

Speaker: Satya MAJUMDAR, Paris-Sud University, France

Title: **Resetting Brownian Bridge**

I will first discuss how to write an effective Langevin equation that generates a Brownian bridge of a fixed duration very efficiently using a rejection-free algorithm. We will then derive the exact effective Langevin equation for a resetting Brownian bridge. Surprisingly, we find that there exists an optimal resetting rate  $r^*$  that maximizes the search efficiency, even in the presence of a bridge constraint. We show however that the physical mechanism responsible for this optimal resetting rate for bridges is entirely different from resetting Brownian motions without the bridge constraint.