

Stochastic Equations Driven by Cylindrical Fractional Brownian Motion and Adaptive Control

Bozenna Pasik-Duncan
University of Kansas

Different types of solutions of equations driven by a cylindrical fractional Brownian motion will be considered. Some solutions will be presented and the level of difficulties in obtaining them will be discussed. Control problems and adaptive control problems will be formulated for control systems described by stochastic differential equations with a noise modeled by fractional Brownian motion. Solutions of these problems in some cases will be discussed.