Benedict Eastaugh

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APPOINTMENTS

- 2022 Assistant Professor, Department of Philosophy, University of Warwick.
- 2021–22 Teaching Fellow, Department of Philosophy, University of Warwick.
- 2017–21 Postdoctoral Fellow, Munich Center for Mathematical Philosophy, LMU Munich.
- 2015–17 Postdoctoral Researcher, Department of Philosophy, University of Aberdeen and School of Mathematics, University of Bristol.

EDUCATION

- 2015 PhD Philosophy, University of Bristol, UK.
- 2011 MA Logic and Philosophy of Mathematics, University of Bristol, UK.
- 2007 BA Philosophy, University of Bristol, UK.

PUBLICATIONS

Peer-reviewed journal articles and book chapters

- 2024 Arrow's theorem, ultrafilters, and reverse mathematics. Forthcoming in the Review of Symbolic Logic. \hookrightarrow doi.org/10.1017/S1755020324000054
- 2024 Reverse Mathematics. In the *The Stanford Encyclopedia of Philosophy*, E. N. Zalta and U. Nodelman (eds.), Metaphysics Research Lab, Stanford University, 2024.

 → plato.stanford.edu/entries/reverse-mathematics
- 2019 Set existence principles and closure conditions: unravelling the standard view of reverse mathematics. *Philosophia Mathematica* 27(2):153–176. \hookrightarrow doi.org/10.1093/philmat/nky010
- 2017 Tarski. In The History of Philosophical and Formal Logic: From Aristotle to Tarski, A. Malpass and M. Antonutti Marfori (eds.), Bloomsbury, pp. 293–313. \hookrightarrow doi.org/10.5040/9781474256919.ch-012

Book reviews

- 2020 Review of John Stillwell, Reverse Mathematics: Proofs from the Inside Out. Philosophia Mathematica 28(1):108–116. \hookrightarrow doi.org/10.1093/philmat/nkaa003
- 2017 Review of Denis R. Hirschfeldt, Slicing the Truth: On the Computability Theoretic and Reverse Mathematical Analysis of Combinatorial Principles. Studia Logica 105(4):873–879.

 doi.org/10.1007/s11225-017-9740-1

TALKS

Invited talks

- 29. 'Probability, consistency, and idealisation'. Philosophy Research Seminar, Department of Philosophy, University of Bristol, 20 February 2025.
- 28. 'Computable equivalence'. Meaning and Equivalence of Formal Theories, University of Vienna, 5–6 December 2024.
- 27. 'Mathematical premises in philosophical arguments'. Mathematics with a Human Face (II), University of Bergen, 21–22 May 2024.
- 26. 'Social choice in infinite societies'. Computation and Algorithmic Methods in Human and Social Sciences, Institut d'études avancées de Paris, 8 June 2023.
- 25. 'Arrow's theorem and the reverse mathematics of social choice theory'. Computability and Combinatorics 2023, University of Connecticut, 19–21 May 2023.
- 24. 'Arrow's theorem in infinite societies: a reverse mathematical approach'. PHILMATH seminar, IHPST, Paris, 30 January 2023.
- 23. 'Formalism and formalisation in social choice theory'. Closing conference of the project FFIUM, Paris, 15–17 June 2022.
- 22. Panel discussion on the Nature and Uses of Reverse Mathematics (panelists: Walter Dean, Benedict Eastaugh, Stephen Simpson). Reverse Mathematics and its Philosophy, University of Chicago Center in Paris, 13–17 June 2022.
- 21. 'The indispensability of mathematics to philosophy' (with Walter Dean). Reverse Mathematics and its Philosophy, University of Chicago Center in Paris, 13–17 June 2022.
- 20. 'Recursive counterexamples, reversals, and the constructive standpoint'. Mathematical Logic Seminar, University of Lisbon, 19 April 2021.
- 19. 'Computability theory and the foundational standpoint'. OCIE-HPML Seminar, Chapman University, 13 March 2020.
- 18. 'Reversals as counterexamples: computability theory and the foundational stand-point'. Structuralist Foundations, University of Vienna, 20–21 February 2020.
- 17. 'Recursive counterexamples and the foundational standpoint'. Paris-Munich FFIUM project workshop, University of Paris 1 Panthéon-Sorbonne, 17 December 2019.
- 16. 'Recursive counterexamples and the foundational standpoint'. Computation in the Theory and Practice of Natural Science, LMU Munich, 30 May-2 June 2019.
- 15. 'Hyperarithmetical analysis and Kripke–Feferman truth theories'. 1st Pisa–MCMP Meeting, LMU Munich, 27 May 2019.
- 14. 'Coding overhead and the pitfalls of formalization'. Logic Seminar, University of Connecticut, 1 April 2019.
- 13. 'Recursive counterexamples and the foundational standpoint'. Logic Colloquium, University of Connecticut, 29 March 2019.

