

Philosophy Discipline
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Prof. Ioannis Votsis, SFHEA

EXPERTISE

AOS: Philosophy of Science, Philosophy of Artificial Intelligence, Philosophy of Logic, and Meta-philosophy.

AOC: Applied Ethics, Epistemology, Logic, Metaphysics, Philosophy of Mind, and Philosophy of Language.

EMPLOYMENT

Current Positions:

09/2024 – *Professor of Philosophy*, Northeastern University London.

09/2021 – *Leadership Team*, University and College Union Local Branch, Northeastern University London.

Past Positions:

05/2021 – 08/2024 *Associate Professor of Philosophy*, Northeastern University London.

07/2023 – *Head of Research Cluster*, Reimagining Higher Education in the Age of AI, Northeastern University London.

09/2022 – 12/2022 *Visiting Scholar*, Openproof Project, CSLI/HAI, Stanford University.

09/2014 – 04/2021 *Senior Lecturer and NCH Diploma Coordinator*, New College of the Humanities.

04/2019 – 04/2020 *Programme Developer* for UCS-NCH MSc in Data Science. [Institute of Coding funding].

09/2016 – 08/2019 *LSE Fellow*, Department of Philosophy, Logic and Scientific Method, London School of Economics.

07/2013 – 06/2015 *Assistant Director and Research Fellow*, Düsseldorf Center for Logic and Philosophy of Science (DCLPS).

09/2012 – 03/2015 *Visiting Research Fellow*, Department of Methodology, History and Theory of Science, University of Athens. [EU and Greek Government funding].

07/2011 – 06/2015 *Research Fellow*, Collaborative Research Centre 991: The Structure of Representations in Language, Cognition, & Science, University of Düsseldorf. [DFG funding].

07/2006 – 06/2015 *Teaching Fellow*, Philosophy Institute, University of Düsseldorf.

08/2008 – 07/2011 *Research Fellow*, FOR600, University of Düsseldorf. [DFG funding].

08/2010 – 12/2010 *Visiting Research Fellow*, Center for Philosophy of Science, University of Pittsburgh.

09/2004 – 06/2006 *Teaching Fellow*, Philosophy Department, University of Bristol.

EDUCATION

Graduate:	2004 PhD Philosophy, London School of Economics Dissertation: 'The Epistemological Status of Scientific Theories: An Investigation of the Structural Realist Account'. Supervisors: Prof. John Worrall and the late Prof. Michael Redhead FBA. Examiners: the late Prof. Peter Lipton (University of Cambridge); Prof. Donald Gillies (University College, London).
Undergraduate:	1998 BA Philosophy, University of California, Berkeley Distinction in General Scholarship. Undergraduate Thesis Supervisor: Prof. John Searle.

FUNDING

2025 – 2026 NULab Seedling Grant, 'AI and Information Literacy: Data Visualization', PI (co-PIs: Brian Ball, David Freeborn, Alice Helliwell), c. \$3k.
2025 NUL Research Culture and Environment Fund, 'Computational Philosophy Lab Launch', co-PI with Brian Ball, David Freeborn, Alice Helliwell, c. £1.5k
2025 NUL Research Impact Support Fund, 'Computational Philosophy Lab research', co-PI with Brian Ball, David Freeborn, Alice Helliwell, c. £2.8k
2025 NUL Research Culture and Environment Fund, 'Artificial Intelligence: Amplifying Research in the Humanities', PI (co-PI: Dimitris Mylonas), £600.
2024 – 2025 British Academy / Leverhulme Foundation SRG, PI (co-PIs: Brian Ball and David Freeborn), 'Reverse Prompt Engineering', c. £10k

2023 – 2024 Artificial Intelligence Journal, Workshop Funding, €1k.

2020 – 2022 Northeastern University TIER 1 Funding, PI, 'Learning Critical Reasoning Skills: A Machine-Learning Perspective', c. \$50K.

2020 – 2021 Northeastern University RLDI Funding, PI (co-PI: Gulzaar Barn), 'Future Developers Project', c. \$10K.

2019 – 2020 Institute of Coding Future Projects Fund, Programme Developer for University Centre Shrewsbury – New College of the Humanities MSc in Data Science, c. £25K (funding secured by Brian Ball and LearnerShape).

2017 Worshipful Company of Information Technologists Grant + private benefactors, project: Digital Diploma, c. £20K (funding secured with Brian Ball, Naomi Goulder and Fintan Nagle)

2011 – 2015 German Research Foundation (Deutsche Forschungsgemeinschaft): 'A frame-theoretic investigation of unification and reduction in scientific theories', c. €270K (co-authored application, funding secured by Gerhard Schurz).

2012 – 2014 EU and Greek Government Funds: 'Aspects and Prospects of Realism in the Philosophy of Science and Mathematics', c. €10K (funding secured by Stathis Psillos).

2008 – 2011 German Research Foundation (Deutsche Forschungsgemeinschaft): 'A frame-theoretic investigation of the dynamics of scientific theories', c. €120K (co-authored application, funding secured by Gerhard Schurz).

2004 – 2007 Spanish Ministry of Science and Innovation, Juan de la Cierva Programme, elected for a 3-year postdoc, (funding secured by José Antonio Díez; I declined this post).

Doctoral:

LSE Research Studentship 1999-2000, 2001-2002, 2002-2003.

Research Assistant, *Darwin@LSE* project, *Darwin@LSE* project, CPNSS, LSE.

PUBLICATIONS

Articles/Chapters:

51. Norelli, M.F., Votsis, I. and Williamson, J. (forthcoming d) 'The Interplay of Data, Models, and Theories in Machine Learning', *Philosophy of Science*.

