

Scientists celebrate first collision attempt at an energy of 7 TeV at LHC

Posted on Tuesday 2nd August 2011

The first very high speed collisions at the Large Hadron Collider are planned today, Tuesday 30th March. To mark this step the University of Birmingham's School of Physics and Astronomy is hosting a live web feed from CERN to watch the morning's events unfold.

This will be the first attempt to collide protons together at an energy of 7 TeV (3.5 TeV for each beam). 7 TeV means an energy of 7 million million electron volts. This will break the current record of 2.36 TeV that was achieved at CERN at the end of 2009.

Physicists at Birmingham are playing a crucial role in two experiments at CERN that will bring them another step closer to answering some of the most fundamental questions about the Universe. They hope that it will help them to uncover mysteries of the universe by measuring particle collisions under conditions that would have existed less than a millionth of a second after the Big Bang.

The Birmingham team designed and built the sophisticated trigger electronics for the ATLAS and ALICE detectors that will help to select the important particle collisions – scientists will then be able to concentrate on the data most likely to yield new discoveries.

Professor Pete Watkins, from the School of Physics and Astronomy, who works on the ATLAS project, said, 'No particle accelerator has ever come close to this energy – it is the biggest challenge the accelerator has faced to date and it spells the beginning of an exciting adventure for scientists exploring brand new physics.'

'7TeV proton proton collisions at the LHC will allow us to try to unravel some of the strangest puzzles of our universe. Many staff and students from the School of Physics and Astronomy work with colleagues from around the world on the ATLAS and ALICE experiments at the LHC and have made important contributions to both of these massive detectors.'

'Anyone interested in finding out more and experiencing an exciting day taking place at the world's biggest science experiment is welcome to join us today.'

The web feed will be held in Physics West 117 from 8am until lunchtime and the event is open to all.