

Almost Automorphy in Evolution Equations

Gaston Nguerakata

This talk is an overview of recent (last five years) developments of Bochner's theory of almost automorphy and its applications to evolution equations. We will first outline basic differences between almost periodicity and almost automorphy; then we will present some new tools such as the method of reduction and the uniform spectrum of bounded functions used to study the existence of almost automorphic solutions of evolution equations. We will also study some boundary problems (with almost automorphic mild solutions) motivated by some retarded differential equations, boundary control problems and dynamic population equations. We will indicate some open problems at the end of the talk.