50. Votsis, I. (forthcoming c) 'Radical Ontic Structural Realism and Holistic Monism' in F.A. Muller (ed.), *The Structure of Reality and the Reality of Structure*, Springer Publications.
49. Votsis, I. (forthcoming b) 'The Future of Philosophy in the Age of AI', *Reflective Practice* journal.
48. Votsis, I. (forthcoming a) 'Theory Change through a Logical Lens', in M. Martinez (ed.), *From Contradiction to Defectiveness to Pluralism*, Synthese Library.
47. Votsis, I. (2025b) 'Concept and Feature Change in Scientific and Deep Neural Net Representations', *Cognitive Science Society Proceedings*, vol. 47: 1654-1660.
46. Votsis, I. (2025a) 'Grounded Empiricism', *European Journal for Philosophy of Science*, <https://doi.org/10.1007/s13194-025-00644-6>.
45. Votsis, I. (2024c) 'Taking up Space: The Case of the Ether', *Journal of Physics: Conference Series*, vol. 2877: 012061.
44. Votsis, I. (2024b) 'A Neuro-Symbolic Approach to the Logic of Scientific Discovery' in E. Ippoliti, L. Magnani, and S. Arfini (eds.), *Model-Based Reasoning, Abductive Cognition, Creativity*, Studies in Applied Philosophy, Epistemology and Rational Ethics, vol. 70, Springer.
43. Votsis, I. (2024a) 'Modelling Analogical Reasoning: One-Size-Fits-All?', in B. Ball, A. Helliwell, and A. Rossi (eds.), *Wittgenstein and AI (Vol. I)*, London: Anthem Press.
42. Votsis, I. (2022) 'Structuralism (Introduction to Theory)', James Mattingly (ed.), *The SAGE Encyclopedia of Theory in Science, Technology, Engineering, and Mathematics*, Sage Publications.
41. Votsis, I. (2020) 'Theory-Ladenness: Testing the Untestable', *Synthese*, vol. 197(4): 1447–1465.
40. Votsis, I. (2019) 'Vale la pena debatir acerca del realismo científico?', in B. Borge and N. Gentile (eds.), *La ciencia y el mundo inobservable. Discusiones contemporáneas en torno al realismo científico*, Buenos Aires: EUDEBA.
39. Votsis, I. (2018) 'Structural Realism and its Variants', in J. Saatsi (ed.), *The Routledge Handbook of Scientific Realism*, London: Routledge, pp. 108-119.

38. Votsis, I. (2018) 'Putting Theory-Ladenness to the Test', *Cognitive Science Society Proceedings*, 2630-2635. [earlier version of 'Theory-Ladenness: Testing the Untestable']
37. Votsis, I. (2017) 'Unification through Confirmation', EPSA15 Selected Papers, *European Studies in Philosophy of Science*, vol 5, Berlin: Springer, pp. 83-93.
36. Votsis, I. (2016) 'Philosophy of Science and Information', in L. Floridi (ed.), *The Routledge Handbook of Philosophy of Information*, London: Routledge, pp. 249-262.
35. Votsis, I. (2016) 'Ad Hoc Hypotheses and the Monsters within' in V. C. Müller (ed.), *Fundamental Issues of Artificial Intelligence* (Synthese Library), Berlin: Springer, pp. 299-313.
34. Votsis, I. (2015) 'Perception and Observation Unladen', *Philosophical Studies*, vol. 172(3): 563-585.
33. Votsis, I. (2015) 'Unification: Not Just a Thing of Beauty', *Theoria: An International Journal for Theory, History and Foundations of Science*, vol. 30(1): 97-114.
32. Votsis, I. (2014) 'Objectivity in Confirmation: Post-Hoc Monsters and Novel Predictions', *Studies in History and Philosophy of Science*, vol. 45(1): 70-78.
31. Schurz, G. and Votsis, I. (2014) 'Reconstructing Scientific Theory Change by Means of Frames', in T. Gamerschlag et al. (eds.), *Frames and Concept Types*, Studies in Linguistics and Philosophy, vol. 94, Springer, pp. 93-109.
30. Votsis, I. (2012) 'Putting Realism in Perspectivism', *Philosophica*, vol. 84: 85-122.
29. Votsis, I. and Schurz, G. (2012) 'A Frame-Theoretic Analysis of Two Rival Conceptions of Heat', *Studies in History and Philosophy of Science*, vol. 43(1): 105-114.
28. Votsis, I. (2011) 'The Prospective Stance in Realism', *Philosophy of Science*, vol. 78(5): 1223-1234.
27. Votsis, I. (2011) 'Data meet Theory: Up, Close and Inferentially Personal', *Synthese*, vol 182(1): 89-100.
26. Frigg, R. and Votsis, I. (2011) 'Everything You Always Wanted to Know about Structural Realism but Were Afraid to Ask', *European Journal for the Philosophy of Science*, vol. 1(2): 227-276, [equal authorship].

25. Votsis, I. (2011) 'How not to be a Realist', in E.M. Landry and D. Rickles (eds.), *Structure, Objects and Causality*, Western Ontario Series in Philosophy of Science, vol. 77, Springer, pp. 59-76.
24. Votsis, I. (2011) 'Structural Realism: Continuity and its Limits', in A. Bokulich and P. Bokulich (eds.), *Scientific Structuralism*, Boston Studies in the Philosophy of Science, vol. 281, Springer, pp. 105-117.
23. Votsis, I. (2011) 'Saving the Intuitions: Polythetic Reference', *Synthese*, vol. 180(2): 121-137.
22. Votsis, I. (2010) 'Making Contact with Observations', in M. Suárez, M. Dorato and M. Rédei (Eds.) *EPSA Philosophical Issues in the Sciences. Launch of the European Philosophy of Science Association*, vol. 2, Springer, pp. 267-277.
21. Votsis, I. (2009) 'Δομικός Ρεαλισμός: Ιστορική Συνοχή και τα Όρια της', Proceedings of the 5th Pan-Hellenic Conference in the History, Philosophy and Teaching of Natural Sciences. [earlier version of 'Structural Realism: Continuity and its Limits'].
20. Votsis, I. (2007) 'Uninterpreted Equations and the Structure-Nature Distinction', *Philosophical Inquiry*, vol. 29(1-2): 57-71.
19. Votsis, I. (2005) 'The Upward Path to Structural Realism', *Philosophy of Science*, vol. 72(5): 1361-1372.
18. Votsis, I. (2003) 'Is Structure Not Enough?', *Philosophy of Science*, vol. 70(5): 879-890.

