

MATT FARR

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Research Interests

Philosophy of Science • Causality; explanation; anti-realism, conventionalism & pragmatism; non-empirical aspects of science

Metaphysics • Time; causation; laws of nature; methodology of metaphysics

Philosophy of Physics • Arrows of time; role of causality in physics; quantum foundations; cosmology

Philosophy of Mind and Cognitive Science • Time perception; memory; psychiatry; AI

Areas of Teaching Competence

Philosophy of Science • Metaphysics • Philosophy of Physics • Philosophy of Mind, Cognitive Science & Psychology • Philosophy of Psychiatry • Philosophy of Medicine • Epistemology • Logical Positivism • Early Modern Metaphysics & Epistemology • Metaethics

Employment

2017– **University of Cambridge, UK** • Research & Teaching Associate in Philosophy of Science | Department of History and Philosophy of Science

2014–2017 **University of Queensland, Australia** • Postdoctoral Research Fellow | School of Historical and Philosophical Inquiry | Project: *The Causal Power of Information in a Quantum World* | Directors: Phil Dowe & Gerard Milburn

2013–2014 **University of Sydney, Australia** • Postdoctoral Research Fellow | Center for Time & Department of Philosophy | Project: *New Agendas for the Study of Time: Connecting the Disciplines* | Directors: Huw Price, Dean Rickles, Kristie Miller & Alex Holcombe

Education

2013 **PhD in Philosophy** • University of Bristol • *Pass without corrections*
Thesis: *Towards a C Theory of Time: An Appraisal of the Physics and Metaphysics of Time Direction*
Supervisor: James Ladyman | Examiners: Huw Price (external); Alexander Bird (internal)

2008 **Master of Arts in Philosophy** • University of Bristol • *Awarded with Distinction*
Dissertation: *Thermodynamics and Time Asymmetry* | Supervisor: James Ladyman.

2006 **Bachelor of Arts in Philosophy** • University of Southampton • *First Class Honours*
Dissertation: *Presentism and Gödel's R-worlds* | Supervisor: Ray Monk.

Publications

JOURNAL ARTICLES

In press **Conventionalism about time direction**
Synthese | Preprint: philsci-archive.pitt.edu/19994/

2020 **C-Theories of Time: On the adirectionality of time**
Philosophy Compass | Vol. 15(12), pp. 1–17 | doi.org/10.1111/phc3.12714 | Preprint: philsci-archive.pitt.edu/18212/

2020 **Causation and Time Reversal**
British Journal for Philosophy of Science | Vol. 71(1), pp. 177–204 | doi.org/10.1093/bjps/axx025 | Preprint: philsci-archive.pitt.edu/12658/

- 2020 **Explaining Temporal Qualia**
European Journal for Philosophy of Science | Vol. 10 | [dx.doi.org/10.1007/s13194-019-0264-6](https://doi.org/10.1007/s13194-019-0264-6) | Preprint: philsci-archival.pitt.edu/16411/
- 2015 **Temporal Experience, Temporal Passage and the Cognitive Sciences**
Philosophy Compass | Vol. 10(8), 560–571 | With S. Baron, J. Cusbert, M. Kon & K. Miller | [dx.doi.org/10.1111/phc3.12244](https://doi.org/10.1111/phc3.12244)
- 2015 **Conventional Principles in Science: On the Foundations and Development of the Relativized A Priori**
Studies in the History and Philosophy of Modern Physics | Vol 52, pp. 111–113 | Essay introduction to special issue | With M. Ivanova | [dx.doi.org/10.1016/j.shpsb.2015.11.003](https://doi.org/10.1016/j.shpsb.2015.11.003)
- 2013 **A Relic of a Bygone Age? Causation, Time Symmetry and the Directionality Argument**
Erkenntnis | Vol. 78, pp. 215–235 | With Alexander Reutlinger | [dx.doi.org/10.1007/s10670-013-9510-z](https://doi.org/10.1007/s10670-013-9510-z) | Preprint: philsci-archival.pitt.edu/9561/
- 2012 **On A- and B-Theoretic Elements of Branching Spacetimes**
Synthese | Vol. 188, pp. 85–116 | [dx.doi.org/10.1007/s11229-011-0046-y](https://doi.org/10.1007/s11229-011-0046-y) | Preprint: philsci-archival.pitt.edu/id/eprint/9081

