ICTS Seminar

Title : Geometry of Lagrangian Tangles

Speaker : Ipsita Datta (ETH Zurich, Switzerland)

Date : Wednesday, 01 April 2026

Time : 11:30 AM (IST)

Abstract : I will introduce new Floer complexes associated to geometric objects called Lagrangian tangles in 4-dimensional symplectic manifolds.All our complexes are filtered by an ``action" which gives us new quantitative obstructions to the existence of Lagrangians.
Lagrangian submanifolds are interesting and important objects in symplectic geometry.Floer homology was a tool introduced by Floer in the early 90s that revolutionized the field of symplectic geometry. In particular, he proved the Arnol'd conjecture and layed the foundations of today's symplectic geometry. Floer homology is an infinite dimensional analogue of the Morse-Smale-Witten complex for closed manifolds. We develop a Floer theoretic analogue for the Morse complex for manifold with boundary. This allows us to study a wider range of Lagrangians.
I hope the talk will be a friendly glimpse into the world of symplectic geometry and my own work. This is joint work with Josh Sabloff (Haverford College).

Venue : Online
Zoom Link: https://icts-res-in.zoom.us/j/98427411832?pwd=e7jpSN4u0otAwrKagE6RURbFDm2FUF.1
Meeting ID: 984 2741 1832
Passcode: 202040