Bethany Terris, Ph.D.

PhD Researcher | Philosophy of Physics

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Interdisciplinary PhD researcher in quantum foundations, trained in working at the boundary between theory, experiment, and interpretation. Comfortable with detail-oriented, precision-driven work, long review cycles, and applying consistent criteria across complex material. Strong communicator with experience supporting alignment between researchers working across disciplines.

Experience

2022-2025 | **PhD Researcher – Philosophy of Physics (Quantum Information & Foundations), CEA-Saclay, France**

- Designed and coordinated a three-year independent research project on quantum measurement theory and quantum information, working closely with physicists across theory and experiment.
- Analysed how formal results in quantum theory are used across the literature, systematically checking consistency between mathematical models, physical assumptions, and claims about system behaviour.
- Developed tools for clarifying assumptions, limits of applicability, and compatibility between different theoretical frameworks — skills directly relevant to complex, multi-component quantum systems.
- Produced a 100,000-word doctoral thesis and multiple peer-reviewed publications, managing long-term planning, revision cycles, and external feedback.
- Regularly translated and presented technically subtle ideas for non-specialist physicists, collaborators, and mixed audiences, improving clarity and alignment across disciplines.

2021-present | **Private Tutor, Remote, UK**

- Delivered 1,000+ hours of one-to-one instruction at secondary school and university level.
- Built long-term client relationships based on reliability, clarity, and measurable outcomes.

Key skills : Conceptual analysis ; Project management ; Science communication ; LaTex ; Python (basics) ; Autonomy ; Resilience.

Education

2022 – 2025	**PhD Philosophy of Physics, CEA-Saclay, Université Paris-Saclay**
2020 – 2021	**Master Philosophy of Physics, University of Bristol**
2017 – 2020	**BSc (Hons) Physics with Philosophy, University of York**

Publications

Ph.D. Thesis	Bethany Terris, 2025. *Weak Values in Quantum Mechanics : Conceptual Questions*.
Journal article	Bethany Terris, 2025. Weak Particle Presence. *Foundations of Physics*.
Forthcoming	Bethany Terris, Alexei Grinbaum, 2025. Observation as a Temporal Process.

Selected Communication & Outreach

Academic Writing Podcast — Guest (2025). Discussion of common sources of misinformation in quantum mechanics and strategies for countering them through clear, conceptually rigorous communication.

University of Bristol - Invited Speaker (2025). 60-minute invited lecture on weak values in quantum mechanics.

IQSA Conference - Speaker (2024). 30 minute presentation on quantum 'presence'.

Langues

English	Native language.
French	B1.