



EINLADUNG

im Rahmen des Seminars für Mathematische Physik
(Joint TU/UV Theory Seminar)

zum Vortrag

von

Georg Stettinger

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über

„Infinite derivative gravity in 2+1 spacetime dimensions“

Abstract:

I will consider the most general quadratic curvature action of massless gravity in 3 space time dimensions which is parity invariant, torsion free and contains the same off-shell degrees of freedom as the Einstein-Hilbert action in general relativity. In the ultraviolet, with an appropriate choice of the propagator given by the exponential of an entire function, the point-like curvature singularity can be smoothed by a Gaussian distribution, while in the infrared the theory reduces to that of the predictions of general relativity. I will also show how to embed new massive gravity in ghost free infinite derivative gravity in Minkowski background as one of the infrared limits. Finally, I will provide the perturbative unitarity conditions for infinite derivative gravity in presence of a cosmological constant in deSitter and Anti-deSitter space times in 3 spacetime dimensions.

Zeit: Dienstag, 08.01.2019, 13:45

Ort: Technische Universität Wien, **Getreidemarkt 9**,
Maschinenbaugebäude, 1st floor, Hörsaal Kleiner Schiffbau

gez.: S. Fredenhagen, D. Grumiller, D. Erking, R. Wutte