LSU): “New Course Challenges Ethics of War Weapon Technology,” *LSU Reveille*, November 12 2014
- On the evoText project: “‘Big Data’ Revolutionizes Research on Evolution,” *NDWorks*, October 2014

- On teaching Ethics of Emerging Weapons Technologies (at ND): “A General in the Classroom Takes On the Ethics of War,” *The New York Times*, February 8 2014
- On teaching Ethics of Emerging Weapons Technologies (at ND): “Fighting for the Ethical Use of Technology,” University of Notre Dame advertisement, NBC (national television broadcast) 2013
- On my talk at the American Philosophical Association Eastern Division Meeting, “The Philosophy of Genetic Drift,” *Philosophy and Theory in Biology* blog 2012

OTHER PRESENTATIONS

- Les « problèmes pernicieux », ou, pourquoi les infos sont tellement déprimantes
Cercle des Étudiants en Philosophie, UCLouvain March, 2022
- La crise de la biodiversité : enjeux épistémologiques
Société Philosophique de Louvain March, 2022
- Why Should We Value Biodiversity?
Colloque du Cercle des Étudiants en Philosophie, UCLouvain April, 2019
- evoText
National Evolutionary Synthesis Center December, 2013
- The Ethics of Warfare on the Unmanned Battlefield
US Air Force ROTC Detachment 225, Leadership Laboratory April, 2013

WORKSHOPS AND SEMINARS

- The Integration of Cross-Disciplinary Research in Neuroscience and Social Science (INSOSCI), Symposium 2019
- Association for Practical and Professional Ethics, Ethics Center Directors’ Summit 2018
- Society for Ethics Across the Curriculum (as Director, LSU Ethics Institute) 2017
- Cyberwarfare Curriculum Development (invited participant), Naval Postgraduate School 2016
- Cyberwar, Ethics, and International Humanitarian Law (invited participant), International Committee of the Red Cross, Geneva 2014
- Uses of Scale in Literary Study Workshop (invited participant), University of Illinois at Urbana-Champaign 2013
- Digital Humanities Summer Institute, University of Victoria: Out-of-the-Box Text Analysis for the Digital Humanities 2012
- Marine Biological Laboratory / Arizona State University History of Biology Summer Seminar: Theory in the Life Sciences 2009
- Carnegie Mellon Summer School in Logic and Formal Epistemology 2006
- University of Texas M.D. Anderson Cancer Center Science Park Summer Research Program 2003

STUDENTS & POST-DOCTORAL FELLOWS

- **Doctoral Supervision**
 - [2 in progress]
- **Other Supervision**
 - Post-Doctoral Researchers: 3 [2 in progress]
 - Master's Students: 3 [7 in progress]
 - Bachelor's Theses: 1 [3 in progress]
- **Committee Membership**
 - Doctoral: 1 external [3 local in progress]
 - Master: 12 [3 in progress]
 - Bachelor: 1 [1 in progress]
- **Successful Grant Applications Supervised**
 - Post-Doctoral Visiting Fellowship: Nicola Bertoldi, FNRS Mobility Grant IN 2022
[three-month visit]
 - Post-Doctoral Fellowship: Juliette Ferry-Danini, FNRS Chargée de recherche 2021
(CR)
 - Post-Doctoral Fellowship: Alex Aylward, UCLouvain Fonds Spéciaux de 2021
Recherche (FSR), Incoming Post-Doc Fellowship [awarded but not accepted]
 - Post-Doctoral Visiting Fellowship: Victor Luque, FNRS Mobility Grant IN 2020
[three-month visit, canceled due to COVID-19]
 - Post-Doctoral Fellowship: Silvia De Cesare, Wallonie-Bruxelles International 2019
IN WBI Excellence Grant [awarded but not accepted]
 - Post-Doctoral Fellowship: Cécilia Bognon-Küss, UCLouvain Fonds Spéciaux 2019
de Recherche (FSR), Incoming Post-Doc Fellowship
- **Miscellaneous**
 - Committee for HDR (Habilitation à diriger des recherches), Université Paris 2021
1 Panthéon-Sorbonne, Francesca Merlin

EDITING AND REVIEWING

- Co-Editor, *Philosophy, Theory, and Practice in Biology* 2019–present
- Referee: *Acta Biotheoretica*, *BioEssays*, *Biology & Philosophy*, *British Journal for the Philosophy of Science*, *Canadian Journal of Philosophy*, *Digital Scholarship in the Humanities*, *Ergo*, *Erkenntnis*, *European Journal for Philosophy of Science*, *History and Philosophy of the Life Sciences*, *Lato Sensu*, *Journal of the History of Biology*, *Philosophy of Science*, *Philosophy & Theory in Biology*, *Revue philosophique de Louvain*, *Science Education*, *Science, Technology & Human Values*, *Studies in History and Philosophy of Biological and Biomedical Sciences*, *Synthese*, *Teorema*, *Theoria*, *Thought*
- Invited Book Reviewer: *Evolution: Education and Outreach*, *HOPOS*, *Metascience*, *Quarterly Review of Biology*, *Reports of the National Center for Science Education*, *Studies in History and Philosophy of Biological and Biomedical Sciences*
- Invited Book Proposal Referee: Cambridge University Press, Elsevier, Springer, Oxford University Press
- Invited Conference Proposal Referee: Indiana Philosophical Association
- Proposal Referee: US National Science Foundation, The Royal Society (UK), Mitacs Accelerate (Canada), Israel Science Foundation, University of Missouri System Research Board

PROFESSIONAL ASSOCIATIONS

- Elected Member, Nominations and Elections Committee, International Society for the History of Philosophy of Science (HOPOS) 2020–2021
- Member, Program Committee, International Society for the History, Philosophy, and Social Studies of Biology (ISHPSSB) 2020–2021
- Member, Off-Year Workshop Committee, International Society for the History, Philosophy, and Social Studies of Biology (ISHPSSB) 2020–2021
- Member, Philosophy of Science Association (PSA)
- Member, European Philosophy of Science Association (EPSA)
- Member, Société de Philosophie des Sciences (SPS)
- Member, International Society for the History, Philosophy, and Social Studies of Biology (ISHPSSB)
- Member, International Society for the History of Philosophy of Science (HOPOS)
- Member, Société d'Histoire et d'Épistémologie des Sciences de la Vie (SHESVie)

LANGUAGES

- Programming Languages: C, C++, Go, Ruby, Ruby on Rails (fluent), Python, Shell (working knowledge), MATLAB, PHP (familiarity)
- English (native)
- French (proficient; C1)
- Spanish (elementary; A2)
- German (basic; A1)

Last revised: May 5, 2022