



ICTS

INTERNATIONAL  
CENTRE *for*  
THEORETICAL  
SCIENCES

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

## **ICTS Seminar**

Title : Calculation of hadronic vacuum polarisation contribution to muon  $g-2$  from lattice QCD

Speaker : Bipasha Chakraborty, Jefferson Lab, USA

Date : Friday, September 22, 2017

Time : 2:30 PM

Venue : Nambu Discussion Room(Right), ICTS Campus, Bangalore

Abstract : I will present a novel lattice QCD calculation of the lowest order hadronic vacuum polarisation contribution to the muon anomalous magnetic moment. The Muon anomalous magnetic moment is one of the very few quantities in the Standard Model (SM) of particle physics which is both measured in experiment and calculated from theory with impressive accuracy of sub-parts per million (ppm). Intriguingly, there exists a tantalizing discrepancy of more than three standard deviations between the experimental and the SM results of this quantity providing one of the most stringent tests of the theory.