BOOK CHAPTERS

- Forth **Perceiving direction in directionless time**
Understanding Human Time (Ed. Kasia M. Jaszczolt) | Oxford University Press | Preprint: philsci-archival.pitt.edu/20044
- Forth **What's so special about initial conditions?**
Rethinking Laws of Nature (Ed. Yemima Ben-Menahem) | Springer | Preprint: philsci-archival.pitt.edu/19905/
- 2020 **Methods in Science and Metaphysics**
Routledge Handbook of Metametaphysics (Edited by Ricki Bliss & JTM Miller) | With Milena Ivanova | bit.ly/3r1TCsT | Preprint: philsci-archival.pitt.edu/15812/

BOOK REVIEWS

- 2021 **Review of Yemima Ben-Menahem's *Causation in Science***
Mind | online first | academic.oup.com/mind/advance-article/doi/10.1093/mind/fzab078/6433274 | Preprint: philsci-archival.pitt.edu/19607/
- 2016 **Review of Mathias Frisch's *Causal Reasoning in Physics***
British Journal for Philosophy of Science | Vol. 67(4), pp. 1207–1213 | [dx.doi.org/10.1093/bjps/axwo20](https://doi.org/10.1093/bjps/axwo20) | Preprint: philsci-archival.pitt.edu/12079/
- 2015 **Review of Tim Maudlin's *Philosophy of Physics: Space and Time***
Philosophy in Review | Vol 35, No. 4, pp. 208–210 | journals.uvic.ca/index.php/pir/article/view/14362/5478

EDITED VOLUMES

- 2015 **Conventional Principles in Science: On the Foundations and Development of the Relativized A Priori**
• Special issue of *Studies in History and Philosophy of Modern Physics* | Vol. 52, Part B, pp. 111–162. | With Milena Ivanova. | <http://www.sciencedirect.com/science/journal/13552198/52/part/PB>

FURTHER PUBLICATIONS

- 2019 **The ABC of time** • *Aeon* magazine | aeon.co/essays/the-c-theory-of-time-asks-if-time-really-has-a-direction
- 2014 **Causation, Time Symmetry and Russell's Directionality Argument** • Blogpost for *New Agendas for the Study of Time* | newagendasstudyoftime.wordpress.com/2014/04/06/causation-time-symmetry-and-russells-directionality-argument/

IMPACT

Citations: 121* *h*-Index: 6*

* Source: *Google Scholar*, 21/12/2021

Recent* and Forthcoming Talks

What is directionless time?

*Since 2016 ⊕ = Forthcoming

INVITED COLLOQUIA

- ⊕ June 2022 *Philosophy of Physics Seminar*, University of Utrecht, Netherlands
 Nov 2021 *Research Colloquium in Epistemology, Metaphysics, and Philosophy of Cognition*, Aarhus University, Denmark.

What's so special about initial conditions?

INVITED CONFERENCE TALK

- Sep 2021 Workshop on metaphysics of science, *Annual Conference of the German Physical Society*, University of Bonn, Germany
 REFEREED CONFERENCE TALK
 Sep 2021 *Society for Metaphysics of Science Annual Conference*.
 Sep 2021 Workshop on metaphysics of science, *Annual Conference of the German Physical Society*, University of Bonn, Germany

Indeterminism and the C theory

CONFERENCES

- Jul 2021 *Joint Session of the Aristotelian Society and Mind Association*
 Jul 2019 *British Society for Philosophy of Science*, University of Durham, UK

Perceiving direction in directionless time

INVITED CONFERENCE TALK

- Apr 2021 *Understanding Human Time*, University of Cambridge, UK

The C Theory of Time

INVITED CONFERENCE TALK

- Mar 2020 *Trinity College Science Society Annual Symposium*, Trinity College, University of Cambridge, UK

