

## ICTS Seminar

- Title** : Super Yang-Mills on the Lattice and Applications to Gauge/Gravity Duality
- Speaker** : Anosh Joseph, Department of Applied Mathematics and Theoretical Physics, University of Cambridge, United Kingdom
- Date** : Tuesday, August 16, 2016
- Time** : 4:30 pm
- Venue** : Emmy Noether Seminar Room, ICTS Campus, Bangalore
- Abstract** : Maximally supersymmetric Yang-Mills theories that take part in the gauge/gravity duality conjecture can be formulated on a spacetime lattice using the methods of twisting and orbifolding. Such lattice constructions are exact supersymmetric, gauge invariant, local and free from fermion doublers on the lattice. In this talk I will provide the constructions of such lattice theories, including the well known  $N=4$  supersymmetric Yang-Mills in four dimensions. I will also provide some results from Monte Carlo simulations of such theories that are relevant for testing and validating the gauge/gravity duality conjecture.