Multimessenger Emissions from Sources of Gravitational Waves

Sunday 28/11

From 16h00: Registration
18h00 – 19h00: Welcome Cocktail
20h00: Dinner

Monday 29/11

Detection Status and Perspectives

09h00 – 11h00: Registration
11h00 – 12h00: B.S. Sathyaprakash (Cardiff U.)
Gravitational wave detectors: Now and the Future

12h00 – 14h00: Lunch

14h00-15h00: Luciano Rezzolla (AEI)
Using NR to explore fundamental physics and astrophysics
15h00 – 15h30: Lee Lindblom (Caltech)
Model Waveform Accuracy Requirements for Gravitational Wave Data Analysis
15h30 – 16h00: Coffee Break
16h00-16h20: Jorge Horvath
What's going on inside pulsars?
16h20-16h40: Victor Raphael de Castro Morão Roque
Gravitational wave generation in the cosmological quark-hadron phase
16h40-17h00: César Oswaldo Vásquez Flores
Radial oscillations of color superconducting self-bound quark stars

Tuesday 30/11

Binary Black Holes and QNMs

09h00 – 10h00: Lee Lindblom (Caltech)
Solving Einstein's Equations for Binary Black Hole Spacetimes
10h00 – 11h00: Vitor Cardoso (CENTRA)
Colliding black holes
11h00 - 11h30: Coffee Break

11h30 – 12h30: Elcio Abdalla (USP)
QNMs and the AdS/CFT Conjecture

12h30-14h30: Lunch

14h30-14h50: Henrique de Oliveira
Numerical evolution of general Robinson-Trautman spacetimes
14h50-15h10: Rafael Aranha
The Kick Processes in the Merger of Two Colliding Black Holes
15h10-15h30: Henrique de Oliveira
Numerical evolution of axisymmetric spacetimes

15h30-16h00: Coffee Break

16h00-16h20: Daniela Alic
Novel techniques in Numerical Relativity: from gauge conditions to resistive MHD
16h20-16h40: Herman Julio Mosquera Cuesta
The gravitational wave signal of AGN accretion disks dominated by Bardeen-Petterson effect

Wednesday 01/12

Black Holes and EM Counterparts

09h00 – 10h00: Zoltan Haiman (Columbia U.)
Electromagnetic Counterparts to Supermassive Black Hole Mergers
10h00 – 11h00: Stefanie Komossa (Max Planck Institute for Extraterrestrial Physics)
Astrophysics of supermassive binary black holes

11h00 - 11h30: Coffee Breake

11h30 – 12h30: Pau Amaro-Seoane (AEI)
The distribution of stars around massive black holes in galactic nuclei
- Implications for extreme-mass ratio inspirals of stellar black holes and white dwarfs

12h30-14h30: Lunch
14h30-14h50: Alberto Sesana
Multimessenger astronomy with Supermassive Black Hole Binaries
14h50-15h10: Constanze Roedig
Gas-Dynamics around BHs: EM Counterparts to Binary Black Hole Mergers
15h10-15h30: Phillip Moesta
Vacuum electromagnetic counterparts of binary black-hole mergers

from 20h00: Conference Dinner

Thursday 02/12

Neutron Stars and Supernovae

10h30 – 11h30: Kostas Kokkotas (U. Tübingen)
Recent Progress in Neutron Star Dynamics
11h30 – 12h30: Pedro Marronetti (Florida Atlantic University)
Gravitational Signatures of Core-Collapse Supernova

12h30-14h30: Lunch

14h30-14h50: Erich Gaertig
Asteroseismology with rotating neutron stars
14h50-15h10: Antonella Colaiuda
QPOs in magnetars
15h10-15h30: Francesco Pannarale
Black hole-neutron star mergers and short GRBs: a relativistic toy model

15h30-16h00: Coffee Break

16h00-16h20: Aaryn Tonita
Magnetized mergers of black hole neutron star binaries
16h20-16h40: Kentaro Takami
F-mode frequency in fast rotating neutron star using full GR simulation(Whisky 2D code)
16h40-17h00: David Radice
Discontinuous Galerkin methods for general relativistic hydrodynamics

Friday 03/12

Detectors

09h30 – 10h00: Odylio Aguiar (INPE)
Gravitational Wave Detection and the Mario Schenberg Antenna
10h00-10h20: Carlos Frajuca
Studying sphere suspension in Schenberg Detector
10h20-10h40: Nadja Magalhaes
Detection of gravitational waves predicted by metric theories of gravity
10h40-11h00: Marcio Alves
LISA Sensitivities to Gravitational Waves from Relativistic Metric Theories

11h00 – 12h00: Discussion/Poster Session

12h00 – 14h00: Lunch

Posters

Fernanda Machado Araujo and Matheus Filipe Dozono
Modelling Newtonian and Relativistic Neutron Stars

Patrick Silveira
Neutron stars as sources of gravitational waves and the detection of the F-mode

Manuela Rodrigues
Increase of black holes mass by accreting dark energy

Leandro de Paula
Coupling between cavity Klystron and microstrip antennas

Antonio Faria Jr.
Metric perturbation and polarization in Brane World

Eduardo dos Santos Pereira
The super-massive black holes evolution history told by cosmic star formation

Gabriel Freitas
GZK effect near a Schwarzschild black hole

José Domingo Arbañill Vela
On the Birkhoff theorem in higher dimensions

Jaqueline Morgan
Curvature perturbations and algebraically special modes of rotating charged anti-de Sitter (AdS) black holes

Raphael Santarelli
Testing the Weak Cosmic Censorship Conjecture on Black Holes

Douglas Fregolente
On the particle production threshold for ultra-relativistic accelerated protons

Vinicius Casolini Busti
Accessing Dark Energy and Cosmic Inhomogeneities with Gamma-Ray Bursts

Daniel C. Guariento
3+1 formulation of electrodynamics in Hořava-Lifschitz gravity

Carlos Eduardo Pellicer de Oliveira and Jeferson de Oliveira
Phase transitions and regions of stability in Reissner-Nordstrom holographic superconductors

Gabriela DePetri
Emission of gravitational waves from choreographic orbits

Vilson Zanchin
Regular Reissner-Nordström black holes