

Probabilistic General Relativity with Agency in an Operational Framework

Lucien Hardy

I will outline how to formulate General Relativity as an Operational Theory with agency (knob settings), outcomes, and a notion of composition. Additionally I will show how to add probabilities to this framework (essentially using the duotensor approach to General Probability Theories). This work is intended as a precursor to an attack on the problem of Quantum Gravity. I will outline how one might “quantize” this formulation of General Relativity.