Conference Title: Identifying Tests of General Relativity (GR) in Astrophysical Systems

Session 1: Cosmological Tests of GR

Wayne Hu – f(R), DGP Theory

Lam Hui – Testing the Equivalence Principle

Justin Khoury – Cosmological Tests of GR

Rachel Mandelbaum – Lensing and Other Cosmological Tests of GR

Mordehai Milgrom – MOND

Session 2: Testing GR with Compact Stellar Binaries

Vicky Kaspi – Testing GR with Pulsar + Black Hole/Pulsar + Pulsar Binaries

Scott Ransom – Testing GR with Pulsar Timing

Feryal Ozel – Testing GR with Neutron Stars (EOS, Maximum Spin)

Ramesh Narayan – Testing GR with Evidence for BH Horizons and Spins

Dmitrios Psaltis – Overview of Testing GR with Compact Stellar Binaries

Neil Cornish – Post-Einstein Implementation and Results

Session 3: Testing GR with Transients

Chris Stubbs –Testing GR with EM + GW

Laura Cadonati – Testing GR with EM + GW

Daniel Gezari – Testing GR with Tidal Disruption Events

Eliot Quataert - Testing GR with Tidal Disruption Events

Edo Berger – Testing GR with Short Gamma-Ray Bursts

Samaya Nissanke – Testing GR with Short Gamma-Ray Bursts + GW

Vicky Kalogera – Testing GR with Rates of Binary Coalescence Events

Christian Ott – Testing GR with SNe

Session 4: Testing GR with SMBHs

Shep Doeleman – Testing GR with Imaging of SMBHs

Avery Broderick – Testing GR with Imaging of SMBHs

Frans Pretorius – Testing GR with Numerical Studies of BH Binaries

Manuela Campanelli – Testing GR with Numerical Studies of BH Binaries

Charles Gammie – Testing GR with BH Accretion Disks

Bence Kocsis – Testing GR with Accretion Flows in BH Binaries

Emanuele Berti – Testing GR with Quasi-Normal Modes of BHs and Tests of Brans-Dicke Theories

Scott Hughes – Testing GR with Bumpy BHs

Nico Yunes – Testing GR with EMRI

Daniel Holz – Cosmological Testing of GR with GW Sirens; PPE Theory and Bumps

Session 5: Testing GR in the Quantum Context

Lisa Randall – Testing GR with Extra Dimensions

Gia Dvali – Extensions of GR

Paul Steinhardt – Testing GR in the Early Universe

Gary Horowitz –BHs in String Theory

Abhay Ashtekar – Quantum GR

Session 6: Testing GR in the Weak Field

Clifford Will – Testing GR in the Solar System

Eric Adelberger – Laboratory Tests of GR (Modification of Gravity on mm-Scales)

Tom Murphy – Testing GR with Lunar Ranging

Session 7: Testing GR with Future Instrumentation

Nergis Mavalvala – Advanced LIGO

Bernie Schutz – Future Projects and the Big Bang Observatory

Karsten Danzmann – LISA Pathfinder

Banquet Address: Joe Taylor, Irwin Shapiro

Conference Summary: David Spergel

Invitation:

The Scientific Organizing Committee of the 7th Sackler Conference in Theoretical Astrophysics, entitled “Identifying Tests of General Relativity (GR) in Astrophysical Systems,” is glad to invite you to give a 30 minute talk on the topic of XXX as part of the session on XXX.

The conference will take place at Harvard University from Monday, May 14 through Thursday, May 17, 2012, and will address recent advances in testing GR, with sessions covering Cosmology, Compact Stellar Binaries, Transients, SMBHs, the Quantum Context, Weak Field, and Future Instrumentation.

We expect the conference to be attended by astronomers and physicists who are not necessarily experts in this field. Please keep this in mind when preparing your talk and make sure to review your topic broadly and include work by other people in addition to your own.

If you accept this invitation, we will waive the conference fee and cover up to $700 of your travel expenses.

All talks are invited and will be accompanied by a poster session open to all participants. In place of conference proceedings, audio/video recordings will be posted on the web.

We very much hope you will be able to join us. Your participation is particularly important for making this a first-class conference.

With best wishes,

Avi Loeb (chair), Daniel Eisenstein, Alicia Soderberg

Scientific Organizing Committee