Tata Institute of Fundamental Research
Survey No. 36/P, Gopanpally Village, Serilingampally, Ranga Reddy Dist., Hyderabad - 500107

Colloquium

Understanding microsecond dynamics of protein machines with single-molecule fluorescence

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Protein machines carry out specific tasks in the cell by alternating chemical steps with conformational/ structural transitions. Single-molecule fluorescence spectroscopy is a powerful tool for exposing large-scale function-related motions. We recently developed a sophisticated maximum likelihood algorithm for the analysis of single-molecule experiments, which can track conformational dynamics even on the microsecond time scale. In the lecture, I will show how this novel analysis helped us understanding the dynamics of two machines, an abundant enzyme and a protein that rescues other proteins from aggregation.

Monday, Jan 14th 2019

4:00 PM (Tea/Coffee at 3:30 PM)

Auditorium, TIFR-H