## JOINT TUFTS/MIT COSMOLOGY SEMINAR

## Quantum tunneling in multi-field theories Ali Masoumi Tufts

Vacuum decay and cosmological phase transitions play an important role in our understanding of our universe. These phenomena are most important in theories like string theory. Here our understanding of tunneling is very limited due to presence of many fields and also non-canonical kinetic terms. I will explain advances we made in calculating the tunneling rates in theories with many fields in a fast and reliable manner. I will also explain an approximation we invented for the decay rates and show its successes and shortcomings.

Tuesday, December 6, 2016, 2:30 pm Cosman Seminar Room Center for Theoretical Physics Building 6C, Room 6C-442 Massachusetts Institute of Technology Refreshments at 2:00 in the same room