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Summary of the ALEGRO 2024 Workshop at IST

Friday, 26 July 2024 09:00 (30 minutes)

ALEGRO, the Advanced LinEar collider study GROup, is an international study group created in 2017 to promote Advanced and Novel Accelerators (ANAs) for High-Energy Physics applications. It is driven by the ICFA-ANA panel. ALEGRO organizes workshops (CERN 2017, Oxford 2018, CERN 2019, DESY 2023, IST 2024) to energize the ANA community around applications to particle and high-energy physics. The implementation by the laboratory Directors Group (LDG) of a roadmap for ANAs is taking place in the context of the European Strategy for Particle Physics (ESPP). It is centered around existing international programs: AWAKE, EuPRAXIA and HALHF. In the US, the P5 has recently recommended the design of a 10TeV CM lepton collider or of a 100TeV pCM hadron collider.

The goals of the ALEGRO 2024 Workshop at IST were to take stock of progress with ANAs, and to initiate a world-wide effort on the design of a 10TeV CM, ANA-based lepton collider.

The first goal was addressed by inviting speakers to present recent scientific results. The second one was addressed through sessions in which major participants in the ESPP and P5 processes summarized the implementation of the recommendations and roadmaps that emerged from these processes. Also, invited speakers described major ANA-related programs and facilities addressing challenges related to collider development. A document summarizing the outcome of the workshop and the presentations will be generated.

I will report on the 2024 workshop at IST. I will also outline the status of the international collaboration to develop an ANA-based collider concept.

Working group

invited speaker

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