DISCRETE '08: Symposium on Prospects in the Physics of Discrete Symmetries



Contribution ID: 53

Type: not specified

CPT, Lorentz invariance and anomalous clash of symmetries

Friday 12 December 2008 18:40 (20 minutes)

I analyze the role of Lorentz symmetry

in the perturbative non-gravitational anomalies for a single family of fermions. The theory is assumed to be translational invariant, power-counting renormalizable and based on a local action, but is allowed to have general Lorentz violating operators, including those that break CPT. I study the conservation of global and gauge currents associated with general internal symmetry groups and find that Lorentz symmetry does not participate in the clash of symmetries that leads to the anomalies.

Author: Dr SALVIO, Alberto (EPF of Lausanne and IFAE, Barcelona)

Presenter: Dr SALVIO, Alberto (EPF of Lausanne and IFAE, Barcelona)

Session Classification: Parallel Session B. P, T, CPT symmetries, Lorentz violation and Decoherence-II

Track Classification: CPT in Quantum Gravity and String Theory, Decoherence, Lorentz Violation