

# Development of face recognition classifiers based on contingency indicators

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## Abstract

One of the most widely used face recognition techniques is the Principal Component Analysis (PCA), sometimes referred to as the Eigenfaces method. The idea of the method is to decompose the image vectors into a system of eigenvectors corresponding to the largest eigenvalues. The paper considers to use as a proximity measure various coefficients of contingency with a subspace spanned by training vectors from a recognizable class. The effectiveness of using this criterion in case of a small number of training examples is shown. Experimental results for the standard ORL face database are provided.

**Keywords:** face recognition, contingency indicator, principal component analysis, PCA, eigenfaces, ORL face database.

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