

# JUHA SAATSI

School of Philosophy, Religion, and History of Science  
University of Leeds, Woodhouse Lane, Leeds, LS2 9JT, UK

## Expertise

AOS: Philosophy of Science, Philosophy of Physics

AOC: Philosophy of Mathematics, Philosophy of Biology, Metaphysics

## Positions

2014– Associate Professor

2007–2014 Lecturer

2006–2007 Postdoctoral Research Fellow  
*School of Philosophy, Religion, and History of Science,  
University of Leeds*

## Education

2001–2006 PhD in Philosophy  
*University of Leeds*

1994–2001 MSc in Theoretical Physics  
*University of Jyväskylä*

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## Grants, Awards, and Fellowships

### Grants and Scholarships

- 2017 *British Academy (BA) Mid-Career Fellowship*  
'Scientific Realism Reinvigorated' (Personal Grant)  
£133,109 (FEC)
- 2014 *Arts and Humanities Research Council (AHRC) Research Grant*  
'Scientific Realism and the Quantum' (PI; Co-I Steven French)  
£252,857 (FEC)
- Templeton Foundation: Durham Emergence Project Fellowship*  
'Emergence and Laws' (PI; Co-I's A. Reutlinger and M. Schrenk)  
£56,581 (FEC)
- 2013 *Durham Institute of Advanced Study*  
Research Buyout Grant  
£8,000
- 2006 *Helsingin Sanomat Foundation*  
Postdoctoral Research Scholarship  
€14,000
- 2005 *Ella and Georg Ehrnrooth Foundation*  
Postdoctoral Research Scholarship  
€10,000

## Research Awards

- 2020 *University of Leeds:*  
Faculty of Arts Study Leave  
£9000.
- 2019 *University of Leeds:*  
Research mobility Award  
£1911.
- 2010-16 *University of Leeds:*  
Faculty of Arts International Conference fund  
£500 biennially (maximum amount).
- 2012 *University of Leeds:*  
Faculty of Arts Study Leave  
£1500.
- 2011 *University of Leeds:*  
WUN Research Mobility Programme award.

## Visiting Research Fellowships (funded)

- 2018 *University of Kyoto*  
The Faculty of Letters, November 2018  
“*Reexamination of the scientific realism debate from a historical perspective*” (Prof. Iseda)
- 2015 *NTU Singapore*  
Humanities and Social Science (Philosophy), November 2015
- 2015 *University of California San Diego*  
Philosophy Department, April 2015
- 2014 *LMU (Münich) Center for Advanced Studies*  
MCMP visiting fellowship, October 2014
- 2013 *Durham University:*  
Institute of Advanced Study, September–December 2013
- 2011 *University of Sydney:*  
Sydney Centre for the Foundations of Science, September–December 2011

## Other Research Fellowships (funded)

- 2014 *Durham Emergence Project:*  
Fellowship (Templeton Foundation), Sept 2014–August 2015

## Teaching Awards and Funding

- 2010 *University of Leeds:*  
Faculty of Arts Teaching Development Prize.
- 2009 *PRS Subject Centre:*  
Grant for *VLE Wiki as a philosophy assessment*.

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## Publications

**Books**

- 2020 (VI) *Scientific Realism and the Quantum*,  
S. French and J. Saatsi (Eds.), Oxford University Press, 2020.
- 2018 (V) *Explanation Beyond Causation*  
A. Reutlinger and J. Saatsi (Eds.), Oxford University Press, 2018.
- (IV) *The Routledge Handbook of Scientific Realism*  
J. Saatsi (Ed.), Routledge, 2018.
- 2014 (III) *The Bloomsbury Companion to the Philosophy of Science*  
S. French and J. Saatsi (Eds.), Bloomsbury.  
(Second, expanded paperback edition of the *Continuum Companion*.)
- 2011 (II) *The Continuum Companion to the Philosophy of Science*  
S. French and J. Saatsi (Eds.), Continuum Publishing, 2011.
- 2006 (I) *On Structural Foundations of Quantum Gravity*  
D. Rickles, S. French and J. Saatsi (Eds.), Oxford University Press, 2006.

