









# SUMMER SCHOOL in COSMOLOGY

21 July - I August 2008

Miramare, Trieste, Italy

# **TOPICS:**

- INTRODUCTION TO COSMOLOGY
- EARLY UNIVERSE
- COSMIC MICROWAVE BACKGROUND
- INFLATION
- LENSING
- DARK MATTER
- GRAVITATIONAL WAVES
- LARGE SCALE STRUCTURES
- NEUTRINOS
- STAR FORMATION
- DARK ENERGY

The purpose of this School is to provide an introduction to the current state of research in cosmology and astroparticle physics. It is intended for beginning graduate students, as well as more senior non-expert researchers that are interested in these fields.

## **PARTICIPATION**

Scientists and students from all countries which are members of the United Nations, UNESCO or IAEA may attend the School. As it will be conducted in English, participants should have an adequate working knowledge of this language. Although the main purpose of the Centre is to help research workers from developing countries, through a programme of training activities within a framework of international cooperation, students and post-doctoral scientists from advanced countries are also welcome to attend.

As a rule, travel and subsistence expenses of the participants should be borne by the home institution. Every effort should be made by candidates to secure support for their fare (or at least half-fare). However, limited funds are available for some participants who are nationals of, and working in, a developing country, and who are not more than 45 years old. Such support is available only for those who attend the entire activity. There is no registration fee to be paid.

The **Application Form** is obtainable from the ICTP WWW server: http://agenda.ictp.it/smr.php?1954 (which will be constantly up-dated) or from the activity Secretariat. It should be completed and returned before 15 April 2008 to:

# **Summer School in Cosmology**

(smr 1954 c/o Ms. Nadia van Buuren) the Abdus Salam International Centre for Theoretical Physics Strada Costiera 11, 34014 Trieste, Italy.

or

smr | 954@ictp.it [please save and send file attachments in either PDF (preferably) or RTF zipped or Doc format]

Activity Secretariat: Telephone: +39 040 2240 363 - Telefax: +39 040 2240 7363 - E-mail: <a href="mailto:smr1954@ictp.it">smr1954@ictp.it</a>
ICTP Home Page: <a href="http://www.ictp.it/">http://www.ictp.it/</a>



THE INTERNATIONAL SCHOOL FOR ADVANCED STUDIES (S/SSA)

THE ITALIAN INSTITUTE FOR NUCLEAR PHYSICS (INFN)

## **ORGANIZERS:**

- P. Creminelli (ICTP)
- U. Seljak (Zurich)
- P. Ullio (SISSA)
- F. Vernizzi (ICTP)

# **LECTURERS**:

- M. Bartelmann (Heidelberg)
- **L. Baudis** (Zurich)
- V. Bromm (Austin)
- R. Caldwell (Dartmouth)
- S. Hannestad (Aarhus)
- S. Hughes (MIT)
- L. Hui (Columbia)
- L. Kofman (CITA)
- V. Rubakov (Moscow)
- D. Wands (Portsmouth)
- M. Zaldarriaga (Harvard)

**DEADLINE**for requesting participation

15 April 2008