INVITED COLLOQUIA

- Mar 2019 *Topical Research Meeting on Time*, Institute of Physics, London, UK
 Nov 2018 *CamPoS*, Department of History and Philosophy of Science, University of Cambridge, UK
 Jun 2018 *Philosophy of Physics Workshop*, Department of Applied Mathematics and Theoretical Physics, University of Cambridge, UK
 May 2018 *Philosophy of Physics Seminar*, Faculty of Philosophy, University of Oxford, UK
 Apr 2018 *Sigma Club*, Department of Philosophy, Logic and Scientific Method, London School of Economics and Political Science, UK | Video of talk: youtu.be/TskiKNpLSmM
 Sep 2016 Department of Philosophy, University of Adelaide

Do we need to explain initial conditions?

INVITED COLLOQUIA

- Feb 2020 *Serious Metaphysics Group*, Department of Philosophy, University of Cambridge, UK
 May 2019 *FraMEPhys Project Visiting Speaker Series*, Department of Philosophy, University of Birmingham, UK | Video of talk: youtu.be/ZcrhcTuH9xo

Explaining Temporal Qualia

INVITED COLLOQUIA

- Nov 2017 *Serious Metaphysics Group*, University of Cambridge, UK
 Nov 2017 *Philosophy Departmental Seminar*, University of Bristol, UK
 Nov 2016 Munich Center for Mathematical Philosophy, LMU Munich
 Oct 2016 School of Historical and Philosophical Inquiry, University of Queensland
 REFEREED CONFERENCES
 Jul 2019 *Joint Session of the Aristotelian Society and Mind Association*, University of Durham, UK
 Jun 2017 *International Association for the Philosophy of Time Annual Conference*, Gargnano del Garda, Italy

Causation and Time Reversal

INVITED COLLOQUIA

- Jul 2016 Faculty of Philosophy, University of Cambridge
 Jan 2016 Munich Center for Mathematical Philosophy, LMU Munich | Video of talk: <https://itun.es/i6hN39Q>
 REFEREED CONFERENCES
 Jun 2016 *Australasian Association of Philosophy*, University of Adelaide, Australia

- Dec 2016 *New Zealand Association of Philosophers Annual Conference*, University of Waikato, New Zealand
 Jul 2016 *Foundations 2016: The 18th UK and European Conference on Foundations of Physics*, London School of Economics and Political Science
 Jul 2016 *British Society for the Philosophy of Science Annual Conference*, University of Cardiff
 Jun 2016 *Congrès de la Société de Philosophie des Sciences*, University of Lausanne, Switzerland

Causal Realism in Physics

INVITED SYMPOSIUM

- Apr 2016 *Symposium on Mathias Frisch's 'Causal Reasoning in Physics'* (with Mathias Frisch, Alyssa Ney and James Woodward), American Philosophical Association: Pacific Division, San Francisco, California.

