1st Sandoval-Vallarta Caribbean Meeting on Relativistic Astrophysics Nuclear Sciences Institute, UNAM, Mexico City http://www.icranet.org/1sy/

Monday, 30 November Tuesday, 1 December Wednesday, 2 December Thursday, 3 December Neutron Stars, Black Holes, Observations, Cosmology and Gravitation, Lensing, Black Holes, Observations, Gamma-ray astronomy, Supernovae, GRBs Gravitation tests Dark Matter, GRBs cosmic rays. Chair: Luis Felipe Rodriguez Chair: Felix Mirabel Chair: Alfredo Macias Chair: Ulisses Barres De Almeida Morning 09:45-10:00 Opening address 10:00-10:45 Remo Ruffini Luis Felipe Rodriguez Alfredo Macias Miguel Chávez Supernovae, Neutron Stars, Black Tidal disruption of stars and clouds by On the incompatibility of GR and *Current Status of the Large Millimeter* massive black holes Holes and Gamma ray Bursts: in *auantum theorv* Telescope celebration of the Golden Jubilee of Relativistic Astrophysics (presented by Jorge Rueda) 10:45-11:30 Volker Perlick David Hughes **Gus Sinnis** Fernando Comerón An Eye on the High-Energy *Highlights of the program of the* Influence of a plasma on the light The Event Horizon Telescope: VLBI Universe: The HAWC TeV European Southern Observatory deflection by compact objects *observations of supermassive black-holes Gamma-Ray Observatory* with the Large Millimeter Telescope. Felix Mirabel Carlos Arguelles Ulisses Barres De Almeida Omar López-Cruz 11:30-12:15 *New evidence of 50 keV fermionic* Astroparticle Physics in South America: How Big Can Supermassive Black Holes Black Holes in cosmology and CTA and the synergy with current and Galaxy evolution dark matter from Milky Way & Grow? *future facilties* Galactic observables 12:15-12:45 **Coffee break** 12:45-13:30 Elías Castellanos Jorge Rueda Jeff Peterson Roberto Sussman Scalar Field Configurations as Hypercritical accretion onto Fast Radio Bursts *Credible modelling of realistic large* Cosmological Condensed Matter Systems neutron stars and the induced scale cosmic structures with exact gravitational collapse paradigm of solutions of General Relativity gamma-ray bursts associated with supernovae 13:30-14:15 Dany Page **Tonatiuh Matos** Nora Bretón Eckehard W. Mielke Probing the Neutron Star Crust Scattering of light by Born-Infeld Dark matter as Scalar Fields Rotating Boson Stars from its Thermal Relaxation in *electromagnetic black holes* Transiently Accreting Binaries 14:15-16:30 Lunch at the Engineering Faculty Restaurant, UNAM Chair: Nora Bretón Afternoon Chair: Carlos Arguelles Juan Carlos Degollado Chair: Eckehard W. Mielke Dynamics of scalar fields around 16:30-17:15 Hernando Quevedo Fabio De Colle Dennis Philip black holes Geometrothermodynamics Gamma Ray Bursts On analytic solutions of wave equations in Schwarzschild spacetime 17:15-18:00 Nissim Fraija Christine Gruber José Antonio De Diego Magnetic fields and high-energy High—Redshift Universe Through Inflation as a thermodynamical phase neutrinos in Gamma-Ray Bursts Gravitational Lensing transition from Geometrothermodynamics 19:00-19:30 Visit to the **19:00** Lecture at Istituto Italiano di 18:00 Concluding Remarks **Polyforum Siqueiros Cultura in Mexico City "The Golden Jubilee of Relativistic** Astrophysics - a dialogue between **Albert Einstein and Diego Rivera**" A. Macias, J. Rueda, R. Ruffini

20:30 Banquet at "El Palacio de

los Azulejos"

Preliminary program 27.11.2015