Editorial Work:

17. Votsis, I., Helliwell, A., Hofweber, J., Raimondi, S. (forthcoming) 'The Future of the Humanities', *Reflective Practice* journal, [Contributors: Caitlin Bentley, Yulia Kavas, Art Langer, Hannes Leitgeb, SeoYoon Sung, Doug Thomas, Ioannis Votsis, Timothy Williamson].
16. Lanius, D. and Votsis, I. (2021) 'Towards Foolproof Democracy: Advancing Public Debate and Political Decision Making (PART II)', *Moral Philosophy and Politics*, [Contributors: B. Ball, G. Arlen and Enzo Rossi, P. Kitcher and N. Rogach Alexander].
15. Ball, B., Nagle, F. and Votsis, I. (2020) 'Computationalism meets the Philosophy of Information', *Review of Philosophy and Psychology*, [Contributors: M. Artiga, R. Cao, F. Fallon, N. Fresco, C. Maley, S. F. Mann, M. Sprevak and M. Rescorla].
14. Ball, B., Nagle, F. and Votsis, I. (2019b) 'The Mind and Brain in the works of Daniel Dennett and Nicholas Humphrey', *Topoi*, [Contributors: M. Artiga, V. F. Castro, P. Coelho Mollo, D. Dennett, M.

Eronen, F. Fallon, R. Gervais, V. Hardcastle, N. Humphrey and C. Rathkopf].

13. Lanius, D. and Votsis, I. (2019a) 'Towards Foolproof Democracy: Advancing Public Debate and Political Decision Making (PART I)', *Moral Philosophy and Politics*, [Contributors: F. Podschwadek, K. J. Worden, W. Loh, S. Bloks, D. Lenzi and F. McEvoy].

12. Mäki, U., Votsis, I., Ruphy, S. and Schurz, G. (2015a) *Recent Developments in the Philosophy of Science: EPSA13 Helsinki*, Springer, [Contributors: H. Andreas, S. Avin, J. Bain, S. Bangu, A. Bartels, A. Bueter, G. Cevolani, C. J. Feldbacher, C. F. French, Z. Gyenis, R. F. Hendry, G. Hofer-Szabó, L. Kästner, I. Koskinen, M. Kronfeldner, M. Neuber, M. Redei, F. Samaniego, J. N. Schupbach, C. Seck, M. Suárez, L. Tambolo, P. D. Thorn, C. Tiefensee, D. Wohlfarth, L. C. Zuchowski].

11. Votsis, I. and Schurz, G. (2015b) 'Unification and Coherence', *Theoria: An International Journal for Theory, History and Foundations of Science*, vol. 30(1): 7-114, [Contributors: V. Gijsbers, M. Schippers, J. N. Schupbach, G. Schurz, M. Siebel and I. Votsis].

10. Votsis, I., Tacca, M., and Schurz, G. (2015c) 'Theory-Ladenness of Experience', *Journal for General Philosophy of Science*, vol. 46(1): 83-214, [Contributors: B. Brewer, A. Franklin, E. Fridland, M. Kusch, R. McCauley, A. Raftopoulos, E. Schmidt and G. Schurz].

9. Votsis, I., Fahrbach, L., and Schurz, G. (2014) 'Novel Predictions', *Studies in History and Philosophy of Science Part A*, vol. 45(1): 43-108, [Contributors: E. Barnes, M. Carrier, D. Mayo, C. Menke, S. Schindler, G. Schurz, I. Votsis, and J. Worrall].

8. Schurz, G. and Votsis I. (2011) 'Scientific Realism Quo Vadis? Theories, Structures, Underdetermination and Reference', *Synthese*, vol. 180(2), [Contributors: L. Fahrbach, S. French, M. Friedman, M. Carrier, P. Hoyningen-Huene, J. Ladyman, H. Leitgeb, H. Lyre, F.A. Muller, S. Psillos, G. Schurz, I. Votsis, and J. Worrall].

Reviews & Reports:

7. Votsis I. (2014) 'Trivial Pursuit: The Case of the Travelling Facts', review of Peter Howlett and Mary S. Morgan's (Eds.) *How Well do Facts Travel?*, *Metascience*, vol. 23(1): 149-152.

6. Votsis I. (2009) Review of Anjan Chakravartty's *A Metaphysics for Scientific Realism: Knowing the Unobservable*, *Analysis*, vol. 69(2):378-380.

5. Votsis I. (2009) Report: 'Theoretical Frameworks and Empirical Underdetermination', *Journal for General Philosophy of Science*, vol. 40 (1):137-140.

4. Votsis I. (2008) Review of Yemima Ben-Menahem's *Conventionalism*, *Studies in History and Philosophy of Modern Physics*, vol 39(1): 234-237.

3. Votsis I. (2008) Report: 'Theoretical Frameworks and Empirical Underdetermination', *The Reasoner*, vol. 2(6): 5-6.

2. Votsis I. (2007) Review of Kyle Stanford's *Exceeding our Grasp: Science, History and the Problem of Unconceived Alternatives*, *International Studies in the Philosophy of Science*, vol. 21(1): 103-106.

1. Votsis I. (2003) Review of Ilkka Niiniluoto's *Critical Scientific Realism*, *Philosophy of Science*, vol.70(2): 444-447.

Under Review:

1. Votsis, I. 'Manipulable vs. Non-Manipulable Physical Computation'.

In Preparation:

8. Votsis, I. 'The Metaphysics of Closed, Isolated and Shielded Systems'.

7. Votsis, I. and Nagle, F. 'Formal Logic Training and Wason Selection Tasks'.

6. Votsis, I., 'Book Review: Perspectival Realism' (Michela Massimi), commissioned by: *British Journal for the Philosophy of Science*.

5. Votsis, I. and Nagle, F. 'Evaluating Conditional Reasoning Teaching Methods with an Online Course'.

4. Votsis, I. 'Towards a Human-Readable Automated Theorem Prover'.

3. Votsis, I. 'A Graph-Theoretic Representation of Logical Inferences'.

2. Votsis, I. 'Logic as Ultra-Physics'.

1. Votsis, I. 'Evidential Equivalence'.

RESEARCH GROUPS

2025 – Co-founder and member, *Computational Philosophy Lab*, Northeastern University London.

