QCD@Work - International Workshop on QCD - Theory and Experiment



Contribution ID: 11 Type: Talk

Parity-odd CFT and quantum anomalies

Tuesday, 18 June 2024 17:50 (20 minutes)

Chiral and conformal anomalies stand as pivotal phenomena spanning multiple disciplines, including highenergy physics, condensed matter theory and cosmology. These anomalies, crucial in understanding fundamental interactions, manifest through divergences and traces of correlation functions. In this study, we delve into these phenomena within the framework of Conformal Field Theory (CFT), elucidating their intricate structure and implications. Specifically, we focus on the role of conformal Ward identities in fully characterizing the parity-odd interactions associated with chiral and conformal anomalies in momentum-space. By examining these phenomena through the lens of CFTs, we gain deeper insights into their mathematical underpinnings and their significance across diverse physical contexts.

Primary author: LIONETTI, Stefano (Istituto Nazionale di Fisica Nucleare)

Presenter: LIONETTI, Stefano (Istituto Nazionale di Fisica Nucleare)

Session Classification: Session 4