



# INDIAN STATISTICAL INSTITUTE

Theoretical Statistics and Mathematics Unit, Kolkata

## LECTURE

Date: October 04, 2023, Wednesday

Time: 02:00 PM

### VENUE:

**L-infinity**

(5<sup>th</sup> Floor, A.N. Kolmogorov Bhavan), ISI Kolkata

### TITLE:

**STORNLY CONTRACTING GEODESICS IN TREE OF SPACES**

### SPEAKER:

**Suman Paul**

Stat-Math Unit, ISI Kolkata

### ABSTRACT:

*Hyperbolic metric spaces are central objects in geometric group theory. Geodesics in hyperbolic spaces satisfies a very interesting property, namely, 'strong contraction'. In an arbitrary metric space, strongly contracting geodesics are those geodesics which satisfies strong contraction property. In this talk, we will discuss about strongly contracting geodesics of a tree spaces. We will show that, under some condition on the tree of spaces, strongly contracting geodesics will be quasiconvex.*

*In the first part of the talk we will discuss about the definition and basics of hyperbolic spaces, strong contraction property and tree of spaces. Later, we will give a brief outline of the proof and discuss one application. This is a joint work with Dr. Abhijit Pal.*

**ALL ARE CORDIALLY INVITED**