

LDR-LLE algorithm README file
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The algorithm LDR-LLE is a modification of the algorithm LLE. The paper that describes the algorithm, its attributes and empirical comparison to the algorithms LLE, Laplacian Eigenmap and LTSA can be found at http://pluto.huji.ac.il/~yaacov/ldr_paper

This folder contains 7 files:

1. lle_ldr.m

The MATLAB code of LDR-LLE. This code is a modification of the LLE code that can be found at <http://www.cs.toronto.edu/~roweis/lle/code.html>

2. simple_ring_ldr_data.mat

The data of the open ring example. Here X is a 2×16 matrix and tt is a color vector.

3. swissroll_ldr_data.mat

The swissroll data. The data was produced using the code that appears on the LLE website. Here X is a 3×200 matrix and tt is a color vector.

4. scurve_ldr_data.mat

The S-curve data. The data was produced using the code that appears on the LLE website, with noise added. Here X is a 15×2000 matrix and tt is a color vector. The first three dimensions are the original ones produced by the LLE website code.

5. faces_ldr_data.mat

Date of one face in different poses and lighting. The data was obtained from the Isomap website:

<http://waldron.stanford.edu/~isomap/>

Here X is a 240×698 matrix and *poses* and *light* are color vectors.

6. satellite_ldr_data.mat

The data for the satellite images example. We thank J. Hamm for providing this database. Here X is a 10000×300 matrix and tt is the color vector.

7. cluster_ldr_data.mat

The clusters data. The data was obtained from the faces database at the AT&T Laboratories webpage:

<http://www.cl.cam.ac.uk/research/dtg/attarchive/facedatabase.html>

Here X is a 50×40 matrix and tt is the color vector.

Comments are welcome!

Please email

yair.goldberg@mail.huji.ac.il