

ON SOME DICHOTOMY PROPERTIES OF DYNAMICAL SYSTEMS ON THE WHOLE LINE*

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Abstract

The aim of this paper is to present several dichotomy properties of nonautonomous systems in Banach spaces. We discuss the connections between discrete-time and continuous-time dichotomic behavior on the whole line. The key points of the method are the discrete asymptotic properties and the input-output techniques. As consequences, we present several applications and criteria for exponential dichotomy of evolution families on the whole line, which extend the previous results in this framework.

MSC: 34D05, 34D09.

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