

## AREAS OF EXPERTISE

Philosophy of Science, Formal and Informal Epistemology, Metaphysics

## AREAS OF COMPETENCE

History of Science, Philosophy of Language, Philosophical Logic, Philosophy of Mind, Philosophy of Physics

## QUALIFICATIONS

- |      |                                                                  |
|------|------------------------------------------------------------------|
| 2017 | DLitt, University of Durham                                      |
| 2005 | PhD in Philosophy, University of Durham (Supervisor: E. J. Lowe) |
| 2002 | MSc in History and Philosophy of Science, LSE                    |
| 2001 | MA (by Thesis) in Philosophy, University of Durham               |
| 2000 | PGDip (with Distinction) in Philosophy, University of Durham     |
| 1999 | BSc (Hons) in Physics, University of Bristol                     |

## CAREER

- |           |                                                                                                       |
|-----------|-------------------------------------------------------------------------------------------------------|
| 2022–     | RGC Senior Research Fellow, Lingnan University                                                        |
| 2015–2018 | Head, Dept. of Philosophy, Lingnan University                                                         |
| 2013–     | Full Professor, Dept. of Philosophy, Lingnan University                                               |
| 2011–2013 | Associate Professor, Dept. of Philosophy, Lingnan University                                          |
| 2008–2011 | British Academy Postdoctoral Fellow, Faculty of Philosophy,<br>University of Oxford                   |
|           | Junior Research Fellow, Pembroke College, University of Oxford                                        |
| 2007–2008 | Templeton Postdoctoral Fellow in Philosophy of Science, School of<br>Physics, University of Edinburgh |
|           | Visiting Research Fellow, Dept. of Philosophy, University of Bristol                                  |
| 2006–2007 | Teaching Fellow, Dept. of Philosophy, University of Aberdeen                                          |

GRANTS, AWARDS & FELLOWSHIPS [Total value > 1.5 million USD]

RGC Senior Research Fellowship, HKD 7,800,000, for ‘Philosophy of Contemporary and Future Science’ Project, Research Grants Council, Hong Kong (2022–2027)

Outstanding Scientific Research Achievement Award (Humanities and Social Sciences), 2<sup>nd</sup> Class, Ministry of Education [for publication A45 on unconceived alternatives] (2021)

Visiting Fellowship, USD 8,050, Center for Philosophy of Science, University of Pittsburgh (2021)

Research Output Excellence Award, Faculty of Arts Winner, HKD 20,000, Lingnan University (2021)

General Research Fund Grant, HKD 190,000, for ‘Scientific Progress: Foundational Issues’ Project, Research Grants Council, Hong Kong (2020–2022)

Visiting Fellowship, Department of History and Philosophy of Science, University of Cambridge (2019) – supported by Faculty Research Grant, HKD 50,000, and Sino-British Fellowship Trust Grant, HKD 19,835

COFUND Senior International Research Fellowship, €22,000, Institute of Advanced Study, Durham University (in conjunction with the EU), for ‘The Relative Prospects of Realism Concerning the Natural Sciences and the Social Sciences’ Project (2018)

Visiting Professor (in perpetuity), Centre for Philosophy of Science and Technology, Shanxi University, 2017–

Honorary Professor in Philosophy, Durham University, 2015–2018

Humanities and Social Sciences Prestigious Fellowship, HKD 445,000, for ‘The Instrument of Science’ Project, Research Grants Council, Hong Kong (2014–2015)

General Research Fund Grant, HKD 494,000, for ‘Computational Social Epistemology and Scientific Method’ Project, Research Grants Council, Hong Kong (2014–2017)

COFUND Senior International Research Fellowship, €19,456, Institute of Advanced Study, Durham University (in conjunction with the EU), for ‘The Instrument of Science’ Project (2014)

Academic Staff Review Committee Award for Excellent Research Performance, HKD 32,340, Lingnan University (2013)

Teaching Development Grant, HKD 209,000, for ‘Mobile Logic’ Project, Lingnan University (2013–2015)

Conference Fund Grant, HKD 180,000, for ‘Science: The Real Thing’, Lingnan University (2013)

Visiting Fellowship, Sydney Centre for the Foundations of Science, University of Sydney, AUD 6000, for ‘Interobjective Interpretation of Probability’ Project (2011)

Merit Award for ‘demonstrated performance at an excellent level’, Faculty of Philosophy and Humanities Division, University of Oxford (2009)

British Academy Postdoctoral Fellowship, GBP 235,371, for ‘Group Rationality and the Dynamics of Inquiry’ Project (2008–2011)

British Academy Small Research Grant, GBP 1490, for ‘Stance and Rationality’ Project (2008)

## PUBLICATIONS

Citations: 1330+; h-index: 21; i10-index: 37

### Books

- B5. *Scientific Progress*, Cambridge: Cambridge University Press (In Press)
- B4. *The Instrument of Science: Scientific Anti-Realism Revitalised*, London: Routledge (2019)
- Book forum in *Studies and History and Philosophy of Science* 98 (2023)
- B3. *Probability*, Cambridge: Polity Press (2015)
- Japanese edition by *Iwanami Shoten Publishers* (2019)
  - Chinese edition by *Shanghai People’s Publishing House* (2020)
- B2. *Intuitions* (edited with A. R. Booth), Oxford: Oxford University Press (2014)
- B1. *Popper’s Critical Rationalism: A Philosophical Investigation*, London: Routledge (2011)

