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**BVP for Carathéodory inclusions in Hilbert spaces: sharp existence conditions and applications.** (English) Zbl 1276.34013

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**Summary:** This article concerns an existence result for Floquet boundary value problems associated to semilinear differential inclusions with Carathéodory right hand side in a Hilbert space. We apply a continuation principle and we require a sharp (i.e., localized on the boundary) transversality condition. We give an application to a nonlinear partial differential inclusion with periodic conditions.

**MSC:**

**34A60** Ordinary differential inclusions

**34B15** Nonlinear boundary value problems for ordinary differential equations

**35R70** PDEs with multivalued right-hand sides

Cited in 1 Document

**Keywords:**

differential inclusion in Hilbert space; Carathéodory solution; bounding function; bound set

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