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The IR limit of Horava Gravity

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Horava Gravity is a renormalizable theory of Quantum Gravity which is expected to flow to GR in the low energy limit. This naive expectation is obstructed by a strongly coupled interaction when the parameters of the Lagrangian flow to the general relativistic values. However, when closely studied, only self-interactions of the extra scalar mode of the theory are strongly coupled. When matter is coupled to HG, scattering amplitudes naturally flow to the results given by GR. In other words, matter remains weakly coupled and interacting only through Lorentz invariant operators. I will discuss the implications of this behavior for HG as a realistic model of gravitational interactions.

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