**Research articles**

- Forthcoming (36) ‘Explanatory Power: Factive vs. Pragmatic Dimensions’,  
in *Scientific Understanding and Representation: Modeling in the Physical Sciences*, Lawler, Khalifa, Shech (eds.), Routledge, forthcoming.
- 2022 (35) ‘(In)effective realism?’,  
*European Journal of Philosophy of Science*, 2022.
- 2021 (34) ‘Scientific Realism and Underdetermination in Quantum Theory’,  
M. Egg and J. Saatsi, *Philosophy Compass*, 16(11), 2021.
- (33) ‘Non-causal Explanations in Physics’,  
*The Routledge Handbook of Philosophy of Physics*,  
E. Knox and A. Wilson (Eds.), Routledge, 2021.
- 2020 (32) ‘Truth vs. Progress Realism about Spin’,  
*Scientific Realism and the Quantum*, S. French and J. Saatsi (Eds.), Oxford  
University Press, 35–54, 2020.
- 2019 (31) ‘Mathematics and Explanatory Generality: Nothing but Cognitive Salience’,  
R. Knowles and J. Saatsi, *Erkenntnis*, 86: 1119–ro37, 2021.
- (30) ‘Realism and Explanatory Perspectives’,  
*Understanding Perspectivism: Scientific challenges and methodological prospects*,  
M. Massimi and C. McCoy (Eds.), Routledge, 2019 .
- (29) ‘Scientific Realism Meets Metaphysics of Quantum Mechanics’,  
*Philosophers Look at Quantum Mechanics*,  
Alberto Cordero (ed.), Springer, 2019.
- (28) ‘Explanatory Abstractions’, L. Jansson and J. Saatsi,  
*British Journal for the Philosophy of Science*, 70: 817–44, 2019.
- 2018 (27) ‘Taking Reductionism to the Limit: How to Rebut the Anti-reductionist Argument from Infinite Limits’, J. Saatsi and A. Reutlinger,  
*Philosophy of Science*, 85: 455–82, 2018.

- (26) ‘Symmetries and Explanatory Dependencies in Physics’,  
*Explanation Beyond Causation*, S. French and J. Saatsi,  
A. Reutlinger & J. Saatsi (eds), 185–205. Oxford University Press, 2018.
- (25) ‘On Explanations from “Geometry of Motion”’,  
*British Journal for the Philosophy of Science*, 69: 253–273, 2018.
- (24) ‘Realism and the Limits of Explanatory Reasoning’,  
*The Routledge Handbook of Scientific Realism*,  
J. Saatsi (ed.), Routledge, 200–11, 2018.
- 2017 (23) ‘Dynamical Systems Theory and Explanatory Indispensability’,  
*Philosophy of Science*, Volume 84(5), 892–904, 2017.
- (22) ‘Explanation and Explanationism in Science and Metaphysics’,  
*Metaphysics and the Philosophy of Science: New Essays*, 162–91,  
M. Slater and Z. Yudell (eds), Oxford University Press, 2017.
- (21) ‘Replacing Recipe Realism’,  
*Synthese*, 194(9), 3233–44, 2017.
- (20) ‘Structuralism with and without Causation’,  
*Synthese*, 194: 2255–71, 2017.
- 2016 (19) ‘What is theoretical progress of science?’,  
*Synthese*, 1–21, First Online, 2016.
- (18) ‘Models, Idealisations, and Realism’,  
*Models and Inferences in Science*,  
E. Ippoliti, F. Sterpetti, and T. Nickles (eds), 173–189, Springer, 2016.
- (17) ‘On the “Indispensable Explanatory Role” of Mathematics’,  
*Mind*, 125, 1045–1070, 2016.
- 2015 (16) ‘Historical inductions, Old and New’,  
*Synthese*, 196(10), 3979–3993, 2019.  
DOI:10.1007/s11229-015-0855-5.
- 2014 (15) ‘Inconsistency and Scientific Realism’,  
*Synthese*, **191**, 13, 2941–2955, 2014.
- 2013 (14) ‘Reassessing Woodward’s Account of Explanation: Regularities, Counterfactuals,  
and Non-causal Explanations’, J. Saatsi and M. Pexton,  
*Philosophy of Science*, **80**, 613–624, 2013.
- 2012 (13) ‘Mathematics and Program Explanations’,  
*Australasian Journal of Philosophy*, **90**, 579–84, 2012.
- (12) ‘Scientific Realism and Historical Evidence’,  
*EPSA Philosophy of Science: Amsterdam 2009*,  
de Regt et al. (eds), Springer, 329–40, 2012.
- 2011 (11) ‘Idealized Models as Inferentially Veridical Representations’,  
*Models, Simulations, and Representations*,  
C. Imbert & P. Humphreys (eds), Routledge, 234–49, 2011.

