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Thermal and mechanical simulation of the cryo-payload: status and preliminary results.

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In the design of the cryogenic payload, thermal and mechanical FEA models are used for optimizing the system both for its structural and thermal behavior. The thermal study is important to have the temperature distribution along the suspension wires and the thermal resistances of to the various interconnections between the parts of the suspension. The mechanical study gives the estimation of the losses present in the system. We will present the status of this combined method to have an estimation of the suspension thermal noise with the Levin method.

Primary author: Dr PUPPO, Paola (INFN Roma)

Presenter: Dr PUPPO, Paola (INFN Roma)

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