ICTS String Seminar

Title   :   Pure Spinor Superstrings: Massive States

Speaker   :   Subhroneel Chakrabarti (Institute of Mathematical Sciences)

Date   :   Friday, August 21, 2020

Time   03:00 pm

Abstract   :   Pure Spinor formulation, introduced by Nathan Berkovits 20 years ago, is the only known Super-Poincare covariant worldsheet formulation of superstring theory. The last two decades saw pure spinor formulation enjoy a lot of successes. However, most of these successes revolved around external massless states and the massive states remained largely unexplored. In this talk, I will describe the recent development in understanding the massive states of superstrings in pure spinor formalism as carried out in a series of works by me and my collaborators. We will present the first proposal for systematic covariant construction of massive vertex operators as well as its fully covariant theta expansion. Our construction established an explicit equivalence between pure spinor and RNS formalism for massive states for the first time. No prior knowledge of pure spinor formulation will be assumed to make the talk more accessible to a comparatively larger audience.

ICTS virtual   :   Please register at
seminar   https://docs.google.com/forms/d/e/1FAIpQLSf0jLgoqiOgDnxbEBGi
                   uIWiOmh9WX8caH-pr13qDBZOO91lmg/viewform

                   (Links to join the seminars will be sent to your registered email address)

Recordings of past talks can be found here:
https://www.youtube.com/channel/UCw9LdPQ5t7Q7muD0qzn70TA