



Department of  
Theoretical Physics

# THE QUANTUM SPACETIME SEMINAR SERIES

## Modular Bootstrap at Extreme and Intermediate Temperatures: Asymptotics and Bounds

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Date: November 25th, 2019

Time: 11.30 am

Venue: A-304, TIFR



**In the first part of the talk we shall generalize the modular bootstrap techniques in two dimensional conformal theories, so that they can be applied to torus correlators and spherical conformal blocks. This will give us Cardy-like expressions for weighted spectral densities. In the second part we shall systematize the Hellerman analysis, and show how under certain assumptions the  $c/12$  upper bound on the lightest primary may be improved to  $c/10.38$ . Thereafter, we shall discuss Tauberian improvements of the bounds for the first part and highlight some applications of the results to the Eigenstate Thermalization Hypothesis criteria.**