Readme

Packages

We used several packages, a complete list of the used packages can be found in the file modules_used.txt. The following are the main packages to install:

> python 2.7.16
> cvxopt 1.2.0
> h5py 2.8.0
> keras 2.0.8
> pot 0.5.1 or 0.6.0 (both work)
> pypng 0.0.18
> pywavelets 1.0.2
> scikit-learn 0.20.1
> scipy 1.1.0
> sklearn-contrib-lightning 0.5.0
> tensorflow 1.0.1

The version of tensorflow is important.

Commands

The commands to train the networks and to obtain the results of the numeric section are given in the commands.odt file. They should be executed from the top folder.

For the plots, one can access the jupyter notebook files in the source folder src, RepresentationError.ipynb for the plots in the "Representation experiments" section and MeasurementError.ipynb for the plots in the "Reconstruction experiments" and "Recovery with adaptive latent dimension" section. For this install jupyter notebook, call it in the terminal; a page in the standard internet browser will open, where you should navigate to the files.

Some permission errors may arise. In this case execute

> *chmod +x **

in the folder with the file causing the permission error.