ICTS-String Theory Lecture

Title : The parity odd structure of conformal field theories in d=3

Speaker : Justin David, Indian Institute of Science, Bangalore

Date : Thursday, August 8, 2019

Time : 4:00 PM

Venue : Emmy Noether Seminar Room, ICTS Campus, Bangalore

Abstract :Conformal field theories in d=3 admit parity odd structures in three point functions involving conserved currents. We first use the average null energy condition to obtain bounds on the structure constants of these three point functions. We then study the implications of the parity odd structure for bootstrap in these theories and demonstrate the existence of OPE coefficients of operators at large spin that depend on the parity odd structure. Finally we derive the bounds on the structure constants using crossing symmetry, analyticity and reflection positivity. This serves as a consistency check of the contributions of the parity odd structure to the bootstrap equations.