

ans =

23-May-2015 00:11:38

ifo =

```
Bar: [1x1 struct]
Optics: [1x1 struct]
Infrastructure: [1x1 struct]
Constants: [1x1 struct]
TCS: [1x1 struct]
Seismic: [1x1 struct]
Atmospheric: [1x1 struct]
Suspension: [1x1 struct]
Materials: [1x1 struct]
Laser: [1x1 struct]
Squeezer: [1x1 struct]
OutputFilter: [1x1 struct]
```

Torsion Suspension (suspTorsion.m)

- torsion suspension wire material: Silica
- torsion suspension wire loss angle: $1e-10$
- torsion suspension wire temperature: 4 K
- torsion wire diameter (single wire, multiplied safety factor 1.5x): 1568.3193 μm
- torsion suspension wire length: 0.6 m
- torsion spring constant (2 wire): 0.027166 Nm/rad
- torsion bar inertia: $0.6392\text{kg}\cdot\text{m}^2$
- torsion resonance: 0.03281 Hz

You are not injecting squeezing..loozer!

- Seismic Isolator: MultiSAS
- Seismic Ground Motion: LLO
- Seismic Isolator: MultiSAS
- Seismic Ground Motion: LLO

```
Laser Power: 0.100 Watt
SRM Detuning: 0.00 degree
SRM transmission: 1.0000
ITM transmission: 0.0213
PRM transmission: 1.0000
Finesse: 294.71
Power Recycling Factor: 1.00
Arm power: 0.01 kW
Power on beam splitter: 0.10 W
Thermal load on ITM: 0.000 W
Thermal load on BS: 0.000 W
Required TCS efficiency: 1.000(estimate, see IFOModel.m for definition)
BNS Inspiral Range: 0.002 Mpc
BBH Inspiral Range: 0.028 Mpc
Stochastic Omega: 0.08 Universes
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New Nebulous Range: 16.368 Mpc

TORPEDO Configuration (nomm_anu_pType1.m)

- Reference Cavity Length: 6.2 m
- Arm Lengths: 0.368 m
- Bar length and diameter: 0.6 m x 0.06 m.
- Bar material: Aluminium
- Bar material loss angle: $3.91e+07$
- Bar temperature: 4 K

- Bar mass: 13.128 kg
- Bar Inertia: 0.6392 kg*m²