No interactions for a collection of Weyl gravitons intermediated by a one-form gauge field

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Abstract

The problem of constructing consistent interactions for a collection of Weyl gravitons in the presence of an abelian one-form gauge field, in four space-time dimensions, is investigated using a deformation approach based on local BRST cohomology. We show that, under resonable assumptions, any cross-coupling between different types of Weyl gravitons can be removed.

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