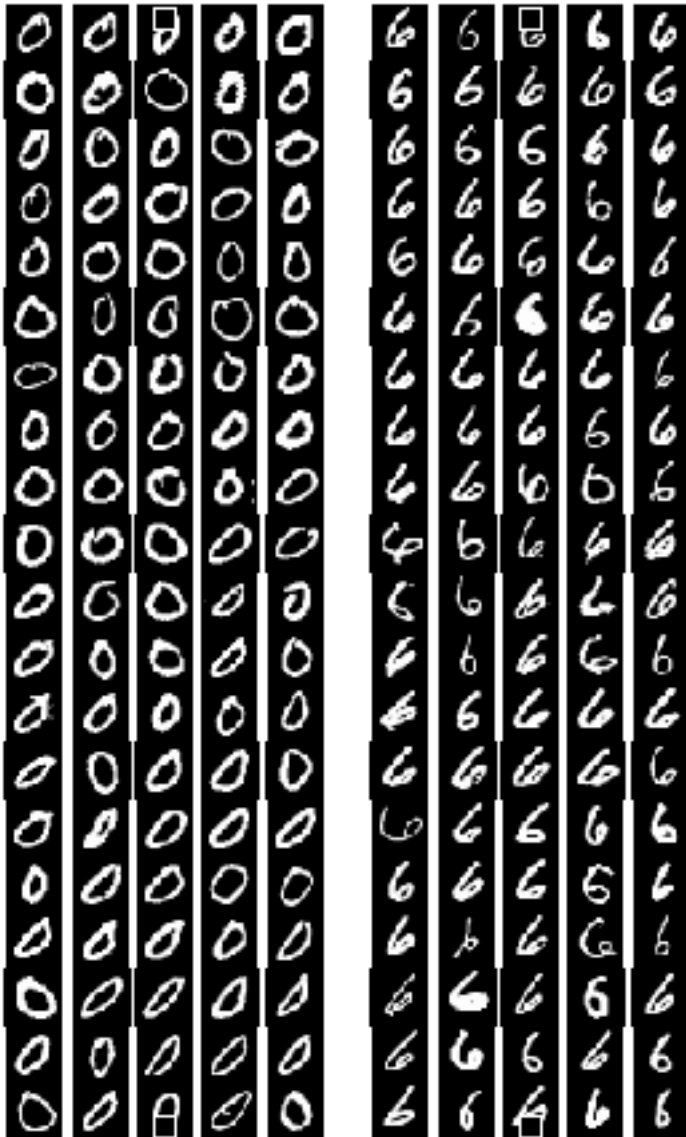


DataSet

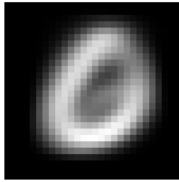
Name: MNIST handwritten digits <http://yann.lecun.com/exdb/mnist/>

I used 5923+5918 images (5923 '0' and 5918 '6')

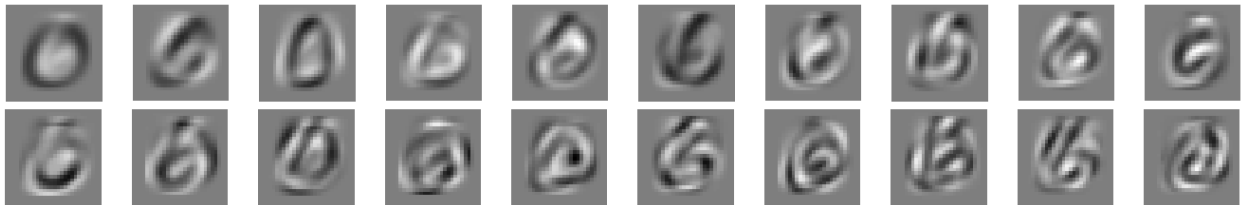


PCA

Mean face:

