

On strong invariance for semi-linear differential inclusions

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Abstract: We discuss the problem of strong invariance associated with the differential inclusion $(*) y' \in Ay + F(y)$, where A generates a C_0 -semigroup in a Banach space and F is a multifunction. Recall that a set K is strong invariant with respect to $(*)$ if every solution of $(*)$, starting from K , remains in K on some interval. We give necessary and/or sufficient conditions for strong invariance