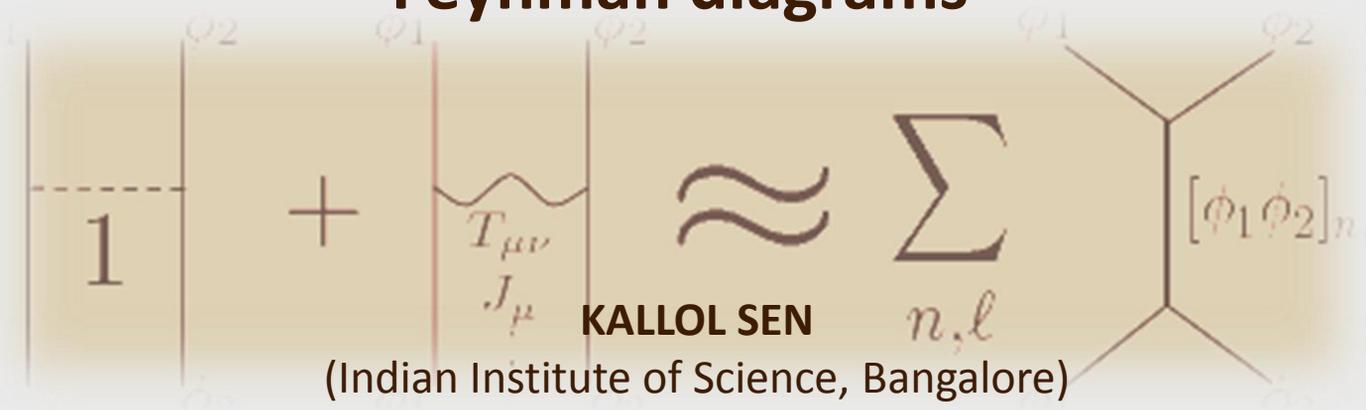




Department of
Theoretical Physics

THE QUANTUM SPACETIME SEMINAR SERIES

On Critical Exponents without Feynman diagrams



Date: November 23, 2015

Time: 11.30 am

Venue: A-304, TIFR

(Duration and Location are subject to irreducible jitter)

In order to achieve a better analytic handle on the modern conformal bootstrap program, we re-examine and extend the pioneering 1974 work of Polyakov's, which was based on consistency between the operator product expansion and unitarity. As in the bootstrap approach, this method does not depend on evaluating Feynman diagrams. We show how this approach can be used to compute the anomalous dimensions of certain operators in the $SO(n)$ model at the Wilson-Fisher fixed point in $4-\epsilon$ dimensions up to $O(\epsilon^2)$.