
Hitting time laws in dynamical systems

Mike Todd*¹

¹University of St Andrews – Mathematical Institute, University of St Andrews, North Haugh, St Andrews, Fife, KY16 9SS, United Kingdom

Abstract

Laws of recurrence are fundamental to the understanding of the statistics of a dynamical system. In this talk I'll give a general form of hitting time law which covers recurrence laws for systems with holes (open systems), asymptotic hitting time laws to shrinking targets as well as other related hitting time laws. This has applications for both non-uniformly hyperbolic and uniformly hyperbolic systems, yielding different types of behaviour depending on the speed of mixing.

*Speaker