

1067-34-1637

Gaston M N'Guerekata* (Gaston.N'Guerekata@morgan.edu), 1700 East Cold Spring Lane,
Department of Mathematics, Morgan State University, Baltimore, MD 21251. *Stepanov-like almost
automorphy for stochastic processes and applications to stochastic differential equations.*

We introduce the new concept of Stepanov-like almost automorphy, or S^2 -almost automorphy for stochastic processes. We use the results obtained to investigate the existence and uniqueness of Stepanov-like almost automorphic mild solutions to a class of nonlinear stochastic differential equations in a real separable Hilbert space. The main results extend some known results in the case of square-mean almost automorphy (Received September 21, 2010)