Contribution ID: **107** Type: **Talk**

DAΦNE and KLOE-2 physics run

Monday, 29 September 2014 14:50 (40 minutes)

The DAΦNE collider, located in the Frascati National Laboratories of INFN, has two main rings, where electrons and positrons are stored to collide at a center of mass energy of 1.02 GeV, the Φ resonance mass. KLOE-2 experiment is located at the collider interaction region. The detector is capable to observe and collect data coming from Φ decay: charged and neutral kaon pairs, lighter unflavoured mesons (η, η' f0, a0, ω/ρ).
In the first half of 2013 the KLOE detector has been upgraded inserting new detector layers in the inner part of the apparatus, around the interaction region: a new tracking system, Inner tracker, to improve tracking eficiency and vertex resolution and two new calorimenters, QCAL and CCAL-T in order to improve detector hermeticity and acceptance. The long shutdown has been used to undertake a general consolidation program aimed at improving the Φ-Factory operation stability and reliability and, in turn, the collider uptime.
The DAΦNE collider has been successfully commissioned after the experimental detector modification and a major upgrade and consolidation program involving a large part of the accelerator complex.
This contribution presents the Φ-Factory setup and the achieved performances in terms of beam currents, luminosity, detector background and related aspects together with the KLOE-2 physics program, upgrade status report and recent physics results.

Presenter: DE SANTIS, Antonio (Laboratori Nazionali di Frascati - INFN)

Session Classification: Mon