PCGM26 PROGRAM

All talks will take place in Room 2250 (Ledden Auditorium) in Building 250 (HSS -- Humanities and Social Sciences Building) on the UCSD campus. Each speaker will be allotted a maximum of 15 minutes for setup + the talk itself + questions and answers. Plan to limit your talk to no more than 12 minutes to allow time for setup and a question or two.

Speakers using computer generated talks: Please verify prior to your session that your laptop communicates correctly with the projector. Speakers should begin connecting their laptops to the projector during the question period of the speaker immediately preceding their talk. Whenever possible, speakers from each session should collect talks onto a single laptop to minimize setup delays. Blackboards, chalk, and overhead transparency projectors are also available.

Coffee, tea, sodas, and light snacks (bagels, pastries, fresh fruit, cookies, etc.) will be available (provided fittingly by Einstein Brothers) before the morning sessions starting at 8am, and during the morning and afternoon coffee breaks. These will be served in Room 2402A of the APM Building, located immediately adjacent to the Lecture Auditorium.

Friday, March 26, 2010

Session I (Chair: Michael Holst, UC San Diego)

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
<th>Talk</th>
<th>Begin</th>
<th>End</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michael Holst</td>
<td>UC San Diego</td>
<td>Breakfast and Registration</td>
<td>8:00</td>
<td>9:00</td>
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</tr>
<tr>
<td>Gary Horowitz</td>
<td>UC Santa Barbara</td>
<td>Welcome and Announcements</td>
<td>9:00</td>
<td>9:05</td>
<td></td>
</tr>
<tr>
<td>Tomas Andrade</td>
<td>UC Santa Barbara</td>
<td>Holographic superconductors</td>
<td>9:05</td>
<td>9:20</td>
<td></td>
</tr>
<tr>
<td>Ian A Morrison</td>
<td>UC Santa Barbara</td>
<td>Comments on Holography and Diffeomorphism Invariance</td>
<td>9:20</td>
<td>9:35</td>
<td></td>
</tr>
<tr>
<td>Dinesh Singh</td>
<td>University of Regina</td>
<td>Effects of Space-Time Curvature on Spin-1/2 Particle Zitterbewegung</td>
<td>9:50</td>
<td>10:05</td>
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<td></td>
<td></td>
<td>Coffee Break</td>
<td>10:05</td>
<td>10:45</td>
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Session II (Chair: Lee Lindblom, Caltech)

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<thead>
<tr>
<th>Name</th>
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</thead>
<tbody>
<tr>
<td>Joseph Betzwieser</td>
<td>Caltech</td>
<td>Searching for Continuous Gravitational Waves with coherent methods</td>
<td>10:45</td>
<td>11:00</td>
<td></td>
</tr>
<tr>
<td>Vladimir Dergachev</td>
<td>Caltech</td>
<td>All-sky search for continuous gravitational waves with PowerFlux</td>
<td>11:00</td>
<td>11:15</td>
<td></td>
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<tr>
<td>Pinkesh Patel</td>
<td>Caltech</td>
<td>Search for continuous gravitational waves from a nearby neutron star</td>
<td>11:15</td>
<td>11:30</td>
<td></td>
</tr>
<tr>
<td>Mark Bennett</td>
<td>University of Melbourne</td>
<td>Continuous-wave gravitational radiation from pulsar glitch recovery</td>
<td>11:30</td>
<td>11:45</td>
<td></td>
</tr>
<tr>
<td>Antony Searle</td>
<td>Caltech</td>
<td>Multi-messenger astronomy with transient gravitational wave sources</td>
<td>11:45</td>
<td>12:00</td>
<td></td>
</tr>
<tr>
<td>Michael Cohen</td>
<td>Caltech</td>
<td>Searches for Cosmic String Gravitational-Wave Bursts in Mock LISA Data</td>
<td>12:00</td>
<td>12:15</td>
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<td></td>
<td></td>
<td>Lunch</td>
<td>12:15</td>
<td>2:15</td>
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Session III (Chair: Melvin Leok, UC San Diego)

