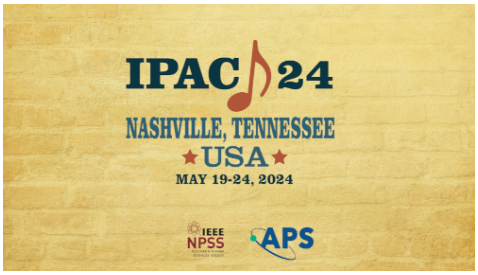

Contribution ID: **1675** Contribution code: **WEPS76** Type: **Poster Presentation**

Upgrading of the INFN-LNF magnetic measurements laboratory

Wednesday, 22 May 2024 16:00 (2 hours)

The magnetic measurements laboratory of the Frascati National Laboratories of INFN is one of the pole of the Innovative Research Infrastructure for applied Superconductivity (IRIS). This infrastructure aims at upgrading laboratories to carry out basic research on magnetism and superconducting materials, test of superconducting magnets, wires, tapes, cables. The LNF pole will be devoted to testing SC coils and magnets at room temperature. These measurements are recommended during the manufacturing phase, since they allow the validation of the assembly and the detection of defects at early stages of production, before the cryogenic tests are carried out. Part of the equipment is already available, including a stretched wire bench, a rotating coil system, a NMR probe, gaussmeters, instruments for high precision electrical measurements. The IRIS upgrade will include a 3D Hall probe mole system, a pulsed wire bench, a 5-axes coordinatometer, high-stability power supplies of various sizes, a calibration system. The flexibility of the instruments will allow to cover a large range of magnetic measurements, from point maps to integrated fields, from multipolar analysis to fiducialization.

Footnotes

Funding Agency

This work is supported by the NextGeneration EU- Italian National Recovery and Resilience Plan, Mission 4 - Component 2 - Investment 3.1. - Project name: IRIS, CUP: I43C21000230006.

Paper preparation format

Word

Region represented

Europe

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Session Classification: Wednesday Poster Session

Track Classification: MC7: Accelerator Technology and Sustainability: MC7.T10 Superconducting Magnets