- (10) ‘The Enhanced Indispensability Argument: Representational vs. Explanatory Role of Mathematics in Science’, *British Journal for the Philosophy of Science*, **62**, 143–54, 2011.
- (9) ‘Miraculous Success? Inconsistency and Untruth in Kirchoff’s Diffraction Theory’, J. Saatsi and P. Vickers), *British Journal for the Philosophy of Science*, **62**, 29–46, 2011.
- 2009 (8) ‘Form vs. Content Driven Arguments for Realism’, *New Waves in Philosophy of Science*, (Eds.) P.D. Magnus & J. Busch, Palgrave Macmillan, 8–28, 2009.
- (7) ‘Whence *Ontological* Structural Realism?’, *EPSA Epistemology and Methodology of Science*, M. Suarez et al. (eds), Springer, 255–65, 2009.
- 2008 (6) ‘Eclectic Realism: the Proof of the Pudding’, *Studies in History and Philosophy of Science*, **39**, 273–76, 2008.
- 2007 (5) ‘Living in Harmony: Nominalism and the Explanationist Argument for Realism’, *International Studies in the Philosophy of Science*, **21**, 19–33, 2007.
- 2006 (4) ‘Realism about Structure: the Semantic View and Non-linguistic Representations’ S. French and J. Saatsi, *Philosophy of Science*, **73**, 548–59, 2006.
- (3) ‘Ramseyfication and Theoretical Content’, J. Melia and J. Saatsi, *British Journal for the Philosophy of Science* **57**, 561–85, 2006.
- 2005 (2) ‘Reconsidering the Fresnel-Maxwell theory shift: how the realist can have her cake and EAT it too’, *Studies in History and Philosophy of Science* **36**, 509–38, 2005.
- (1) ‘On the Pessimistic Induction and Two Fallacies’, *Philosophy of Science*, **72** (5), 1088–98, 2005.  
– Reprinted in *Philosophy of Science: The Central Issues*, 2nd ed., Cover, Curd and Pincock (eds), W.W.Norton, 2012.

### Surveys and introductions

- 2020 (vi) ‘Introduction’, S. French and J. Saatsi, *Scientific Realism and the Quantum*, S. French and J. Saatsi (Eds.), Oxford University Press, 1–16, 2020.
- 2018 (v) ‘Introduction: Scientific Realism in the 21st Century’, *The Routledge Handbook of Scientific Realism*, J. Saatsi (ed.), 1–4, Routledge, 2018.
- (iv) ‘Introduction: Scientific Explanation Beyond Causation’, A. Reutlinger and J. Saatsi, *Explanation Beyond Causation*, A. Reutlinger & J. Saatsi (Eds.), 1–11, Oxford University Press, 2018.
- 2013 (iii) ‘Scientific Realism’, *Oxford Bibliographies Online*, 2013.
- 2011 (ii) ‘Introduction’, S. French and J. Saatsi, *The Continuum Companion to the Philosophy of Science*, S. French & J. Saatsi (eds), Continuum Publishing, 1–11, 2011.
- (i) ‘Travelling in New Directions’, S. French and J. Saatsi, *The Continuum Companion to the Philosophy of Science*, S. French & J. Saatsi (eds), Continuum Publishing, 337–58, 2010

- Revised for *The Bloomsbury Companion to the Philosophy of Science*, 357–377, 2014.

## Reviews

- 2017 (f) ‘A pluralist account of non-causal explanation in science and mathematics’ Contribution to a review symposium on *Because Without Cause*, by M. Lange, *Metascience*, 27: 3-9, 2018.
- 2014 (e) Review of *The Material Realization of Science*, by Hans Radder, *Metascience* 23, 339–341, 2014.
- 2012 (d) Review of *Mathematics and Scientific Representation*, by Chris Pincock, *Notre Dame Philosophical Reviews*, 2012.
- 2011 (c) Review of *Mathematics and Reality*, by Mary Leng, *The Bulletin of Symbolic Logic*, 17, 267–8, 2011.
- 2009 (b) Contribution to a review symposium on *Exceeding Our Grasp*, by Kyle P. Stanford, *Metascience*, 18, 355–62, 2009.
- 2007 (a) Review of *Rationality and Reality: Conversations with Alan Musgrave*, (Eds.) C. Cheyne & J. Worrall, *Metascience*, 16, 271–5, 2007.

