

Abstract Submitted
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GEM Unification Rescinded Officially DOUGLAS SWEETSER, none
— I have claimed to find a testable candidate to unify gravity and the three other fundamental forces of Nature. Thanks to sometimes trying efforts on a Science20 blog, I now have reasons why the claim is in error. Gravity conserves angular momentum. The hypercomplex numbers used in the field strength tensor would require breaking angular momentum conservation. Mass is conserved. Without a gauge transformation, mass is not a conserved quantity like electric charge is with U(1) gauge symmetry. It is difficult to quantize any field theory. The use of hypercomplex numbers may make such an effort futile. One prediction of the work, that there was no Higgs boson, has been shown to be inaccurate due to the discovery at the LHC. The proposal was in field theory form and never worked out as a force, a unacceptable omission. Any future work on unification of gravity with the other forces of Nature will need to directly resolve these issues.

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none

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