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- 12. 'Does nonclassical truth impair mathematical reasoning?'. Special Session on Philosophy of Logic and Mathematics, Logic Colloquium '18, University of Udine, 23 July 2018.
- 11. 'Reduction, justification, meaning: lessons from the relativised Hilbert program' (with Marianna Antonutti Marfori). Formal Methods in Philosophy: Truth, Paradox, and Mathematics, LMU Munich, 5 June 2018.
- 10. 'Does nonclassical truth impair mathematical reasoning?'. Philosophy of Mathematics Seminar, University of Oxford, 14 May 2018.
- 9. 'Does nonclassical truth impair mathematical reasoning?'. C-ALPHA Workshop on Logic and Philosophy of Mathematics, UC Irvine, 9 December 2017.
- 8. 'On the significance of reverse mathematics'. Fourth Symposium on the Foundations of Mathematics, LMU Munich, 9–11 October 2017.
- 7. 'Formalisation and coding overhead'. Fourth New College Logic Meeting, University of Oxford, 11 March 2017.
- 6. 'Unravelling the standard view of reverse mathematics'. MCMP Logic Colloquium, LMU Munich, 19 January 2017.
- 5. 'Formal and informal equivalences in real analysis'. Midlands Logic Seminar, University of Birmingham, 25 February 2016.
- 4. 'Ontological commitment and reverse mathematics'. Davis—Paris Workshop on Ontological Commitment in Mathematics, IHPST, Paris, 14 December 2015.
- 3. 'Reversals and closure'. MCMP Logic Colloquium, LMU Munich, 12 June 2014.
- 2. 'Computational reverse mathematics and foundational analysis'. Midlands Logic Seminar, University of Birmingham, 4 March 2014.
- 1. 'Reversals and closure'. Philosophy of Mathematics Workshop, KU Leuven, 13 February 2014.

Contributed talks

- 11. 'On the computational costs of probabilism' (with Walter Dean), Workshop on Computational Models in Social Epistemology, Ruhr Universität Bochum, 6–8 December 2023.
- 10. 'Epistemic aspects of reverse mathematics' (with Marianna Antonutti Marfori). FFIUM Symposium, 16th Annual Congress of Logic, Methodology, and Philosophy of Science and Technology, Czech Technical University, 5–10 August 2019.
- 9. 'Coding overhead and the pitfalls of formalization'. 19th Midwest PhilMath Workshop, University of Notre Dame, 27 October 2018.
- 8. 'A deflationary account of the significance of reversals'. European Congress on Analytic Philosophy 9, LMU Munich, 26 August 2017.
- 7. 'What is ordinary mathematics?' (with Marianna Antonutti Marfori). French Philosophy of Mathematics Workshop 2015, IHPST, Paris, 6 November 2015.

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- 6. 'Three kinds of mathematical naturalness'. Logic Colloquium 2015, University of Helsinki, 5 August 2015.
- 5. 'Set existence principles in reverse mathematics'. 15th Congress of Logic, Methodology and Philosophy of Science, University of Helsinki, 7 August 2015.
- 4. 'The concept of a set existence principle'. Second Symposium on the Foundations of Mathematics, University of London, 14 January 2015.
- 3. 'Computational reverse mathematics and foundational analysis'. Logic Colloquium 2014, Vienna Summer of Logic, TU Wien, 14 July 2014.
- 2. 'The complexity of computable entailment'. PhDs in Logic V, Munich Center for Mathematical Philosophy, 8 April 2013.
- 1. 'Shore's computational reverse mathematics'. Philosophy and Computation workshop, Lund University, 13 May 2012.

TEACHING

Courses

Key: [g] = graduate, [u] = undergraduate, [g/u] = combined graduate/undergraduate.

