

# Scientists create “mini Big Bang”

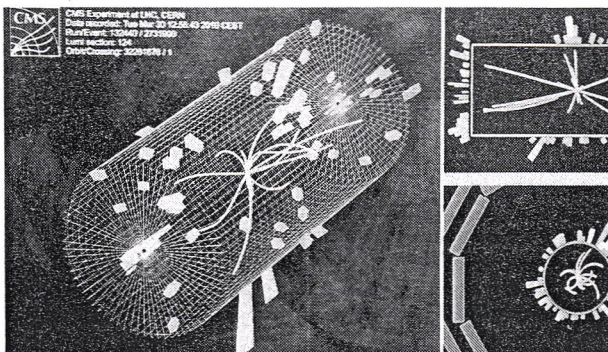
**LONDON:** The Large Hadron Collider (LHC) has succeeded in creating a miniature version of the Big Bang by smashing stripped-down lead atoms together.

The reaction created temperatures a million times hotter than the Sun's core. Such temperatures have not been reached since the first billionth of a second following the Big Bang, which many scientists say was the beginning of the universe.

This was expected to cause atomic particles such as protons and neutrons to melt, producing a “soup” of matter in a state previously unseen on earth.

Scientists, including British particle physicists, will now study the particles in the hope of discovering what holds atoms together and gives them their mass, reports the *Telegraph*.

The collisions were produced by firing lead ions — atoms with their electrons removed — at incredible speeds in opposite directions around the LHC's underground tun-



*An activity during a high-energy collision at CERN, Switzerland in March. — PHOTO: AP*

nel at CERN, the European Organization for Nuclear Research, near Geneva.

The heavyweight particle collisions follow seven months of experiments crashing protons — which are 200 times lighter than lead ions — at near-light speeds.

“We are thrilled with the achievement. The collisions generated mini Big Bangs and the highest temperatures and densities ever achieved in an experiment,” said David Evans, of Birmingham Uni-

versity, U.K. “This process took place in a safe, controlled environment generating incredibly hot and dense subatomic fireballs with temperatures of over ten trillion degrees — a million times hotter than the centre of the Sun,” he added. The experiment went ahead despite warnings by a group called Heavy Ion Alert that it could trigger a catastrophic chain reaction that might destroy the earth. LHC scientists dismissed it. — IANS