2024 – 2025 Principal Investigator, *Reverse Prompt Engineering* Project, British Academy/Leverhulme funding, Northeastern University London.

2023 – 2025 Research Cluster Head, *Reimagining Higher Education in the Age of AI*, Northeastern University London.

2020 – 2022 Principal Investigator, *Learning Critical Reasoning Skills: A Machine-Learning Perspective* Project, Northeastern University London and New College of the Humanities.

2020 – 2021 Principal Investigator, *Future Developers Project*, Northeastern University London and New College of the Humanities.

2015 – 2025 Co-founder, Ex-convenor and Member, *Cognitive Science Research Group*, Northeastern University London and New College of the Humanities.

2011 – 2015 Researcher, *A frame-theoretic investigation of unification and reduction in scientific theories*, part of the Collaborative Research Centre CRC 991 'The Structure of Representations in Language, Cognition, and Science', University of Duesseldorf, funded by the German Research Foundation (DFG).

2012 – 2014 Visiting Researcher, *Aspects and Prospects of Realism in the Philosophy of Science and Mathematics*, University of Athens, funded by the EU and the Greek Government

2008 – 2011 Researcher, *A frame-theoretic investigation of the dynamics of scientific theories, their conceptual systems and their realistic reference*, part of the interdisciplinary group FOR 600 'Functional Concepts and Frames', University of Duesseldorf, funded by the DFG - German Research Foundation.

2000 – 2004 Research Assistant, *Structuralism* project, Centre for Philosophy of Natural and Social Science, London School of Economics.

2000 – 2004 Research Assistant, *Darwin@LSE* project, Centre for Philosophy of Natural and Social Science, London School of Economics.

REVIEWING FOR FUNDING BODIES

Research Grants: Alexander von Humboldt-Stiftung (Georg Forster Research Fellowship Programme), Germany

Estonian Research Council, Estonia

Research Council for Culture and Society, Academy of Finland,
Finland

Schimdt Futures, USA

Graduate Scholarships: Onassis Foundation, Greece

REFEREEING WORK

Journals:

Acta Biotheoretica
American Philosophical Quarterly
Analysis
Australasian Journal of Philosophy
British Journal for the Philosophy of Science
Dialectica
Erkenntnis
European Journal for the Philosophy of Science
Foundations of Science
International Studies in the Philosophy of Science
Journal for General Philosophy of Science
Mind
Minds and Machines
Moral Philosophy and Politics
Philosophers' Imprint
Philosophical Papers
Philosophy of Science
Philosophy of the Social Sciences
Philosophical Studies
Polish Journal of Philosophy
Review of Philosophy and Psychology
Science and Education
Studies in History and Philosophy of Modern Physics
Studies in History and Philosophy of Science
Synthese
Theoria (Swedish)
Theoria (Spanish)
Topoi

Chapters in Books:

Jason McKenzie Alexander (ed.) (forthcoming) *Lakatos@100*,
Springer.

Peter Vickers (ed.) (2018) *Contemporary Scientific Realism and the
Challenge from the History of Science*, Oxford: Oxford University
Press.

Claus Beisbart and Stephan Hartmann (eds.) (2011) *Probabilities in
Physics*, Oxford: Oxford University Press.

Stephan Hartmann and Luc Bovens (eds.) (2006) *Nancy
Cartwright's Philosophy of Science*, London: Routledge Press.

Book Proposals: Routledge Press
Sage Publishers

Encyclopaedias: Internet Encyclopedia of Philosophy

ACADEMIC/EDITORIAL COMMITTEES AND BOARDS

Advisory Boards: 2019 – Centre for Philosophy of Natural and Social Science, London School of Economics, member of Advisory Board.

2015 – 2016 Analytica journal, member of Advisory Board.
<http://www.analytica.phs.uoa.gr/editorial-board.html>

Committees: 2024 – Alan Turing Institute: Humanities and Data Science Special Interest Group, member.

2023 – Research and Knowledge Exchange Committee, Northeastern University London, member.

2014 – 2022 Diploma Committee, New College of the Humanities/Northeastern University London, Director/Chair.

SELECTED TALKS

Invited/Keynote/Public: June 2025 – 'Rewinding the Past to the Present from the Future', keynote talk, The Future of Humanity: Philosophical and Interdisciplinary Perspectives, Institute of Philosophy, Slovak Academy of Sciences, Bratislava, Slovakia.

May 2025 – 'Some Thoughts on Observability', Symposium on Roman Frigg's 'Models and Theories', University of Potsdam.

June 2024 – 'Some Deliberations on the Role of AI in Research and Education', The Impact of Generative AI on the Digital Humanities, The Alan Turing Institute's Humanities and Data Science Interest Group and the Bodleian Libraries, University of Oxford.

May 2024 – 'Critical Engagement: The Neglected Aspect of Medical Misinformation', Internet and Society: The Trans-Atlantic Research Future, London.

February 2024 – 'Automating Scientific Reasoning: The Case of Medical Research', Mini-Symposium on Medical Misinformation, Centre for Reasoning, University of Kent.

February 2024 – 'Demystifying Scientific Creativity: Artificial Intelligence at the Edge of Reason', Epistemology of Data-Intensive Science, Seoul National University.

December 2023 – 'Are Universal Criteria of Analogical Reasoning Hopeless?', Featured Former Fellow Talk, Center for the Philosophy of Science, University of Pittsburgh.

December 2022 – ‘Critical Thinking Education: Automated Theorem Proving to the Rescue’, Computer Science Teachers Association, Silicon Valley Chapter, Palo Alto, California.

December 2022 – ‘Towards Impartial Assessments of Theories: Some Lessons from Machine-Learning’, Philosophy Department, San Francisco State University.

July 2022 – ‘Modelling Analogical Reasoning: One-Size-Fits-All?’, Wittgenstein and AI Conference, London.

January 2022 – ‘Models of Explanation, Heterogeneous Reasoning and AI’, Explainable AI Seminars, CLArg Group, Department of Computing, Imperial College London.

