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Title: Trace anomaly for chiral fermions

Abstract:

We investigate the trace anomaly of chiral fermions in a curved background using the Feynman diagrams method – a topic which has caught the attention of many, especially after the publications of Bonera et al. who claim that an imaginary term appears in the trace of the renormalized stress tensor, which results in a violation of unitarity. In this paper we correct that result and show that the coefficient containing the anomalous imaginary term vanishes.