

Xue She-Sheng

Position: Staff

Period covered: 2009 – 2010

I Scientific Work

A self-consistent general relativistic Thomas-Fermi treatment of neutron stars cores, Jorge A. Rueda, Remo Ruffini, and She-Sheng Xue. To be submitted to Phys. Rev. D.



The effect of critical fields on the properties of electromagnetic black holes within the Euler-Heisenberg approach, Jorge A. Rueda, Remo Ruffini, and She-Sheng Xue. To be submitted to Phys. Rev. D.

A self-consistent general relativistic solution for a self-gravitating system of degenerate neutrons, protons and electrons in beta equilibrium, Jorge A. Rueda, M. Rotondo, Remo Ruffini, and She-Sheng Xue. Submitted to Phys. Rev Lett.

On the self-consistent equilibrium equations of neutron stars, Jorge A. Rueda, Remo Ruffini, and She-Sheng Xue. Submitted to Phys. Rev Lett.

“Electron-positron pairs in physics and astrophysics, from heavy nuclei to black holes”, Phys. Rep. Vol 487 (2010) 1.

On the relativistic Thomas-Fermi treatment of compressed atoms and compressed nuclear matter cores of stellar dimensions, Michael Rotondo, Jorge A. Rueda, Remo Ruffini, and She-Sheng Xue. Submitted to Phys. Rev C.

“Electron-positron production in non-uniform electric fields”, Phys. Rev. D 78 (2009) 02501

“Electron-positron pair oscillation in spatially inhomogeneous electric field and radiation”, Phys. Lett. B691 (2010) 99.

“Gravitational, electroweak and strong interactions of massive nuclear density cores”, Proceedings Marcel Grossmann meeting (MG12), Paris, World scientific (2009).

“Quantum Regge calculus of Einstein-Cartan theory”, Phys. Lett. B682 (2009) 300

“Gravitational instanton and cosmological term”, Int. Jour. Of Mod. Phys. A24, (2009) 3865.

II Conferences and educational activities

Conferences and Other External Scientific Work

Presenting talks and posters in international ICRA Net meetings:

MG12 Marcel Grossmann meeting (Paris)

1st Xu Guangqi meeting (Shanghai, China)

2nd Xu Guangqi meeting (Ventimiglia, Italy)

11th Italian-Korean and 6th Italian-Chinese meetings (Korea and Pescara)

And international Conferences:

“Swift and GRBs: *The Shocking Universe*”, in Venice (Italy), Sept 5-9, 2008

Work With the research group of Gamma Ray Bursts :

Maria Grazia Bernardini, Carlo Luciano Bianco, Letizia Caito, G. Vereshchagin, B. Patricelli, G. De Barros, Juracy Luis, L.J. Rangel Lemos

Diploma thesis supervision

IRAP PhD. Faculty, thesis supervision and reading and examination
Han wenbiao and Juracy Luis, L.J. Rangel Lemos,

Other Teaching Duties

Discussion and Work With Postdocs

Jorge Rueda and M. Rotondo

Discussion and Work With the Director R. Ruffini and External Professors

V.S. Popov, H. Kleinert, Pascal Chardonnet,

III Service activities

Within ICRANet

Participating organization of ICRANet meetings: the 11th Italian-Korean meeting and 6th Italian-Chinese meeting on Cosmology and Relativistic Astrophysics

Editor of two conference proceedings 5th Italian-Chinese meeting on Cosmology and Relativistic Astrophysics'', published by American Institute of Physics, and 1st galileo -Xu Guangqi meeting, published by the World scientific.

Participating organization of 1st Galileo - Xu Guangqi Meeting, October 26-30, 2009 Shanghai - China and 2nd Galileo - Xu Guangqi Meeting, July 12-18, 2010 Ventimiglia-Nice, Italy-France.

Participating organization of ICRANet Seminars

Give a public lecture in ICRANet Pescara center.

Outside ICRANet

external Professor of Chinese Academy and University