### Articles

- A54. ‘Evidence, Computation, and AI: Why Evidence Is Not Just in the Head’ with André Curtis-Trudel and William Peden, *Asian Journal of Philosophy* (In Press)
- A53. ‘Book Forum on *The Instrument of Science*: Reply by the Author’, *Studies in History and Philosophy of Science* (In Press)
- A52. ‘Can Meaningless Statements Be Approximately True? On Relaxing the Semantic Component of Scientific Realism’, *Philosophy of Science* 89, 879–888 (2022)

- A51. ‘How Can Representationalism Accommodate Degrees of Belief? A Dispositional Representationalist Proposal’, *Synthese* 199, 8943–8964 (2021)
- A50. ‘Peer Review May Not Be Such a Bad Idea: Response to Heesen and Bright’, *British Journal for the Philosophy of Science* (In Press)
- A49. ‘A Methodological Argument Against Scientific Realism’, *Synthese* 198, 2153–2167 (2021)
- A48. ‘Bertrand’s Paradox and the Maximum Entropy Principle’ with Nicholas Shackel, *Philosophy and Phenomenological Research* 101, 505–523 (2020)
- A47. ‘Self-Deception and Shifting Degrees of Belief’ with Chi Yin Chan, *Philosophical Psychology* 32, 1204–1220 (2019)
- A46. ‘Scientific Realism: What It Is, The Contemporary Debate, and New Directions’, *Synthese* 196, 451–484 (2019)
- A45. ‘Extending the Argument from Unconceived Alternatives: Observations, Models, Predictions, Explanations, Methods, Instruments, and Values’, *Synthese* 196, 3947–3959 (2019)
- Winner of Outstanding Scientific Research Achievement Award, 2<sup>nd</sup> Class, Ministry of Education, 2020
- A44. ‘What Is (Dis)Agreement?’, *Philosophy and Phenomenological Research* 97, 223–236 (2018)
- A43. ‘How Might Degrees of Belief Shift? On Actions Conflicting With Professed Beliefs’, *Philosophical Psychology* 29(5), 732–742 (2016)
- A42. ‘Scientific Progress Without Increasing Verisimilitude: In Response to Niiniluoto’, *Studies in History and Philosophy of Science* 51(1), 100–104 (2015)
- A41. ‘Aimless Science’, *Synthese* 191(6), 1211–1221 (2014)
- A40. ‘Information Versus Knowledge in Confirmation Theory’, *Logique et Analyse* 226, 137–149 (2014)
- A39. ‘Popper’s Measure of Corroboration and  $P(h|b)$ ’, *British Journal for the Philosophy of Science* 64(4), 739–745 (2013)
- A38. ‘Bertrand’s Paradox Revisited: Why Bertrand’s “Solutions” Are All Inapplicable’, *Philosophia Mathematica* 21, 110–114 (2013)
- A37. ‘Empirical Evidence Claims Are A Priori’, *Synthese* 190(14), 2821–2834 (2013)
- A36. ‘Group Level Interpretations of Probability: New Directions’, *Pacific Philosophical Quarterly* 94(2), 188–203 (2013)

- A35. ‘Kuhn vs. Popper on Criticism and Dogmatism in Science, Part II: Striking the Balance’, *Studies in History and Philosophy of Science* 44(2), 161–168 (2013)
- A34. ‘Identification in Games: Changing Places’, *Erkenntnis* 77(2), 197–206 (2012)
- A33. ‘The Role of Hypotheses in Biomechanical Research’ with Neill Alexander, *Science in Context* 25(2), 247–262 (2012)
- A32. ‘The Instrumentalist’s New Clothes’, *Philosophy of Science* 78(5), 1200–1211 (2011)
- A31. ‘Kuhn vs. Popper on Criticism and Dogmatism in Science: A Resolution at the Group Level’, *Studies in History and Philosophy of Science* 42(1), 117–124 (2011)
- A30. ‘Approximations, Idealizations and “Experiments” at the Physics-Biology Interface’, *Studies in History and Philosophy of Biological and Biomedical Sciences* 42(2), 145–154 (2011)
- A29. ‘Stances and Paradigms: A Reflection’, *Synthese* 178(1), 111–119 (2011)
- A28. ‘What’s at the Bottom of Scientific Realism?’ (Essay Review of H. Sankey, *Scientific Realism and the Rationality of Science*), *Studies in History and Philosophy of Science* 42(4), 625–628 (2011)
- A27. ‘The Use and Misuse of Taxpayers’ Money: Publicly-Funded Educational Research’ with Sarah Aiston, *British Educational Research Journal* 37(4), 631–655 (2011)
- A26. ‘How to Change It: Modes of Engagement, Rationality, and Stance Voluntarism’ with Otávio Bueno, *Synthese* 178(1), 7–17 (2011)
- A25. ‘Stance and Rationality: A Perspective’ with Otávio Bueno, *Synthese* 178(1), 1–5 (2011)
- A24. ‘Bangu’s Random Thoughts on Bertrand’s Paradox’ with Nicholas Shackel, *Analysis* 70(4), 689–692 (2010)
- A23. ‘Evolutionary Epistemology and the Aim of Science’, *Australasian Journal of Philosophy* 88(2), 209–225 (2010)
- A22. ‘What Scientific Progress Is Not: Against Bird’s Epistemic View’, *International Studies in the Philosophy of Science* 24(3), 241–255 (2010)
- A21. ‘Corroboration and Auxiliary Hypotheses: Duhem’s Thesis Revisited’, *Synthese* 177(1), 139–149 (2010)
- A20. ‘Dispositional Essentialism and the Necessity of Laws’ with Robin Hendry, *Analysis* 69(4), 668–677 (2009)

