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STRUCTURE OF EIGEN AND ASSOCIATED VECTORS OF NOT SELFADJOINT MULTIPARAMETER SYSTEM IN THE HILBERT SPACES

Abstract

In this work for multiparameter systems of operators in Hilbert spaces the definitions and the concepts are introduced.

There are defined the associated vector, canonical system of eigen and associated vectors of multiparameter system. The structure of the associated vector of not selfadjoint multiparameter system is investigated.

At the proof of last outcome the abstract analog of a Resultant of two bundles, polynomial depending on one parameter, is essentially used.

In this article the notion of Resultant of two polynomial bundles is generalized on several polynomial bundles acting in different Hilbert spaces and it is given necessary and sufficient conditions for existence of a common eigen value of several bundles.