

## General Relativity and Quantum Cosmology

# A Consistent Gravitationally-Coupled Spin-2 Field Theory

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*(Submitted on 19 Jan 2010)*

Inspired in teleparallel gravity, instead of being represented by a symmetric second-rank tensor, a fundamental spin-2 field is assumed to be represented by a spacetime (world) vector field assuming values in the Lie algebra of the translation group. The flat-space theory naturally emerges in the Fierz formalism, and is both gauge and local Lorentz invariant. The corresponding gravitationally-coupled theory is shown not to present the consistency problems of the usual spin-2 theory constructed on the basis of general relativity.

Comments: 14 pages, no figures

Subjects: **General Relativity and Quantum Cosmology (gr-qc)**; High Energy Physics - Theory (hep-th)Cite as: [arXiv:1001.3407v1](https://arxiv.org/abs/1001.3407v1) [gr-qc]

## Submission history

From: Jose Geraldo Pereira [[view email](#)]

[v1] Tue, 19 Jan 2010 21:00:21 GMT (12kb)

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