

Comments and Outlook for Payloads

Main issues for payload development:

- Heat links:
 - Overall Heat input (due to cabling, environment, laser)
 - Number of heat links → mechanics
 - Thermal resistances → cooling efficiency and time
 - Thermal Noise including links
- Vertical Noise and LF sensitivity:
 - Blades on PF at cryo temp with high Thermal Conductivity, high Q and frequencies ~ 1 Hz
 - Sapphire can be used?
- Pitch frequency important for angular control and noise (from M. Pinto talk) → increase dZ (distance between wires)
 - Important to investigate any interaction with other subsystem (MirSusp, Mirrors...)

Studies carried on in Rome on prototype and developed also for ET cryo payload (see M. Ricci, E. Benedetti and Van Long Hoang)