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一类具有无穷时滞中立型非稠定脉冲随机泛函微分方程积分解的存在性

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Existence Results on the Integral Solutions for a Class of Non-densely Defined Impulsive Neutral Stochastic cfour Functional Differential Equations with Infinite Delay

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- 摘要
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摘要 本文讨论了一类具有无穷时滞中立型非稠定脉冲随机泛函微分方程, 利用 Sadovskii不动点原理等工具得到了其积分解的存在性, 给出其在一类二阶无穷时滞中立型非稠定脉冲 随机偏微分方程积分解的存在性中的应用.

关键词: 泛函随机微分方程   中立型方程   脉冲方程   积分解   非稠定算子

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Abstract： In this paper, we prove the existence of integral solutions for a class of non-densely defined impulsive neutral stochastic functional differential equations with infinite delay. The results are derived by means of the Sadovskii fixed point theorem. As an application, the existence result of integral solutions for a class of non-densely defined impulsive neutral second-order stochastic partial differential equations with infinite delay is established.

Key words： stochastic functional differential equation   neutral equation   impulsive equation   integral solution   non-densely defined operator

作者相关文章
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[1]   Hale J K, Lunel S M V. Introduction to Functional Differential Equations. Berlin: Springer-Verlag, 1991

[2]   Lakshmikantham V, Bainov D D, Simeonov P S. Theory of Impulsive Differential Equations. Singapore: World Scientitic, 1989

[3]   Nieto J J, Rodriguez-Lopez R. New Comparison Results for Impulsive Integro-differential Equations and Applications. *J. Math. Anal. Appl.*, 2007, 328: 1343-1368

[4]   Samoilenko A M, Perestyuk N A. Impulsive Differential Equations. Singapore: World Scientific, 1995

[5]   Wu J. Theory and Applications of Partial Functional Differential Equations. New York: Springer-Verlag, 1996

[6]   Abada N, Benchohra M, Hadda H. Existence and Controllability Results for Nondensely Defined Impulsive Semilinear Functional

Differential Inclusions. *J. Differential Equations*, 2009, 246: 3834-3863

[7] Adimy M, Ezzinbi K, Ouhinou A. Variation of Constants Formula and Almost Periodic Solutions for Some Partial Functional Differential Equations with Infinite Delay. *J. Math. Anal. Appl.*, 2006, 317: 668-689

[8] Benchohra M, Gatsori E, Henderson J, Ntouyas S K. Nondensely Defined Evolution Impulsive Differential Inclusions with Nonlocal Conditions. *J. Math. Anal. Appl.*, 2003, 286: 307-325

[9] Benchohra M, Gorniewicz L. Existence Results for Nondensely Defined Impulsive Semilinear Functional Differential Inclusions with Infinite Delay. *JP J. Fixed Point Theory Appl.*, 2007, 2: 11-51

[10] Hu L, Ren Y. Existence Results for Impulsive Neutral Stochastic Functional Integro-differential Equations with Infinite Delays. *Acta Appl. Math.*, 2010, 111: 303-317

[11] Benchohra M, Ntouyas S K, Ouahab A. On Nondensely Defined Semilinear Stochastic Functional Differential Equations with Nonlocal Conditions. *J. Appl. Math. Stoch. Anal.*, 2006, Art. ID 69584

[12] Da Prato G, Zabczyk J. Tochastic Equations in Infinite Dimension. Cambridge: Cambridge University Press, 1992 crossref

[13] Hino Y, Murakami S, Naito T. Functional Differential Equations with Infinite Delay. In: Lecture Notes in Mathematics, Vol. 1473. Berlin: Springer-Verlag, 1991

[14] Hale J K, Kato J. Phase Spaces for Retarded Equations with Infinite Delay. *Funkcial. Ekvac.*, 1978, 21: 11-41

[15] Anguraj A, Mallika Arjunan M, Eduardo Hern醬dez M. Existence Results for an Impulsive Neutral Functional Differential Equations with State-dependent Delay. *Appl. Anal.*, 2007, 86: 861-872

[16] Kellerman H, Hieber M. Integrated Semigroups. *J. Funct. Anal.*, 1989, 84: 160-180

[17] Yosida K. Functional Analysis. 6th ed. Berlin: Springer-Verlag, 1980

[18] Sadovskii B N. On a Fixed Point Principle. *Funct. Anal. Appl.*, 1967, 1: 71-74

[19] Malkowsky E, Rakoucevi'c V. An Introduction into the Theory of Sequence Spaces and Measures of Noncompactness. *Zbornik radova, Matematiuc*ki institut SANU 2000, 9(17): 143-243

[20] Da Prato G, Sinestrari E. Differential Operators with Non-dense Domains. *Ann. Sc. Norm. Super. Pisa Cl. Sci.*, 1987, 14: 285-344

[1] 张兴秋, 王新华. 半直线上具有p-Laplacian算子的Sturm-Liouville型脉冲边值问题的单调迭代正解[J]. 应用数学学报, 2010, 33(5): 780-791.

[2] 张兴秋, 王新华. 半直线上具有p-Laplacian算子的Sturm-Liouville型脉冲边值问题的单调迭代正解[J]. 应用数学学报, 2010, 33(1): 780-791.

[3] Wen Rui SHAN, Wei Gao GE , Zhi Lei NIU. 具有正负系数的中立型时滞微分方程的零点分布[J]. 应用数学学报, 2004, 27(1): 12-26.

[4] 周勇. 中立型时滞微分方程解的零点距估计[J]. 应用数学学报, 1998, 21(4): 0-0.