

Boffins ready for 'Big Bang'

An experiment which was delayed over fears it would create a blackhole that could engulf the planet and end life as we know it is back up and running – with Royal Holloway scientists at the fore.

The physicists took part in the world's biggest science experiment yesterday, when the most powerful particle accelerator ever built was switched on in an attempt to answer some of the most fundamental mysteries of our universe – from anti-matter to dark matter and the existence of extra dimensions.

Dr Pedro Teixeira-Dias is Royal Holloway's project leader of Atlas, a 7,000 tonne, 46m-long and 25m diameter-wide large hadron collider (LHC) that is stored in a cavern 100m underground and detects sub-atomic particles.

He said: "Our group has been preparing for LHC data for many years now and we are all truly excited about the prospect of finally getting a glimpse of whatever surprises nature has in store for us."

The college's physicists will

by **CHRIS CAULFIELD**

ccaufield@london.newsquest.co.uk

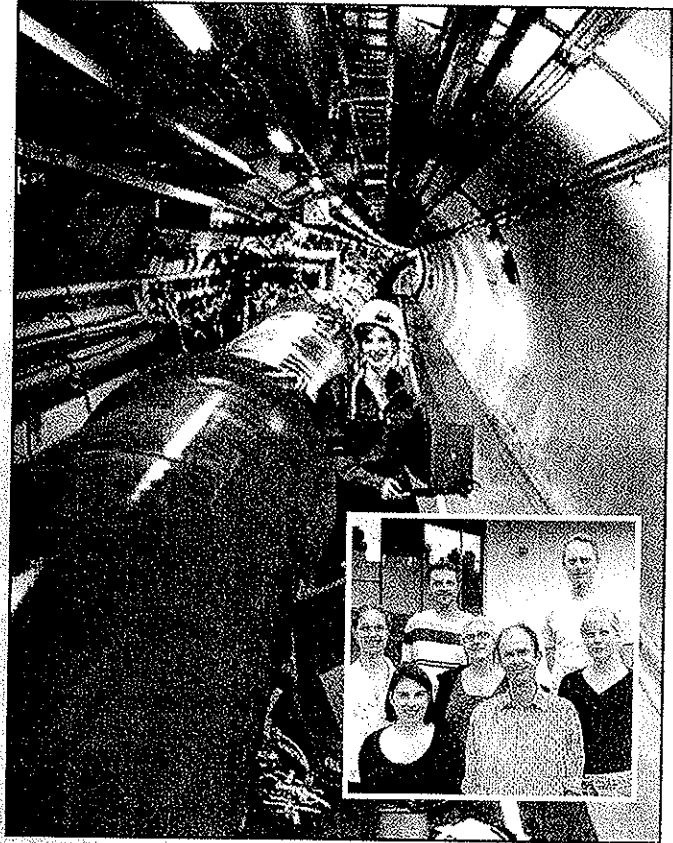
be analysing data from the LHC to try to find out whether the Higgs particle or a host of super-symmetric particles exist, and whether the universe has additional hidden dimensions.

Head of Royal Holloway's centre for particle physics Professor Mike Green said: "We have been working towards this day for about 15 years and all that work will come to fruition over the next two or three years.

"Our knowledge of how the universe works will surely change as a result."

Scientists said that whether it confirmed or dismissed leading theories, its results will start a new age in our understanding of physics and the universe. Each high energy proton collision will recreate conditions similar to those in the universe immediately after the Big Bang.

The collisions, at energies more than seven times the previous world record, produce



Top minds: Scientists, inset, who will be working on the Hadron experiment at CERN in Switzerland

hundreds of sub-atomic particles inaccessible at lower energy colliders.

Royal Holloway's physicists have also been involved in the design of GridPP, the first point in the UK to receive,

store and distribute the LHC data and handle processing for scientists across the world.

Get today's national news at
yourlocalguardian.co.uk/uk_
national_news