

Fuglede Putnam Theorem For Hyponormal Or Class

If you ally dependence such a referred **fuglede putnam theorem for hyponormal or class** book that will provide you worth, acquire the definitely best seller from us currently from several preferred authors. If you desire to witty books, lots of novels, tale, jokes, and more fictions collections are afterward launched, from best seller to one of the most current released.

You may not be perplexed to enjoy every book collections fuglede putnam theorem for hyponormal or class that we will completely offer. It is not going on for the costs. It's not quite what you dependence currently. This fuglede putnam theorem for hyponormal or class, as one of the most functioning sellers here will definitely be in the midst of the best options to review.

Project Gutenberg (named after the printing press that democratized knowledge) is a huge archive of over 53,000 books in EPUB, Kindle, plain text, and HTML. You can download them directly, or have them sent to your preferred cloud storage service (Dropbox, Google Drive, or Microsoft OneDrive).

Fuglede Putnam Theorem For Hyponormal

bounded linear operators on H,K . The familiar Fuglede-Putnam's theorem is as follows: Theorem 1.1. (Fuglede-Putnam) Let $A \in B(H),B \in B(K)$ be normal operators. If $AX = XB$ for some $X \in B(K,H)$, then $A^*X = XB^*$. Many authors have extented this theorem for several classes of operators, for example (see [7, 10, 11, 22, 24]). We say that A,B satisfy Fuglede-Putnam's theorem if $AX = XB$ implies $A^*X = XB^*$.

FUGLEDE-PUTNAM THEOREM FOR -HYPNORMAL Y

The Putnam-Fuglede theorem now says that if $Sx \in B \text{ (} H \text{)}$ and $S \text{ (} \mathit{m}\mathit{a}\mathit{t}\mathit{h}\mathit{c}\mathit{a}\mathit{l}\{\mathit{B}\} \text{) } x = 0$, then $S \text{ (} \mathit{m}\mathit{a}\mathit{t}\mathit{h}\mathit{c}\mathit{a}\mathit{l}\{\mathit{A}\} \text{) } x = 0 = \text{ (} \mathit{m}\mathit{a}\mathit{t}\mathit{h}\mathit{c}\mathit{a}\mathit{l}\{\mathit{B}\} \text{) } x$. This version of the Putnam-Fuglede theorem has been generalized to the Banach space setting as follows: if $S \text{ (} \mathit{m}\mathit{a}\mathit{t}\mathit{h}\mathit{c}\mathit{a}\mathit{l}\{\mathit{A}\} \text{)}$ and $S \text{ (} \mathit{m}\mathit{a}\mathit{t}\mathit{h}\mathit{c}\mathit{a}\mathit{l}\{\mathit{B}\} \text{)}$ are commuting Hermitian operators on a complex Banach space V , then, given $Sx \in V$,

Putnam-Fuglede theorems - Encyclopedia of Mathematics

The result. Theorem (Fuglede) Let T and N be bounded operators on a complex Hilbert space with N being normal. If $TN = NT$, then $TN^* = N^*T$, where N^* denotes the adjoint of N . Normality of N is necessary, as is seen by taking $T = N$. When T is self-adjoint, the claim is trivial regardless of whether N is normal: $TN^* = \text{ (} N \text{ T) }^* = \text{ (} T \text{ N) }^* = N^* \text{ T}$.

