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ON COMPLETENESS OF A SYSTEM OF EIGEN
AND ADJOINT ELEMENTS OF SOME
POLYNOMIAL OPERATOR PENCILS IN BANACH
SPACE

Abstract

In the paper we prove the theorems on m tuple completeness of a system of eigen and adjoint elements of some classes polynomial operator pencils in Banach space. Notice that unlike the earlier known papers of J.E.Allahverdiyev [1], A.M.Akhmedov ([2], [3]) and A.S.Markus ([4], [5]) in this paper the operator coefficient for the higher order spectral parameter is a scalar type spectral operator with point spectrum.