



INDIAN STATISTICAL INSTITUTE

Theoretical Statistics and Mathematics Unit, Kolkata

SEMINAR

Date: November 29, 2023

Time: 02:30 PM

VENUE:

L-2

(4th Floor, A.N. Kolmogorov Bhavan), ISI Kolkata

TITLE:

Integral generalized equivariant cohomologies of weighted Grassmann orbifolds

SPEAKER:

Koushik Brahma

Stat-Math Unit, ISI Kolkata

ABSTRACT:

In this talk, we introduce a topological definition of weighted Grassmann orbifolds as a weighted projective analog of Grassmann manifolds. We discuss the orbifold singularities and several invariant q -CW complex structures of weighted Grassmann orbifolds. Then we deduce when the integral cohomology of a weighted Grassmann orbifold is torsion-free and concentrated in even degrees. We introduce divisive weighted Grassmann orbifolds and show they have invariant CW complex structures. We compute the equivariant cohomology ring, equivariant K -theory ring, and equivariant cobordism ring of a divisive weighted Grassmann orbifold with integer coefficients. We discuss the computation of the structure constants in the integral equivariant cohomology ring of a divisive weighted Grassmann orbifold.

ALL ARE CORDIALLY INVITED