



Department of
Theoretical Physics

THE QUANTUM SPACETIME SEMINAR SERIES

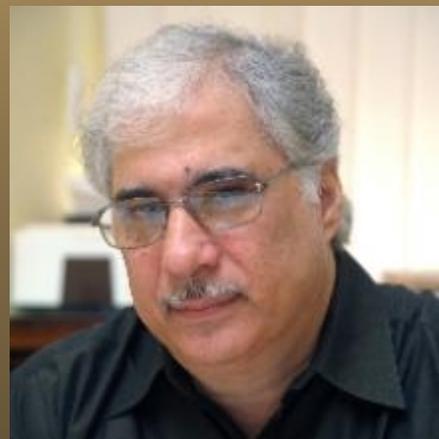
Quantum Gravity in 2-dim and the Sachdev-Ye-Kitaev Model.

Spenta Wadia
(ICTS- TIFR,
Bangalore)

Date: Aug 28, 2017

Time: 11.30 am

Venue: A-304, TIFR



(Duration and Location are subject to irreducible jitter)

We will discuss the Sachdev-Ye-Kitaev (SYK) model of fermions with random interactions in 1-dim and its 2-dim quantum gravity dual. We will present a geometric derivation of Schwarzian action of the low lying modes of the SYK model, which are responsible for the saturation of the quantum chaos bound, in terms of 'boundary gravitons'. We also discuss the coupling of the infinite series of bulk scalars (corresponding to massive SYK states) to 2-dim gravity.