

Jonathan Fay

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EDUCATION

Qualification	Specialization	Institution	Year	Grade
<u>PhD</u>	Philosophy of Gravitation	University of Bristol	Ongoing	—
<u>MA</u>	Philosophy of Physics	University of Bristol	2021	Distinction
<u>MSci</u>	Natural Sciences/Physics	Lancaster University	2019	2:1, 1st (project)
<u>School</u>	General	EEB1, Brussels	2015	85%

PUBLICATIONS

- [1] A. Antoniou and J. Fay. “Whence the desire to close the Universe?” In: (forthcoming).
- [2] J. Fay. “Mach’s principle and Mach’s hypotheses”. In: *Studies in History and Philosophy of Science* 103 (2024), pp. 58–68.
- [3] J. Fay. “On the relativity of magnitudes: Delboeuf’s forgotten contribution to the 19th century problem of space”. In: *Studies in History and Philosophy of Science* 106 (2024), pp. 165–176.
- [4] J. Fay and D. Braun. “On Reissner’s hypothesis: A review of 20th Century relational models for the unification of gravity and inertia”. In: (forthcoming).

TALKS AND PRESENTATIONS

Event	Location	Topic	Date
Lost in Translation	Sevilla	Delboeuf’s defence of Euclidean geometry	Mar 2026
Ontologia	San Sebastian	Why does nature conform to laws?	Oct 2025
Foundations of Physics	Gdańsk	History of relational gravity	Jul 2025
UPAC Colloquium	Utrecht	Reissner’s hypothesis	Mar 2025
iHPS	Bristol	Reissner & Sciamia gravity	Aug 2024
MPIWG Seminar	Berlin	Mach’s principle & relational gravity	Jul 2024
HPP Research Seminar	Bonn	Reissner-Sciamia hypothesis	Jun 2024
BLOC	London	Foundations of geometry & scale relativity	Dec 2023 & 2024

FIELDS OF INTEREST

Foundations of geometry; general relativity; special relativity; philosophy of causality; relational gravity.

SELECTED RESEARCH PROJECTS

Project	Description	Years
Reissner’s Hypothesis and Relational Gravitation	Historical and conceptual analysis of Reissner’s 1914 hypothesis and its implications for inertia and gravitation; review of 20th-century relational models.	2023–2025
Mach’s Principle and Machian Accounts of Causation	Historical and philosophical work on Mach’s principle, status of inertial motion & relational approaches to spacetime structure.	2022–
Joseph Delboeuf and the Problem of Space	Archival and conceptual study of Delboeuf’s contribution to 19th-century debates on geometry and spatial structure.	2023–2024
Closed Universe and Dark Matter (with A. Antoniou)	Study of extra-empirical motivations and methodological considerations in the uptake of dark matter in 1970s–80s cosmology.	2024–2026
Dennis Sciamia Archive Project (with D. Lehmkuhl)	Working with Sciamia’s family to establish and organise an archive of documents in Oxford.	2024–
Poincaré’s Foundations of Science (with J. Barbour & others)	Recording conversations and identifying research directions in Poincaré’s work and its contemporary relevance.	2023–2024
Euler’s “Internal Causes” (with N. Martens & others)	Writing a chapter on Euler’s mechanics for a volume on the spacetime–matter distinction.	2026

TEACHING EXPERIENCE

Role	Location	Description	Years
Seminar leader	Bristol	Led seminars in: (1) Intro to Philosophy A, (2) Realism and Normativity, (3) Space Time Matter.	2023–2024
Lab demonstrator	Bristol	Assisted 2nd-year physics students in laboratory sessions.	2023–2024
Intervention tutor	Oxford	Taught mathematics to small school classes of ~ 8 students.	2021–2022

ACADEMIC SERVICE AND FELLOWSHIPS

Activity	Location	Description	Year
Conference organiser	Bristol	Main organiser of the 2024 BLOC graduate workshop in philosophy of physics.	2024
Heinrich Hertz Fellow	Bonn	Summer fellowship with the Lichtenberg group for the History and Philosophy of Physics.	2024

PEER REVIEW

• *Studies in the History and Philosophy of Science* • *Journal of Modern Physics* • *Journal of Consciousness Studies*

SKILLS

- **Languages:** English (Native), French (Native), German (Beginner), Spanish (Beginner).
- **Software:** L^AT_EX, Word, PowerPoint, Excel, JavaScript (Intermediate), Python (Beginner).
- **Archival research & translation:** Experienced in navigating archives and libraries, networking with researchers, and locating obscure texts; translation from French, German, and Latin.
- **Leadership & communication:** Main organiser of the 2024 BLOC philosophy-of-physics workshop; founded and ran two reading groups; founded a chess club (Oxford); dodgeball team captain (Lancaster); mathematics tutoring (including 7 months in a school).

ADDITIONAL INTERESTS

Basketball, bouldering, hiking, dodgeball, skiing; chess; flute performance and electronic music production.