

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

2A&B, Raja S.C. Mullick Road, Jadavpur, Kolkata-700032, India

Seminar Notice

Org. by

School of Physical Sciences

Title:	Impact of top quark in Diphoton production from gluon fusion at NLO
Speaker:	Manoj Kumar Mandal, Indian Institute of Technology, Guwahati
Date:	September 19, 2018 (Wednesday)
Time:	4:00 p.m.
Venue:	Physics Seminar Room (C406), 3rd Floor, Centenary Building, IACS
Abstract:	We present a framework that allow to evaluate the next-to-leading order (NLO) corrections in QCD of the Di-photon production through gluon fusion, retaining full top quark mass effects, numerically. Our method starts from the generation of the necessary amplitudes followed by the reduction of the integrals using the Integration-By-Parts reduction and the numerical evaluation of the master integrals via combination of differential equation and sector decomposition. Specifically, we will show the results for the inclusive cross-section and the invariant mass distribution for the first time, thereby exhibiting the importance of the inclusion of the top mass effects.

All are cordially invited to attend the seminar