February 2021 – ‘Machine-Made Jabberwocky’, Philosophy and AI Workshop: An Interdisciplinary Dialogue, University of Leeds.

December 2020 – ‘Structural Realism: A Reappraisal’, Seoul National University Distinguished Lecture Series.

February 2020 – ‘The Parallel Lives of Concepts and Theories’, University of Cyprus.

November 2019 – ‘Observational Judgment Convergence and Veridicality’, Northeastern University.

July 2019 – ‘The Logic of the Scientific Realism Debate’, Heinrich Heine Universitaet Duesseldorf.

June 2019 – ‘Concept Defectiveness and Amelioration’, National Autonomous University of Mexico (UNAM).

May 2019 – ‘Informed Voting’, CHESS, University of Durham.

February 2019 – ‘Theory-ladenness: Testing the untestable?’, TINT, University of Helsinki.

June 2018 – ‘Taking up Space: The Case of the Ether’, From Space to Spacetime Conference, University of Oxford.

February 2018 – ‘Will I work for AI or will AI work for me?’, (panellist), LSESU Economics Symposium, London School of Economics.

August 2017 – ‘The Physics of Intrinsic Properties’, University of Mainz.

July 2017 – ‘Philosophical Debates about Models and Representations: What are they Good for?’, Models and Explanations in Economics, University of Rostock.

June 2017 – ‘Will Tomorrow be Another Day?’, TEDx talk hosted by SouthBank International London.

May 2017 – ‘Artificial Intelligence and Philosophy: Some Themes’, Real Time Club, London.

January 2017 – ‘Bragging’, PPE Society Fireside Chat, London School of Economics (with Susanne Burri).

December 2016 – ‘Testing for Theory-Ladenness: The Stimulus Exchange Procedure (and Ostensive Learnability)’, Celebratory Colloquium in Honor of Gerhard Schurz, University of Duesseldorf.

November 2016 – ‘Why is it Sensible to Trust the Senses?’, Departmental Colloquium, University of Duham.

September 2016 – ‘Is the Scientific Realism Debate Irredeemably Mired?’, Realism, Progress, and Cognitive Values in Science and Philosophy Workshop, University of Trieste.

November 2015 – ‘How to Bring Forward a Desirable Future’, TEDx talk hosted by the University of Nicosia.

May 2015 – ‘Do you See what I See?’, IAI Academy, How the Light Gets in 2015 (Music and Philosophy Festival), Hay-on-Wye.

May 2015 – ‘Is the World a Massive Simulation?’, IAI Academy, How the Light Gets in 2015 (Music and Philosophy Festival), Hay-on-Wye.

May 2015 – ‘How to Really Win an Argument’, IAI Academy, How the Light Gets in 2015 (Music and Philosophy Festival), Hay-on-Wye.

November 2014 – ‘What Makes a Hypothesis Ad Hoc?’, University of Montreal.

November 2014 – ‘Empiricism Unchained: Debunking the Instrument Conspiracy’, University of Western Ontario.

June 2014 – ‘Veridical Perception and Observation’, keynote lecture, Experience and Reality conference, Catholic University in Ružomberok, Slovakia.

March 2014 – ‘The Metaphysical Status of Logical Principles’, Aspects and Prospects of Realism in the Philosophy of Science and Mathematics, University of Athens.

October 2013 – ‘Logic as Ultra-Physics’, California State University Los Angeles.

October 2013 – ‘Positivism in the 21st Century’, graduate seminar, University of California Davis.

October 2013 – ‘Empiricism Unchained’, Bay Area Philosophy of Science, San Francisco State University.

April 2013 – ‘Post-Hoc Monsters and the Frankenstein Theory of Confirmation’, Logos Colloquium, University of Barcelona.

March 2013 – ‘The Houdini Argument for Intrinsic Properties’, The Metaphysics of Scientific Realism Workshop, University of Athens.

Oct. 2012 – ‘Πρωτότυπες Προβλέψεις και η Θεωρία της Επικύρωσης’, Department of Methodology, History and Theory of Science, University of Athens.

Aug. 2012 – ‘Reference for Realists’, Reference and Scientific Realism Symposium, Wuhan University.

June 2012 – ‘Arguing for Scientific Realism: Some Lessons from Confirmation Theory’, Mind, Language, Knowledge: The Perspective of Philosophy, University of Cyprus.

June 2012 – ‘Why Care about the Scientific Realism Debate?’, Plenary Talk, 7th Quadrennial International Fellows Conference, University of Mugla.

Dec. 2011 – ‘The Realist’s Guide to the Universe’, Institute of Science and Technology Studies (IWT), University of Bielefeld.

May 2011 – ‘Runaway Models’, Seminario di Logica e Filosofia della Scienza, Università di Firenze.

May 2011 – ‘Endorsing the Methods of Science’, Dipartimento di Filosofia, Università di Pisa.

May 2011 – ‘Structural Realism meets the Social Sciences’, IMT Institute for Advanced Studies, Lucca.

April 2011 – ‘Philosophy and Science: Past, Present and Future’, The Metaphysical Society’s Annual Symposium, Trinity College Dublin.

Nov. 2010 – ‘Epistemic and Ontic Commitments: In Perfect Alignment?’, Structuralism Workshop, University of Notre Dame.

Sept. 2010 – ‘Structural Realism: From an Epistemological Point of View’, Center for Philosophy of Science, University of Pittsburgh.

June 2010 – ‘Scientific Representation and Perspective’, University of Bochum.

March 2009 – ‘Metaphilosophical Ruminations on Theoretical Term Reference’, Research Seminar in Epistemology and Philosophy of Science, University of Tilburg.

Aug. 2007 – ‘How not to be a Realist or Why we Ought to Make it Safe for Closet Structural Realists to Come out’, Structure, Objects and Causality Workshop, Banff.

Nov. 2006 – ‘Structural Realism 2.0’, Philosophy of Physics Research Seminar, University of Oxford.

June 2006 – ‘Structural Continuity and its Limits’, University of Utrecht.

May 2006 – ‘Seeing the Same Things’, Erasmus University Rotterdam.

