**Read me**

1. **Discovery of the data:** It shows how many percent of data is missing and if the user demand, it can be removed
2. **The Eigen Poses Converge** (**input:** Data 3D, Threshold of Eigen pose, Threshold of Outliers; **output:** Figures).
3. **Estimate the 3D-UPPER statical shape model** (**input:** 3D data, threshold of eigen pose; **output:** Estimate mean RANSAC, Mean pPCA, Covariance matrix, Eigen vectors, Eigen values).
4. **Reconstruct data** (**input:** Raw data, Threshold of Outliers, Estimate mean RANSAC, Covariance matrix, Eigen vectors, Eigen values; **output:** Reconstructed data).
5. **Movie Eigen (input:** Eigen values, Eigen vectors, Number of Eigen, Estimate mean RANSAC; **output:** Movie).

**In each folder there is Mani file and some functions, the Main file should run to see the results.**