

S-matrix from the Conformal Bootstrap

Friday, 24 June 2016 10:00 (1 hour)

We consider QFT in hyperbolic space and study correlation functions of operators inserted at the conformal boundary. By construction, these observables transform like correlation functions of a lower dimensional Conformal Field Theory. We then apply conformal bootstrap techniques to find universal bounds on the mass spectrum and scattering amplitudes of the QFT. The AdS/CFT correspondence extends this holographic description of QFT to quantum gravity. We comment on how the conformal bootstrap can be used to derive universal properties of quantum gravity.

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