- A19. ‘Models in Physics and Biology: What’s the Difference?’, *Foundations of Science* 14(4), 281–294 (2009)
- A18. ‘No Dilemma for Pancritical Rationalism: In Response to Hauptli’, *Philosophy of the Social Sciences* 39(3), 490–494 (2009)
- A17. ‘The Big Test of Corroboration’, *International Studies in the Philosophy of Science* 22(3), 293–302 (2008)
- A16. ‘On the Proximity of the Logical and “Objective Bayesian” Interpretations of Probability’, *Erkenntnis* 69(3), 335–349 (2008)
- A15. ‘N-rays and the Semantic View of Scientific Progress’, *Studies in History and Philosophy of Science* 39(2), 277–278 (2008)
- A14. ‘To Thine Own Self Be Untrue: A Diagnosis of the Cable Guy Paradox’ with Peter Baumann, *Logique et Analyse* 51, 355–364 (2008)
- A13. ‘Intersubjective Corroboration’, *Studies in History and Philosophy of Science* 39(1), 124–132 (2008)
- A12. ‘An Alternative Account of Epistemic Reasons for Action: In Response to Booth’, *Grazer Philosophische Studien* 76, 191–198 (2008)
- A11. ‘Permissibility and Violable Rules’, *Philosophia* 36(3), 367–374 (2008)
- A10. ‘A Refutation of Foundationalism?’, *Analysis* 67(4), 345–346 (2007)
- A9. ‘The Insufficiency of the Dutch Book Argument’, *Studia Logica* 87(1), 65–71 (2007)
- A8. ‘Demystifying Threshold Concepts’, *Journal of Philosophy of Education* 41(2), 263–270 (2007)
- A7. “‘In Between Believing” and Degrees of Belief”, *Teorema* XXVI(1), 131–137 (2007)
- A6. ‘The Myth of “Scientific Method” in Contemporary Educational Research’ with Sarah Aiston, *Journal of Philosophy of Education* 40(2), 137–156 (2006)
- A5. ‘Kuhn versus Popper on Science Education: A Response to Richard Bailey’, *Learning for Democracy* 2(3), 45–52 (2006)
- A4. ‘In Defence of Popper on the Logical Possibility of Universal Laws: A Reply to Contessa’, *Philosophical Writings* 31, 53–60 (2006)
- A3. ‘On the Significance of “World 3” for the Depersonalization of Inquiry and the Democratization of Education’, *Learning for Democracy* 2(2), 21–29 (2006)

- A2. ‘The Empirical Stance vs. The Critical Attitude’, *South African Journal of Philosophy* 24(3), 200–223 (2005)
- A1. ‘On the Putative Incompatibility of the Logical and Subjective Interpretations of Probability’, *Philosophical Writings* 17, 3–19 (2001)

Edited Journal Issues

- SI3. Scientific Realism: New Alternatives, with Jamin Asay, *Synthese* 196(2) (2019)
- SI2. Physics Meets Biology, *Studies in History and Philosophy of Biological and Biomedical Sciences* 42(2) (2011)
- SI1. Stance and Rationality, with Otávio Bueno, *Synthese* 171(1) (2011)

Book Chapters, Papers in Conference Proceedings, Encyclopaedia Entries, and Notes

- C21. ‘Why Might an Instrumentalist Endorse Bohmian Mechanics?’, in V. Allori (ed.), *Quantum Mechanics and Fundamentality: Naturalizing Quantum Theory between Scientific Realism and Ontological Indeterminacy*, 81–94 (Dordrecht: Springer) (2022)
- C20. ‘Which Threats to Humanity Should We Teach About? Decision Theoretic Guides’, *Educational Philosophy and Theory* 52, 844–845 (2020)
- C19. ‘Beyond Kuhn: Methodological Contextualism and Partial Paradigms’, in M. Mizrahi (ed.), *The Kuhnian Image of Science: Time for a Decisive Transformation?*, 191–208. (Lanham, Maryland: Rowman & Littlefield) (2018)
- C18. ‘Rowbottom’s Response to Psillos’, in S. B. Cowan (ed.), *Problems in Epistemology and Metaphysics: An Introduction to Contemporary Debates* (London: Bloomsbury) (2020)
- C17. ‘Science Does Not Discover the Truth About Reality’, in S. B. Cowan (ed.), *Problems in Epistemology and Metaphysics: An Introduction to Contemporary Debates* (London: Bloomsbury) (2020)
- C16. ‘On Component Forces in Physics: A Pragmatic View’, in H-K. Chao and J. Reiss (eds), *Philosophy of Science in Practice: Nancy Cartwright and the Nature of Scientific Reasoning*, 111–126. (New York: Springer) (2017)
- C15. ‘Instrumentalism’, in J. Saatsi (ed.), *The Routledge Handbook of Scientific Realism* (London: Routledge) (2017)
- C14. ‘Indoctrination and Science Education’, in M. A. Peters et al. (eds), *Encyclopaedia of Educational Philosophy and Theory* (Springer), DOI: 10.1007/978-981-287-532-7 (2016)
- C13. ‘Karl Popper’, in D. Pritchard (ed.), *Oxford Bibliographies Online* (2019)

