

数学与系统科学研究院

计算数学所学术报告

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报告题目:

**Optimal Regularity of Stochastic
Evolution Equations in M-type 2
Banach Spaces**

邀请人: 洪佳林 研究员

报告时间: 2017 年 9 月 18 日 (周一)

下午 15:30-16:30

报告地点: 数学院南楼九层

902 教室

Abstract:

In this paper, we prove the well-posedness and optimal trajectory regularity for the solution of stochastic evolution equations driven by general multiplicative noises in Martingale type 2 Banach Spaces. The main idea of our method is to combine the approach in “J. Hong and Z. Liu, Well-posedness and optimal regularity of stochastic evolution equations with multiplicative noises (arXiv:1708.06141)”, where the authors consider the same type of problem in Hilbert setting and a version of Burkholder–Davis–Gundy inequality. Applying our main results to the stochastic heat equation gives a positive answer to a problem proposed in “A. Jentzen and M. Röckner, Regularity analysis for stochastic partial differential equations with nonlinear multiplicative trace class noise, J. Differential Equations, 2012”.

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