



**The Exeter College Summer Programme
at Exeter College in the University of Oxford**

Individual Research Tutorial Proposal Form

Name: Samuel M. Blackford

Home University: University of California, Berkeley

Home Degree Major: Philosophy

Expected Graduation Date: Fall 2026

ECSP course you would like to substitute for the IRT:

How to Read Paintings

Title of your Proposal:

Quantum Cosmology and the Persistence of Metaphysical Explanation

Subject Area of this Proposal:

Philosophy (Philosophy of Physics; Metaphysics)

Briefly describe your proposal in no more than 250 words.

Do leading models of quantum cosmology and quantum gravity dissolve the need for an ultimate explanation of physical reality? Or do they instead deepen that need by treating space and time as non-fundamental, and physical structure as emergent, contingent, and law-governed? After all, physics can explain how reality behaves. But does it explain why any physical framework exists at all?

This project investigates that question by examining leading contemporary cosmological models on their own terms. My working hypothesis is that such models significantly extend physical explanation and do not fully eliminate deeper metaphysical questions about contingency, lawhood, and ultimate ground.

Briefly describe any relevant study you have already completed in the area.

Contemporary philosophy:

Metaphysics (Philos 125); Philosophy of Physics (Philos 126); Perception (Philos 136);
Nature of Mind (Philos 3)

Modern philosophy:

Modern Philosophy (Philos 25B); Descartes (Philos 170); Leibniz (Philos 173)

Ancient philosophy:

Ancient Philosophy (Philos 25A)

Philosophy of Religion:

World Religions and Spirituality (Human 4)

Logic:

Intro to Logic (Philos 12A); Symbolic Logic (Philos 103)

Mathematics:

Calculus I (Math 18A); Calculus II (Math 18B); Calculus III (Math 18C)

Physics:

Calculus Physics I (Phycs 5A); Calculus Physics II (Phycs 5B); Calculus Physics III (Phycs 5C).

** Tutor (Columbia College): Philosophy, Composition, Conceptual Physics, Trigonometry Physics, and Calculus Physics.

List any books or other resources which may be relevant and/or necessary to your proposed research. Please limit your answer to no more than 10 entries.

Tim Maudlin — Philosophy of Physics: Quantum Theory

David Albert — Quantum Mechanics and Experience

Carlo Rovelli — Quantum Gravity

Craig Callender — What Makes Time Special?

Claus Kiefer — Quantum Gravity

Dean Rickles — A Brief History of String Theory: From Dual Models to M-Theory

Alexander Pruss — The Principle of Sufficient Reason: A Reassessment

Graham Oppy — Arguing About Gods

Important: *The IRT is subject absolutely to the Academic Director's approval and the availability of an expert in Oxford to guide your research. Submission of an IRT proposal and payment of the supplementary fee does not guarantee acceptance.*