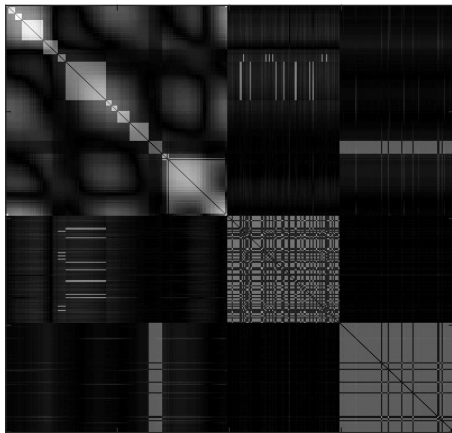(a) original matrix   (b) rectified matrix