Teaching Experience

UNIT COORDINATOR

☉ = In progress

- 2021–2022 ☉
 2020–2021
 2019–2020
 2018–2019
 2017–2018
Space, Time & Reality: An Introduction to the Philosophy of Physics • University of Cambridge
 Part IB course (2nd year undergraduate) | Department of History and Philosophy of Science | Full responsibility for course design & delivery | 4 one-hour lectures | Lent Term
- 2021–2022 ☉
 2020–2021
Philosophy of Psychiatry • University of Cambridge
 Part II course (2nd year undergraduate) | Department of History and Philosophy of Science | Full responsibility for course design & delivery | 4 one-hour lectures | Lent Term
- 2021–2022 ☉
 2020–2021
 2019–2020
 2018–2019
 2017–2018
Metaphysics of Physics • University of Cambridge
 Part II course (2nd year undergraduate) | Department of History and Philosophy of Science | Full responsibility for course design & delivery | 8 lectures (2018–20); 4 lectures (2017–18) | Lent Term
- 2021–2022 ☉
 2020–2021
Evidence, Explanation and Models • University of Cambridge
 Part II course (2nd year undergraduate) | Department of History and Philosophy of Science | Joint responsibility for course design & delivery | 8 lectures (2018–20); 4 lectures (2017–18) | Co-ordinated with Dr Marta Halina | Lent Term
- 2021–2022
 2020–2021
 2019–2020
 2018–2019
 2017–2018
Reichenbach's *The Direction of Time* • University of Cambridge
 Part II 'Primary Source' course (3rd year undergraduate) | Department of History and Philosophy of Science | Full responsibility for course design & delivery | 4 10-minute lectures + 4 45-minute discussion seminars | Michaelmas Term
- 2019–2020
 2018–2019
 2017–2018
Realism & Reduction • University of Cambridge
 Part II course (3rd year undergraduate) | Department of History and Philosophy of Science | Full responsibility for design & delivery of half of course | 4 one-hour lectures as part of 8-lecture course (2017–18) and 12-lecture course (2018–20) | Co-ordinated with Dr Agnes Bolinska (2017–18) and Dr Agnes Bolinska and Prof. Tim Lewens (2018–20) | Michaelmas Term
- 2019–2020
 2018–2019
Theory, Evidence and Explanation • University of Cambridge
 Part II course (3rd year undergraduate) | Department of History and Philosophy of Science | Joint responsibility for course design & delivery | 4 one-hour lectures | Part of 8-lecture course jointly co-ordinated with Dr Marta Halina | Michaelmas Term
- 2017–2018
Theory, Laws and Evidence • University of Cambridge
 Part II course (3rd year undergraduate) | Department of History and Philosophy of Science | Joint responsibility for course design & delivery | 4 one-hour lectures | Part of 8-lecture course jointly co-ordinated with Dr Anna Alexandrova | Lent Term
- 2015
Advanced Topics in Metaphysics: Time and Causation • University of Queensland
 3rd year undergraduate unit | Department of Philosophy | Full responsibility for course design & delivery | 12 two-hour lectures | 43 students | Course profile: <http://goo.gl/xxS6Bz>
- 2014
Advanced Topics in Metaphysics: What is time? • University of Queensland
 3rd year undergraduate unit | Department of Philosophy | Full responsibility for course design & delivery | 13 two-hour lectures | 36 students | Course profile: <http://goo.gl/JlhG8R>
- 2014
Causation in Science • University of Sydney

Postgraduate unit | Department of Philosophy | Full responsibility for course design & delivery | 12 two-hour seminars

- 2013 **Philosophy of Time** • University of Sydney
 Postgraduate unit | Department of Philosophy | Jointly coordinated with Prof. Craig Callender (UCSD) and Prof. Huw Price (Cambridge) | Joint responsibility for course design & delivery; full responsibility for essay supervision, marking and feedback | 12 two-hour seminars

GUEST LECTURER

- 2021 ☉
 2020
 2019
 2018 **Part III and MPhil Lecture Series** • University of Cambridge
 Lecture: “The Direction of Time” | Department of History and Philosophy of Science | 1x 1.5hr lecture for MPhil and Part III students.

- 2017 **Part III and MPhil Lecture Series** • University of Cambridge
 Lecture: “The Direction of Causation” | Department of History and Philosophy of Science | 1x 1.5hr lecture for MPhil and Part III students.

- 2014 **History and Philosophy of the Physical Sciences** • University of Sydney
 Advanced undergraduate unit | Unit for History and Philosophy of Science | 2 two-hour lectures.

- 2013 **What Is This Thing Called Science?** • University of Sydney
 Advanced undergraduate unit | Unit for History and Philosophy of Science | 2 one-hour lectures.

- 2013 **Philosophy of Science: The Philosophy of Symmetry.** • University of Sydney
 Postgraduate unit | Unit for History and Philosophy of Science | 2 two-hour lectures.

GRADUATE SUPERVISION

- 2015–2017 **Primary PhD Supervisor** • One student | Philosophy, University of Queensland | Free will & indeterminism |
- 2017– **MPhil Dissertation Supervisor** • Department of History and Philosophy of Science & Faculty of Philosophy, University of Cambridge.
- 2017– **MPhil Essay Supervisor** • Department of History and Philosophy of Science.

UNDERGRADUATE SUPERVISION

- 2017– **MPhil Dissertation Supervisor** • Department of History and Philosophy of Science & Faculty of Philosophy, University of Cambridge.

