Poster Snapshot

Memory in Motion: Understanding Effects of Memory on Random Walks

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Elephant random walk was introduced by Schutz and Trimper to study the effect of memory on random walks. Unlike the simple symmetric random walk, it exhibits anomalous diffusion as a result of incorporating the memory of its entire history. However, there is a Markovian structure inherent in the dynamic of the walk. The next location of the elephant, conditioned on the past, depends on a linear function of her present location. In this talk, we shall investigate how the dynamic of the walk changes if we replace the linear function with any arbitrary function.

This talk is based on joint work with Krishanu Maulik and Parthanil Roy.