

Defects in conformal field theory and holography - Lecture 1

Thursday, 27 May 2021 11:00 (2 hours)

The general study of defects has relations with the physics of almost every field theory. Defects can be introduced into a conformal field theory as means to make contact with the real world, reducing the total amount of symmetry. The broken conformal symmetries relax some of the constraints put on the correlation functions and defects can be used as probes to study the dynamics of a theory. In the first part of these lectures, I will give some hints on the bootstrap program for defect conformal field theories. Furthermore, I will focus on a particular defect version of N=4 Super Yang-Mills which has a holographic realization in terms of a D3-probe-D5 brane system. In this setup, I will present some particular results for local and non-local observables achieved with different techniques.

Primary author: BONANSEA, Sara (Niels Bohr Institute, Copenhagen University)

Presenter: BONANSEA, Sara (Niels Bohr Institute, Copenhagen University)