- C12. ‘Framework (Conceptual)’, in R. Segal and K. von Stuckrad (eds), *Vocabulary for the Study of Religion* (Leiden: Brill), Vol. 2, 42–44 (2015)
- C11. ‘Probability Theory’, in S. O. Hansson and V. F. Hendricks (eds), *Introduction to Formal Philosophy* (Dordrecht: Springer) (2018)
- C10. ‘Chance’, in R. Segal and K. von Stuckrad (eds), *Vocabulary for the Study of Religion* (Leiden: Brill), Vol. 1, 222–224 (2015)
- C9. ‘The Myth of “Scientific Method” in Contemporary Educational Research’ with Sarah Aiston, reprinted in R. Smith (ed.) *Philosophy of Education II* (London: Routledge) (2015)
- C8. ‘Intuitions in Science: Thought Experiments as Argument Pumps’, in A. R. Booth and D. P. Rowbottom (eds), *Intuitions* (Oxford: Oxford University Press), 119–134 (2014)
- C7. ‘Educational Research as Science?’, in A. D. Reid, M. A. Peters, and E. P. Hart (eds), *Companion to Research in Education* (Dordrecht: Springer), 145–153 (2014)
- C6. ‘Information versus Knowledge in Confirmation Theory’, *Proceedings of the 3rd Workshop on the Philosophy of Information* (The Royal Flemish Academy of Belgium for Science and the Arts) (2013)
- C5. ‘Critical Rationalism’, in B. Kaldis (ed.), *Encyclopedia of Philosophy and the Social Sciences* (Sage) (2013)
- C4. ‘Falsifiability’, in B. Kaldis (ed.), *Encyclopedia of Philosophy and the Social Sciences* (Sage) (2013)
- C3. ‘Why Advocate Pancritical Rationalism?’ with Otávio Bueno, in Z. Parusniková and R. S. Cohen (eds), *Rethinking Popper, Boston Studies in the Philosophy of Science Series* (Dordrecht: Springer), 81–89 (2009)
- C2. ‘The Myth of “Scientific Method” in Contemporary Educational Research’ with Sarah Aiston, reprinted in D. Bridges and R. Smith (eds) *Philosophy, Methodology, and Educational Research* (Oxford: Blackwell) (2007)
- C1. ‘Can Immoral Beliefs Be True?’, *Proceedings of the Durham-Bergen Postgraduate Philosophy Seminar 2*, 125–131 (2004)

#### Book Reviews

- R8. *Resisting Scientific Realism*, K. Brad Wray. *Notre Dame Philosophical Reviews* (2019)
- R7. *Thought Experiments in Philosophy, Science, and the Arts*, M. Frappier, L. Meynell, and J. R. Brown. *HOPOS: The Journal of the International Society for the History of Philosophy of Science* 5(2), 348–352 (2015)



- R6. *Systematicity: The Nature of Science*, Paul Hoyningen-Huene. *Notre Dame Philosophical Reviews* (2013)
- R5. *The Tyranny of Science*, Paul K. Feyerabend. *Science and Education* 22(5), 1229–1331 (2013)
- R4. ‘Objective Bayesianism Defended?’, review of *In Defence of Objective Bayesianism*, Jon Williamson. *Metascience* 21(1), 193–196 (2012)
- R3. ‘Images of Van Fraassen’, review of *Images of Science: Essays on Science and Stances*, edited by Bradley Monton. *Metascience* 18, 307–312 (2009)
- R2. *The Shaping of Deduction in Greek Mathematics*, Reviel Netz. *Philosophical Writings* 26 (2005)
- R1. *Free Logic: Selected Essays*, Karel Lambert. *Philosophical Writings* 23 (2003)

## PRESENTATIONS

### Conference, Symposium, Seminar & Workshop Papers (\*: Refereed, †: Invited)

- 78. ‘Machine Learning and the Problem of Noise-dominated Measurement’ with André Curtis-Trudel, Tjonnie Li, and William Peden, Symposium on AI in Contemporary and Future Science, *British Society for the Philosophy of Science Annual Conference 2023\**
- 77. ‘Does the No Miracles Argument Apply to AI?’ with William Peden and André Curtis-Trudel, Philosophy Department Seminar, Kyoto University (2023)
- 76. ‘Is Scientific Progress Just What You’d Like?’, *Scientific Progress: Individual and Collective*, Abraham Kuyper Center, VU Amsterdam (2022)<sup>†</sup>
- 75. ‘Can Meaningless Statements be Approximately True? On Relaxing the Semantic Thesis of Scientific Realism’, The Jowett Society, University of Oxford (2022)<sup>†</sup>
- 74. ‘Confirmation and Evidence in the Light of AI and Big Data’, *AI and Beyond, Culturally Speaking*, Hong Kong Baptist University (2022)<sup>†</sup>
- 73. ‘A Positive Argument for Instrumentalism?’, Invited Symposium Paper on Realism vs. Anti-Realism, *Eastern Division American Philosophical Association Conference 2022*<sup>†</sup>
- 72. ‘Can Meaningless Statements be Approximately True? On Relaxing the Semantic Thesis of Scientific Realism’, Philosophy Department Colloquium, Virginia Tech (2021)<sup>†</sup>

