PCGM 23

FINAL SCIENTIFIC PROGRAM

Friday, March 16, 2007

Session I (chair: Lee Lindblom)

Name	Affilliation	Student	Talk	Begin	End
			Breakfast and Registration	8:00	8:50
Etienne Racine	Caltech		*Opening Remarks*	9:00	9:05
Nikodem Poplawski	Indiana University	no	*Dark Energy and Electromagnetism in Purely Affine Gravity*	9:05	9:17
Derek Wise	UC Riverside	yes	*Spacetime Geometry and Cartan Connections*	9:17	9:29
Piotr Marecki	Leipzig University	no	*On the Wave Equation in Spacetimes of Goedel Type*	9:29	9:41
Catherine Williams	University of Washington	yes	*Asymptotic Behavior of Marginally Trapped Tubes*	9:41	9:53
Aaron Amsel	UC Santa Barbara	yes	*Stability and Instability in Designer Gravity*	9:53	10:05
Amitabh Virmani	UC Santa Barbara	yes	*Renormalized Action for Asymptotically Flat Gravity*	10:05	10:17
Jack Sarfatti	ISEP	no	*Emergence of Tetrads and Spin Connections from the Spontaneous Breakdown of Localized Poincare Group Symmetry in the Post-inflation Physical Vacuum*	10:17	10:29
			Coffee Break	10:29	10:47

Session II (chair: Gary Horowitz)

Name	Affilliation	Student	Talk	Begin	End
Anshuman Maharana	UC Santa Barbara	yes	*Stringy Effects in Black Hole Formation from High Energy Collision*	10:49	11:01
Robert Myers	Perimeter Institute	no	*DGP Gravity: Falling Down*	11:01	11:13
Steve Giddings	UC Santa Barbara	no	*Quantization in Black Hole Backgrounds*	11:13	11:25

Michael Gary	UC Santa Barbara	yes	*Relational Observables in 2-D Quantum Gravity*	11:25	11:37
Hector Calderon	Montana State University	yes	*Quantum Fields Near Phantom-Energy Sudden Singularities*	11:37	11:49
Matthias Wapler	Perimeter Institute	yes	*Charges from Attractors*	11:49	12:01
George Chapline	Lawrence Livermore National Laboratory	no	*Interior Solution for Rotating Dark Energy Stars and Blueprint for Rotating Universe*	12:01	12:13
Franklin Felber	Starmark Inc.	no	*Relativistic Hypervelocity Propulsion*	12:13	12:25
			Lunch Break	12:25	1:50

Session III (chair: Alan Weinstein)

Name	Affilliation	Student	Talk	Begin	End
Vladimir Braginsky	University of Moscow	no	*Limitations in Quantum Measurements Resolution Created by Cosmic Rays*	2:00	2:12
Ted Cook	University of Washington	yes	*Test of the Gravitational Inverse-Square Law Below the Dark-Energy Length Scale*	2:12	2:24
Sam Waldman	Caltech	no	*Nuts and Bolts of the LIGO Science Run*	2:24	2:36
John Miller	LIGO Caltech / University of Glasgow	yes	*Experimental Study of Non-Gaussian Beams for Interferometric Gravitational Wave Detectors*	2:36	2:48
Mihai Bondarescu	Caltech	yes	*Seeing Further with LIGO*	2:48	3:00
Marc Favata	Kavli Institute for Theoretical Physics	no	*Issues in Eccentric Binary Inspiral*	3:00	3:12
Ilya Mandel	Caltech	yes	*Intermediate-Mass-Ratio Inspirals into Intermediate Mass Black Holes*	3:12	3:24
Jeandrew Brink	Caltech	no	*Orbits in Axisymmetric Stationary Vacuum Spacetimes*	3:24	3:36
			Coffee Break	3:36	3:54

Session IV (chair: Rob Myers)

Name	Affilliation	Student	Talk	Begin	End
Keith Copsey	UC Santa Barbara	yes	*Bubbles Unbound: Bubbles of Nothing Without Kaluza-Klein*	3:56	4:08
Xavier Siemens	Caltech	no	*Gravitational Wave Stochastic Background from Cosmic (Super)Strings*	4:08	4:20
Jorge Rocha	UC Santa Barbara	yes	*Periodic Gravitational Waves from Small Cosmic String Loops*	4:20	4:32
Daniel Bambeck	Montana State University	yes	*The Uncertainty Principle and Effective Mass on the Brane*	4:32	4:44
Andrew Beckwith	APS / Fermi contractor	no	*How can Brane World Physics be Reconciled to Early Universe Applications of Relic Thermal Input as given by Loop Quantum Gravity to Inflationary Cosmology*	4:44	4:56
John Kulick	University of Connecticut graduate	no	*Uniform Expansion Geometry with Two Dimensions of Time*	4:56	5:08
			Party at Kip Thorne's	7:00	

