7th PACIFIC COAST GRAVITY MEETING  
HARVEY MUDD COLLEGE  
March 8-9, 1991  

Sessions will be held in Galileo-McAlister lecture hall. All talks are scheduled for 12 minutes plus 5 minutes for discussion.

Friday

9:00 - 9:30  
Registration at Galileo-McAlister

9:30 - 12:25  
Mostly Quantum Gravity

  John McLaughlin  
  Examples of the Vilkovisky-DeWitt Effective Action in One-Loop Quantum Gravity

  Herbert W. Hamber  
  Attempts at Understanding Quantum Gravity Using the Lattice Formulation

  Corinne Manogue  
  The Effect of Signature Change on Scalar Field Propagation

  Tevian Dray  
  Scalar Field Quantization in Stationary, Non-Static Spacetimes

  Alan Steif  
  Cosmological Solutions in String Theory

Break

J. Fang  
Spin-0 Fields Coupled with Gravity: A consistency formulation

David Garfinkle  
Semiclassical Wheeler Wormhole Production

Gary Horowitz  
Topology Change in Classical and Quantum Gravity

Laurens D. Gunnarsen  
A New Light Cone-Based Approach to Quantum Gravity

12:25 - 1:45  
Lunch
1:45 - 5:40

Mostly Observations and Experiments

Sasha Buchman  Recent Advances in GPB
Ron Hellings    Lageos III
David Sonnabend Drag-Free Systems
J. Weber        Gravitational and Neutrino Antennas
Bob Spero       LIGO Status Report and Recent Advances
M. S. Burns     How Many Supernovae Are Needed to Determine $q_0$? A Monte Carlo Simulation

P. Lubin        The Angular Distribution of the Cosmic Background Radiation

Break

Ken Nordtvedt  Lunar Laser Ranging Revisited—The Non-Null Relativistic Contribution
Bahman Shahid-Salesh Relativistic Effects Arising from the Quadrupole Moment of the Earth
J. H. Gundlach  University of Washington Rotating Source Torsion Balance Experiment
Zhang Pinghua   Reduction of Effective "Spring Constants" Using Gravitational Field Gradients
E. G. Adelberger Does Antimatter Fall with the Same Acceleration as Ordinary Matter?

6:15

Dinner: Mexican buffet in the Green Room
Saturday

9:00 - 12:15

**Mostly Mathematical Relativity**

Steve Harris
The Generic Condition is Generic

John K. Beem
Curvature and Acceleration

Viqar Husain
Constants of the Motion for Two-Killing Field Relativity

Peter A. Morse
Approximate Diffeomorphism Invariance in the Regge Calculus

E. Woolgar
New Demonstration of the Positive Mass Theorem

Jim Isenberg
Symmetries of Cosmological Cauchy Horizons

**Break**

Wei Li
Nonimpulsive Colliding Gravitational Waves with Noncollinear Polarizations

A. H. Taub
Interaction of Null Dust Clouds Fronted by Plane Impulsive Gravitational Waves, II

Zoltan Perjes
The Simon Moments for Stationary, Asymptotically Flat, Electronic Systems

James Hartle
Spacetime Coarse Grainings in Non-Relativistic Quantum Mechanics

Kip Thorne
Time Machines: Self destruction and nonunitarity

12:15 - 1:30

**Lunch**
Mostly Cosmology and Astrophysics

William A. Hiscock
- Gravity, Thin Walls, and Vacuum Decay

Kei-ichi Maeda
- Inflation in Generalized Einstein Theories

Milan Mijic
- Postinflationary Universe

Bharat Ratra
- Is Inflation Fine-Tuned?

Clifford M. Will
- Coalescing Binary Black Holes: A post-Newtonian approach

Gregory Mendell
- The Effect of Mutual Friction on the Gravitational Wave Instability in Rapidly Rotating Neutron Stars

Richard H. Price
- The Relationship of Different Gauge Formalisms for Pulsations of Stellar Models and Black Holes

Break

Lee Lindblom
- The Two-Potential Formalism for the Pulsations of Rotating Stars

Curt Cutler
- Post-Newtonian Effects on the Oscillations of Rotating Stars

James R. Ipser
- The Pulsations of Rapidly Rotating Relativistic Stars: The Cowling approximation

Hongya Liu
- Spectrum of Black-Hole Resonances

Theocharis Apostolotos
- The Dynamics of a Collapsing, Rotating Cylindrical Shell: Can rotation always halt the collapse?

Eanna Flannagan
- The Hoop Conjecture: When do black holes form in highly nonspherical gravitational collapse?

Dragoljub Markovic
- A Black Hole at the Center of the Sun?: You'll never know until it's too late.

Peter Bender
- Problems with Rates for Inspiral of Compact Objects to SMBH's in AGN's