

## ICTS String Seminar

**Title** : The W-algebra bootstrap of 6d (2,0) theories

**Speaker** : Mitchell Woolley (Queen Mary University of London, United Kingdom)

**Date** : Friday, 23 January 2026

**Time** : 3:30 PM (IST)

**Abstract** : We outline progress toward the superconformal bootstrap of the 6d (2,0) SCFTs. The first step was achieved in [2506.08094], where we used the conjectured cohomological reduction of 6d (2,0) SCFTs to W-algebras to extract an infinite set of protected mixed correlator CFT data. To that end, we explicitly construct the  $W_g$  algebras of 6d (2,0) theories of type  $g=\{A,D\}$  and impose Jacobi identities on generator OPEs to fix CFT data. We uplift this data and the twisted correlators to 6d and show how our CFT data is organized in conformal Regge trajectories. As an application, we demonstrate the consistency of this information with protected higher derivative corrections in the M-theory holographic dual on  $AdS_7 \times S^4/Z_o$ .

**Venue** : Emmy Noether Seminar Room

Zoom Link: <https://icts-res-in.zoom.us/j/88092766911?pwd=R3ZrV9yeW96ZmQ4ZG9KRzVhenRKZz09>

Meeting ID: 880 9276 6911

Passcode: 232322