Existence, Uniqueness and Stability of Neutral Stochastic Functional Integro-differential Evolution Equations with Infinite Delay

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Abstract

This article presents the results on existence, uniqueness and stability of mild solutions to neutral stochastic functional evolution integro-differential equations with non-Lipschitz condition and Lipschitz condition. The existence of mild solutions for the equations are discussed by means of semigroup theory and theory of resolvent operator. Under some sufficient conditions, the results are obtained by using the method of successive approximation and Bihari's inequality. Moreover, an example is given to illustrate our results.

References

- J. Bao and Z. Hou, "Existence of mild solutions to stochastic neutral partial
Existence, Uniqueness and Stability of Neutral Stochastic Functional Integro-differential Evolution Equations

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Index Terms

Computer Science                  Applied Mathematics

Keywords

Resolvent operator  Evolution operator  Existence  Uniqueness  Stability
Successive approximation

Bihari’s inequality