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TATA INSTITUTE OF FUNDAMENTAL RESEARCH

ICTS String Seminar

Title : Lightcone OPE in a CFT with lowest twist scalar primary

Speaker : Atanu Bhatta, Indian Institute of Science, Bangalore

Date : Thursday, November 28, 2019

Time : 4:00 PM

Venue : Emmy Noether Seminar Room

Abstract : We study the operator product expansion(OPE) of two identical scalar primary operators in the lightcone limit in a conformal field theory where a scalar is the operator with lowest twist. We see that in CFTs where both the stress tensor and a scalar are the lowest twist operators, the stress tensor contributes at the leading order in the lightcone OPE and the scalar contributes at the subleading order. We also see that there does not exist a scalar analogue of the average null energy condition (ANEC) for a CFT where a scalar is the lowest twist operator.