Laboratoire de Physique Théorique et Hautes Energies

Unité Mixte de Recherche (UMR 7589) de Sorbonne Université et du CNRS

SEMINAIRE du LPTHE

Vendredi 9 Novembre 2018, 11:00

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The hierarchy of the OPE coefficients and the low-lying operators in CFT

The continuous families of CFT with varying central charge has gained importance after the revival of the conformal bootstrap in d>2. Unlike the 2d rational CFTs, the 4-point function of the fundamental fields has infinitely many intermediate channels, which shows a tree-like pattern of the unitarity violation. The O(n) model for $|n|<2$ *offers one nice example, where such properties are studied in detail. We discuss the basic examples in arXiv :1803.06938, where the analytic properties and exponential decays of the OPE coefficients are related to the symmetry of the hyperbolic geometry. We also use a special polynomial of n arising from the multiplicities in the torus partition function and see how the low-lying dimensions are constrained from the modular invariance.*

Bibliothèque du LPTHE, tour 13/14, 4ème étage

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