

Random differential equations are differential equations whose right-hand side contains a random noise. In most applications that noise is modelled by a stochastic process of certain properties or a metric dynamical system. In this thesis we examine random differential equations and find out under which conditions an equation through its solution generates a random dynamical system. To be able to consider a wider variety of functions on the right-hand side of the equation we employ the method of Lyapunov functions, obtaining less restrictive conditions than the ones normally presented. In the latter portion of the thesis we introduce the field of random attractors, present a theorem from literature regarding the conditions for the existence of a random attractor and formulate and prove our own version that is more closely related to the theory we concerned ourselves with before.