Physical Causation

*Physical Causation* discusses in a systematic way an original, positive account of causation: the conserved quantities account of causal processes that Phil Dowe has been developing over the last ten years.

Dowe offers a clear and original account of causation based firmly in contemporary science. The book describes causal processes and interactions in terms of conserved quantities: a causal process is the world line of an object that possesses a conserved quantity, and a causal interaction involves the exchange of conserved quantities. Further, things that are properly called cause and effect are appropriately connected by a set of causal processes and interactions. The distinction between cause and effect is explained in terms of a new version of the fork theory: the direction of a certain kind of ordered pattern of events in the world. This particular version has the virtue that it allows for the possibility of backwards causation, and therefore of time travel.

This is an important, original book that will be widely discussed among philosophers and students working in contemporary metaphysics and philosophy of science, and among scientists with an interest in foundational issues.

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