

Report Of Lecture

Topic/Title: The History of the Universe

Speaker: Dr. John C. Mather



Date: 13th February, 2013

Attendance: 70

Venue: LC-101

Embryo session

Abstract: The talk proved to be very informative and motivating for young BITSians who aspire a career in Astronomy and Astrophysics. Dr. Mather discussed about the history of universe and the Big Bang and how it could have led to the creation of the present world we are living in. He also briefed us on some of his past work experiences including his contributions to the Cosmic Background Explorer Satellite (COBE) for which he was awarded the Nobel Prize in Physics in 2006. At the end, students actively participated in the question-answer session and queries were addressed well by him. The participants found the talk to be immensely useful.



Speaker's Biography: John Cromwell Mather is an American astrophysicist, cosmologist and Nobel Prize in Physics laureate for his work on the Cosmic Background Explorer Satellite (COBE) with George Smoot. Mather is a senior astrophysicist at the U.S. space agency's (NASA) Goddard Space Flight Center in Maryland and adjunct professor of physics at the University of Maryland, College Park. In 2007, Mather was listed among *Time* magazine's 100 Most Influential People in The World. In October, 2012, he was listed again by *Time* magazine in a special issue on New Space Discoveries as one of 25 most influential people in space.

Summary: The history of the universe in a nutshell, from the Big Bang to now, and on to the future – John Mather told the story of how we got here, how the Universe began with a Big Bang, how it could have produced an Earth where sentient beings can live, and how those beings are discovering their history. He explained Einstein's biggest mistake, how Edwin Hubble discovered the expansion of the universe, how the COBE mission was built, and how the COBE data support helped cement the Big-Bang theory of the universe. He also talked about NASA's plans for the next great telescope in space, the James Webb Space Telescope. It will look even farther back in time than the Hubble Space Telescope, and will peer inside the dusty cocoons where stars and planets are being born today. It is capable of examining Earth-like planets around other stars using the transit technique, and future missions may find signs of life. Hence, talk proved to be very informative and encouraging for budding astrophysicists and cosmologists.

By: Himanshu Jethani