



Istituto Nazionale di Fisica Nucleare
Sezione di Pisa



NGSA & ET Activities

Leonardo Orsini
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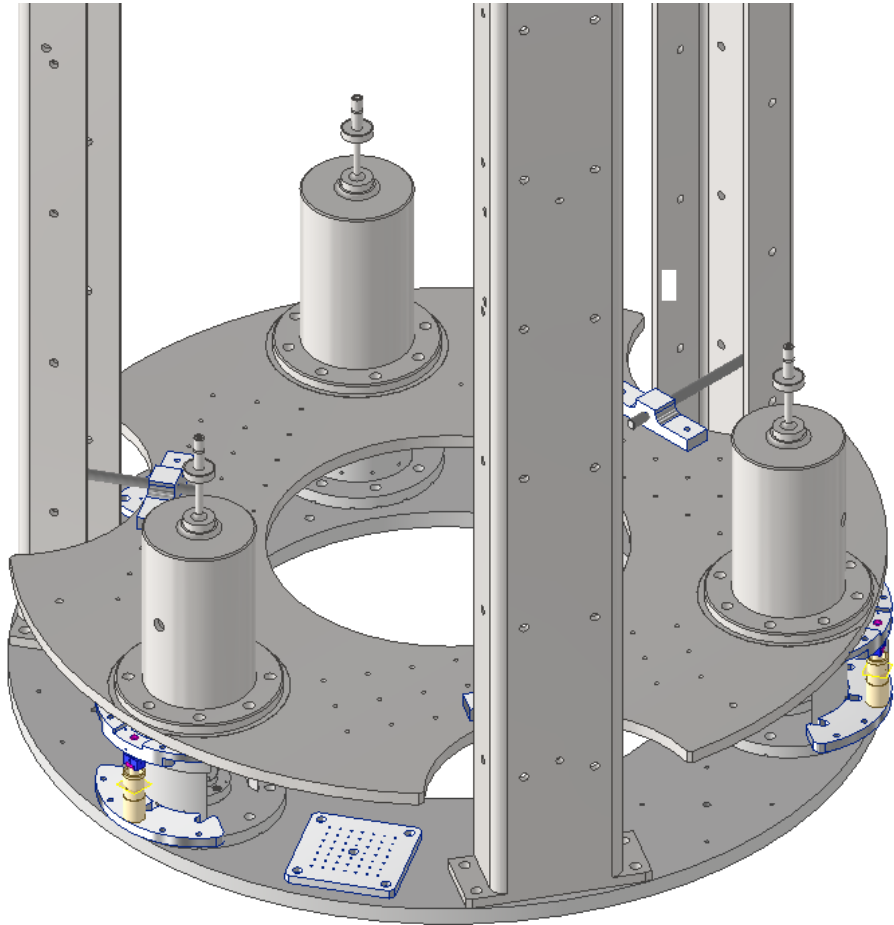
Virgo Pisa internal workshop – 23/05/2024

My Background

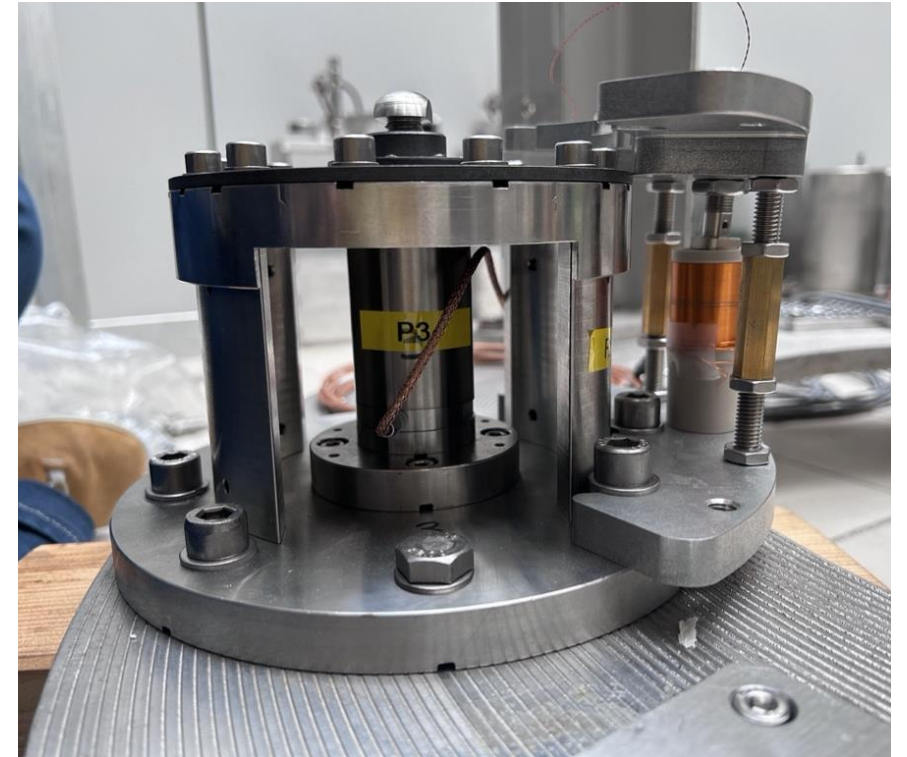
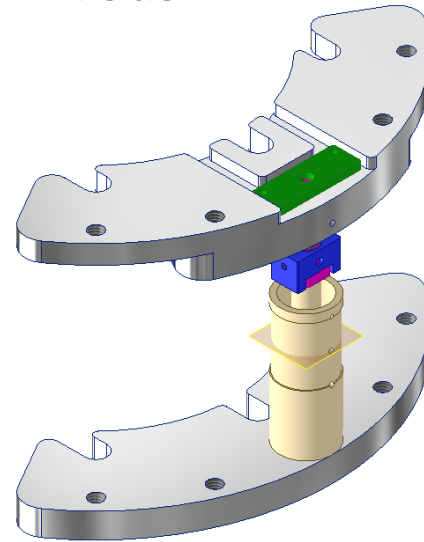


