Institut Henri Poincaré

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String Theory in Greater Paris

Rencontres Théoriciennes

“Supergravité, théorie des cordes et théorie M”

Jeudi 19 Septembre 2019, 10:00

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EPFL

Recent progress on bootstrapping Ising, O(N) and related models

[NOTICE UNUSUAL PLACE] Numerical bootstrap is proven to be an effective method to study scale invariant critical points. In particular, most precise critical exponent of 3D Ising model can be obtained. Typical method used in the past was that we exploit conformal constrains from four-point correlators involving one or two operators. To further improve the numerical results and to target more complicated critical points, we have to consider a larger set of correlators. Doing so raises many challenges in numerical implementation. In this talk, I will discuss a set of new techniques we developed to address those challenges. With the new tool, we obtained a series of results on Ising, O(N) and related models.

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