

论文

基于图像抽样重组的2维核鉴别分析

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摘要

2维核鉴别分析(2DKDA)存在离散度量矩阵过大而无法计算的问题。该文通过将图像抽样重组与2DKDA的结合,提出了3种基于图像抽样重组的2DKDA(SR2DKDA),它们不仅克服了2DKDA在计算上的困难,识别性能也优于2维线性鉴别分析(2DLDA)。在ORL人脸库和UMIST人脸库的实验验证了SR2DKDA的有效性。

关键词 [2维线性鉴别分析](#) [2维核鉴别分析](#) [图像抽样重组](#) [抽样重组2维核鉴别分析](#)

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2-Dimensional Kernel Discriminant Analysis Based on Image Sampling and Regrouping

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Abstract

2-Dimensional Kernel Discriminant Analysis (2DKDA) can not be performed since its scatter metric matrices are too large. This paper combines the sampling and regrouping images with 2DKDA and gives three kinds of Sampling and Regrouping 2-Dimensional Kernel Discriminant Analysis (SR2DKDA). These algorithms not only overcome the drawback of 2DKDA but also have superior recognition accuracy to 2-Dimensional Linear Discriminant Analysis (2DLDA). The experiments on ORL database and UMIST database verify the efficiency of the SR2DKDA.

Key words [2-dimensional linear discriminant analysis](#) [2-dimensional kernel discriminant analysis](#) [Image sampling and regrouping](#) [Sampling and regrouping 2-dimensional kernel discriminant analysis](#)

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