



**Theoretical Statistics and Mathematics Unit, Kolkata**  
**INDIAN STATISTICAL INSTITUTE**

**SEMINAR**

Date: July 31, 2025

Time: 02:30 PM

**VENUE:**

**L- Infinity**

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

**TITLE:**

**Geometry of the state space**

**SPEAKER:**

**T S S R K Rao**

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**ABSTRACT:**

*In this talk I will present a classification scheme of  $C^*$ -algebras and spaces of operators based on the Banach space theoretic properties of the state space. In the case of a von Neumann algebra, the set of weak\*-continuous states is weakly compact implies the algebra is finite dimensional. In a  $C^*$ -algebra, if the state spaces of non-negative unit vectors are weakly compact, then the algebra is a CCR algebra.*

**ALL ARE CORDIALLY INVITED**