VIII Encontro da Pós-Graduação em Matemática da UFBA 20 a 24 de Novembro de 2023

On the asymptotics of a reinforced random walk (joint with M. González-Navarrete and V. Vázquez Guevara)

> Rodrigo Lambert * FAMAT-UFU

Abstract

We present a complete characterization of the asymptotic behaviour of a reinforced random walk (RRW). The RRW shows three different regimes, namely diffusive, critical and superdiffusive. The approach is based on the martingale theory and allows us to prove law of large numbers, quadratic strong law, law of iterated logarithm, almost sure central limit theorem and functional central limit theorem in the diffusive and critical regimes. In the superdiffusive we obtain a strong convergence to a random variable, including a central limit theorem and a law of iterated logarithm for the fluctuations.

Tipo de Apresentação: Palestra

*e-mail: rodrigolambert@ufu.br