

Conference “Foundations of Observational, Classical and Semi-Classical Gravitational Physics and The Problem of Agency and Laws of Nature“

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Title: An Introduction to Causal Fermion Systems

Abstract:

The theory of causal fermion systems is an approach to describe fundamental physics. It gives quantum mechanics, general relativity and quantum field theory as limiting cases and is therefore a candidate for a unified physical theory. The dynamics of a causal fermion system is described by a nonlinear variational principle, the causal action principle.

In the talk I will give a simple introduction, with an emphasis on the basic structures of spacetime.