71. ‘On the Role of Superempirical Virtues in Scientific Discourse: Response to Michael Strevens’, *Symposium on The Knowledge Machine*, Institute of Philosophy, Chinese Academy of the Sciences (2021)<sup>†</sup>
70. ‘Semantic Instrumentalism Revived: An Invitation to Scientific Realists’, Symposium on ‘The Revival of Instrumentalism’ [Lead author], *Philosophy of Science Association Biennial Conference 2020* (Postponed due to pandemic, 2021)\*
69. ‘Can Meaningless Statements Be Approximately True? On the Semantic Thesis of Scientific Realism’, Center for Philosophy of Science Seminar, University of Pittsburgh (2021)
68. ‘Scientific Discourse about Unobservable Things Shouldn’t Be Taken as Literally as Scientific Realists Typically Suggest’ (Proponent in Debate with Prof. Alexander Bird, Bertrand Russell Professor of Philosophy, as Opponent), *The Dialectic*, History and Philosophy of Science Department, University of Cambridge (2020)<sup>†</sup>
67. ‘Does Science Progress?’ with replies by Brad Weslake (NYU–Shanghai) and Xiang Huang (Fudan), Asian Epistemology Network Seminar (2020)<sup>†</sup>
66. ‘Does Science Progress?’, Philosophy Department Colloquium, University of British Columbia (2020)<sup>†</sup>
65. ‘Semantic Instrumentalism Revived: An Invitation to Scientific Realists’, Symposium on ‘The Revival of Instrumentalism’ [Lead author], *British Society for the Philosophy of Science Annual Conference 2020\** [Cancelled due to pandemic]
64. ‘The Case for Cognitive Instrumentalism’ [Keynote], *Revitalising Instrumentalism in the Philosophy of Science*, Durham University (2019)<sup>†</sup>
63. ‘Does Science Progress?’, Cambridge Philosophy of Science Seminar, Cambridge University (2019)<sup>†</sup>
62. ‘The Instrument of Science’, History and Philosophy of Science Department Seminar, Cambridge University (2019)<sup>†</sup>
61. ‘The Instrument of Science’, *48th International Meeting of the Hongo Metaphysics Club*, University of Tokyo (2018)<sup>†</sup>
60. ‘Criticism and Dogmatism in Science: Striking the Balance’, Danish Institute for Advanced Studies, Syddansk University (2018)<sup>†</sup> (Live recording at: <https://www.facebook.com/syddansk/videos/10156317281455050/>)
59. ‘What *Can* Scientific Realists Say About Scientific Method?’, Cambridge Philosophy of Science Seminar, Cambridge University (2018)<sup>†</sup>
58. ‘What *Can* Scientific Realists Say About Scientific Method?’, Institute for Advanced Studies, Durham University (2018)<sup>†</sup>

57. ‘Is the Boltzmann Brain Hypothesis Significant?’ and ‘Scientific Progress and the Value of Science: An Anti-Realist View’, Wuhan University (2017)<sup>†</sup>
56. ‘The Relevance of Social Epistemology for Science Education: A Theoretical and Historical Case’ [Keynote], *Inquiry in Science and Science Education*, Asian HPS&ST Conference, Pusan National University, South Korea (2016)<sup>†</sup>
55. ‘Scientific Progress and the Value of Science’, ‘Instrumentalism and the Role of Scientific Discourse about the Unobservable’, and ‘Unconceived Alternatives and the Contingency of Science’, Shanxi University (2016)<sup>†</sup>
54. ‘Scientific Progress and the Value of Science’, Beijing Normal University (2016)<sup>†</sup>
53. ‘Scientific Progress and the Value of Science’, Tsinghua University (2016)<sup>†</sup>
52. ‘On Bertrand’s Paradox’, *Paradoxes, Logic, and Philosophy*, Peking University (2016)<sup>†</sup>
51. ‘Scientific Progress and the Value of Science’ and ‘Instrumentalism and the Role of Scientific Discourse about the Unobservable’, University of Wollongong (2016)<sup>†</sup>
50. ‘On Probabilities in Personalised Medicine’, *The Legal and Ethical Challenges of Precision Medicine*, Hong Kong University and Cambridge University (2016)<sup>†</sup>
49. ‘Explanation, Prediction, and Emergence’, *Physics and Emergence*, Durham University (2015)<sup>†</sup>
48. ‘What Goes?’, *Feyerabend 2015: Forty Years ‘Against Method’*, Durham University (2015)<sup>†</sup>
47. ‘On Component Forces in Physics: A Pragmatic View’, *Kinds and Quantities*, Hong Kong University (2015)<sup>†</sup>
46. ‘Scientific Progress: A Pragmatic View’, University of Sussex (2015)<sup>†</sup>
45. ‘Neutralism on World-Based Probabilities in Fundamental Physics’, *Propensities, Chances, and Statistics*, Institute of Philosophy, School of Advanced Studies, University of London (2015)<sup>†</sup>
44. ‘On the Epistemological Consequences of the Nature of Belief’, *The Intersection of Epistemology and Philosophy of Mind*, Bled (2015)<sup>†</sup>
43. ‘Why Computer Simulations Cannot Replace Thought Experiments’, *Model-Based Reasoning in Science and Technology*, Sestri Levante (2015)<sup>\*</sup>
42. ‘The “Changing Places” Model of Identification in Game Theory’, University of Kent at Canterbury (2014)<sup>†</sup>