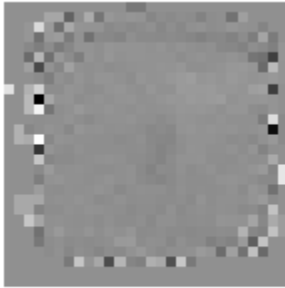


Eigen faces:

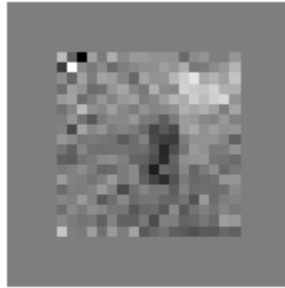


LDA

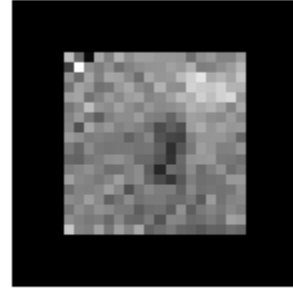
The linear mapping



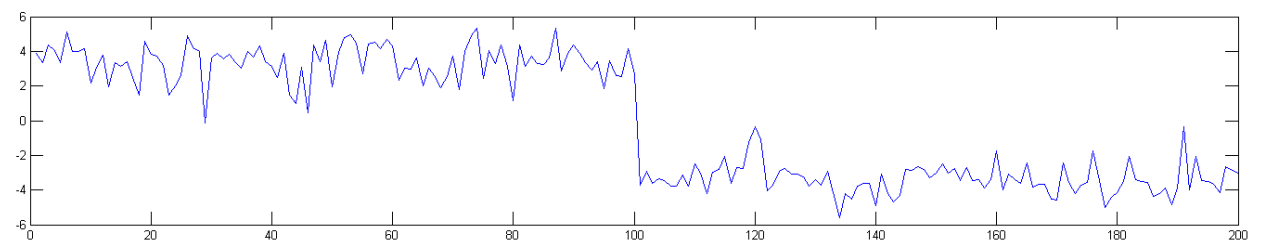
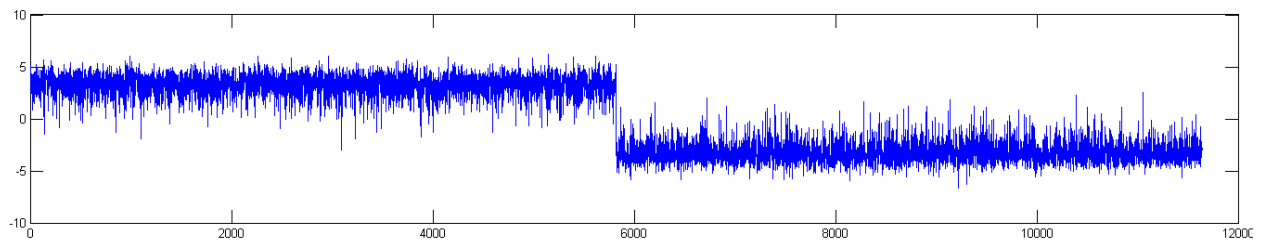
original image



increase visibility of central part

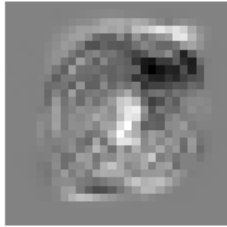


The coefficients for training and test images

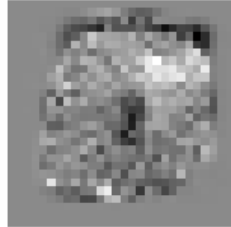


LDA+PCA

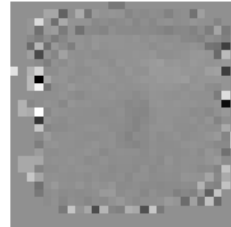
The linear mapping is reconstructed for different dimensions



200



400



600

The coefficients for training and test images (reduced dimension:500)

