



PREDICTING FACES IN VIDEO SEQUENCES USING EIGENSPACE UPDATE ALGORITHMS (WedPmPO4)

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★ Abstract :

A fundamental module in modern video coders is the frame predictor which provides the data needed to code frames from previous ones. In PCA-based predictors, the frames are represented as their projection in a proper basis (eigenspace) obtained from the covariance matrix. In this paper, we investigate the performance of several algorithms in order to obtain an adequate eigenspace. Experiment results show that the best performance is obtained when the eigenspace is updated taking into account the non-stationary nature of face images. The technique offers a competitive alternative to P-predictive and B-predictive frames.