Contribution ID: **1116** Contribution code: **WEPM034** Type: **Poster Presentation**

Magnetic measurement systems for Elettra 2.0

Wednesday, 10 May 2023 16:30 (2 hours)

The Elettra 2.0 project involves the installation of more than 600 new magnets for the upgrade of the existing light source. All the magnets will be measured in house in a new magnetic measurement laboratory to be built and equipped by 2024. The measurements will be carried out over a period of two years and will consists of acceptance tests, magnetic characterization and, to meet the demanding requirements of the new machine, alignment of magnet multiplets on a common girder. We report on the design and development of the measurement systems devoted to the aforementioned tasks. Specifically, two rotating coil systems employing high quality induction coils, fabricated on printed circuit boards, will be used for acceptance tests and characterization of multipole magnets, including reverse bend and combined function magnets. A 3D magnetic field mapper based on hall sensors will be used for the characterization of dipole magnets, sector dipoles with transversal gradient and superbend magnets. Moreover, a stretched wire system will be developed for the alignment of magnet multiplets.

Funding Agency

Footnotes

I have read and accept the Privacy Policy Statement

Yes

Primary author: CAIAZZA, Domenico (Elettra-Sincrotrone Trieste S.C.p.A.)

Co-authors: GUBERTINI, Alessandro (Elettra-Sincrotrone Trieste S.C.p.A.); CASTRONOVO, Davide (Elettra-Sincrotrone Trieste S.C.p.A.); MODICA, Marco (Elettra-Sincrotrone Trieste S.C.p.A.)

Presenter: CAIAZZA, Domenico (Elettra-Sincrotrone Trieste S.C.p.A.)

Session Classification: Wednesday Poster Session

Track Classification: MC7: Accelerator Technology and Sustainability: MC7.T09: Room Temperature Magnets