Bootstat 2021: Conformal bootstrap and statistical models



ID de Contribution: 6

Type: Lecture / lecture series

Critical exponents from the Lorentzian inversion formula

mercredi 26 mai 2021 14:00 (1 heure)

The Lorentzian inversion formula is a powerful tool for understanding the dynamical data of conformal field theories, specifically it can be used to extract conformal data of spinning operators from singularities of the four-point function in Lorentzian signature.

In this lecture I aim to "demystify" the inversion formula by giving a concrete and explicit application of it to the Wilson–Fisher fixed-point in the ϵ expansion of ϕ^4 theory (Ising CFT). I will also discuss how it can be used to study general ϕ^p theories near their upper critical dimensions, including the non-unitary case for odd p.

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Classification de thématique: 4. Non-unitary bootstrap methods