## Popular

- 2019 (A) ‘What Do We Know? A Quantum Perspective’, *Institute of Arts and Ideas*, <https://iai.tv/articles/what-do-we-know-a-quantum-perspective-auid-1253>

## On teaching

- 2011 (A) ‘VLE Wiki as a Philosophy Assessment’ (with I. Danka), *Discourse*, 10.

## Presentations

### Public Lectures

- (9) ‘Skepticism about scientific knowledge: history and current relevance’  
*Leeds Central Library*  
18. November 2019.
- (8) ‘What do we know about the nature of light?’  
*Sidmouth Science Festival*  
12. October 2019.
- (7) ‘Photons: do we know how to make sense of quantum physics?’  
*HPS-in-Focus*  
Leeds, 11. December 2018.
- (6) ‘Light: does physics tell us what it is?’  
*HPS-in-Focus*  
Leeds, 27. November 2018.
- (5) ‘Skepticism about scientific knowledge: history and current relevance’  
*HPS-in-Focus*  
Leeds, 20. November 2018.
- (4) ‘The Barr-Stroud Rangefinder, or, The Magic and Mayhem of Optics’ (with K. While and G. Radick)  
*HPS in 20 Objects*  
Leeds, 23. May 2017.

- (3) ‘Navigating the many interpretations of QM’ (with S. French)  
*2016 British Science Festival*  
Swansea, 7. Sept. 2016.
- (2) ‘Scoping out what’s real: limits of observation and scientific realism’  
*HPS in 20 Objects*  
Leeds, 19. Apr. 2016.
- (1) ‘What do we know about the nature of light?’  
*Institute of Advanced Studies Public Lecture*  
Durham, 5. Nov. 2013.

### Invited Research Talks

- (43) ‘Understanding-first’ Approach to Non-causal Explanations  
*Ernst Mach workshop IX*, Prague, 17.–18. Sept. 2020.
- (42) Quantum Theory, Progress and Scientific Realism  
*How Quantum Mechanics Changed Philosophy*, Wuppertal, 16.–17. Jan. 2020.
- (41) Explanatory power: Modal vs. pragmatic dimensions  
*Scientific Understanding and Representation*, Bordeaux, 5.–6. Feb. 2019.
- (40) Which explanations in science are metaphysical (and why)  
*Metaphysical Explanation in Science (FraMEPhys)*, Birmingham, 10.–11. Jan. 2019.
- (39) ‘Scientific realism and the “special sciences”: nothing special’  
*Japan Association of Philosophy of Science Fall meeting*, Tokyo, 10. Nov. 2018.
- (38) ‘Local vs. Global Debates about Scientific Realism’  
*51st Annual meeting of the Philosophy of Science Society, Japan*, Kyoto, 13-15. Oct. 2018.
- (37) ‘Scientific realism about spin’  
*13th International Ontology Congress*, San Sebastian, 2-6. Oct. 2018.
- (36) ‘Mathematics, Explanatory Generality, and Ontological Commitment’  
University of Milan, 20. Nov. 2017.
- (35) ‘On the unprofitability of global realism debates’  
Workshop on Meta-level debates in Philosophy, New College of the Humanities, 10. Nov. 2017.
- (34) ‘Mathematics, Explanatory Generality, and Ontological Commitment’  
Workshop on non-causal and mathematical explanations, Sorbonne, Paris, 28-29. June 2017.
- (33) ‘Scientific Realism meets Metphysics of QM’  
NYU Abu Dhabi, 30. March 2017.
- (32) ‘Mathematics, Explanatory Generality, and Ontological Commitment’  
Workshop on Simplicity in Science and Metaphysics, Leeds, 25. Apr. 2017.
- (31) ‘Scientific Realism and Quantum Mechanics’  
12th International Ontology Congress, San Sebastian, 2-7. Oct. 2016.
- (30) ‘Accommodating Idealisations: A Realist Guide’  
Realism and Idealisations Workshop  
Durham University, July. 2016.
- (29) ‘Scientific Realism and the Limits of Explanatory Reasoning’  
International Scientific Realism Workshop  
Kyoto University, 30-31. July 2016.
- (28) ‘Anti-reductionism and RG Explanation of Universality’  
University of Guelph, 4. May 2016.

