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## **Stochastic Equations Driven by Cylindrical Fractional Brownian Motion**

Different types of solutions 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 those problems in some cases will be discussed.