



ICTS

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TATA INSTITUTE OF FUNDAMENTAL RESEARCH

ICTS Seminar

Title : First Passage Under Restart

Speaker : Arnab Pal, Tel Aviv University, Israel

Date : Tuesday, October 9, 2018

Time : 11:00 AM

Venue : Emmy Noether Seminar Room, ICTS Campus, Bangalore

Abstract : Stopping a process in its midst—only to start it all over again—may prolong, leave unchanged, or even shorten the time taken for its completion. Among these three possibilities the latter is particularly interesting as it suggests that restart can be used to expedite the completion of complex processes which otherwise would hinder. I will introduce the problem of first passage under restart using the example of simple diffusion, but will then explain why many unknowns compel us to generalize to arbitrary first passage processes and restart mechanisms. This has recently led us to discover universal features of the problem which I will derive and describe. The framework developed herein will also serve as a platform to understand restart with branching.