

GGI and INFN

Galileo Galilei Institute for Theoretical physics

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GGI is coordinated by [CSN4](#) (INFN theory Committee)

[Agreement between INFN and Florence University](#) (October 2004)

Location: old Physics building in Arcetri

The GGI [Launching Committee](#) has been appointed by Roberto Petronzio (INFN President) on November 2004 with the following membership: David Gross, Giuseppe Marchesini, Alfred Mueller, Giorgio Parisi and Gabriele Veneziano (chair). The report was prepared by December 2004 (see www.fi.infn.it/GGI)

Two workshops per year;

each [WS](#) lasts 2-3 months with about 20 guests at each time;

guests are invited to stay about one month (with reasonable per-diem)

Area of interest: [Theoretical particle physics](#) (in a broad sense)

-[theory of quantum fields and strings](#),

-[phenomenology of the standard model and beyond](#),

-[astro/cosmo-particle physics](#),

-[statistical field theory and complex systems](#).

Area broader than all other European similar Institutes but narrower than KITP

Galileo Galilei Institute for Theoretical physics

Advisory Committee: Riccardo Barbieri, Marcello Ciafaloni, Paolo Di Vecchia, Alfred Mueller, Giorgio Parisi, Gabriele Veneziano (chair)

Scientific Committee: Roberto Casalbuoni, Gia Dvali, Michelangelo Mangano, Giuseppe Marchesini (chair), Guido Martinelli, Eliezer Rabinovici, Riccardo Rattazzi, Antonio Riotto, Augusto Sagnotti

Local Committee: Andrea Cappelli, Stefano Catani, Stefania De Curtis, Daniele Dominici, Domenico Seminara, Marco Tarlini

Coordinator: Giuseppe Marchesini, CSN4 President

Deputy Coordinator: Roberto Casalbuoni, Physics Department, Florence

Workshop Organizers: During the WS 3-4 Organizers are present all the time

Visits of Graduate Students are encouraged

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February 2005: Call for Workshop proposal

April 2005: proposals submitted

1. Advancing **Collider Physics**: from Twistors to Monte Carlos
2. **String and M theory** approaches to particle physics and cosmology
3. New Directions **Beyond the Standard Model** in FT and String Theory
4. **Astroparticle and Cosmology**
5. **Flavour Physics** in the LHC era
6. **High Density QCD**
7. Low-dimensional **quantum field theories** and applications
8. **Complex Systems**

April 2005: selections of 2006 Workshops

Spring 2006: New Directions Beyond Standard Model in Field and String Theory

Autumn 2006: Astroparticle and Cosmology

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First Workshop May 2, 2006 - Jun 30, 2006

New Directions Beyond the Standard Model in Field and String Theory

Organizers: C. Angelantonj, E. Dudas, T. Gherghetta, A. Pomarol

The main topics of the workshop include:

- Electroweak symmetry breaking.
- Supersymmetric models and supersymmetry breaking.
- String vacua and model building.
- Warped compactifications and holography.
- Modifications of gravity and cosmological implications.

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Second Workshop Aug 28, 2006 - Nov 10, 2006: **Astroparticle and Cosmology**

Organizers: C. Baccigalupi, K. Enqvist, E. Kolb, J. Lesgourgues

The main topics of the workshop include:

- Models for the Early Universe
- Dark Matter and Dark Energy
- CMB, Large Scale, Cosmological Parameters