- (27) 'Explanatory Abstractions'  
CamPoS, the Cambridge Philosophy of Science seminar  
University of Cambridge, 17. Feb. 2016.
- (26) 'Explanatory Abstractions and Mathematical Abstracta'  
Abstract Objects: from Explanation to Existence (workshop)  
University of Santiago de Compostela, 19-20. Jan. 2016.
- (25) 'Replacing Recipe Realism'  
NTU Singapore, Nov. 2015.
- (24) 'Between realism and anti-realism?'  
Theory-progressivism and fundamental physics'  
York Realism Workshop, 8. June 2015.
- (23) 'Emergence and Explanation'  
Bergen Philosophy of Science Workshop, 4-5. June 2015.
- (22) 'Theory-progressivism about fundamental physics'  
UCSD Colloquium, 6. Apr. 2015.
- (21) 'Theory-progressivism about fundamental physics'  
Irvine LPS Colloquium, 3. Apr. 2015.
- (20) 'Truth, Progress, and Realism in Science'  
DCLPS Colloquium (Dusseldorf), 21. Jan. 2015.
- (19) 'Truth, Progress, and Realism in Science'  
Philosophy of Science: Contemporary Debates  
Edinburgh, 26. Nov. 2014.
- (18) 'Emergence and Laws of Nature'  
Munich Center for Mathematical Philosophy, 16. Oct. 2014.
- (17) 'Two Perspectives on Epistemic Progress in Science'  
Non-alethic Aims of Inquiry (workshop)  
St Andrews, 11-12. Oct. 2014.
- (16) 'Models, idealisations, and realist commitments'  
Models and inferences in science (conference)  
Rome, 11-13. Sept. 2014.
- (15) 'Mathematics, Explanations, and Ontology'  
University of Florence, 30. May 2014.
- (14) 'Mathematics, Explanations, and Ontology'  
Department of Philosophy, Roma Tre, 28. May 2014.
- (13) 'Worthwhile distinctions: kinematic, dynamic, (non-)causal'  
Explaining without Causes (workshop)  
Cologne, 6-7. Dec. 2013.
- (12) 'Historical inductions vs. minimal realism'  
Unconceived Alternatives and Scientific Realism (workshop)  
Durham, 1-2. July 2013.
- (11) 'Structuralism with and without causation'  
Causality and Structuralism (workshop)  
Cologne, 8. Feb. 2013.
- (10) 'On mathematics' (indispensable) explanatory role'  
Explanation in Mathematics and Ethics (conference)  
Nottingham, 18-19. Jan. 2013.
- (9) 'What is theoretical progress?'  
Philosophy of Physics group, Oxford University, 29. Nov. 2012.



- (8) ‘Naturalism and the Benacerraf-Field challenge to Platonism’  
Department of Philosophy, Durham University, 25. Oct. 2012.
- (7) ‘Naturalism and the Benacerraf-Field challenge to Platonism’  
Department of Philosophy, UEA, 18. Oct. 2012.
- (6) ‘What is theoretical progress in science?’  
Evaluating Scientific Realism (conference)  
Department of Philosophy, Durham University, 7–8. Sept. 2012.
- (5) ‘On mathematics’ indispensable explanatory role in science’  
Workshop on mathematical explanation in science,  
Autonomous University of Barcelona, 9–10. March 2012.
- (4) ‘Scientific realism and inferentially veridical representations’  
Centre for the History and Philosophy of Science, University of Sydney, 19. Sept. 2011.
- (3) ‘Scientific realism and partially veridical representations’  
British Society for the Philosophy of Science, LSE, 1. Feb. 2010.
- (2) On Jill North’s ‘Structure of classical mechanics’  
International Ontology Conference, Leeds, 6. Sept. 2008.
- (1) ‘How to defend scientific realism’  
History and Philosophy of Science seminar, University of Leeds, 28. Feb. 2007.

