

Welcome to the 20th Pacific Coast Gravity Meeting!

Caltech, Pasadena, Mar 26-27, 2004

Friday, March 26, 2004 - Session I (chair: T. Creighton)

8:00-9:00	breakfast and registration
9:00-9:05	Michelle Vallisneri , Jet Propulsion Laboratory Opening remarks
9:05-9:20	Shane L. Larson , Caltech Little stars, big black holes: gravitational waves from parabolic capture orbits
9:20-9:35	Rick Jenet , Jet Propulsion Laboratory Pulsar timing and gravitational wave detection: Constraining the properties of the proposed super-massive black hole system in 3C66B
9:35-9:50	Rafael Araya-Gochet , Caltech Gravitational waves from hyper-accretion onto nascent black holes
9:50-10:05	Marc Favata* , Cornell University The gravitational radiation rocket effect
10:05-10:20	Sherry Suyu* , Caltech Determining the Hubble constant from the gravitational lens B1608+656
10:20-10:35	Geoffrey Lovelace* , Caltech Tidal coupling in extreme mass ratio inspirals
10:35-10:55	coffee break

Session II (chair: S. Whitcomb)

10:55-11:10	Patrick Sutton , Caltech Status of LIGO
11:10-11:25	Pavlin Savov* , Caltech Comparison Between Nearly Flat and Concentric Mexican-Hat Modes for Advanced LIGO - Applications to Angular Instabilities
11:25-11:40	Jan Harnms* , Max-Planck-Institut fuer Gravitationsphysik Nonlinear Optics and Interferometric Gravitational-Wave Detectors
11:40-11:55	Akira Villar* , Caltech Sapphire Mirrors: Preliminary data from the TMI
11:55-12:10	Yi Pan* , Caltech A physical family of gravitational-wave templates for precessing binaries
12:10-12:25	Peter Shawhan , Caltech Status of LIGO Searches for Binary Inspirals
12:25-12:40	Szabolcs Marka , Caltech Search for the gravitational wave signature of GRB030329
12:40-2:00	Lunch break

Session III (chair: L. Burko)

Before the beginning of the Friday afternoon session, Prof. **Vladimir Braginsky** (Moscow State University) will give a special CALTECH seminar on the Adolescent years of experimental physics. All PCCGM participants are invited to attend. The seminar will be at 2pm in the PCCGM conference room (W. Bridge 201).

2:25-2:40	Alfonso Agnew , California State University, Fullerton Biquaternion Geometry and Twistors
2:40-2:55	Ivan Avramidi , New Mexico Tech Noncommutative Deformation of General Relativity
2:55-3:10	Arthur E. Fischer , UC Santa Cruz A New Geometric Approach to Existence, Uniqueness, and Persistence of Solutions for Einstein's Empty Space Field Equations
3:10-3:25	William Pezaglia , Santa Clara University Is Gauge Invariance Violated by Spin and Torsion?
3:25-3:40	Jack Hohner , AXAMA Corporation Deficiencies in Tidal Friction
3:40-4:00	coffee break

Session IV (chair: J. Hartle)

4:00-4:15	Thomas Hertog , UCSB Black Holes and Asymptotics in Anti de Sitter Space
4:15-4:30	Steve Giddings , UCSB The locality bound and the information paradox
4:30-4:45	Bekis Cabrera-Palmer* , Syracuse University A new instability of the black string
4:45-5:00	Henriette Elvang* , UCSB Black Rings: Non-uniqueness of Black Holes in Supergravity
5:00-5:15	Keith Cossey* , UCSB Through the Looking Glass: Ads-CFT with time dependent boundary conditions
5:15-5:30	James Dunham Geometric Basis of Born Infeld Electrodynamics
7:00	party at Kip Thorne's

At the end of the Friday afternoon session, it will be possible for a limited number of PCCGM participants to visit the LIGO 40m prototype located in the Caltech campus. A signup sheet will be available on Friday morning; preference will be given to nonlocal participants.

Saturday, March 27, 2004 - Session I (chair: D. Marolf)

8:00-9:00	breakfast
9:00-9:15	Zoltan Perjes , KFKI RMIK - Hungarian Academy of Sciences <i>Perturbations of FRW models with a cosmological constant</i>
9:15-9:30	Dominic Clancy , University of Crete <i>Generating solutions for gravi-scalar systems with potentials</i>
9:30-9:45	Steven Carlip , UC Davis <i>A homogeneous early universe from sums over topologies</i>
9:45-10:00	Jim Isenberg , University of Oregon <i>Cosmological Solutions with no CMC Slices</i>
10:00-10:15	Lior Burko , University of Utah <i>Higher-derivative Palatini gravity and the accelerating universe</i>
10:15-10:35	coffee break

Session II (chair: S. Larson)

10:35-10:50	Sasha Buchman , Stanford University <i>LISA technology progress</i>
10:50-11:05	Teviet Creighton , Caltech <i>Detectability of extreme-mass-ratio inspirals by LISA</i>
11:05-11:20	Naoki Seto , Caltech <i>Strong Gravitational Lensing and Localization of Merging Massive Black Hole Binaries with LISA</i>
11:20-11:35	Daniel Bamberck* , Montana State University <i>Sensitivity curves for LISA-like detectors with nearly equal arms</i>
11:35-11:50	Seth Timpano* , Montana State University <i>Modeling the Galactic Gravitational Wave Background</i>
11:50-12:05	Louis Rubbo* , Montana State University <i>Characterizing the Galactic Gravitational Wave Background</i>
12:05-12:20	Paul Schladensky* , Montana State University <i>Hierarchical methods for detecting supermassive black hole binaries</i>
12:20-12:35	Jeff Crowder* , Montana State University <i>Lisa Signal Contusion</i>
12:35-2:00	lunch break

Session III (chair: L. Lindblom)

2:00-2:15	Harald P. Pfeiffer , Caltech <i>Construction of initial data for GR</i>
2:15-2:30	Mark Scheel , Caltech <i>Controlling growth of constraints in numerical relativity</i>
2:30-2:45	Robert Owen* , Caltech <i>Optimal Constraint Projection for Symmetric Hyperbolic Systems</i>
2:45-3:00	Ilya Mandel* , Caltech <i>Breaking black holes with scalar waves</i>
3:00-3:15	Luisa T. Buchman , Jet Propulsion Laboratory <i>A Hyperbolic Tetrad Approach to Numerical Relativity</i>
3:15-3:30	Frans Pretorius , Caltech <i>Numerical experiments with generalized harmonic coordinates</i>
3:30-3:50	coffee break

Session IV (chair: P. Sutton)

3:50-3:55	awarding of the prize for the GCR Topical Group in Gravity Best Student Presentation at PCCGM20
3:55-4:10	Richard Price , University of Utah <i>Radiative tails in Schwarzschild spacetime revisited one more time yet again (with Lior Burko)</i>
4:10-4:25	David L. Meier , Jet Propulsion Laboratory <i>Ohm's Law in the Fast Lane: General Relativistic Charge Dynamics</i>
4:25-4:40	Craig Hogan , University of Washington <i>Quantum Gravity Gives Inflationary Perturbations a Discrete Spectrum That Might be Observed</i>
4:40-4:55	Gary Horowitz , UCSB <i>How to violate cosmic censorship</i>
4:55-5:10	Donald Marolf , UCSB <i>On the Quantum Width of a Black Hole Horizon</i>
5:10-5:25	Robert D. Eagleton and Martin N. Kaplan , California State Polytechnic University, Pomona <i>Gravitation and the Vacuum Structure</i>
5:25-5:30	Jim Isenberg , University of Oregon <i>Closing remarks</i>