

The Universe Through Gravitational Waves

Workshop Talk Schedule

Events for:

Monday, December 12th - Thursday, December 15th

Monday, December 12th

9:00am **Registration - SCGP Lobby**

9:45am **Luis Alvarez-Gaumè - SCGP 102**

10:00am **Bangalore Sathyaprakash - SCGP 102**

Speaker: Bangalore Sathyaprakash

Title: A geometric formulation of signal analysis: detection, measurement and model selection

Abstract: Analysis of data from gravitational wave detectors inspired an elegant geometric formulation of the problem that has allowed computationally optimal searches. The problem of measurement and tests of general relativity and astrophysical models can also be cast in a geometric language. In this talk I will provide an overview of the data analysis problem in the language of geometry and discuss recent results from LIGO

11:00am **Matt Choptuik - SCGP 102**

Title: Overview of Numerical Relativity.

12:00pm **Lunch - SCGP Cafe**

2:00pm **Alessandra Buonanno - SCGP 102**

Title: Analytical Relativity and Gravitational Waves

3:00pm **Michael Tremmel - SCGP 102**

Speaker: Michael Tremmel

Title: Supermassive Black Hole Mergers in Cosmological Simulations

4:00pm **Coffee - SCGP Lobby**

4:30pm **Idel Waisberg**

Speaker: Idel Waisberg

Title: GRAVITY/VLTI: Testing General Relativity at the Galactic Center with Optical Interferometry

Tuesday, December 13th

9:00am **Kostas Kokkotas - SCGP 102**

Speaker: Kostas Kokkotas

Title: Gravitational Waves from Neutron Stars

10:00am **Coffee Break - SCGP Cafe**

10:30am **Sebastiano Bernuzzi - SCGP 102**

Title: Modeling Gravitational Waves from Neutron Star Binaries with Numerical Relativity
S.Bernuzzi - Parma U & INFN

11:30am **Lunch - SCGP Cafe**

1:00pm **SCGP Weekly Talk: Alessandra Buonanno - SCGP 102**

2:00pm **Rachel Rosen - SCGP 102**

Speaker: Rachel A Rosen

Title: Massive Spin-2's: A Status Report."

3:00pm **Riccardo Penco - SCGP 102**

Title: Superradiance: an overview, and an effective field theory approach

4:00pm **Coffee Break - SCGP Lobby**

4:30pm **Enrico Barausse - SCGP 102**

Speaker: Enrico Barausse

Title: Gravitational waves in modified gravity theories

5:30pm **Leo Stein & Hui & Sotiriou - SCGP 102**

Speaker: Leo Stein, Lam Hui, and Thomas Sotiriou

Title: Round table on modifications and tests of general relativity

Wednesday, December 14th

9:30am **Harald Pfeiffer - SCGP 102**

Title: Exploring the transition from comparable mass binary black hole binaries to extreme mass-ratio inspirals.

10:30am **Coffee Break**

11:00am **Adrian Ottewill - SCGP 102**

Speaker: Adrian Ottewill

Title: Low Frequency Gravitational Waves from Extreme Mass Ratio Inspirals

12:00pm **Lunch**

2:00pm **Walter Del Pozzo - SCGP 102**

Speaker: Walter Del Pozzo

Title: Tests of general relativity from compact coalescences of binary black holes

3:00pm **Richard O'Shaughnessy, Walter Del Pozzo - SCGP 102**

4:00pm **Coffee Break - SCGP Lobby**

4:30pm **Pawel Nurowski - SCGP 102**

Title: How the green light was given for gravitational wave search

5:30pm **Paolo Pani, Emanuele Berti - SCGP 102**

Speaker: Emanuele & Paolo

Title: Testing the black hole paradigm with gravitational waves"

6:45pm **Social Dinner - SCGP Cafe**

Thursday, December 15th

9:00am **Ira Rothstein - SCGP 102**

Speaker: Ira Rothstein

Title: Analytic Calculations of Gravitational Wave Signatures During Early Stages of Inspirals

10:00am **Robert Wald - SCGP 102**

Speaker: Robert M. Wald

Title: Some Remarks and Perspectives

12:00pm **Lunch**