March 2006 – ‘Extracting Evidence from Observation’, Division of History and Philosophy of Science, University of Leeds.

Contributed:

August 2025 – ‘Concept and Feature Change in Scientific and Deep Neural Net Representations’, CogSci 2025, San Francisco.

July 2025 – ‘Knowledge and Truth in Machine Learning’, IACAP-AISB 2025, University of Twente, Netherlands.

July 2024 – ‘Machine Learning, Interpretability and the Scientific Realism Debate’, British Society for the Philosophy of Science annual conference, University of York.

June 2024 – ‘Radical Ontic Structural Realism and Holistic Monism’, QUAD2024, University of Miami.

March 2023 – ‘Old AI Meets New AI in the Logic of Scientific Discovery’, AAAI 2023 Spring Symposium Series, San Francisco.

June 2022 – ‘Theory Change through a Logical Lens’, PSF2022, Leusden.

November 2021 – ‘Physical Computation: A Tale of Two Notions’,
Philosophy of Science Association 2020 Biennial meeting,
Baltimore, Maryland.

July 2019 – ‘Will the *Real* Pragmatism Please Stand up’, Reviving
Instrumentalism in the Philosophy of Science, University of
Durham.

July 2018 – ‘Putting Theory-Ladenness to the Test’ (poster session),
CogSci 2018, University of Wisconsin, Madison.

November 2017 – ‘Computation: A Tale of Two Notions’,
Philosophy and Theory of Artificial Intelligence, University of Leeds.

November 2016 – ‘A General Case for Scientific Realism... and for
Anti-Realism’, PSA 2016, Atlanta.

July 2016 – ‘Materiality does not Equal Lack of Generality’, 8th
Quadrennial International Fellows Conference, University of Lund.

July 2016 – ‘Truly Undesirable Hypotheses’, Department of
Economics, University of Rostock.

May 2016 – ‘Measurements and Standards: The Case of the Meter’,
PSF2016, Doorn.

July 2015 – ‘Why Immaterial Standards Matter’, The Making of
Measurement Conference, Centre for Research in the Arts, Social
Sciences and Humanities, University of Cambridge.

July 2015 – ‘Can Theory-Laden Effects be Removed?’, 23rd Annual
Meeting of the European Society for Philosophy and Psychology,
University of Tartu.

July 2015 – ‘How to Make a Long Theory Short’, British Society for
the Philosophy of Science Annual Conference, University of
Manchester.

November 2014 – ‘Methods and Universality’, Symposium on: ‘The
Scientific Method – Revisited’, Philosophy of Science Association
2014 Biennial meeting, Chicago.

July 2014 – ‘Intelligence as Portability in Problem-Solving’,
International Association for Computing and Philosophy 2014,
Thessaloniki.

Nov. 2013 – ‘An Inferentialist Account of Confirmation’,
Inferentialism in Epistemology and Philosophy of Science
workshop, University of Madrid.

Sept. 2013 – ‘Science with Artificially Intelligent Agents’, 2nd Conference on the Philosophy and Theory of Artificial Intelligence (PT-AI 2013), University of Oxford.

July 2013 – ‘*The Scientific Method*’, British Society for the Philosophy of Science Annual Conference, University of Exeter.

May 2013 – ‘Objectivity in Confirmation’, Philosophy of Science in a Forest, Dutch Society for the Philosophy of Science.

Nov. 2012 – ‘Επανεκτιμώντας την Εμβέλεια των Προσδιοριστικών Παραγόντων στη Θέση του Υποπροσδιορισμού’, 2nd Panhellenic Conference for the Philosophy of Science.

Nov. 2012 – ‘Universal Empiricism’, Philosophy of Science Association Twenty-Third Biennial Meeting, San Diego [presented in my absence by Otavio Bueno].

July 2012 – ‘The Feeble, Few and Far Between Coincidences Argument for Realism’, British Society for the Philosophy of Science Annual Conference, University of Sterling.

Jan 2012 – ‘Perspectival Realism’, Perspectivalism Workshop, University of Ghent.

July 2011 – ‘Simplicity as a Guide to Falsity?’, 14th Congress of Logic, Methodology and Philosophy of Science, University of Nancy.

July 2011 – ‘Structural Realism and Causation: An Unhappy Marriage?’, British Society for the Philosophy of Science Annual Conference, University of Sussex.

Nov. 2010 – ‘The Prospective Stance in Realism’, Philosophy of Science Association Twenty-Second Biennial Meeting, Montreal.

Oct. 2010 – ‘The Logic of Crucial Experiments’, Philosophy of Scientific Experimentation: A Challenge to Philosophy of Science, University of Pittsburgh.

July 2010 – ‘Heat in Inter-theory Relations’, British Society for the Philosophy of Science Annual Conference, University College Dublin.

June 2010 – ‘Thinking about Scientific Understanding and Explanation as a Structural Realist’, Understanding and the Aims of Science, Lorentz Center, University of Leiden.

May 2010 – ‘The Pessimistic Meta-Inductivist: A Sheep in Wolf’s Clothing?’, Philosophy of Science in a Forest (PSF2010), Dutch Association for the Philosophy of Science.

Oct. 2009 – ‘The Double Life of Evidence: From the Streets to the Labs’, European Philosophy of Science Association Biennial Conference, Free University of Amsterdam.

Sept. 2009 – ‘Structural Realism: Invariance through Theory Change’, SOPHA 2009, University of Geneva.

EVENT ORGANISING

Conferences/Symposia/

Workshops/Events:

17. Computational Philosophy Lab launch event, May 30, 2024, Northeastern University London, co-organised with Brian Ball, David Freeborn and Alice Helliwell.

16. *Artificial Intelligence: Amplifying Research in the Humanities*, May 7, 2025, Northeastern University London, (funded by Artificial Intelligence Journal), co-organised with Dimitris Mylonas.

15. *AI and Education*, upcoming workshop, Northeastern University London, date: April 2025 (funded by London Mathematical Society), co-organising with Fatemeh Parsa.

14. *The Future of the Humanities: Reflective Practices in the Age of AI* conference, Northeastern University London, May 3-4, 2024 (funded by Center for Technology Management and Digital Leadership NU / Reflective Practice journal), co-organised with Alice Helliwell, Julia Hofweber, Art Langer and Sara Raimondi.