- MSc in **Aerospace Engineering** (2016, University of Pisa)
- Since late 2017, **Engineering Technologist at INFN** and member of the **IXPE** Team (NASA/ASI SMEX mission launched in Dec 2021, ref. <https://www.nasa.gov/ixpe-overview/>)
 - **Mechanical/Thermal Design and AIT activities** for the IXPE scientific payload (and future upgrades);
 - Since 2018 **PA & QA Manager** for the IXPE Detector Units.
- Currently involved in **Project Management** (CTA+, ET, SWEATERS) and **Mechanical Design** (XRO/ASIX, ET/NGSA, SWEATERS) activities.

NGSA S&C Test Setup - Preisolator Assembly Mechanics

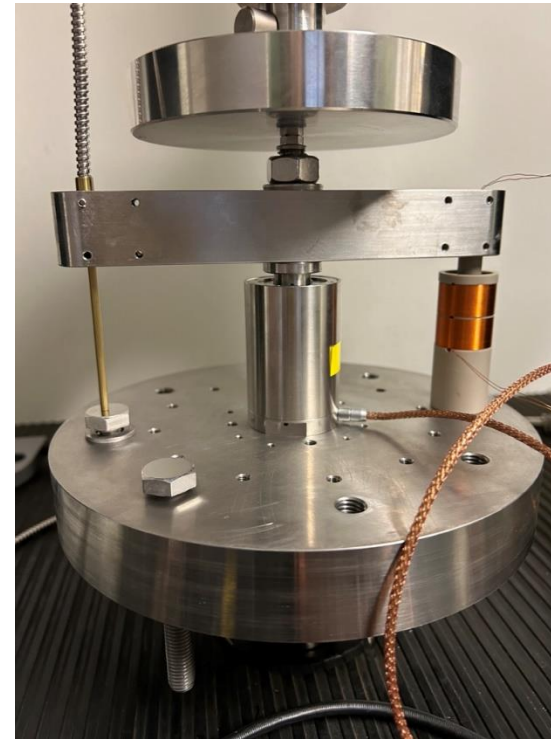
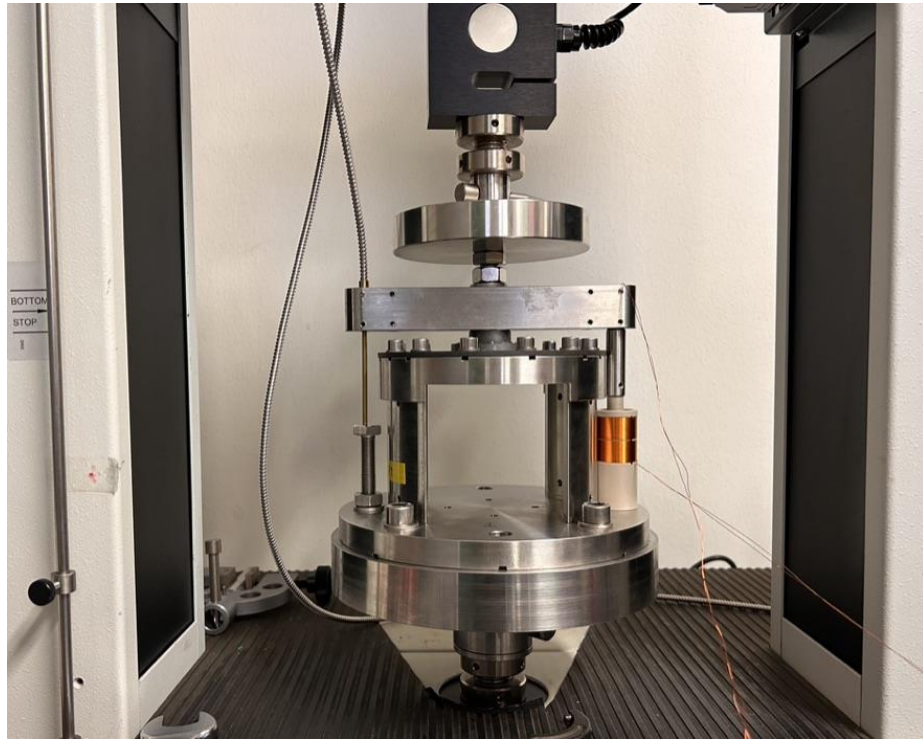


- LVDT positioning supports
- Cable routing fixture
- Basing locking rods



NGSA and ET R&D - PZA Compression Test Setup

- Characterization of the mechanical stiffness of the Preisolator's Feet (ref. L. Lucchesi)
- Characterization of PZA displacement as a function of compression load and applied voltage
 - Using both fiberoptic and LVDT sensors for displacement measurements (ref. F. Spada)



What else...

- Due to previously-taken duties, my effort is limited to 20% FTE
 - distributed between Mechanical Design and Project Management activities
- CAOS Project (PNRR ETIC):
 - definition of WBS and Configuration Management rules
 - support to mechanical design activities of the two Superattenuators
- ET Organization – Project Office (WP7 – Quality assurance)
 - definition of Nomenclature Standard and Change Request Process
 - support to the preparation of the Configuration Management Plan



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Thanks for your attention!

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