

数学

k-广义Hermite矩阵及其在矩阵方程中的应用

袁晖坪, 王行荣

重庆工商大学 数学与统计学院, 重庆 400067

摘要:

给出了 k-广义Hermite矩阵的概念, 并给出了它的性质及其与酉矩阵、Hermite矩阵、Hamilton矩阵和广义逆矩阵之间的关系及其在解矩阵方程中的应用, 取得了一些新结果, 推广了酉矩阵、Hermite矩阵及广义次对称矩阵的相应结果, 特别地将正交阵的广义Cayley分解推广到了 k-广义酉矩阵和k-广义Hermite矩阵上, 从而统一了各类Hermite矩阵及广义逆矩阵.

关键词: k-广义Hermite矩阵; 酉矩阵; 广义逆矩阵; 辛矩阵; 矩阵方程

k-Generalized Hermite Matrices and Their Application in Matrix Equation

YUAN Hui ping, WANG Xing rong

College of Mathematics and Statistics, Chongqing Technology and Business University, Chongqing 400067, China

Abstract:

The concept of k-generalized Hermite matrix was given, and its properties and relations to unitary matrix, Hermite matrix, Hamilton matrix and generalized inverse matrix, and its matrix equation of application were discussed, with many new results obtained. The corresponding results of unitary matrix, Hermite matrix and generalized symmetric matrix, especially the Cayley decomposition of orthogonal matrix to k-generalized unitary matrix and k-generalized Hermite matrix were extended, unifying various kinds of Hermite matrix and generalized inverse matrix.

Keywords: k-generalized Hermite matrix unitary matrix; generalized inverse matrix; symplectic matrix; matrix equation

收稿日期 2011-03-01 修回日期 网络版发布日期

DOI:

基金项目:

通讯作者: 袁晖坪

作者简介:

作者Email: yhp@ctbu.edu.cn

参考文献:

本刊中的类似文章

文章评论

反馈人	<input type="text"/>	邮箱地址	<input type="text"/>
反馈标题	<input type="text"/>	验证码	<input type="text" value="9313"/>

扩展功能

本文信息

- ▶ Supporting info
- ▶ PDF(261KB)
- ▶ [HTML全文]
- ▶ 参考文献[PDF]
- ▶ 参考文献

服务与反馈

- ▶ 把本文推荐给朋友
- ▶ 加入我的书架
- ▶ 加入引用管理器
- ▶ 引用本文
- ▶ Email Alert
- ▶ 文章反馈
- ▶ 浏览反馈信息

本文关键词相关文章

- ▶ k-广义Hermite矩阵; 酉矩阵;
- ▶ 广义逆矩阵; 辛矩阵; 矩阵方程

本文作者相关文章

PubMed

