COMPUTATIONAL BIOLOGY WEBINAR @ IMSc

STOCHASTIC DYNAMICS IN LOW DIMENSIONAL SYSTEMS

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The processes of the systems far below thermodynamics limit generally exhibit stochastic nature, and the evolved noise becomes one important parameter which regulate the systems' dynamics. Complex systems are multi-dimensional systems in general and study such systems are quite difficult both analytically as well as numerically. However, dimensional reduction of such systems with suitable conditions allow us to study important behavior of the systems with significant accuracy. We would like introduce stochastic formalism of complex systems in general. Then techniques to reduce the systems' dimension to solvable one with examples and solving techniques will be explained with examples. The observation of various distinct noise driven patterns, which may correspond to various systems' states, will be explained.

GOOGLE MEET LINK:

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