41. ‘Scientific Progress: A Pragmatic View’, University of Durham (2014)†
40. ‘Is There a General Account of Chemical Bonding? Intermolecular Bonding and the Casimir Effect’, *Structure and Bonding in Chemistry: Foundational Questions*, University of Durham (2014)†
39. ‘A “Changing Places” Model of Identification in Game Theory’, Yonsei University (2014)†
38. ‘Against Scientific Realism: New Arguments from Inconceivability’, *Modal Epistemology and the Philosophy of Science*, University of Southern Denmark (2013)†
37. ‘Arguments from Inconceivable Alternatives’, *Unconceived Alternatives and Scientific Realism*, Durham University (2013)†
36. ‘Social Epistemology of Science, Group Level Probabilities, and Identification’, *Bled Epistemology Conference*, Bled (2013)†
35. ‘Intuitions in Science: Thought Experiments as Argument Pumps’, *Intuitions Workshop*, Hong Kong University (2013)†
34. ‘Intuitions in Science: Thought Experiments as Argument Pumps’, Macau University (2013)†
33. ‘Duhem’s Thesis and Corroboration’, University of Salzburg (2013)†
32. ‘The Illusion of Scientific Realism’, *3<sup>rd</sup> South African Philosophy of Science Colloquium* (2012)\*
31. ‘Intuitions in Science: Thought Experiments as Argument Pumps’, *39<sup>th</sup> Annual Conference of the Philosophical Society of Southern Africa*, Salt Rock (2012)\*
30. ‘The Illusion of Scientific Realism’, Hong Kong University (2012)†
29. ‘Intuitions in Science: Thought Experiments as Argument Pumps’, *39<sup>th</sup> Annual Philosophy of Science Conference*, Inter-University Centre, Dubrovnik (2012)†
28. ‘Unconceived Alternatives Are A Problem for Scientific Realism’, *Workshop on the Philosophy of Michael Devitt*, University of Hong Kong (2012)
27. ‘Empirical Evidence Claims Are A Priori’, *The British Society for the Philosophy of Science Annual Conference*, University of Sussex (2011)\*
26. ‘Criticism and Dogmatism in Science: Striking the Balance’, Research Seminar, Hong Kong University (2011)†
25. ‘The Authority of Science vs. The Demarcation of Inquiry’, *The Authority of Science: 4<sup>th</sup> Sydney-Tilburg Conference on the Philosophy of Science*, University of Sydney (2011)\*

24. ‘Instrumentalism Lives!’, Work In Progress Seminar, University of Sydney (2011)†
23. ‘Duhem’s Thesis and Corroboration’, *18th International Meeting of the Hongo Metaphysics Club*, University of Tokyo (2011)†
22. ‘The Instrumentalist’s New Clothes’, *Philosophy of Science Association Biennial Meeting*, Montreal (2010)\*
21. ‘Confirmation and the Intersubjective Interpretation of Probability’, Philosophy of Physics Seminar, University of Oxford (2010)†
20. ‘Information vs. Knowledge in the Philosophy of Science’, *3rd Workshop on the Philosophy of Information*, Palais des Académies, Brussels (2010)†
19. ‘The Indispensability of Intersubjective Probability’, *84th Meeting of the APA Pacific Division*, San Francisco (2010)\*
18. ‘Thought Experiments and Computer Simulations: Different Ends, Same Means!’, *Thought Experiments and Computer Simulations: Same End, Different Means?*, IHPST, Paris (2010)\*
17. ‘What Isn’t Scientific Progress?’, Swarthmore College, Pennsylvania (2010)†
16. ‘The Use and Misuse of Taxpayers’ Money: Publicly-funded Educational Research’ with Sarah Aiston, *European Conference on Educational Research*, University of Vienna (2009)\*
15. ‘Kuhn vs. Popper on Criticism in Science: A Resolution at the Group Level’, Ockham Society, University of Oxford (2009)
14. ‘Kuhn vs. Popper on Criticism and Dogmatism: A Resolution at the Group Level’, Future of Humanity Institute, University of Oxford (2008)†
13. ‘Uncertainly Knowing: Degrees of Belief and Concessive Knowledge Attributions’, Research Seminar, Dept. of Philosophy, University of Durham (2008)†
12. ‘Approximations, Idealizations and “Experiments” at the Physics-Biology Interface’, *Physics Meets Biology: Perspectives from Philosophy, History, and Science*, Royal Society of Edinburgh (2008)
11. ‘Why Advocate Pancritical Rationalism?’ with Otávio Bueno, *Rethinking Popper*, Academy of Sciences of the Czech Republic (2007)\*
10. ‘To Thine Own Self Be Untrue: Against the Cable Guy Paradox’ with Peter Baumann, *Joint Session of the Aristotelian Society and the Mind Association*, University of Bristol (2007)\*

9. ‘Models in Physics and Biology: What’s the Difference?’, *Making Sense of Science: Historical and Philosophical Themes in the Work of Evelyn Fox Keller*, University of Leeds (2007)<sup>†</sup>
8. ‘Towards a Contextualist Theory of Epistemic Values’ with Christoph Jäger, *Bled Epistemology Conference*, Slovenia (2007)
7. ‘Theories of Inquiry and Theories of Learning: What’s the Link?’, *PESGB Annual Conference*, New College, Oxford (2007)\*
6. ‘The Insufficiency of the Dutch Book Argument’, *Joint Session of the Aristotelian Society and the Mind Association*, Southampton University (2006)\*
5. ‘Making the Leap: Research Students Crossing Conceptual Thresholds’ with Sarah Aiston, *Threshold Concepts within the Disciplines Symposium*, Strathclyde University (2006)
4. ‘An Overdue Divorce: On the Tempestuous Relationship between Logic and Probability.’ *PROGIC 2005: Objective Bayesianism*, LSE (2005)\*
3. ‘*The Empirical Stance* vs. The Critical Attitude: Is *The Retreat to Commitment* Sufficient for a Non-Dogmatic Empiricism?’ *32<sup>nd</sup> Annual Conference of the Philosophical Society of Southern Africa*, University of KwaZulu-Natal (2005)\*
2. ‘A Problem for Popper: Corroboration and the Logical Interpretation of Probability.’ *Philosophy: Problems, Aims, Responsibilities*, Warwick University (2004)\*
1. ‘Can Immoral Beliefs be True?’ *Durham-Bergen Postgraduate Seminar*, University of Durham (2004)

