



More on the dilatonic Einstein-Gauss-Bonnet gravity

<http://www.firstlight.cn> 2010-11-30

Einstein-Gauss-Bonnet gravity coupled to a dynamical dilaton is examined from the viewpoint of Einstein's equivalence principle. We point out that the usual frame change that applies to the action without curvature correction does not cure the problem of nonminimal couplings by the dynamical nature of a dilaton field. Thus a modification of the Einstein frame is required. It is proposed that the kinetic term of a dilaton should be brought to a canonical form, which completely fixes the additional terms associated with the frame transformation.

[存档文本](#)