

Abstract

In second chapter, we study a class of nonlocal initial value problems of evolution inclusions in the form of compact valued perturbations of m -dissipative evolution inclusions in Banach spaces with uniformly convex duals. The multivalued part is assumed to be one-sided Perron.

Our approach enables us to use a compactness method technique under non compact type assumptions.

In third chapter, evolution inclusions given by multivalued perturbations of m -dissipative operators with nonlocal initial conditions are studied. Existence of solutions is proved. The commonly used Lipschitz hypothesis for the perturbations is weakened to one-sided Lipschitz ones. An existence result for the multi-point problems which cover periodic and anti-periodic cases is proved. We give examples to illustrate the applicability of our results.