### Refereed Conferences and Workshops

- (41) ‘Explanatory Power: Modal vs. Pragmatic Dimensions’  
*BSPS2018*, Oxford, 4-5. July 2018.
- (40) ‘Overstretching IBE: Realism and the limits of explanatory reasoning’  
*Models of Explanation*, Turin, 11-13. June 2018.
- (39) ‘Explanatory Power: Modal vs. Pragmatic Dimensions’  
*Explanatory Power*, Geneva, 14-15. June 2018.
- (38) ‘Scientific Realism Meets Metaphysics of QM’  
*EPSA2017*, Exeter, 12-13. Sept. 2017.
- (37) ‘Scientific Realism, QM, and History of Science’  
‘Quo Vadis Selective Scientific Realism?’, Durham, 5-7. Aug. 2017.
- (36) ‘Dynamical Systems Theory and Explanatory Indispensability’  
*PSA2016*, Atlanta, Nov. 2016.
- (35) ‘Anti-reductionism and RG Explanation of Universality’  
*Infinite Idealizations in Science*, Munich MCPC, 8-9. June 2016.
- (34) ‘A case for local realism’  
*EPSA2015*, Duesseldorf, 23-26. Sept. 2015.
- (33) ‘Varieties of abstract explanations’ (with Lina Jansson)  
*EPSA2015*, Duesseldorf, 23-26. Sept. 2015.
- (32) ‘Theory-progressivism: between realism and anti-realism?’  
*CLMPS2015*, Helsinki, 3-8. Aug. 2015.
- (31) ‘Varieties of abstract explanations’ (with Lina Jansson)  
*BSPS 2015*, Manchester, 2-3. July 2015.
- (30) ‘Non-causal explanations and “geometry of motion”’  
*Explanation Beyond Causation*, Munich, 23-24. Oct. 2014.
- (29) ‘Pessimistic induction and realist recipes’  
*New Thinking about Scientific Realism*, Cape Town, 5-8. Aug. 2014.

- (28) ‘Worthwhile distinctions: kinematic, dynamic, and (non-)causal explanations’  
*BSPS 2014*, Cambridge, 10–11. July 2014.
- (27) ‘Naturalism and the Benacerraf-Field challenge to Platonism’  
*Deductive Mathematical Cognition and Philosophy*, Bristol, 7–8. April 2014.
- (26) ‘Worthwhile distinctions: kinematic, dynamic, (non-)causal’  
*Models and Simulations VI*, Notre Dame, 9–11. May 2014.  
Abstract accepted; unable to go.
- (25) ‘Realism, Explanatory Indispensability, and Ontic Accounts of Explanation’  
*EPSA 2013*, University of Helsinki, 28–31. Aug. 2013.
- (24) ‘Realism, Explanatory Indispensability, and Ontic Accounts of Explanation’  
*BSPS 2013*, University of Exeter, 4–5. July 2013.
- (23) ‘Reassessing Woodward’s account of explanation’  
*PSA 2012*, University of San Diego, 15–17. Nov. 2012.
- (22) ‘Models and analogies: a challenge to the partial structure account’  
*BSPS 2012*, University of Stirling, 5–6. July 2012.
- (21) ‘On the epistemic status of IBE in science and philosophy’  
*Metaphysics and Science*, University of Kent, 2–3. July 2012.
- (20) ‘Models and analogies: a challenge to the partial structure account’  
*Models and Simulations V*, Helsinki, 14–16. June 2012.
- (19) ‘Epistemic conception of progress and the semantic view of theories’  
*The Progress of Science*, Tilburg, 25–27. Apr. 2012.
- (18) ‘Scientific realism and inferentially veridical representations’  
*14th CLMPS*, Nancy, 20–25. July 2011.
- (17) ‘A counterfactual theory of non-causal explanation?’  
*BSPS 2011*, University of Sussex, 7–8. July 2011.
- (16) ‘Naturalistic metaphysics and inference to the best explanation’  
*Metaphysics and Philosophy of Science*, Toronto, 13–14. May 2011.
- (15) ‘Laudan’s “Confutation” 30 years on’  
*BSPS 2010*, University of Dublin, 8–9. July 2010.
- (14) ‘Scientific realism and the history of science’  
*EPSA09*, Amsterdam, 21–24. Oct. 2009.
- (13) ‘Scientific realism and inconsistency’  
*BSPS 2009*, University of East Anglia, 13–14. July 2009.
- (12) ‘Models, idealization, and partial truth: a framework’  
*Models and Simulations III*, University of Virginia, 6. Mar. 2009.
- (11) ‘Kirchhoff’s diffraction theory and scientific realism’  
*BSPS 2008*, St. Andrews, 8–9. July 2008.
- (10) ‘Whence *ontological* structural realism?’  
*European Philosophy of Science Association*, Madrid, 15–17. Nov. 2007.
- (9) ‘Material theory of induction and scientific realism’  
*Confirmation, Induction and Science*, LSE, 8–10. Mar. 2007.
- (8) ‘Realism about unobservables vs. numbers’  
*BSPS 2006*, Southampton, 6–7. July 2006.
- (7) ‘Reductive explanation, understanding, and realism’  
*Philosophical Perspectives on Scientific Understanding*, Amsterdam, 25–27. Aug. 2005.
- (6) ‘Arguing for realism: global vs. local strategies’  
*BSPS 2005*, Manchester, 7–8. July 2005.