## TEACHING EXPERIENCE

### Lingnan University, Dept. of Philosophy, 2011–

- Sole responsibility for lectures on:
  - Scientific Realism (2<sup>nd</sup>–3<sup>rd</sup> year course)
  - Philosophy of Probability (2<sup>nd</sup>–4<sup>th</sup> year course)
  - Probability and Scientific Method (2<sup>nd</sup>–4<sup>th</sup> year course)
  - Philosophy of Science (2<sup>nd</sup>–4<sup>th</sup> year course)
  - Logic and Critical Thinking (1<sup>st</sup> year core course)
  - Critical Thinking: Analysis and Argumentation (1<sup>st</sup> year core course)
- Member of ‘AI and the Future’ MA Programme Development Team
- PhD Chief Supervisor:
  - Chris Atkinson (HK PhD Fellowship), 2014–2017 [Passed with no corrections, with special mention for an excellent thesis]

Alexander Ehmann (HK PhD Fellowship), 2015–2020 [Passed with no corrections]

Micheál Lacey (HK PhD Fellowship), 2016–2020 [Passed with no corrections]

Haktan Akcin (HK PhD Fellowship), 2015–2020 [Withdrew]

David Villena (HK PhD Fellowship), 2018–2021 [Passed with minor corrections]

Daniele Garancini (HK Belt and Road & University Scholarship), 2020–

- PhD Co-Supervisor:  
Jenny Hung (HK PhD Fellow), 2014–2018 [Passed after major revisions]
- Research MPhil Chief Supervisor:  
Chi Yin Chan (University Scholarship), 2017–2020 [Passed with no corrections, with special mention for an excellent thesis]  
Ka Yan Mok (University Scholarship), 2017–2020 [Passed with minor revisions]  
Maomei Wang (University Scholarship), 2018–2019 [Transferred supervisor]

University of Oxford, Faculty of Philosophy, 2010–2011

- Sole responsibility for university core lectures on ‘Philosophy of Science’.

University of Oxford, Various Colleges, 2009–2011

- Tutor for:  
Knowledge and Reality  
Philosophy of Science  
Philosophy of Science and Social Science  
Plato: *Republic* (in translation)  
‘Scientific Revolutions’ (on Junior Year Abroad programme)

University of Durham, Dept. of Philosophy, 2009–2011

- Sole responsibility for philosophy component of ‘Introduction to the History and Philosophy of Science’ (1<sup>st</sup> year course).
- Lecturer on ‘Philosophical Issues in Contemporary Science’ (3<sup>rd</sup> year course).
- Dissertation and finals essay marking.

University of Bristol, Dept. of Philosophy, 2007–2009

- Sole responsibility for:  
‘Scientific Epistemology and Methodology’ (MA/MSc course).  
‘Topics in the Philosophy of Science’ (2<sup>nd</sup> year course).  
‘Introduction to the Philosophy of Science’ (1<sup>st</sup> year course).

- MA essay supervision.
- Finals essay supervision.

University of Aberdeen, Dept. of Philosophy, 2006

- Sole responsibility for ‘Philosophy of Science’ (3<sup>rd</sup> year course).
- Module leader of ‘Mind, Language, and Science’ (2<sup>nd</sup> year course).
- Tutor on ‘Truth, Knowledge, and Reality’ (1<sup>st</sup> year course).
- Lecturer on ‘Practical Philosophy’ (MLitt course).

University of Durham, Dept. of Philosophy, 2005

- Tutor on ‘Philosophy of Science’ (1<sup>st</sup> year course).

Newcastle University, International Foundation Programme, 2005

- Designed and successfully piloted a foundational course on critical thinking.

University of Sunderland, Centre for Lifelong Learning, 2004

- Lecturer on ‘10 Great Questions in Philosophy’.

University of Durham, Schools Liaison, 2002–2004

- Organised and delivered workshops in critical thinking for ‘gifted and talented’ pupils in secondary schools.

**MEDIA APPEARANCES/KNOWLEDGE TRANSFER**

4. Radio NZ National, 14/12/16: Interview on ‘Philosophy of Probability’ for Jesse Mulligan show. Available online at: <http://www.radionz.co.nz/national/programmes/afternoons/audio/201827681/the-philosophy-of-probability>
3. ABC Radio National, 11/12/16: ‘Come, Come, Mr Bond’, Interview on Probability for *The Philosopher’s Zone*. Available online at: <http://www.abc.net.au/radionational/programs/philosopherszone/come,-come-mr-bond/8100588>
2. Daily Mail, 12/09/09: Comment on Derren Brown’s ‘prediction’ of the Lottery Result.



1. BBC Three Counties Radio, 01/08/2009: Interview on ‘Philosophy Camps’ for Children.

## SERVICE

### Department and University

Lingnan University, 2011–

- Initiated and negotiated creation of an editorial hub for *Australasian Journal of Philosophy* in the Department of Philosophy, 2011
- Departmental Seminar Co-ordinator, 2011–2012
- Course Reviewer for Lingnan Community College, 2011–2013
- Consultant in Logic and Critical Thinking for Lingnan Community College, 2011–2013
- Member of Departmental Committee for Ranking Western Philosophy Journals, 2011
- Member of the University’s Office of Mainland and International Programmes Interview Panel, 2011–2013
- Member of the Faculty of Arts’ BA 1<sup>st</sup> Year Staff-Student Committee, 2012–2013
- Member of the University’s Academic Quality Assurance Committee, 2012–2014
  - Member of Sub-Committee on Teaching and Learning, 2019–2021
- Departmental Curriculum Co-ordinator, 2012–2013
- Member of Task Group on Science Division, 2013
- Member of Hiring Panel for Asst./Assoc. Professor Posts (\*5) 2013–
- Internal Reviewer for GRF (General Research Fund) and ECS (Early Career Scheme) Grant Proposals, 2013–
- Chair of Departmental Postgraduate Admissions Panel, 2013–2019
- Chair of Departmental RAE Preparation Committee, 2017–2019
  - Member, 2013
- Chair of Departmental Postdoctoral Selection Panel, 2019–2020
  - Member, 2020–2022

