

Heat kernel resummations on a constant axial field background

In this poster I will be sharing new calculations concerning heat kernel resummation schemes for quantum fields on a flat spacetime background. While in previous works we presented a heat kernel ansatz for both Yukawa and scalar QED interactions, the results presented here look at the case of a spinor field on a constant axial field background, which can also be seen as a torsion-like interaction. This generalisation of already developed techniques to include spinor fields and torsion effects may serve as a launching point for tackling the more complex curved spacetime case.

Primary author: GARCÍA PÉREZ, César

Co-authors: MAZZITELLI, Diego (Instituto Balseiro); FRANCHINO-VIÑAS, Sebastian (Università di Genova); PLA, Silvia (Technische Universität Munchen); VITAGLIANO, Vincenzo (University of Genova)

Presenter: GARCÍA PÉREZ, César