13. *Logic Learning*, New College of the Humanities, November 19, 2021 (funded by a Northeastern University TIER1 grant).

12. *Improving Public Debate and Political Decision-Making*, New College of the Humanities, March 28-29 2019, (jointly funded by the Practical Philosophy Chair, Karlsruhe Institute of Technology and NCH).

11. *Digital Diploma Platform Launch Event*, New College of the Humanities, June 29, 2018, co-organised with Brian Ball, Fintan Nagle and Naomi Goulder.

10. *Debating Debates*, New College of the Humanities, November 10, 2017 (jointly funded by the Duesseldorf Center for Logic and Philosophy of Science and NCH).

9. *Mind and Brain* Conference, New College of the Humanities, March 25-26, 2016, co-organised with Brian Ball and Fintan Nagle (funded by Analysis Trust, the

Aristotelian Society and the British Society for the Philosophy of Science).

8. *European Philosophy of Science Association Biennial Conference 2015*, September 23-26, 2015, University of Duesseldorf, member of local organising committee.

7. *The Scientific Method – Revisited*, Symposium at PSA 2014, November 6-8, 2014, co-organised with Nancy Cartwright, Clark Glymour, Sam Schindler and Elliott Sober.

6. *Unification and Coherence*, January 16, 2014 University of Duesseldorf, co-organised with G. Schurz, supported by the DFG.

5. *The Theory-Ladenness of Experience*, March 10-11, 2011 University of Duesseldorf, co-organised with Gerhard Schurz and Michela Tacca, partly supported by the DFG funded FOR 600 (project B6).

4. *Novel Predictions*, February 25-26, 2011 University of Duesseldorf, co-organised with Ludwig Fahrback and Gerhard Schurz.

3. *Different Methodologies, One Aim: Evidence and Theory at the Confluence*, Symposium at EPSA09, October 21-24, 2009 Free University of Amsterdam, co-organised with Giora Hon, Maarten van Dyck, Dave Lagnado and Jan Willem Romeijn.

2. *Theoretical Frameworks and Empirical Underdetermination Workshop*, April 10-12, 2008 University of Duesseldorf, co-organised with Gerhard Schurz, supported by the DFG funded FOR 600 (project B6).

1. *Structural Realism and Newman's Problem*, March 23rd 2002 London School of Economics, co-organised with John Worrall – supported by the British Society for the Philosophy of Science.

Colloquia Convenor: *Cognitive Science Research Group*, New College of the Humanities, (Trinity 2018 – Trinity 2021).

Forschungsseminar Theoretische Philosophie, Summer Semester 2013 (with Paul Thorn).

Committees/Refereeing: CogSci (2018, 2014, 2013), CTF12, EUCOG2015, GWP2013, IACAP 14, PT-AI (2013, 2017), 5th Pan-Hellenic Conference in the History, Philosophy and Teaching of Natural Sciences, etc.

TEACHING (years in brackets)

Lectures: London School of Economics:
• *Philosophy of Science* [UG & PG] (16-17, 17-18)

- *Evidence and Policy* [PG] (17-18)

New College of the Humanities:

- *Critical Reasoning* [UG] (14-22)
- *Epistemology* [UG] (14)
- *Epistemology and Philosophy of Science* [UG] (16-22), [PG] (17-18, 19-22)
- *Logic* [UG] (19-ongoing), [PG] (21-22)
- *Methodology: Induction, Reason and Science* [UG] (15)
- *Science Literacy: History of Science* [UG] (15-16)

Northeastern University London:

- *Artificial Intelligence and Data Ethics* [UG] (24)
- *Minds and Machines* [UG] (24, 25), [PG] (20-ongoing)
- *Mind and Reality* [PG] (25)

University of Bristol:

- *Epistemology* [UG] (05)
- *Philosophy of Science* [intermediate] (04, 05)
- *Philosophy of Science* [advanced] (05, 06)

PG/Advanced Seminars: London School of Economics:

- *Philosophy of Science* (16-17, 17-18)
- *Evidence and Policy* (17-18)

New College of the Humanities:

- *Mind and Reality* (17-21) [w/Brian Ball]
- *Epistemology and Philosophy of Science* (17-18, 19-22)

Northeastern University London:

- *Minds and Machines* (20-ongoing)

University of Bristol:

- *Scientific Epistemology and Methodology* (05, 06)
- *Philosophical Writing and Research* (04, 05)
- *Philosophy of Biology* [w/Andrew Woodfield] (05)

University of Düsseldorf:

- *The Prospects and Dangers of Machine Intelligence* [w/Paul Thorn] (15)
- *Philosophy of Social Science* [w/Paul Thorn] (14)
- *Meta-Metaphysics* (11)
- *Structural Realism* (11)
- *Philosophy of Logic* (10)
- *Evidence* (09)
- *The Philosophy of Artificial Intelligence* (09)
- *Intuitions* (08)
- *Scientific Realism* (06, 07)

- *The Theory-Ladenness of Observation* (07, 08)

UG Classes/Tutorials:

London School of Economics, Department of Philosophy:

- *Philosophy of Science* (16-17)
- *Reason, Knowledge and Values: An Intro to Philosophy* (03-04)
- *Special Topics in Philosophy of Natural & Social Science* (03-04)
- *Logic* (01-02)
- *Scientific Method* (00-01)
- *Scientific Revolutions* (00-01)
- *Frege and Russell* (99-00)

New College of the Humanities

- *Epistemology* (14, 16)
- *Epistemology and Philosophy of Science* (16-22)
- *Logic* (19-21)
- *Methodology* (15)

Northeastern University London:

- *Artificial Intelligence and Data Ethics* (24)
- *Introduction to Logic* (22, 24-ongoing)
- *Minds and Machines* (24-ongoing)

University of Bristol, Department of Philosophy:

- *Introduction to Philosophy A & B* (04, 05)
- *Philosophy of Science* [intermediate and advanced] (05, 06)
- *Epistemology* (04)

Program Development:

MSc in Data Science at University Centre Shrewsbury (UCS)/Chester, member of the Institute of Coding Industry Advisory Panel.