- (5) ‘Justifying the realist inference: how local can one go?’  
*LSE Graduate Conference on Philosophy of Science*, 27–28. May 2005.
- (4) ‘Pessimistic induction and two fallacies’  
*Philosophy of Science Association 19th Biennial Meeting*, Austin, 18–21. Nov. 2004.
- (3) ‘Reconsidering the Fresnel-Maxwell theory-shift’  
*BSPS 2004*, Canterbury, 9–10. July 2004.
- (2) ‘The role of ramseyfication in structural realism’  
*BSPS 2003*, Belfast, 18–19. July 2003.
- (1) ‘Quantum gravity, spacetime and structural realism’  
*Philosophy of Science Association 18th Biennial Meeting*, Milwaukee, 7–10. Nov. 2002.

### Other Workshops (not refereed)

- (6) ‘Epistemology of mathematical platonism: explanation and overall evidence’  
*Thinking about theory choice: Wuhan-Leeds lecture series*, Wuhan, 24. Oct. 2019
- (5) ‘Realism and Explanation in Quantum Mechanics’  
*Models, Explanation, and Realism in Quantum Physics* workshop, Leeds, 17. Jan. 2017
- (4) ‘Theory progressivism about fundamental physics’  
*Progress and Realism in Science* workshop, Leeds, 24. Mar. 2015
- (3) ‘On ‘weak metaphysical emergence’’  
*Emergence in Physics* workshop, Leeds, 27. Feb. 2015
- (2) ‘What’s wrong with the new indispensability argument’  
*Indispensability, Explanation, and Scientific Realism* workshop, Leeds, 23. Jan. 2009
- (1) ‘Inconsistency and scientific realism’  
*Is Science Inconsistent?* workshop, Leeds, 21. June 2008.

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## Teaching and Supervision

### Postdoc Supervision

2017–2019 Robert Knowles, British Academy Postdoctoral Fellowship,  
*Mathematics: The Unlikely Engine of Scientific Discovery*.

### PhD Supervision

2021– Yihan Jiang,  
Funded by Chinese Scholarship Council (CSC).

2019– Mohammad Ali Emami,  
Second supervisor, Sharif University of Technology.

2018– Paul Hellen,  
Funded by School of PRHS.

2018– Colin McCullough-Benner,  
Funded by University of Leeds.

2017 Kohei Morita, visiting PhD student from University of Kyoto.

2015– Douglas Earl, *Modelling Interactions in QED*  
AHRC funded.

2015–2019 Simon Newey, *Realism, Probability, and Quantum Mechanics*  
AHRC funded.

- 2012–15      Jordan Bartol, *Biological Kinds*  
Funded by University of Leeds International Studentship.
- 2010–14      David Race, *Applicability of Mathematics*  
AHRC funded.
- 2010–11      Vasiliki Nassipoulou, *Supervenience and Ontology of Spacetime*
- 2009–13      Mark Pexton, *Non-Causal Explanation in Science*  
AHRC funded.

### Research Masters Supervision

- 2019–      Ziren Yang,  
*Applicability of Mathematics.*

### Teaching

- Leeds      Since 2008 I have led ten different UG modules and five different MA modules.

## Service Activity

### Editorships

- 2020–      *The British Journal for the Philosophy of Science*  
Associate Editor

### External Service

- 2020–22      *ERC Marie Curie Project FictStruct*  
Advisory Committee member
- 2019–      *Scientific Understanding and Representation (SURE)*  
Steering Committee member
- 2018–      *A Framework for Metaphysical Explanation in Physics (ERC)*  
Advisory Board member
- 2016–2019      *The British Society for the Philosophy of Science:*  
Executive Committee member
- 2016      *Nanyang Technological University, Singapore:*  
External Referee for a tenure application
- University of Athens:*  
External Referee for promotion and job applications
- 2011–14      *University of Bristol:*  
External Examiner for Taught Postgraduate courses (HPS).

