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External symmetry in general relativity

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ABSTRACT

We present a generalization of the isometry transformations to the geometric context of the spin field theories where the local frames are explicitly involved. We show how can be defined the external symmetry transformations as isometries combined with suitable tetrad gauge transformations and we present arguments that these form a group which is locally isomorphic with the isometry one. We point out that the symmetry transformations leave invariant the field equations and have generators with specific spin terms that represent new physical observables.
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