- Member of Philosophy Departmental (Personnel) Review Committee, 2018–2023
- Member of Science Unit Departmental (Personnel) Review Committee, 2020–2021
- Member of Visual Studies Departmental (Personnel) Review Committee, 2020–2021
- Member of Humanities Faculty Assessment Panel, 2014–2015
- Member of Arts Faculty Management Board, 2015–2018
- Member of Core Curriculum and General Education Committee, 2015–2018
- Member of University Senate (Elected for 2013–2015), 2013–2018
- Member of University Research Committee, 2016–2017
  - Member of Sub-Committee on Research Ethics, 2016–2018
- Member of Discontinuation Appeals Panel, 2022–2023
- Faculty of Arts Research Seminar Coordinator, 2022

University of Oxford, Pembroke College, 2008

- Philosophy Admissions Tutor for PPP (Psychology, Philosophy, and Physiology)

### Professional

Editor in Chief of *Studies in History and Philosophy of Science Part A*, 2018–2021

Editor of *Studies in History and Philosophy of Science (A Section)*, 2021–2022

Associate Editor of *Australasian Journal of Philosophy*, 2012–

Coordinating Editor of *Theory and Decision*, 2015–

Editorial Board Member of:

*Asian Journal of Philosophy*, 2021–

*Synthese Library*, 2020–

Editor of *Philosophy of Probability* and *Scientific Method* categories, PhilPapers.org, 2009–

Guest Editor for:

*Synthese* (2011, 2015)

*Studies in History and Philosophy of Biological and Biomedical Sciences* (2011)

Member of the *Philosophy of Science Association Biennial Meeting Programme Committee*, 2020

Member of the Research Foundation Flanders (FWO) Review College, 2020–

Member of the British Philosophical Association’s Schools Committee, 2007–2009

Philosophers’ Cocoon mentor for early-career philosophers, 2017–2020

External research proposal reviewer for:

Hong Kong Baptist University; Netherlands Organisation for Scientific Research, Council for the Humanities; Research Foundation Flanders (FWO); Research Grant Council of Hong Kong; The Fulbright Commission; The Icelandic Research Fund; The Leverhulme Trust

Faculty rating/tenure reviewer for:

Hong Kong Baptist University; Inland Norway University of Applied Sciences; National Research Foundation, South Africa; University of Cardiff; University of Sussex

Article/manuscript reviewer for:

Acumen Publishing; *Analysis*; *Asian Journal of Philosophy*; *Asia Pacific Education Review*; *Australasian Journal of Philosophy*; Brill; *British Educational Research Journal*; *British Journal for the Philosophy of Science*; *Communications in Statistics – Simulation and Computation*; *Dialectica*; *Entropy*; *Ergo*; *Erkenntnis*; *European Journal for the Philosophy of Science*; *Foundations of Science*; *HOPOS: The Journal of the International Society for the History of Philosophy of Science*; *Inquiry*; *Iranian Journal of Science and Technology Transactions A: Science*; *Journal of Applied Philosophy*; *Journal for General Philosophy of Science*; *Journal for the History of Analytical Philosophy*; *Journal of Logic, Language and Information*; *Journal of Philosophy*; *Logique et Analyse*; *Manuscrito*; *Mind*; Oneworld Publications; *Organon F*; *Oxford Bibliographies Online*; Oxford University Press; *Pacific Philosophical Quarterly*; Palgrave Macmillan; *Philosophers’ Imprint*; *Philosophia*; *Philosophia Mathematica*; *Philosophical Papers*; *Philosophical Psychology*; *Philosophical Quarterly*; *Philosophical Studies*; *Philosophical Writings*; *Philosophy and Technology*; *Philosophy Compass*; *Philosophy of Science*; *Philosophy of the Social Sciences*; *Pi Mu Epsilon Journal*; *Polish Journal of Philosophy*; *Polity*; *Review of Symbolic Logic*; Routledge; *Science and Education*; *Social History of Medicine*; *Social Sciences*; Springer; *Studia Philosophiae Christianae*; *Studies in History and Philosophy of Science*; *Studies in History and Philosophy of Biological and Biomedical Sciences*; *Synthese*; *Theoria*; *Theory and Decision*; *TOPOI: An International Review of Philosophy*; *Zentralblatt MATH*

External Examiner for:

Timothy Smith, MA Thesis, University of Auckland (2013)

Steven Clarke, PhD Thesis, Trinity College Dublin (2013)

William Peden, PhD Thesis, University of Durham (2017)

Ariel Kruger, PhD Thesis, University of Melbourne (2017)

Ragnar van der Merwe, PhD Thesis, University of Johannesburg (2022)

REFEREES

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Faculty of Philosophy  
University of Cambridge  
Sidgwick Avenue  
Cambridge CB3 9DA, UK

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(4) Prof. Jon Williamson  
Dept. of Philosophy  
University of Kent at Canterbury  
Kent CT2 7NF, UK

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