

ans =

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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)

rwire =

2.0000e-04

- torsion suspension wire material: Silica
- torsion suspension wire loss angle:  $1e-10$
- torsion suspension wire temperature: 293 K
- torsion wire diameter (single wire, multiplied safety factor 1.5x): 400  $\mu\text{m}$
- 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: ANUP
- Seismic Ground Motion: LL0
- Seismic Isolator: ANUP
- Seismic Ground Motion: LL0

Laser Power: 0.200 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: 0.02 kW

Power on beam splitter: 0.20 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: 0.000 Mpc

BBH Inspiral Range: 0.002 Mpc

Stochastic Omega:  $3e+01$  Universes

New Nebulous Range: 1.426 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:  $1.13 \times 10^6$
- Bar temperature: 293 K
- Bar mass: 13.128 kg
- Bar Inertia: 0.6392 kg\*m<sup>2</sup>