

Louvain community detection:

```
python3 louvaineCommunityDetection.py networkEdgesFile
```

Normalized Mutual Information with Randomization

```
python3 -W ignore normalizedMutualInformation.py networkGroups.txt  
Randomize randomNodeIds.txt generatedLouvainGroups
```

Normalized Mutual Information with no Randomization

```
python3 -W ignore normalizedMutualInformation.py networkGroups.txt  
noRandomize generatedLouvainGroups
```

- networkGroups.txt: the original communities of the network
- generatedlouvaingroups: the detected communities on the generated network
- NMI: will measure the similarity between those generated groups and the original groups