
Seminario INFN

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terrà il Seminario:

Bootstrapping long range models and defect CFTs

Abstract: While the short-range Ising model has been studied intensively using the conformal bootstrap and other methods, its long-range cousin, the long-range Ising model (LRI), has remained more mysterious. Nevertheless, the LRI is a prime example of a non-local CFT, and can be analyzed using a variety of techniques, including the conformal bootstrap.

In this talk I will show results for the critical point of the LRI in various dimensions, where we interpret the LRI as a conformal defect in an auxiliary, free scalar bulk CFT. I will discuss perturbative results as well as the nonperturbative conformal bootstrap. A central role is played by relations between OPE coefficients, which allow us to gain an order in perturbation theory, and provide us with more stringent constraints when implemented in the numerical bootstrap. These relations could also play an important role in the study of defect CFTs, such as conformal line defects.

Martedì 27 Febbraio 2024
alle ore 14.00
Aula Fermi