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[3] The Experimental Physics Program of CERN

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CERN the European Laboratory for Particle Physics provides the infrastructure and in particular accelerators for a large variety of physics experiments for users from Europe and elsewhere. These experiments range from low energy atomic physics to particle physics at the highest available energies. The flagship project at CERN is the Large Hadron Collider and the experiments attached to it. At a centre of mass energy of presently 13 TeV the experiments at the LHC explore a new energy regime. The physics studies cover all known particles of the Standard Model of Particle Physics including the Higgs Boson and the search for new particles or deviations from the Standard Model theoretical predictions. Using the accelerator complex at CERN many more experiments are conducted: high energy fix-target experiments for precision studies, low energy experiments using antiprotons and anti-Hydrogen, atomic physics and nuclear physics experiments using radioactive isotopes, and many more. CERN is also the place for the European neutrino physics community to prepare contributions to the neutrino physics programme outside Europe.

This presentation will give an overview of the experimental physics programme at CERN.

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