Fuglede's theorem - Wikipedia

Theorem 1.1 (Fuglede–Putnam theorem, [3, 10]) Let $\{S \in \text{lin } \mathit{m}\mathit{a}\mathit{t}\mathit{h}\mathit{c}\mathit{a}\mathit{l}\{\mathit{B}\} \text{ (} \mathit{m}\mathit{a}\mathit{t}\mathit{h}\mathit{c}\mathit{a}\mathit{l}\{\mathit{H}\} \text{)}\}$, $\{T \in \text{lin } \mathit{m}\mathit{a}\mathit{t}\mathit{h}\mathit{c}\mathit{a}\mathit{l}\{\mathit{B}\} \text{ (} \mathit{m}\mathit{a}\mathit{t}\mathit{h}\mathit{c}\mathit{a}\mathit{l}\{\mathit{K}\} \text{)}\}$, and $\{X \in \text{lin } \mathit{m}\mathit{a}\mathit{t}\mathit{h}\mathit{c}\mathit{a}\mathit{l}\{\mathit{B}\} \text{ (} \mathit{m}\mathit{a}\mathit{t}\mathit{h}\mathit{c}\mathit{a}\mathit{l}\{\mathit{H}\} \text{)}, \mathit{m}\mathit{a}\mathit{t}\mathit{h}\mathit{c}\mathit{a}\mathit{l}\{\mathit{K}\} \text{)}\}$. If S, T are normal operators, then $\{S \text{ (} X \text{)} = X \text{ (} T \text{)}\}$ ensures $\{S^* \text{ (} X \text{)} = X \text{ (} T^* \text{)}\}$. Theorem 1.2 Let $\{S \in \text{lin } \mathit{m}\mathit{a}\mathit{t}\mathit{h}\mathit{c}\mathit{a}\mathit{l}\{\mathit{B}\} \text{ (} \mathit{m}\mathit{a}\mathit{t}\mathit{h}\mathit{c}\mathit{a}\mathit{l}\{\mathit{H}\} \text{)}\}$, $\{T \in \text{lin } \mathit{m}\mathit{a}\mathit{t}\mathit{h}\mathit{c}\mathit{a}\mathit{l}\{\mathit{B}\} \text{ (} \mathit{m}\mathit{a}\mathit{t}\mathit{h}\mathit{c}\mathit{a}\mathit{l}\{\mathit{K}\} \text{)}\}$.

Fuglede–Putnam type theorems for (*p* , *k*) *S*(*p* ,*k*) ...

6 The Fuglede–Putnam theorem Proof. Since by assumption $XT=SX$, we can see that $\text{ker}X \perp$ and $\text{ran}X$ are invariant subspaces of T^* and S , respectively. Therefore by Lemma 9 we have that $T^* \upharpoonright \text{ker}X \perp$ is p -hyponormal and $S \upharpoonright \text{ran}X$ is also (p,k) -quasihyponormal. Now consider the decompositions $\text{ker}X \perp \oplus \text{ker}X \perp = \text{ran}X \oplus (\text{ran}X)^\perp$. Then we have the following matrix ...

THE FUGLEDE-PUTNAM THEOREM FOR -QUASHYPNORMAL OPERATORS

FUGLEDE-PUTNAM THEOREM AND QUASISIMILARITY OF CLASS *p* ... Keywords and phrases: *p*-hyponormal operator, class *p*-*wA*(*s*,*t*) operator, Fuglede-Putnam theorem, quasisimilar. REFERENCES [1] A. ALUTHGE, On *p*-hyponormal operators for $0 < p < 1$, Integral Equations Operator Theory 13 (1990), 307–315.

Fuglede-Putnam theorem and quasimilarity of class *p*-*wA*(*s* ...

An extension of Putnam-Fuglede theorem for hyponormal operators M, Radjabalipour 1 Mathematische Zeitschrift volume 194 , pages 117 – 120 (1987) Cite this article

An extension of Putnam-Fuglede theorem for hyponormal ...

The Putnam-Fuglede theorem holds modulo the compacts (simply consider the Putnam-Fuglede theorem in the Calkin algebra), and does not hold modulo the ideal of finite-rank operators. In a remarkable extension of the Putnam-Fuglede theorem to Schatten-von Neumann ideals , (cf. also Calderón couples), G. Weiss proved in that implies .

Putnam-Fuglede theorems - Encyclopedia of Mathematics

Hence, C_2 is the Hilbert-Schmidt class and C_1 is the trace class. The Fuglede-Putnam theorem states that if N and M are normal operators in $B(H)$ and $NX = XM$ for some $X \in B(H)$, then $N^*X = XM^*$. This theorem has been generalized [13,7] as follows. Theorem A.

ON GENERALIZED FUGLEDE-PUTNAM THEOREMS OF HILBERT-SCHMIDT TYPE

PDF | In this paper, we prove the following assertions: (1) If the pair of operators (A, B^*) satisfies the Fuglede-Putnam Property and $S \in \ker(\delta A, B)$, ... | Find, read and cite all the research ...

