

CERN announces the start of 2016 physics season at the LHC.

After the restart of CERN's Large Hadron Collider (LHC) in March and a short commissioning period, the LHC operators will now increase the intensity of the beams so that the machine produces a larger number of collisions and more data for its experiments.

“The LHC is running extremely well,” says CERN Director for Accelerators and Technology, Frédéric Bordry. “We now have an ambitious goal for 2016, as we plan to deliver around six times more data than in 2015.”

“In 2015, the Large Hadron Collider energy was raised from the previous 8TeV to 13TeV, along with other important technical improvements to operate with significantly more interactions being created in the proton collisions. By the end of 2015 operating conditions were in hand.” says CoEPP Director Professor Geoffrey Taylor.

“The start of the the 2016 physics run builds upon that operating success. We will be creating a huge data set at the higher energy and will be sensitive to a potential range of new particles and forces as yet unknown. It is very exciting time for particle physics both in Australia and world-wide.”

The huge amounts of data from the 2016 LHC run will enable physicists to challenge many unanswered questions, to probe the Standard Model further and to possibly find clues about the physics that lies beyond it.

The physics run with protons will last six months. The machine will then be set up for a four-week run colliding protons with lead ions.

The four largest LHC experimental collaborations, ALICE, ATLAS, CMS and LHCb, now start to collect and analyse the 2016 data. Their broad physics programme will be complemented by the measurements of three smaller experiments – TOTEM, LHCf and MoEDAL – which focus with enhanced sensitivity on specific features of proton collisions.

About CoEPP

The ARC Centre of Excellence for Particle Physics at the Terascale (CoEPP) is a collaborative research venture between the Universities of Adelaide, Melbourne, Sydney and Monash. Our research looks at some of the fundamental questions in science and our scientists are foundation members of the ATLAS experiment at the Large Hadron Collider at CERN.

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