

Scientists contest Big Bang theory

New Delhi: An Indian and an American scientist have questioned the Big Bang theory, saying it does not serve as a viable explanation for the origin of the universe.

The research papers of Ashwini Kumar Lal of India's Ministry of Statistics and Programme Implementation and Rhawn Joseph of Northern California's Brain Research Laboratory have been accepted for publication in the April issue of the peer-reviewed Harvard journal, *Journal of Cosmology*.

The research papers come even as scientists at Geneva's European Organisation for Nuclear Research (CERN) are in the midst of experiments on the Large Hadron Collider (LHC) recreating conditions of the beginning of the universe.

"The two scientific papers cast shadows of suspicion over the efficacy of the Big Bang



SEEKING EXPLANATION

■ "The two scientific papers cast shadows of suspicion over the efficacy of the Big Bang model. The scientific community may have to ponder afresh over the issue relating to the origin of the universe," Ashwini Kumar Lal of India's Ministry of Statistics and Programme Implementation said here.

model. The scientific community may have to ponder afresh over the issue relating to the origin of the universe," Lal said here. He also noted that CERN scientists "are trying to jigsaw a theory which fits the conditions of the Big Bang model".

"The Big Bang is said to have occurred 13.75 billion years. But there is evidence, as I have written in my paper, that there were fully formed distant galaxies that must have already been bil-

lions of years old at the time," he added.

In his paper "Big Bang? A Critical Review", Lal says: "There is a growing body of evidence which demonstrates the Universe could not have begun with a Big Bang 13.75 billion years ago.

"Indeed, the day may come when it is determined there never was a Big Bang and cosmologists of the future will only gaze back in wonder at how

anyone could have believed in a creation event which was refuted by so much contradictory evidence," he adds.

According to the paper, one of the "acid tests" relating to the validity of the Big Bang model is the "detection of remnants of gravity waves from the earliest epoch of the universe.

"Existence of gravitational wave background, as predicted by Einstein in 1916 in his general theory of relativity, is expected from the violent early moments of the Big Bang much like the cosmic microwave background that fills the sky with radio waves from the early universe," Lal says. While the microwave background presumably originated 380,000 years after the Big Bang, the gravitational wave background purportedly comes directly from events in the first minute after the Big Bang, the scientist says. IANS