

SECOND ANNOUNCEMENT

IX SCHOOL OF THE GRAVITATION AND MATHEMATICAL PHYSICS DIVISION OF THE MEXICAN PHYSICAL SOCIETY

COSMOLOGY FOR THE XXI CENTURY: INFLATION, DARK
MATTER, AND DARK ENERGY
Puerto Vallarta, MEXICO. December 3-7, 2012

XX ANNIVERSARY OF THE GRAVITATION AND MATHEMATICAL PHYSICS DIVISION OF THE MEXICAN PHYSICAL SOCIETY 1992-2012



The Gravitation and Mathematical Physics Division (DGFM) of the Mexican Physical Society (SMF) is glad to announce the celebration of its IX Mexican School. As in previous ones, our main goal is to provide an inviting arena for exchanging and discussion on top developments in gravitational physics in a pedagogical manner. Apart from researchers, an important number of postdocs and graduate students take part in our School, which in this occasion will be focused on the discussion of the standard pillars of modern Cosmology. The scientific program will include four courses, nine plenary talks, and about 54 parallel talks. Further details of courses and talks can be found in http://fisica.ugto.mx/~gfm/pages/IXschool/index.html).

The venue will be the **Hotel Dreams** (http://www.dreamsresorts.com/drepv/) located in Puerto Vallarta, Jalisco, an inspiring place offering cultural features and natural beauty, at the Pacific coast of the Mexican state where tequila and mariachi were once born.

REGISTRATION AND ACCOMMODATION

As anticipated in the First Announcement, registration was **closed in October 31**, and we have in turn organized Parallel Sessions only for participants that were able to pay the registration fee by the closing date.

The same applies for accommodation at the conference hotel, as we have completed the rooming list already and cannot make further reservations with the reduced fare offered in the First Announcement (which was agreed on by the Organizing Committee more than eight months ago). Any participant that wishes to stay at the conference hotel should contact Hotel Dreams directly to make a reservation.

LECTURE COURSES

- Dark energy, Eric Linder (BCCP, Berkeley, USA)
- Inflation, Daniel Baumann (Univ. of Cambridge, UK)
- CMB, Anthony Challinor (Univ. of Cambridge, UK)
- Non-Baryonic Dark Matter in Cosmology, Antonino del Popolo (Univ. of Catania, Italy)

PLENARY TALKS

- LQG extension of the inflationary scenario to the Planck regime, Abhay Ashtekar (Penn State U., USA)
- Redshift and distance in the inhomogeneous Universe and the role of non-linear relativistic effects, Krzysztof Bolejko (Univ. of Oxford, UK)
- Unified models of dark energy, dark matter and inflation, **Jorge Cervantes** (ININ, Mexico)
- Statistical mechanics of self-gravitating fermions and bosons: application to dark matter and cosmology, Pierre-Henri Chavanis (Université Paul Sabatier, France)
- Connecting the dots in Supernova Cosmology: preparing for the Dark Energy Survey, Alex Kim (BCCP, Berkeley, USA)
- Big Bang Nucleosynthesis: a status report, **Keith Olive** (Univ. of Minnesota, USA)
- Revealing dark matter using gravitational wave detectors, Carlos Palenzuela (CITA, Canada)
- Inflationary implications of SUSY breaking, **Diederik Roest** (Univ. of Groningen, Netherlands)
 Challenges for Cold Dark Matter on small scales: alternatives with a different nature for the dark
 matter particle, **Jesús Zavala** (Univ. of Waterloo & Perimeter Institute, Canada)

TRANSPORTATION

The best way to get to Puerto Vallarta is by airplane to the Puerto Vallarta International Airport. From there you can take a shuttle or a taxi to go directly to Hotel Dreams situated on Playa Las Estacas, Carretera Barra de Navidad KM 3.5 (approx. 20 min). For more information, you can visit: http://visitpuertovallarta.com/, and http://visitpuertovallarta.com/traveling/how-to-get-here/.

FOR FURTHER INFORMATION CONTACT THE LOCAL ORGANIZING COMMITTEE OR CHECK OUR WEBPAGE: http://www.smf.mx/~dgfm-smf/ (mirror site: http://fisica.ugto.mx/~gfm/pages/IXschool/index.html)

LOCAL ORGANIZING COMMITTEE

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