

# Recreating the Big Bang with the World's Largest Machine - The LHC at CERN

*Wednesday 11 September 2013 09:30 (35 minutes)*

The 27km Large Hadron Collider (LHC), situated 150 metres under the Swiss-French boarder at CERN near Geneva, is the World's most powerful particle accelerator.

In March 2010, protons (hydrogen nuclei) were smashed together at 0.999999991 times the speed of light recreating, for a tiny instant, the violent particle collisions which would have existed less than a billionth of a second after the Big Bang. In November of the same year, lead nuclei were accelerated and collided in the LHC producing the highest temperatures and densities ever made in an experiment and recreating the exotic primordial soup which existed at the birth of our Universe.

Professor David Evans, from the University of Birmingham, will explain the physics behind the LHC, what we expect to learn, and summarise the latest results.

**Primary author:** EVANS, David (University of Birmingham (GB))

**Presenter:** EVANS, David (University of Birmingham (GB))

**Session Classification:** Session 9

**Track Classification:** Hot and Dense Nuclear Matter