

Invariant subspaces for polynomially bounded operators

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(Joint work with C. Ambrozie)

By a well-known result by Brown, Chevreau and Pearcy, every Hilbert space contraction whose spectrum contains the unit circle has a non-trivial invariant subspace. A generalization of this result to the Banach space setting will be presented. If T is a polynomially bounded operator on a Banach space X whose spectrum contains the unit circle then its adjoint T^* has a nontrivial invariant subspace. In particular, if the space X is reflexive then T has an invariant subspace.

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