Info on files:

1. **Overlap.txt (overlapping parameter)**

1st column: optical mode name

2nd column: mechanical mode frequency

3rd column: overlapping parameter

4th column: mass ratio (not important)

1. **Qfactor.txt (Q of mechanical modes)**

1st column: mechanical mode frequency

2nd column: Q-factor

1. **TEMs.txt (optical mode amplitude) + Xrf + Yrf**

Each column in TEMs correspond to the transverse mode amplitude at the (x,y) point, where x, y coordinates are stored in Xrf, Yrf respectively.

1. **TEM\_names.modes**

Optical mode names. Two family modes TEMajk and TEMbjk. “a” corresponds to vertical modes and “b” corresponds to horizontal modes. “j” – radial index, “k”- azimuthal index. Mode order is 2\*j+k.

1. **AcuMode.mds (mechanical mode z-displacement of the test mass –FEA output)**

This file contains data for first 250 mechanical modes.

1st column: element counter (not important)

2nd column : element number (not important)

3rd column: x- coordinate of the element

4th column: y-coordinate of the element

5th column: z-displacement of the element (refers to the mode shape)

6th column: element area (not important)

7th column: mechanical mode number

1. **uModes800W.txt (parametric gain of unstable modes- Monte Carlo output)**

First row is the mechanical mode number whereas the second row is the mechanical mode frequency.

Each column corresponds to the parametric gain value for the IFO operating in 800kW. Each column contains 342887 iteration.

1. TEMiteraction (does not exist, it will contain the list of optical modes interacting with mechanical mode)

Structure will be as follow: each row corresponds to TEM mode (sequence of mode as in TEM\_names), each row will correspond to mechanical mode. The result in each column is a sum of optical mode appearance in all iterations.