



# INDIAN STATISTICAL INSTITUTE

Theoretical Statistics and Mathematics Unit, Kolkata

## S. C. Bagchi Memorial Lecture

Date: October 07, 2024

Time: 04:15 PM

VENUE:

**NAB-1**

(Ground Floor, A.N. Kolmogorov Bhavan), ISI Kolkata

Zoom Meeting Link

<https://zoom.us/j/95203487030?pwd=gCuyPfaW9DGcrzCbhwwez129OINLEZf.1>

Meeting ID: 952 0348 7030

Passcode: 357444

TITLE:

**MATRICES, METRICS, MEANS**

SPEAKER:

**Rajendra Bhatia**

Ashoka University and Indian Statistical Institute

ABSTRACT:

*We will discuss two metrics on the space of positive definite matrices called the Cartan metric (or the affine invariant metric) and the Bures-Wasserstein distance. Their theory involves matrix analysis and differential geometry, and their diverse applications include radar data, brain-computer interface, optimal transport and quantum information. The broad area has come to be known as matrix information geometry. The lecture will provide a glimpse into this from the perspective of matrix analysis.*

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Prof. S.C. Bagchi was deeply revered and loved by all not just for his mathematical versatility as a researcher, teacher and mentor, but also for his unique personality and human qualities. Many of us have fond memories of academic and personal interactions with him. Indeed, Prof. S C Bagchi was the symbol of SMUK for a long time.

Youngsters who may not be familiar with Prof Bagchi may get a glimpse of the wonder that was "SCB" from the reminiscences at the following site:

<http://www.math.iisc.ac.in/~gm/rememberingsomesh/>

**ALL ARE CORDIALLY INVITED**