At the end of the Friday afternoon session, it will be possible for a limited number of PCGM 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 17, 2007

Session I (chair: Jim Isenberg)

Name	Affilliation	Student	Talk	Begin	End
			Breakfast	8:00	8:50
Lee Lindblom	Caltech	no	*Introduction to Binary Black Hole Evolutions*	9:00	9:12
Oliver Rinne	Caltech	no	*Outer Boundary Conditions Put to the Test*	9:12	9:24
Mark Scheel	Caltech	no	*Numerical Simulations of Binary Black Hole Inspirals*	9:24	9:36
Harald Pfeiffer	Caltech	no	*How to Remove Eccentricity in Binary Black Hole Simulations*	9:36	9:48
Mike Boyle	Caltech	yes	*Numerical Simulations Confront Post-Newtonian Approximations*	9:48	10:00
Keith Matthews	Caltech	yes	*Implementing Gauge Driver Conditions for the Generalized Harmonic Evolution System*	10:00	10:12
Michael Cohen	Caltech	yes	*Event Horizons in Binary Black Hole Mergers*	10:12	10:24
Geoffrey Lovelace	Caltech	yes	*Horizon Shapes in Binary Black Hole Simulations*	10:24	10:36
Robert Owen	Caltech	yes	*Approximate Killing Vectors on Deformed Two-Spheres*	10:36	10:48
			Coffee Break	10:48	11:05

Session II (chair: Douglas Singleton)

Name	Affilliation	Student	Talk	Begin	End
Jim Isenberg	University of Oregon	no	*Why Scalar Fields are Tricky in the Einstein Constraints*	11:07	11:19
Sean Hartnoll	UC Santa Barbara	no	*From Black Holes to the Hall Effect*	11:19	11:31
Jeffrey Morton	University of California Riverside	yes	*Extended Topological Quantum Field Theories and Quantum Gravity*	11:31	11:43
Sergio Aguilar-Rudametkin	CSU, Fresno	yes	*Thick Branes from Scalar Fields*	11:43	11:55

Matthew Roberts	UC Santa Barbara	yes	*Dynamics of First Order Transitions with Gravity Duals*	11:55	12:07
Alexander Mayer	independent	no	*Wave Energy in Quantum Mechanics*	12:07	12:19
			Lunch Break	12:19	2:00

Session III (chair: Curt Cutler)

Name	Affilliation	Student	Talk	Begin	End
Joseph Plowman	Montana State University	yes	*Intermediate Mass Black Hole Binary Astrophysics from LISA Data*	2:10	2:22
Tyson Littenberg	Montana State University	yes	*Automatic Model Selection for Low Mass Binaries*	2:22	2:34
Patricia Purdue	Colorado College	no	*Modeling Acceleration Noise in LISA*	2:34	2:46
Steve Drasco	Jet Propulsion Laboratory / Caltech	no	*The Quantized Gravitational Spectra of Quiescent Black Hole Binaries*	2:46	2:58
Jeff Crowder	Jet Propulsion Laboratroy / Caltech	no	*Are we Confused Yet? Updates in Solving the LISA Foreground Problem*	2:58	3:10
Michele Vallisneri	Jet Propulsion Laboratory	no	*Use and Abuse of the Fisher Information Matrix*	3:10	3:22
			Coffee Break	3:22	3:40

Session IV (chair: Mark Scheel)

Name	Affilliation	Student	Talk	Begin	End
			Awarding of the prize for the GGR Topical Group in Gravity Best Student Presentation at PCGM23	3:42	3:47
Naoki Seto	University of California Irvine	no	*Searching for Circular Gravitational Signal in Gravitational Wave Background*	3:47	3:59
Dong-Hoon Kim	Max Planck Institute for Gravitational Physics	no	*Calculations of the Self-Force in Kerr Spacetime via the Mode-Sum Method*	3:59	4:11

Gary Horowitz	UC Santa Barbara	no	*Microstates of Neutral Black Holes*	4:11	4:23
Douglas Singleton	California State University Fresno	no	*Hawking and Unruh Radiation as Tunneling*	4:23	4:35
Albert Tarantola	University of Paris VI	no	*Are there Physically Implementable Space-Time Coordinates that - Besides Having the Relativistic Quality - are Immediate? Implications for Satellite Constellations*	4:35	4:47
George Soli	Integrated Detector Systems	no	*Laboratory Detection of Cold Dark Matter as Sidereal Dilaton Scattering Data*	4:47	4:59
Robert Evans	independent	no	*"Ulteriortonics", a Hidden Variable in the Form of an Absolute Constant Limit*	4:59	5:11