

## The KLOE-2 experiment at DAFNE

The KLOE-2 experiment at the INFN Laboratori Nazionali di Frascati (LNF) is currently taking data at the upgraded e<sup>+</sup>e<sup>-</sup> DAFNE collider.

KLOE-2 represents the continuation of KLOE with a new physics program mainly focused on the study of K short,  $\eta$  and  $\eta'$  decays as well as on kaon interferometry, test of discrete symmetries, and search for physics beyond the Standard Model. The new data taking campaign aiming to collect more than 5 fb<sup>-1</sup> integrated luminosity in the next 2-3 years, will allow in particular to perform CPT symmetry and quantum coherence tests using entangled neutral kaons with an unprecedented precision.

The general purpose KLOE detector, composed by one of the biggest Drift Chamber ever built surrounded by a lead-scintillating fiber Electromagnetic Calorimeter among the best ones for energy and timing performance at low energies, undergone several upgrades including State-of-The-art cylindrical GEM detector: the Inner Tracker. To improve its vertex reconstruction capabilities near the interaction region, KLOE-2 is the first high-energy experiment using the GEM technology with a cylindrical geometry, a novel idea that was developed at LNF exploiting the kapton properties to build a transparent and compact tracking system.

An overview of the KLOE-2 experiment will be given including present status and achievements together with physics plans.

### Summary

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