

ASTROPHYSICAL DYNAMICS: from Stars to Galaxies

21-25 June 2010, Grand Hotel Aston, Nice, France

The purpose of IAU Symposium 271 is to promote our understanding of the nonlinear dynamics in a wide range of cosmic bodies by examining common underlying processes, such as convection, shear, magnetism, radiation and gravitation. Their interactions in astrophysical parameter regimes give rise to a variety of instabilities, intricate nonlinear feedbacks, and turbulence. To understand such fundamental dynamics requires a strong interaction between observation of the phenomena, analytical theory of the dynamics, numerical simulations of the processes, data analysis and visualisation. This symposium will offer a unique opportunity for experts to discuss the latest advances in these fields. We will also honor Professor Juri Toomre on his upcoming 70th birthday and his major contributions to these various fields of research.

Overview of Major Topics:

- The Sun and stars
- Galaxies
- Astrophysical turbulence
- Cosmic magnetism
- High performance numerical simulations in astrophysics
- Nonlinear dynamics
- Stellar observational constraints: Helio/asteroseismology, magnetism, rotation & abundances
- Galactic observational constraints: dynamics, magnetism & abundances

Scientific Organizing Committee:

Dr. Allan Sacha Brun (France, co-chair; sacha.brun@cea.fr)

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More information available at :

<http://irfu.cea.fr/Projets/IAUSymp271>

Location: Grand Hotel Aston, Nice, France

Local Organizing Committee: A. S. Brun (co-chair), Y. Ponty (co-chair),
S. Berard, N. Bessolaz, P. Chavegrand, L. Jouve, S. Mathis, R. Pinto, A. Strugarek, S. Szeles, B. Thooris