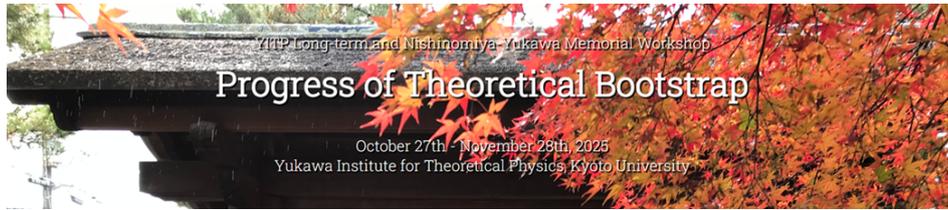


Progress of Theoretical Bootstrap



Contribution ID: 169

Type: **not specified**

Denis Karateev "Bounds on Conserved Currents in 4d CFTs"

Thursday, November 13, 2025 9:30 AM (1 hour)

I will discuss recent progress in constraining four-dimensional conformal field theories with Abelian conserved currents using the conformal bootstrap. After setting up the bootstrap problem for the four-point function of $U(1)$ currents, I will present numerical bounds on operator dimensions and on physical quantities such as the ratio between the 't Hooft anomaly and the current central charge. Finally, I will describe recent developments in the automatic construction of spinning conformal blocks in 4d, which enable systematic bootstrap analyses involving non-Abelian conserved currents and stress tensors.