### Departmental Service

- 2019–20      Director of International Activities (PRHS)
- 2019–20      Deputy Director of Postgraduate Research (HPS)
- 2016–2018      Director of Taught Postgraduate Studies (PRHS)
- 2013–15      Research Postgraduate Tutor (HPS)

2008–15 MA Programme Director (HPS)

2010–11 IT/Web Officer (2010–11)

## PhD Examining

Helsinki (2020)

UCL (2019)

Kings College (2017)

University of Guelph (2016)

University of Leeds (8 examinations since 2009)

## Refereeing

Funding applications Austrian Science Fund (FWF)  
British Academy  
European Research Council (ERC)  
Estonian Research Council (ETAg)  
South African National Research Foundation  
The National Science Centre of Poland  
The Education University of Hong Kong

Books and proposals Oxford University Press (several)  
Cambridge University Press  
Pickering & Chatto  
Polity

Articles Analysis  
Analytic Philosophy  
The American Philosophical Quarterly  
Australasian Journal of Philosophy  
British Journal for the Philosophy of Science  
Canadian Journal of Philosophy  
Dialectica  
Foundations of Science  
EPSA Proceedings  
Ergo  
Erkenntnis  
European Journal for Philosophy of Science  
International Studies in the Philosophy of Science  
Inquiry  
Journal for General Philosophy of Science  
Journal of Philosophy  
Mind  
Philosophers' Imprint  
Philosophia  
Philosophical Quarterly  
Philosophy of Science  
Philosophical Studies  
Philosophical Transactions B  
Res Philosophica  
Science and Education  
Synthese  
Studies in History and Philosophy of Biological and Biomedical Sciences  
Studies in History and Philosophy of Modern Physics  
Studies in History and Philosophy of Science

## Theoria

Conferences  
& workshops*Program Committee member for major conferences*

IX Conference of the Spanish Society for Analytic Philosophy  
 British Society for the Philosophy of Science (BSPS2017, 2018, 2019)  
 Philosophy of Science Association (PSA2016)  
 European Philosophy of Science Association (EPSA2015)  
 Models of Explanation, 11-13 June 2018 (ModExp2018)  
 Explanation Beyond Causation, Munich, 23-24 October 2014

**Conference and Workshop Organisation**

- 2017 Get real!: Realism as a goal for the sciences and for HPS  
 19–20. September 2017, University of Leeds.  
 Scientific Realism and the Quantum  
 International Conference, 12–13. September 2017, University of Leeds.  
 EPSA2017 Symposium: Scientific Realism and Quantum Physics,  
 6.–9. September 2017, Exeter.  
 Models, Explanations, and Realism in Quantum Physics  
 International workshop, 17. January 2017, University of Leeds
- 2016 Composition in Physics: Superposition and Fundamentality  
 International workshop, 8. September 2016, University of Leeds  
 Decoherence in the (Philosophy) of Quantum Physics  
 International workshop, 2. September 2016, University of Leeds  
 Underdetermination and Quantum Physics  
 International workshop, 20-21. May 2016, University of Leeds
- 2015 EPSA2015 Symposium: Local vs. Global Approaches to Realism,  
 25.–26. September 2015, Duesseldorf  
 Scientific Realism about the Quantum State  
 International workshop, 9. September 2015, University of Leeds  
 Emergence and Laws  
 International workshop, 26.–27. June 2015, University of Leeds  
 Progress and Realism in Science  
 International workshop, 24. March 2015, University of Leeds  
 Emergence in Physics  
 International workshop, 27. February 2015, University of Leeds
- 2014 9th UK Integrated HPS Workshop,  
 10.–11. April 2014, University of Leeds
- 2009 Indispensability, Explanation, and Scientific Realism  
 International workshop, 23. January 2009, University of Leeds.
- 2003 12th UK Conference on the Foundations of Physics,  
 2.–5. September 2003, University of Leeds.

**Research Outreach and Impact Activities**

- 2018 Teaching the “measurement problem” of Quantum Mechanics  
 IoP Stimulating Physics Network (A-level teachers’ training)  
 12. January 2018, University of Leeds.

2017                      Workshop for Science Communicators: Modern Physics  
12. September 2017, University of Leeds.  
  
                                 ‘Interpretations of QM: Pedagogical Aspects’  
Session with Physics PGCE students  
15. June 2017, University of Leeds.

Leeds, March 2022