

# 8th Workshop on Science with the New Generation of High **Energy Gamma-ray Experiments** Gamma-ray Astrophysics in the Multimessenger context

Trieste (Italy), September 8 -10, 2010

#### First Circular

The 2010 edition of the Scineghe conference will focus on the emission mechanisms governing gamma-ray sources using complementary information coming from the multiwavelength and multimessenger (cosmic ray, neutrino, gravitational wave) approach.

Special attention will be devoted to different gamma-ray source classes (PSR, PWN, SNR, Gamma-ray Binaries, Terrestrial Gamma-ray Flashes, Solar Flares, GRB, AGN, Dark Matter, ...) and to diffuse emissions and their relations to cosmic rays, neutrino and gravitational wave emission.

An update on the current and planned research for space-borne and groundbased experiments dedicated to the observation of the gamma-ray sky will be given as well as dedicated reviews to the status and the results by cosmic rays, neutrino and gravitational wave detectors. The workshop is organized in plenary sessions of invited, review and contributed talks, and poster presentations.

The workshop is organized by the National Institute of Nuclear Physics (I.N.F.N.) and supported by the Società Italiana di Fisica (SIF).

The workshop will be preceded by a two days hands-on session on data analysis of gamma-ray and cosmic-ray experiments organized in collaboration with the International School of Space Science of the Consorzio Interuniversitario di Fisica Spaziale (C.I.F.S.).

# The list of topics includes:

- Introduction to the current status of gamma-ray, cosmic ray, neutrino and gravitational wave operating experiments
- Discussion on new experiments development and goals
- Particle acceleration mechanisms in astrophysical sources
- Discussion on emission mechanisms (Gamma, Neutrinos, GW)
- Paths to the identification of astrophysical sources
- Galactic Sources (SNR, PWN, Pulsars, Microquasars, Binaries)
- The Galactic diffuse emission
- Local sources (The Sun and the Moon, TGF)
- Extragalactic sources (GRB, AGN, Galaxy clusters and other extragalactic sources)
- The Extragalactic background
- Dark matter and new Physics



The future of astroparticle experiments.

The Workshop site will be the Starhotels Savoia Excelsion Palace, in the centre of Trieste, directly on the seafront.

The workshop fee is 250,00 euro for the workshop (September 8-10, 2010) and 300,00 euro for the Data Analysis Tutorial & the Workshop (September 6-10, 2010). It includes the registration, the proceedings volume, coffe breaks and the social dinner.

## The important dates and deadlines are:

## April 5, 2010

- Abstract submission, opening
- Registration and hotel reservation, opening

# June 15, 2010

 Citizens of some countries may need a formal invitation letter to obtain the entrance visa; see the list of countries here: http://www.esteri.it/MAE/EN/Ministero/Servizi/Stranieri/S ervReteConsolare.htm

On request, we can send you the invitation letter: please respect this deadline date.

## June 30, 2010

Deadline for abstract submission,

# July 7, 2010

Preliminary Scientific Programme

## July 15, 2010

Deadline for hotel booking at preferential rates

## July 30, 2010

Finalization of the Scientific Programme

## September 1, 2010

Deadline for online registration

#### For further information:

e-mail: scineghe2010@ts.infn.it

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