

**ON SOME CONCEPTS OF (h, k) -DICHOTOMY FOR DISCRETE
SKEW-EVOLUTION SEMIFLOWS IN BANACH SPACES**

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ABSTRACT. In this paper we intend to study three concepts of (h, k) dichotomy for discrete skew-evolution semiflows in Banach spaces. The definitions of various types of dichotomy are illustrated by examples. We also aim to give connections between them, emphasized by counterexamples. Some results concerning the boundedness of the sequence of projections are obtained, under a growth and dichotomy assumption on the discrete skew-evolution semiflow.

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