



# INDIAN STATISTICAL INSTITUTE

Theoretical Statistics and Mathematics Unit, Kolkata

## LECTURE SERIES (First Lecture)

Date: October 12, 2023, Thursday  
Time: 11:30 to 13:00 (IST)

### VENUE:

**L-infinity**

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

### TITLE:

**What is an infinity category?**

### SPEAKER:

**Vignesh Subramanian**

Stat-Math Unit, ISI Kolkata

### ABSTRACT:

*In this talk, we will introduce the notion of  $\infty$ -categories and provide some naturally occurring examples. We will discuss how to obtain an  $\infty$ -category from a model category. What are limits and colimits in an  $\infty$ -category? Finally, if time permits, introduce the notion of presentability and stability and discuss relevant examples.*

*The aim of these talks is to give a working understanding of homotopical methods and discuss various examples.*

**ALL ARE CORDIALLY INVITED**