

Title: Unscrambling the Omelette of Causation and Inference in Operational and Ontological Theories

Speakers: David Schmid

Collection: Indefinite Causal Structure

Date: December 10, 2019 - 2:50 PM

URL: <http://pirsa.org/19120030>

Abstract: I will discuss how the standard frameworks for operational theories involve a scrambling of causal and inferential concepts. I will then present a new framework for operational theories which separates out the inferential and the causal aspects of a given physical theory. Generalized probabilistic theories and operational probabilistic theories are recovered within our framework when one ignores some of these distinctions. We then make similar refinements to the traditional notion of ontological theories, and discuss how our framework revises the standard notions of ontological representations and of generalized noncontextuality.

**PI**

**PERIMETER  
INSTITUTE**