



Tuesday, 26 November 2013 at 16:00 c.t.
Seminar room 0815, 8th floor, physics highrise

The asymptotic safety scenario in quantum gravity

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Abstract

Weinberg's asymptotic safety conjecture allows to formulate a theory of quantum gravity based on standard quantum field theory methods if the renormalisation group flow of gravity possesses an ultraviolet fixed point with a finite number of attractive directions. I will introduce the concepts behind this conjecture and how it can be verified with functional renormalisation group techniques. I will present up-to-date results and several implications for early universe cosmology.