- 6. Warwick. Philosophy of Mathematics [u], 2020–21, 2022–23, 2023–24, 2024–25.
- 5. Warwick. Logic 3: Incompleteness and Undecidability [u], 2021–22, 2024–25.
- 4. Warwick. Logic 2: Metatheory [u], 2021–22, 2022–23, 2023–24.
- 3. LMU Munich. Vagueness [u], 2018–19.
- 2. LMU Munich. Modal Logic [g/u], 2018–19.
- 1. *LMU Munich*. A Philosophical Introduction to Computability and Randomness [g] (co-taught with Tom Sterkenburg), 2018–19.

Supervision

Postgraduate supervision

1. LMU Munich. MA dissertation supervisor for Ainsley Pullen (2019–20).

 $Undergraduate\ supervision$

- 2. Warwick. BSc dissertation supervisor (2 students, 2021–22; 1 student, 2022–23).
- 1. LMU Munich. BA dissertation supervisor (1 student, 2019).

DEPARTMENTAL SERVICE AND ADMINISTRATION

- 2. Warwick. Degree convenor for Mathematics and Philosophy (BSc 3/4-year degree), January 2021–September 2023, spring term 2025.
- 1. Warwick. Research and Impact Committee, 2022–.

CONFERENCE ORGANISATION

- Mathematical Indispensability in Philosophy. LMU Munich, 16–17 February 2023. Co-organised with Walter Dean.
- 2022 FFIUM Project Closing Workshop. LMU Munich, 15–16 October 2022. Coorganised with Marianna Antonutti Marfori.
- 2019 Gesellschaft für analytische Philosophie (German Society for Analytical Philosophy) Doctoral Workshop 2019. LMU Munich, 11 October 2019. Co-organised with Norbert Gratzl, Stephan Hartmann, Hannes Leitgeb, Dunja Šešelja, and Rush Stewart.
- 2017 Set Theoretic Pluralism Symposium 2. University of Bristol, 20–25 June 2017. Co-organised with Toby Meadows and Philip Welch.
- 2016 Set Theoretic Pluralism Symposium 1. University of Aberdeen, 12–17 July 2016. Co-organised with Toby Meadows.
- 2013 Bristol-Princeton Postgraduate Conference in Philosophy of Logic and Mathematics. University of Bristol, 22–23 February 2013. Co-organised with Philip Welch.

SERVICE TO THE PROFESSION

Article and book refereeing

Journal articles refereed for: Analysis (2019), Australasian Journal of Logic (2019), Erkenntnis (2019, 2024), Journal of Philosophical Logic (2021, 2024), Mind (2018), Notre Dame Journal of Formal Logic (2015, 2017), Review of Symbolic Logic (2017), Synthese (2016, 2022).

Book referee for: Cambridge University Press (2024).

Book chapter referee for: Springer's Outstanding Contributions to Logic series (2021).

Grant refereeing

- 2024 SONATA 19 call, National Science Centre, Poland.
- 2020 Marie Skłodowska-Curie Individual Fellowships (MSCA-IF) 2020 call.
- 2020 Aarhus Institute of Advanced Studies AIAS-COFUND Marie Skłodowska-Curie Fellowships 2020–2021 call.
- 2019 Marie Skłodowska-Curie Individual Fellowships (MSCA-IF) 2019 call.

Conference submission refereeing

- 2023 Computability in Europe 2023.
- 2023 Joint Session 2023 (Postgraduate Session).
- 2022 Joint Session 2022 (Postgraduate Session).
- 2019 Computability in Europe 2019.
- 2019 International Conference for Philosophy of Science and Formal Methods in Phi-

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losophy (CoPS-FaM-19) of the Polish Association for Logic and Philosophy of Science.

2018 Irvine–Munich–PoliMi–Salzburg Conference in Philosophy and Foundations of Physics.

External examining

2024 Master's thesis of Jan Gronwald, Master of Logic programme, University of Amsterdam, September 2024.

OUTREACH

- Talk on reverse mathematics, Warwick Maths Society, 17 January 2023.
- Talk on mathematics and philosophy, Stratford Girls' Grammar School, 24 November 2022.

SCHOLARSHIPS

- 2011–14 Doctoral scholarship at the University of Bristol, Arts and Humanities Research Council.
- Asian Initiative for Infinity Graduate Summer School scholarship, National University of Singapore, 20 June–17 July, 2012.

PROFESSIONAL AFFILIATIONS

External member of the Munich Center for Mathematical Philosophy, LMU Munich.

Member of the Association for Symbolic Logic.

Member of the Association for the Philosophy of Mathematical Practice.