**List of Proposed Reviewers for "The Effect Propagation Process: A Dynamic Theory of Causality"**

**Professor David Blei**

**Affiliation:** Department of Statistics and Computer Science, Columbia University.

**Justification:** Professor Blei's seminal work on Hierarchical Causal Models is a primary motivator for the EPP. As detailed in Section 4 of the monograph, the EPP is positioned as a direct architectural and philosophical answer to the statistical challenges he and his colleagues have identified, namely the need for richer, nested causal structures. The monograph's core innovation—the isomorphic recursive Causaloid—is a formal, computable framework for representing the very kind of models his research proves are necessary. Furthermore, given that the EPP's implementation (DeepCausality) now supports uniform reasoning over both deterministic and probabilistic modalities, his unparalleled expertise at the intersection of causality and probabilistic modeling would be invaluable for assessing the validity and potential of our approach.

**Professor Miguel Hernán**

**Affiliation:** Kolokotrones Professor of Biostatistics and Epidemiology, Harvard T.H. Chan School of Public Health.

**Justification:** As a leading authority on applying causal inference to complex, real-world problems in epidemiology and medicine, Professor Hernán would provide a crucial perspective on the EPP's practical utility. His work is rooted in the Potential Outcomes framework and grapples daily with the challenges of dynamic treatments, complex feedback loops, and the paramount importance of context—the very problems the EPP is designed to address (as outlined in our Motivation, Section 4). The EPP's explicit Contextual Fabric and its capacity for Emergence offer a new language to formally describe the phenomena he models. His review would be the ultimate test of whether the EPP's theoretical power translates into a genuinely more expressive and useful

**Professor Lucien Hardy**

**Affiliation:** Perimeter Institute for Theoretical Physics.

**Justification:** The central architectural innovation of the EPP—the Causaloid—is a direct adoption and computational generalization of the logical construct first proposed by Professor Hardy in his foundational work on quantum gravity (Section 3.8 and 5.1). The monograph details how we have adapted this powerful concept—unifying cause and effect into a single entity—to create a general-purpose, computable primitive for modeling causality outside of a fixed spacetime. As the originator of the core concept that allowed us to overcome the central impasse of classical causality, his assessment of the validity and utility of our generalization would be uniquely insightful and authoritative.

**Professor Fay Dowker**

**Affiliation:** Professor of Theoretical Physics, Imperial College London.

**Justification:** The Effect Propagation Process is built on the foundational premise that spacetime itself is not fundamental, but emerges from a more primitive layer of causal relations. This premise is the central thesis of Causal Set Theory, a major research program in quantum gravity of which Professor Dowker is a world-leading expert. The EPP's Causaloid is a computational construct designed to operate in precisely the kind of spacetime-agnostic, causality-first universe that her work formally describes. While the EPP is an applied framework for computational intelligence and not a theory of physics, its philosophical and structural coherence depends on its alignment with these frontier physical concepts. As a leading mind on the nature of emergent spacetime, her review would provide an essential and deeply informed critique of the EPP's foundational claims and its conceptual soundness.

**Professor Luciano Floridi**

**Affiliation:** Founding Director of the Digital Ethics Lab, University of Bologna; formerly Professor of Philosophy and Ethics of Information, University of Oxford.

**Justification:** Professor Floridi's critique of AI's reliance on an outdated "Ur-philosophy" of absolute space and time is a foundational premise of this work, as cited in our Motivation (Section 4). The EPP is presented as a direct, constructive answer to his call for a new, relational foundation for machine intelligence. Its principled spacetime-agnosticism, its elevation of Context to a first-class entity, and its overall framing as an act of "conceptual design" are architectural implementations of the philosophical principles he has championed. His review would be essential for validating whether the EPP successfully meets the philosophical design requirements he has so clearly articulated for 21st-century AI.

**Professor Nick Bostrom**

**Affiliation:** Director, Future of Humanity Institute, University of Oxford.

**Justification:** The entire intellectual arc of the EPP monograph culminates in a direct confrontation with the most profound challenge in contemporary AI: the problem of verifiable alignment. Professor Bostrom's foundational work, particularly in *Superintelligence*, has defined the very nature of this challenge for a generation of researchers. The EPP, with its ultimate appeal to an immutable, human-designed Genesis Telos and a computable Effect Ethos, is not a philosophical exercise; it is a direct architectural proposal for a technical solution to the alignment problem he has so clearly articulated. As the leading scholar on long-term AI strategy and existential risk, his review would provide the ultimate stress test for the EPP's central claim: that it offers a viable pathway towards building powerful, emergent intelligent systems that can remain provably aligned with human purpose.

**Bryan Cantrill**

**Affiliation:** Co-founder and CTO, Oxide Computer Company.

**Justification:** As a recognized authority on high-performance systems software, operating systems design (DTrace, ZFS), and a leading practitioner in the Rust programming language, Mr. Cantrill is uniquely qualified to assess the monograph's core engineering thesis: that the EPP's abstract philosophical principles can be instantiated into a robust, memory-safe, and scalable software artifact. The monograph makes specific, strong claims about performance and architectural soundness in its Implementation chapter (Section 10), detailing the UltraGraph's dual-state lifecycle and its CPU cache-friendly design. His critical, first-principles review of the architecture and its Rust implementation would provide an essential **"ground truth" validation** of the entire project, ensuring that the philosophy is not just an intellectual exercise but is backed by sound and rigorous engineering.

**Vasilis Syrgkanis**

**Affiliation:** Kolokotrones Professor, Stanford University; Director, Stanford Causal AI Lab; former Principal Researcher, Microsoft Research.

**Justification:** The EPP monograph presents a complete, end-to-end vision, from first-principles philosophy to a high-performance software artifact. Evaluating such a work requires a reviewer who is a master of both foundational theory and practical, large-scale implementation. As the Director of the Stanford Causal AI Lab and a former Principal Researcher at Microsoft Research where he co-led the ALICE project and was a key architect of the **EconML library**, Professor Syrgkanis is a world leader in exactly this kind of synthesis. His work on integrating deep machine learning with rigorous causal inference (e.g., Double Machine Learning) demonstrates a profound understanding of the complex engineering challenges that arise when abstract causal theory meets real-world data. The EPP, with its implementation in a high-performance language like Rust, is fundamentally a thesis about building the next generation of robust causal tools. As a leader who has both built one of the world's most successful causal libraries and is now defining the academic curriculum on the "Foundations of Causal Machine Learning" at Stanford, his review would provide an unparalleled and deeply informed assessment of whether the EPP's architecture is a viable and powerful foundation for the future of the field.