From Quantum Foundations to Quantum Gravity
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Quantum theory is a probabilistic theory with fixed causal structure. General relativity is a deterministic theory with dynamic causal structure. It seems likely then that a theory of quantum gravity will be a probabilistic theory with dynamic causal structure. Work in the foundations of quantum theory provides insight into how to build a framework for such theories. In this way we can hope that insights coming from quantum foundations can guide us in constructing a theory of quantum gravity.