

Short-Course on Cosmology - The story of our Universe

Instructor: Dr. Raghavan Rangarajan (Physical Research Laboratory, Ahmedabad)

Course description:

The course will provide an introduction to the evolution of our Universe from the Big Bang till today. Starting with the basic principles of cosmology, the course will discuss various processes that have occurred in the Universe so far and how we can determine our past and the future based on observations today. Topics that will be covered include primordial nucleosynthesis, dark matter, the matter-antimatter asymmetry of the Universe, and the relation between particle physics and the physics of the very early Universe.

There are no prerequisites for this course.

About the Instructor:

Dr. Raghavan Rangarajan has been on the faculty of the Theoretical Physics Division at the Physical Research Laboratory, Ahmedabad (PRL) since 1997. Prior to coming to PRL he was a student at Princeton University and the University of California at Santa Barbara, and a post-doctoral fellow at the Houston Advanced Research Centre. His areas of research are cosmology and particle physics. He has worked on different subjects in these fields such as dark matter, the matter antimatter asymmetry of the universe and the cosmic microwave background radiation.

Lecture Schedule:

The course will constitute of 5 lectures, each of duration 1.5 hours. The dates and times of the lectures are as given below:

Lecture 1: Tuesday, August 24th, 2010, 5pm-6:30pm

Lecture 2: Friday, August 27th, 2010, 5:30pm-7pm

Lecture 3: Tuesday, August 31st, 2010, 5pm-6:30pm

Lecture 4: Friday, September 3rd, 2010, 5:30pm-7pm

Lecture 5: Tuesday, September 7th, 2010, 5pm-6:30pm

Registration and credits

The course is open to student of IIT Gandhinagar and other institutions. A successful completion of this course will earn you one credit with pass/no-pass grade. Please register your names with Assistant Registrar (Academics) well in advance. Limited seats are available for students of other institutions, please contact Dr. Supreet Saini <saini@iitgn.ac.in> for further details.