On the generalized Fuglede-Putnam Theorem - ResearchGate

unilateral shifts shows that this theorem cannot be extended to the class of hyponormal operators. Let us write the Putnam-Fuglede theorem in an asymmetric form: if $A \in 2B(H)$ and $B \in 2B(H)$ are normal operators and $AX = XB$ for some $X \in 2B(H)$, then $AX = XB$. Many authors extended this theorem for different non-normal classes of operators (see [2,4-12]).

Asymmetric Putnam-Fuglede Theorem for (*n* ,*k*)-Quasi ...

the Fuglede-Putnam Property and $S \in \ker(\delta A, B)$, where $S \in \text{lin } S \in \text{lin } \mathfrak{h}$, then we have $\| \delta A, B X + S \| \geq \| S \|$, $\| \delta A, B X + S \| \geq \| S \|$. (2) Suppose the pair of operators (A, B^*) (A, B^*) satisfies the Fuglede-Putnam Property.

On the generalized Fuglede-Putnam Theorem | Tamkang ...

This paper is devoted to the study of Fuglede-Putnam type theorems for (p,k) S (p,k)-quasihyponormal operators via a class of operators based on hyponormal operators $FP(H) = \{S \in \mathcal{S}(H,T) \mid EFP \text{ holds for each hyponormal operator } T^*\}$ $FP(H) := \{S \in \mathcal{S}(H,T) \mid \text{in } FP \text{ holds for each hyponormal operator } T^*\}$.

Fuglede–Putnam type theorems for (*p* ,*k*) *S*(*p* ,*k*) ...

An extension of the Fuglede–Putnam’s theorem to class *A* operators Author: Salah Mecheri and Atsushi Uchiyama Subject: Math. Inequal. Appl., 13, 1 (2010) 57-61 Keywords: 47B47, 47A30, 47B20, 47B10, Fuglede-Putnam theorem, *p*-hyponormal operator, log-hyponormal operator, class *A* operator Created Date: 1/1/2010 12:00:00 PM

An extension of the Fuglede-Putnam’s theorem to class *A* ...

The Fuglede-Putnam theorem (first proved by B. Fuglede and then by C.R. Putnam in a more general version) plays a major role in the theory of bounded (and unbounded) operators thanks to its numerous applications. Many authors have worked on it since the papers of Fuglede and Putnam.

YET MORE VERSIONS OF THE FUGLEDE-PUTNAM THEOREM

References. 1. A. Bachir, F. Lombarkia, Fuglede-Putnam Theorem for *w*-hyponormal operators, Math. Inequal. Appl., 4 (2012), 777-786. 2. A. Bachir, S. Mecheri, Some ...

References - AIMS Press - Open Access Journals

The classical and most known form of the Fuglede Putnam theorem is the following Theorem 2.1. [16, 25] If $X:A$ and B are bounded operators acting on complex Hilbert space H such that A and B are

Asymmetric Fuglede Putnam’s Theorem for Operators Reduced ...

Radjabalipour showed that Putnam-Fuglede theorem remains valid for hyponormal operators. In 2002, Uchiyama and Tanahashi proved that Putnam-Fuglede theorem still holds for *p*-hyponormal and log-hyponormal operators. Bachir and Lombarkia gave the extension of Putnam-Fuglede Theorem for *w*-hyponormal and class (Y) .

Asymmetric Putnam-Fuglede Theorem for (*n* ,*k*)-Quasi ...

THE PUTNAM-FUGLEDE PROPERTY FOR PARANORMAL AND -PARANORMAL OPERATORS Patryk Pagacz Communicated by P.A. Cojuhari Abstract. An operator $T \in 2B(H)$ is said to have the Putnam-Fuglede commutativity property (PF property for short) if $TX = X$ for any $X \in 2B(K,H)$ and any isometry $J \in 2B(K)$ such that $TX = XJ$. The main purpose of this paper is to examine if paranor-

THE PUTNAM-FUGLEDE PROPERTY FOR PARANORMAL AND -PARANORMAL ...

The familiar Fuglede-Putnam theorem asserts that if A and B are normal operators and if X is an operator such that $AX = XB$, then $A^*X = XB^*$. We shall relax the normality in the hypotheses on A and B .