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The KLOE-2 Experiment at DAPHNE

The KLOE-2 experiment at DAΦNE, the LNF Frascati ϕ-factory, has completed its data taking in 2018, collecting 5.5 fb-1 of integrated luminosity. The goal of KLOE-2 is to extend and expand the physics program of KLOE. The original 'general purpose' central detector, made by a large drift chamber - 4 m in diameter - surrounded by a lead/scintillating fibre electromagnetic calorimeter, has been upgraded with new sub-detectors, among which there is a cilindrical GEM detector to improve vertex reconstruction in the interaction region and two taggers to identify leptons diffused at small angles in gamma-gamma interactions.

The 8 fb-1 acquired with KLOE/KLOE-2 constitute a unique dataset of 24 billions ϕ mesons produced. KLOE data analysis is still providing relevant results on K mesons' properties, test of discrete symmetries, unitarity test of the CKM matrix , light meson properties, η decays, search for dark forces, hadronic cross section and its contribution to the muon anomalous magnetic moment. We will present the status of recent results and analysis in progress, as well as the KLOE-2 physics program.

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