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Two-Point One Loop Fermionic Amplitudes in Constsnt Homogeneous Magnetic Field

We study two-point one loop fermionic amplitudes (correlation functions) under an influence of the constant homogeneous magnetic field. In addition to the correlators of scalar, pseudoscalar, vector and axial-vector fermionic currents already known, we calculate the non-diagonal ones including the correlations of the tensor current with scalar and pseudoscalar currents. The tensor current is a fermionic part of the Pauli Lagrangian relevant for the electromagnetic interaction of fermions through the anomalous magnetic moment. Physical applications of these amplitudes are discussed.

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