On the Emergence of Time in Quantum Gravity

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Abstract

We discuss from a philosophical perspective the way in which the normal concept of time might be said to `emerge' in a quantum theory of gravity. After an introduction, we briefly discuss the notion of emergence, without regard to time (Section 2). We then introduce the search for a quantum theory of gravity (Section 3); and review some general interpretative issues about space, time and matter (Section 4). We then discuss the emergence of time in simple quantum geometrodynamics, and in the Euclidean approach (Section 5). Section 6 concludes

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