ID de Contribution: **29** Type: **Lecture / lecture series**

Critical Ising model in varying dimension by conformal bootstrap

vendredi 7 mai 2021 10:00 (1 heure)

The single-correlator conformal bootstrap is solved numerically for several values of dimension $4 > d > 2$ using SDPB and Extremal Functional methods. Critical exponents and other conformal data of low-lying states are obtained over the entire range of dimensions with up to four-decimal precision and then compared with several existing results. The conformal dimensions of leading-twist fields are also determined up to high spin, and their d-dependence shows how the conformal states rearrange themselves around $d = 2.2$ for matching the Virasoro conformal blocks in the $d = 2$ limit. The decoupling of states at the Ising point is studied for $3 > d > 2$ and the vanishing of one structure constant at $d = 3$ is found to persist till $d = 2$ where it corresponds to a Virasoro null-vector condition.

(See the article arXiv:1811.07751)

Co-auteurs: OKUDA, Satoshi (Physics Dept. Rikkyo Univ. Tokyo); MAFFI, Lorenzo (University of Florence)

Orateur: CAPPELLI, Andrea (INFN)

Classification de thématique: 1. Status of the conformal bootstrap