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Towards Quantization of Horava Gravity

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Horava Gravity is a field-theoretic model that shares many properties of GR. Namely it has metric as a basic degree of freedom and possesses spatial diffeomorphisms, as well as global time reparameterizations, as its symmetries. The feature of the model is the *potentially* much improved high energy behavior at the expense of forbidding the symmetry of local time reparameterizations and consequently Lorentz boosts. Heavily constrained as a phenomenological model, – due to the constraints on Lorentz Violation, – as a *theoretical* model it can provide a framework for asking questions in gravity-like theories that require access to the high energy regime. In the talk, I will report on the progress made on the understanding of its high energy properties, using QFT methods and tools.

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