

ON NONAUTONOMOUS MARKOV EVOLUTIONS IN CONTINUUM

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Abstract. The nonautonomous Cauchy problem in a scale of Banach spaces is investigated. The existence and uniqueness of solutions to this problem is proven. The obtained results are applied to several dynamics of Markov evolutions in continuum (e.g. spatial logistic model, Glauber dynamics, etc.).

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1 Introduction

A possible way of describing dynamics of complex systems of interacting particle is to assume that the elementary acts of the evolution occur at random and the evolution itself is Markovian. Among the mentioned elementary acts one can distinguish birth, death and motion. The rates at which they occur may

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