

Tata Institute of Fundamental Research

Homi Bhabha Road, Colaba, Mumbai, INDIA, 400005



Special ASET Colloquium

Speaker: Prof. Vishal Misra (Columbia University, USA)

Vishal Misra is a Professor in the Department of Computer Science at Columbia University, with a joint appointment in the Electrical Engineering Department and also a visiting scientist at Google. He is an ACM and IEEE Fellow and his research emphasis is on mathematical modeling of systems, bridging the gap between practice and analysis. He is also credited with inventing live-microblogging at CricInfo, a company he co-founded while a graduate student at UMass Amherst, predating Twitter by 10 years. He also played an active part in the Net Neutrality regulation process in India, where his definition of Net Neutrality was adopted both by the citizen's movement as well as the regulators. He has been awarded a Distinguished Alumnus Award by IIT Bombay (2019) and a Distinguished Young Alumnus Award by UMass-Amherst College of Engineering (2014).



Talk: What if?: Exploring alternate realities and predicting cricket scores

“What if?” is one of the favorite questions that occupies minds, from sports fans to policy makers to philosophers. Invariably, there is no one answer to the What ifs and everyone remains convinced in their own alternate realities. Recently however, there has been a lot of work in data driven approaches to answer (at least a subset of) these What If questions. The mathematical tool of (Robust) Synthetic Control examines these What If questions by creating a synthetic version of reality, and explore its evolution in time as a counterfactual to the actual reality.

Recently we proposed a generalization of Robust Synthetic Control, the multi-dimensional Robust Synthetic Control (mRSC), and as a fun application of the idea, we show how we can predict cricket scores accurately. We utilize the twin metrics of runs and wickets, and cast it as an mRSC problem that enables us to predict the evolution of an innings with very little data. While we will continue to endlessly speculate What if Kumble had continued as coach rather than Shastri, in this talk we describe a mathematical tool that lets us predict the end of innings score after only a few overs!

Date & Time: **Tuesday**, 5th March 2019, 4pm

Venue: Main Lecture Theatre (AG-66), TIFR, Mumbai

