

ans =

29-Jul-2015 17:07:29

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 =

2.2637e-04

- torsion suspension wire material: Tungsten
- torsion suspension wire loss angle: $1e-07$
- torsion suspension wire temperature: 293 K
- torsion wire diameter (single wire, multiplied safety factor 1.5x): 452.7348

um

- 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
```

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Power Recycling Factor: 1.00
Arm power:             0.02 kW
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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)

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BNS Inspiral Range:  0.000 Mpc
BBH Inspiral Range:  0.002 Mpc
```

Stochastic Omega: $5e+01$ Universes

New Nebulous Range: 1.248 Mpc

TORPEDO Configuration (ncomm_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: 1.13×10^6
- Bar temperature: 293 K
- Bar mass: 13.128 kg
- Bar Inertia: 0.6392 kg*m²