TEACHING ASSISTANT

- 2011–2012 **Philosophy of Natural and Social Science.** • University of Bristol
 Second year undergraduate unit | Full responsibility for conducting seminars, organising readings, marking essays, and essay feedback | 1 group; 10 students; 12 seminars
- 2010–2011 **Philosophy of Mind** • University of Bristol
 Second year undergraduate unit | Full responsibility for conducting seminars, organising readings, marking essays, and essay feedback | 1 group; 14 students; 12 seminars
- 2010–2011 **Realism and Normativity** • University of Bristol
 Second year undergraduate unit on metaethics, theories of truth and semantic paradoxes | Full responsibility for conducting seminars, organising readings, marking essays, and essay feedback | 2 groups; 25 students; 12 seminars per group
- 2008–2009 **Introduction to Philosophy A** • University of Bristol
 First year undergraduate unit on metaphysics and epistemology | Full responsibility for conducting seminars, organising readings, marking essays, and essay feedback | 1 group; 8 students; 12 seminars

Service to the Profession

ORGANISATION

- 2018– **Cambridge Philosophy of Science Seminar Series (CamPoS)** • University of Cambridge
Organiser | Weekly talks across the philosophy of science | hps.cam.ac.uk/news-events/seminars-reading-groups/campos
- Aug 2015 **Causality in a Quantum World** • Twin Waters, Sunshine Coast, QLD, Australia
Co-organised with Pete Evans | August 16–21 2015 | 28 speakers (12 invited + blind-refereed Call for Papers) | Funded by the Templeton World Charity Foundation as part of project *The Causal Power of Information in a Quantum World* | causalinformation.weebly.com/conference/
- Jul 2014 **Free Will and Retrocausality in the Quantum World** • Trinity College, University of Cambridge | Co-organised with Huw Price | July 1–4 2014 | 22 invited speakers | Funded by the Templeton World Charity Foundation as part of project *New Agendas for the Study of Time* | goo.gl/ERhNlo
- Aug 2013 **Time Symmetry: A Unified Approach** • University of Sydney
Co-organised with Sam Baron | August 26–27 2013 | 7 invited speakers | newagendasstudyoftime.wordpress.com/events/time-symmetry/
- 2013–2014 **Sydney Foundations of Physics Seminar Series** • University of Sydney
Organiser | Fortnightly talks relating to philosophical and foundational issues in physics | newagendasstudyoftime.wordpress.com/sydfop/
- Aug 2011 **Conventional Principles in Science** • University of Bristol
Co-organiser (with Milena Ivanova) | August 18–19 2011 | 4 invited speakers; 4 contributed talks (after blind-refereed Call for Papers) | Funded by the Analysis Trust, the Bristol Institute for Research in the Humanities and Arts and the Bristol Alumni Fund (total value £1,800) | Proceedings published in special issue of *Studies in the History and Philosophy of Modern Physics*
- Mar 2011 **The Present State of Presentism** • University of Bristol
Principal organiser | March 8 2011 | 3 invited speakers | sites.google.com/site/mwefarr/presentism-workshop

REFEREEING

Journal Referee

* = Multiple occasions

Mind;* Philosophers Imprint;* Philosophical Studies;* Philosophy of Science;* British Journal for the Philosophy of Science;* Synthese;* Erkenntnis;* European Journal for Philosophy of Science;* International Studies in Philosophy of Science; Philosophical Quarterly;* Ergo; Inquiry; Pacific Philosophical Quarterly; Canadian Journal of Philosophy;* Australasian Journal of Philosophy;* Ratio;* Dialectica;* Theoria;* Analytic Philosophy;* Acta Analytica;* Foundations of Physics;* Review of Symbolic Logic; Symmetry.

Reviewer of Book Manuscripts

Harvard University Press; Chicago University Press; Palgrave Macmillan

EDITORIAL WORK

- 2017– **Category editor for PhilPapers** • Category: *Causal Eliminativism*.
- 2015 **Guest Journal Editor** • *Synthese* | Special issue: ‘Conventional Principles in Science’.

Academic Referees

Available on request