Open issues

in ET-LF Test Masses Superattenuator for the Double Cavern

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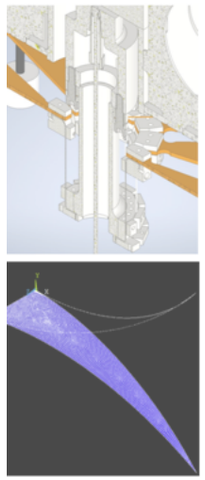

Filters

- Dimensions increase to allocate longer blades
  - **Filter Diameter 125 cm** (to be compared with 86 cm of AdV+)
- Masses:

Body	Mass (kg)
Filter 3 (F3)	367.
Filter 2 (F2)	514.
Filter 1 (F1)	726.
Filter 0 (F0)	1013.

Common issues for Single/Double cavern

General:

- **[integrated tower design]** larger filters (payload-driven because larger blades are needed) —> impact?

- **[detector layout]** better attenuation performance of the 2-cavern: explore technology to implement “double cavern” architecture in singe cavern one?

- **[performance evaluation]** finally agree on a seismic noise model (LNGS, SosEnattos, Kagra, custom one based on interpolation, ...)

Internal:

- impact of CONTROLS on the sensitivity

- check 2 Hz compliance

Specific for Double cavern

General:

- **[detector layout]** actual vertical distance btw the caverns

Internal:

- confirm feasibility with tuned mechanical parameters (joint thickness etc)