Online Teaching Tools:

The Digital Diploma <https://www.nch-diploma.com/>, co-founder (with B. Ball, F. Nagle and N. Goulder) and content co-developer (with N. Goulder) – NB: Due to lack of continued funding, the website is now defunct.

The Logic Calculator app <https://www.votsis.org/logic.html> (Android/iOS/MacOS/Windows), founder and developer.

Teaching Committees:

NCH Diploma Co-ordinator (NCH), Director of Core Courses (NCH), Acting Director of Graduate Studies (NCH), Graduate Studies Committee (Bristol), PhD progress interviews (NUL, Bristol), Professoriate Liaison (NCH), Staff-Student Committee (Bristol), Teaching and Learning Committee (NCH), etc.

PhD Supervision:

1. Maria Federica Norelli, 'The Epistemology of Machine Learning Methods', 2023 – ongoing, primary supervisor, secondary supervisor: Jon Williamson (Kent/Manchester), Rogerio de Lemos (Kent).

2. Guillaume Rochefort-Maranda, 'Scepticism and the Theory-ladenness of Observation', PhD awarded in 2009, University of Bristol, unofficial secondary supervision, primary supervisor: Alexander Bird (now at Cambridge).

BA/MA Supervision:	Several theses supervised over the years at Bristol, New College of the Humanities and Northeastern University London.
Examination:	Several past and current internal duties (primary and secondary marking as well as moderation) for BAs/MAs, but also external duties for MPhils and PhDs (two lined up).
Certifications:	Senior Fellow of the Higher Education Academy (Advanced HE)
Training (received):	Jan. 06, 2016 Teaching and Learning Dissemination Event Sept. 15, 2015 Staff Training and Development July 2002 LTSN Workshop on teaching Philosophy of Science Oct. 1999 Induction Session for Part-time Teachers Sept. 1999 Introduction to Teaching and Learning Workshop
Training (offered):	Sept. 24, 2018 <i>GTA@Home</i> workshop, organiser and contributor, London School of Economics. Oct. 3, 2014 <i>Theory of Knowledge</i> Day (How to Teach Philosophy at Schools), New College of the Humanities.

MEMBERSHIPS

American Philosophical Association
Aristotelian Society (current – lifetime)
Association for the Advancement of Artificial Intelligence
British Society for the Philosophy of Science (current)
Cognitive Science Society
European Philosophy of Science Association
International Association for Computing and Philosophy (IACAP)
Philosophy of Science Association
Society for the Study of Artificial Intelligence and Simulation of Behaviour (AISB)

MEDIA

January 2020 – 'AI and Echo Chambers', LSE100, London School of Economics.
<https://www.youtube.com/watch?v=ZbyUx-BEiPg>

November 2019 – 'The Future of AI', LSE100, London School of Economics.
<https://www.youtube.com/watch?v=xV7NOrfgNek>

June 2018 – 'The Ether: Lessons in Theory Choice and

Construction', From Space to Spacetime, hosted by Centre for History and Philosophy of Physics, University of Oxford.

<https://www.youtube.com/watch?v=lyFMMK-BIKw>

June 2017 – 'Will Tomorrow be Another Day?', TEDx talk hosted by SouthBank International London.

<https://www.youtube.com/watch?v=fE7xDjw63Kk&t=709s>.

Nov. 2015 'How to Bring Forward a Desirable Future', TEDx talk, live streamed and recorded.

<https://www.youtube.com/watch?v=gtF9mgGmvOk>

Nov. 2015, interview after TEDx talk with SigmaLive radio station.

https://www.youtube.com/watch?v=Ss_w-bp3syl

Feb. 2015, 'Five Minutes on Scientific Revolutions', NCH promotional video.

<https://www.youtube.com/watch?v=c797cc9pUDE>

Aug. 2014, interview, On What There Is (Realism) Newsletter, Catholic University Ruzomberok.

<https://sites.google.com/site/onwhatthereisrk/newsletter>

Oct. 2013, two podcast interviews by Tony Sobrado.

<http://thebiggestquestions.org/>

APP DEVELOPER

Developed *The Logic Calculator*, a free app (Android, iOS, Windows, MacOS) that helps students learn formal logic. Downloads: 50k+.

<https://apps.apple.com/gb/app/the-logic-calculator/id1484264087>

<https://play.google.com/store/apps/details?id=com.ioannisvotsis.the.logiccalculator>

<https://www.microsoft.com/en-gb/p/the-logic-calculator/9nj6bpckm4mr?activetab=pivot:overviewtab>

MISCELLANEA

Other Work Experience: 1999 – 2000 House of Commons

Internship with a Member of Parliament (Richard Burden)

1990 – 1992 Cypriot National Guard, Cyprus

Cryptographer for the Telecommunications Division

Languages:

Fluent: *English* and *Greek*

Intermediate: *French*

Elementary: German

Coding:

C#, HTML, Octave/Matlab, Python, Visual Basic and Xaml.

REFERENCES

Prof. Brian Ball Philosophy Discipline Northeastern University London Devon House 58 St Katharine's Way London E1W 1JP, UK brian.ball@nulondon.ac.uk	Prof. Roman Frigg Chair, Dept. of Philosophy, Logic and Scientific Method London School of Economics Houghton Street London, WC2A 2AE, UK r.p.frigg@lse.ac.uk	Prof. Elaine Landry Chair, Dept. of Philosophy 1 Shields Avenue Univ. of California Davis Davis, CA 95616, USA emlandry@ucdavis.edu
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Past: Prof. Alexander Bird (Cambridge), Prof. Nancy Cartwright FBA (Durham), Dr. Helena Cronin (LSE), Prof. Donald Gillies (UCL), Prof. Anthony Grayling (Northeastern University London), the late Prof. Peter Lipton (Cambridge), Prof. Stathis Psillos (Athens), the late Prof. Michael Redhead FBA (LSE), Prof. Gerhard Schurz (Duesseldorf), Prof. John Worrall (LSE).

CV last updated: Sept 3rd, 2025