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# 基于奇异值分解和判别式KL投影的人脸识别

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## Abstract

The face recognition is an active subject in the fields of computer vision and pattern recognition, which has a wide range of potential applications. In this paper, a method for color face recognition is presented, this algorithm extracts the final features by utilizing the techniques of the simulative K-L transform, the singular value decomposition, the principal component analysis and the Fisher linear discriminant analysis. Classifier in this algorithm can be simplified to make it more compact and effective, and higher correct recognition rate can be gained using less number of feature vectors. The effectiveness of the approach is experimentally demonstrated.

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## 摘要

人脸识别是计算机视觉和模式识别领域的一个活跃课题,有着十分广泛的应用前景.提出了一种新的彩色人脸识别方法.该算法采用模拟K-L变换、奇异值分解、主分量分析和Fisher线性判别分析技术来提取最终特征,可以使分类器的设计更加简洁、有效,使用较少的特征向量数目就能取得较高的识别率.仿真结果表明了该方法的有效性.

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