

## ICTS Colloquium

Title : Symplectic eigenvalues of positive definite matrices

Speaker : Tanvi Jain, Indian Statistical Institute, Delhi

Date : Tuesday, September 11, 2018

Time : 3:00 PM

Venue : Emmy Noether Seminar Room, ICTS Campus, Bangalore

Abstract : For every positive definite matrix of order  $2n$ , there exist  $n$  positive numbers associated to it. These numbers are called the symplectic eigenvalues of the matrix, and are important in different areas such as classical (Hamiltonian) mechanics, quantum information and symplectic topology. In this talk, we discuss some fundamental inequalities and variational principles involving symplectic eigenvalues, perturbation theorems and relationship between symplectic eigenvalues and ordinary eigenvalues.