

# Scales and Hierarchies in Asymptotic Safety

*Thursday, 1 March 2018 14:00 (40 minutes)*

Asymptotic Safety provides a possible mechanism for a consistent and predictive high-energy completion of gravity and gravity-matter theories. The key ingredient in the construction is an interacting renormalization group fixed point which controls physics at trans-Planckian scales. Relevant couplings have the task of identifying a given asymptotically safe theory within the unstable manifold of this fixed point. In this talk I will summarize the basic ideas underlying the construction and discuss the cosmological constant problem and hierarchy problem based on this fundamental perspective.

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