MP 15: HV Zahn

Time: Thursday 10:35–11:15   Location: HFT-FT 101

Invited Talk   MP 15.1   Thu 10:35   HFT-FT 101
Applications of local gauge covariance: Anomalies and QED in external potentials — •Jochen Zahn — Universität Leipzig, Institut für Theoretische Physik, Brüderstr. 16, 04103 Leipzig

The framework of locally covariant field theory proved extremely fruitful for QFT on curved space-times. It can be straightforwardly generalized to more general non trivial background fields, in particular gauge connections. I will present two applications of this framework. The first is an elementary computation of the chiral anomalies, directly on Lorentzian space-times. The second is QED in external potentials, where I compare the locally covariant definition of the current to other definitions and consider it in concrete cases.