



Department of
Theoretical Physics

THE QUANTUM SPACETIME SEMINAR SERIES

On the Polyakov-Mellin bootstrap

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Date : 8st October, 2018

Time : 11.30 am

Venue: A-304, TIFR



This talk will elaborate on the manifestly crossing symmetric framework for studying the conformal bootstrap for a CFT_d . This employs Witten diagrams of an auxiliary AdS_{d+1} . We will discuss how both exchange and contact Witten diagrams are necessary and also give simple, explicit representations/parametrisations of these in Mellin space. We will also show how explicit expressions for the crossing kernel for exchange Witten diagrams (i.e. the decomposition of a t-channel amplitude in s-channel partial waves) can be obtained in Mellin space. They are closely related to the generalised 6j-symbols and given in terms of ${}_7F_6$ hypergeometric functions.