MAPPING BY ADAPTIVE THRESHOLD METHOD FOR DIMENSION REDUCTION OF CONTENT–BASED INDEXING AND RETRIEVAL FEATURES (ThuPmPO1)

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✶ Abstract :

Dimension reduction methods have been commonly used for content–based multimedia indexing and retrieval. In this paper, we investigate the use of a mapping by adaptive threshold (MAT) method for dimension reduction of feature data. The proposed MAT method is implemented and compared to two other well–known dimension reduction methods, namely Principal Component Analysis and Multidimensional Scaling. Experimental studies on image retrieval reveal that the proposed method successfully reduces the dimension of feature vectors without degrading semantic image retrieval performance significantly. Furthermore, its computational complexity is significantly less than the other methods.

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