

Linearity and Uniqueness in One Loop Fermionic Odd Amplitudes at Even Dimensions

Thursday 9 December 2021 15:15 (10 minutes)

The “puzzling” matter of anomalies at linearly diverging tensors at all even dimensions is being explored with a strategy developed at the end of the ‘90s, sometimes called implicit regularization. The main focus is not the divergences that are at all avoided but is the role played by the appearance of the epsilon tensor in the traces with the chiral matrix in these amplitudes. Different display of indexes among the terms to be integrated that is generated by the use of different identities leads to specific violations of Ward identities when the surface terms present at the core of these amplitudes are set to zero. The connection with uniqueness and kinematic behavior shows up an interesting interaction among the finite integrals and diverging ones. The case of two and partially four dimensions is used to illustrate the working of these ideas.

Author: Mr THUORST, José Fernando (Centro Brasileiro de Pesquisas Físicas)

Co-authors: Ms EBANI, Luciana (Centro Brasileiro de Pesquisas Físicas); Mr GIRARDI, Thalís José (Centro Brasileiro de Pesquisas Físicas)

Presenter: Mr THUORST, José Fernando (Centro Brasileiro de Pesquisas Físicas)

Session Classification: Apresentações de vídeo-pôsteres