



FEZA GÜRSEY
CENTER FOR
PHYSICS AND
MATHEMATICS

*Dual
Perspectives
Meetings*

Conformal Field Theories and Their Conformal Anomaly

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Abstract: Anomalies are a general feature of quantum field theories with symmetries. In this presentation I will discuss the special class of theories which are invariant under the conformal group, Conformal Field Theories. I will start with a discussion of general aspects and properties of these theories, which are consequences of their symmetry. We will then see that as a result of quantization, some symmetries of the classical theory are violated. This is the conformal anomaly. The explicit form of the violation can be formulated as a cohomology problem. Finally I will discuss the concept of anomaly matching in the context of the conformal anomaly.

Date: Friday, November 1, 2024

Program: Morning session 10:30-12:00, Afternoon session 13:30-15:00

Location: Boğaziçi University, Kandilli Campus, Üsküdar-İstanbul