



ICTS

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TATA INSTITUTE OF FUNDAMENTAL RESEARCH

Special ICTS - String Theory Seminar

- Title : Reconciling $N = 4$ black hole degeneracies from localization and microscopies
- Speaker : Abhiram Kidambi, TU Wien, Austria
- Date : Friday, October 4, 2019
- Time : 2:30 PM
- Venue : Chern Lecture Hall, ICTS Campus, Bangalore
- Abstract : We compare two methods of obtaining single-centre $1/4$ -BPS black hole degeneracies in $N = 4$, $d = 4$ compactifications: Localization of the quantum entropy function (QEF) and Fourier coefficients of a particular mock modular form obtained from the Igusa cusp form, the unique weight 10 automorphic form associated to $Sp(4, \mathbb{Z})$. We comment on the lack of an absolute match of the two techniques and its resolution. We also comment on an algorithmic technique to obtain the Fourier coefficients of the Igusa cusp form from black hole degeneracies which arises from this resolution. This talk is based on a series of upcoming papers with S. Murthy, V. Reys, A. Chowdhury and T. Wrase.