



International Centre for Theoretical Physics
South American Institute for Fundamental Research

São Paulo International Schools on Theoretical Physics



School on Fundamental Astrophysics

October 7 - 18, 2013

Instituto de Física Teórica - UNESP - São Paulo, Brazil

Theoretical Astrophysics addresses the physics of the Universe and studies the fundamental properties of astronomical objects and their mutual interaction. Our goal during this School is to provide a comprehensive view of the fundamental problems in Theoretical Astrophysics, along with an up-to-date overview on current trends on Observational Astrophysics. Numerical methods will also be introduced through hands-on activities in the computer lab. The course is intended for graduate students and young postdoctoral researchers, who are expected to present their recent results in a poster session.

Lecturers:

Elisabete de Gouveia Dal Pino (USP, Brazil)
Plasma astrophysics

Alejandro Raga (UNAM, México)
Heating, cooling and ionization in astrophysical flows

Matías Zaldarriaga (IAS Princeton, USA)
Cosmic microwave background radiation: theory and observations

Daniel Gómez (UBA, Argentina)
MHD flows in astrophysics and space physics

Pablo Dmitruk (UBA, Argentina)
Turbulent flows in astrophysics

Axel Brandenburg (Nordita, Sweden)
Astrophysical dynamos

Luis Felipe Rodriguez (UNAM, México)
Observational astrophysics

Alejandro Esquivel (UNAM, México)
Numerical astrophysics

Grzegorz Kowal (USP, Brazil)
Particle acceleration in astrophysics

Organizers:

Daniel Gomez (UBA, Argentina), **Elisabete M. de Gouveia Dal Pino** (USP, Brasil),
Alejandro Raga (UNAM, Mexico), **Matias Zaldarriaga** (IAS Princeton, USA)

The online application form and more information can be found at:

www.ictp-saifr.org/astrophysics

There is no registration fee. Some funds are available for local and travel support of the participants.

The application deadline is **August 7, 2013**.

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