



Conference Papers in Science

Special Issue on

Frontier Research in Astrophysics Workshop 2014

CALL FOR PAPERS

The purpose of Frontier Research in Astrophysics Workshop, FRAPWS, <http://frapws2014.iaps.inaf.it/>, is to bring together astrophysicists and physicists who are involved in various topics at the forefront of modern astrophysics and particle physics. The workshop discusses the most recent experimental and theoretical results in order to advance our understanding of the physics governing our universe. To accomplish the goals of the workshop, it is necessary to use data from ground-based and space-based experiments and results from theoretical developments: work on the forefront of science which has resulted in (or promises to result in) high-impact scientific papers.

The main purpose of the workshop is to discuss in a unique and collaborative setting a broad range of topics in modern astrophysics, from the Big Bang to Planets and Exoplanets. This can provide a suitable framework for each participant to acquire a general view of the main experimental and theoretical results currently obtained. Such an up-to-date view of the current research on cosmic sources can help guide future research projects by the participants and will encourage collaborative efforts across various topical areas of research.

The workshop includes a few 40-minute general review talks to introduce the current problems, and 20-minute talks to discuss new experimental and theoretical results. A series of 15-minute talks discuss the ongoing and planned ground-based and space-based experiments. There are also some general talks about the future directions of scientific research on cosmic sources.

Potential topics include, but are not limited to:

- ▶ Cosmology: Cosmic Background, dark energy, and clusters of galaxies
- ▶ Physics of the diffuse cosmic sources
- ▶ Physics of cosmic rays
- ▶ Physics of discrete cosmic sources
- ▶ Extragalactic sources: active galaxies, normal galaxies, and gamma-ray bursts
- ▶ Galactic sources: star formation, pre-main-sequence and main-sequence stars, cataclysmic variables and novae, supernovae and SNRs, X-ray binary systems, pulsars, black holes, gamma-ray sources, nucleosynthesis, and asteroseismology
- ▶ Science from large area multiwavelength surveys and deep-exposure pointings
- ▶ Future physics and astrophysics: ongoing and planned ground and space-based experiments

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Manuscript Due

Friday, 31 October 2014

First Round of Reviews

Friday, 23 January 2015

Publication Date

Friday, 20 March 2015

Conference Location

Palermo, Italy

Conference Dates

26–31 May 2014