



# INDIAN STATISTICAL INSTITUTE

Theoretical Statistics and Mathematics Unit, Kolkata

## Number Theory Seminar

Date: September 26, 2024

Time: 02:30 PM

VENUE:

**L- infinity**

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

TITLE:

**Prime-like Sequences and the Strong Equidistribution Property**

SPEAKER:

**Karthick Babu**

Stat-Math Unit, ISI, Kolkata

ABSTRACT:

*Let  $P_{\{\alpha\}} = \{ [p \alpha] : p \text{ prime} \}$ , where  $1 < \alpha < 2$  is an irrational number and  $[x]$  denotes the greatest integer less than or equal to  $x$ . Recently, Aled Walker showed that the sequence of prime numbers does not satisfy the strong equidistribution property. In this talk, we will discuss how the sequence  $P_{\{\alpha\}}$  also fails to satisfy the strong equidistribution property under certain Diophantine conditions on  $\alpha$ . The key element in the proof is a Goldbach-like problem for the set  $P_{\{\alpha\}}$ .*

**ALL ARE CORDIALLY INVITED**