Theoretical Statistics and Mathematics Unit, Kolkata
INDIAN STATISTICAL INSTITUTE

SEMINAR

Date: January 27, 2026
Time: 04:15 PM

VENUE:

L- Infinity

(5th Floor, A.N. Kolmogorov Bhavan), ISI Kolkata

TITLE:

Metastability for large queuing networks

SPEAKER:

Thomas Mountford

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ABSTRACT:

We consider a closed queuing network introduced by Bacelli, Foss and Scheer. It is parameterized by 3 values: K, mu and lambda. The model has N >> 1 queues or rooms and KN clients/customers. Each client, independently of the current state or previous evolution, jumps at rate mu to another (chosen uniformly) queue or room. The clients have two states, healthy and infected. Within rooms the status evolves as a lambda contact process. We show that over a finite time interval (0,T) as N tends to infinity the system exhibits Propagation of chaos and (under non trivial in initial conditions) has a "natural" metastable limit as T becomes large. (Joint with Zhe Wang).

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