INDIAN STATISTICAL INSTITUTE

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Theoretical Statistics and Mathematics Unit

Monday Colloquium

Date: August 14, 2023 Time: 04:15 P.M.

Venue: L-infinity, Stat-Math Unit (5th Floor, A.N. Kolmogorov Bhavan), ISI Kolkata

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TITLE:

Looking back at the stochastic approximation method: asymptotics of Robbins-Monroe and a connection to multistage nonparametric estimation

ABSTRACT:

Gradient descent and stochastic gradient descent are the workhorses of modern ML and AI, the fundamental under-the-hood strategies that drive most of the machinery of large scale learning algorithms and deep neural networks. Yet, the roots of these super useful strategies lie in a sequential procedure advocated by Robbins and Monore more than 80 years ago in the field of mainstream statistics. In this talk, I will revisit the basic Robbins-Monroe procedure and some of its asymptotic properties, and also draw some connections to some prior work of mine on multistage nonparametric function estimation.

ALL ARE CORDIALLY INVITED