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<tr>
<th>Name</th>
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<th>End</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michael Holst</td>
<td>UC San Diego</td>
<td>Solution of the Einstein constraint equations on manifolds with boundary</td>
<td>2:15</td>
<td>2:30</td>
<td></td>
</tr>
<tr>
<td>Jim Isenberg</td>
<td>University of Oregon</td>
<td>Gluing Initial Data Sets at Asymptopia</td>
<td>2:30</td>
<td>2:45</td>
<td></td>
</tr>
<tr>
<td>Xianghui Luo</td>
<td>University of Oregon</td>
<td>Future Global Stability of Cosmological Models with Scalar and Electromagnetic Fields</td>
<td>2:45</td>
<td>3:00</td>
<td></td>
</tr>
<tr>
<td>Jeff Winicour</td>
<td>University of Pittsburgh</td>
<td>Disembodied Boundary Data for Einstein's Equations</td>
<td>3:00</td>
<td>3:15</td>
<td></td>
</tr>
<tr>
<td>Hector H. Calderon</td>
<td>Idaho State University</td>
<td>Towards a new definition of singularity</td>
<td>3:15</td>
<td>3:30</td>
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<td></td>
<td></td>
<td>Coffee Break</td>
<td>3:30</td>
<td>4:00</td>
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**Session IV (Chair: Steve Carlip, UC Davis)**

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<tr>
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</thead>
<tbody>
<tr>
<td>Michael Kesden</td>
<td>Caltech</td>
<td>Spin alignment during black hole inspirals</td>
<td>4:00</td>
<td>4:15</td>
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<tr>
<td>David Nichols</td>
<td>Caltech</td>
<td>A Hybrid Approximation Technique for Head-on Black-Hole-Binary Mergers</td>
<td>4:15</td>
<td>4:30</td>
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</tr>
<tr>
<td>Marc Favata</td>
<td>Caltech</td>
<td>Comparisons between post-Newtonian and self-force calculations</td>
<td>4:30</td>
<td>4:45</td>
<td></td>
</tr>
<tr>
<td>Ned S. Rasor</td>
<td>Consultant</td>
<td>Quasi-Newtonian Dynamics and Universal Expansion</td>
<td>4:45</td>
<td>5:00</td>
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<tr>
<td>Franklin Felber</td>
<td>Starmark, Inc.</td>
<td>New exact time-dependent solution of Einstein’s equation</td>
<td>5:00</td>
<td>5:15</td>
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**Saturday, March 27, 2010**

**Session V (Chair: Gary Horowitz, UC Santa Barbara)**

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Steven Carlip</td>
<td>UC Davis</td>
<td>A nonextremal Kerr/CFT correspondence</td>
<td>9:00</td>
<td>9:15</td>
<td></td>
</tr>
<tr>
<td>Marcus Afshar</td>
<td>UC Davis</td>
<td>Quasilocal Energy in FRW Cosmology</td>
<td>9:15</td>
<td>9:30</td>
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<tr>
<td>Reiko Toriumi</td>
<td>UC Irvine</td>
<td>Quantum Gravity and Cosmological Density Perturbations</td>
<td>9:30</td>
<td>9:45</td>
<td></td>
</tr>
<tr>
<td>Joseph Smidt</td>
<td>UC Irvine</td>
<td>New Constraints On The Primordial Non-Gaussianity Parameters $\tau_{NL}$ and $g_{NL}$</td>
<td>9:45</td>
<td>10:00</td>
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**Session VI (Chair: Rana Adhikari, Caltech)**

<table>
<thead>
<tr>
<th>Name</th>
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<th>Student</th>
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</thead>
<tbody>
<tr>
<td>Douglas Singleton</td>
<td>CSU Fresno</td>
<td>Hawking-like radiation in a FRW Universe</td>
<td>11:00</td>
<td>11:15</td>
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<tr>
<td>Paolo Bonifacio</td>
<td>University of Aberdeen</td>
<td>Spacetime conformal fluctuations and quantum dephasing</td>
<td>11:15</td>
<td>11:30</td>
<td></td>
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<tr>
<td>Shau-Yu Lan</td>
<td>UC Berkeley</td>
<td>Atom Interferometry in Fundamental Physics</td>
<td>11:30</td>
<td>11:45</td>
<td></td>
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<tr>
<td>Michael Hohensee</td>
<td>UC Berkeley</td>
<td>Matter Waves for Gravitational Wave Detection</td>
<td>11:45</td>
<td>12:00</td>
<td></td>
</tr>
<tr>
<td>Cheong Chan</td>
<td>UC Berkeley</td>
<td>Atom Interferometric Measurement of Newton's Constant</td>
<td>12:00</td>
<td>12:15</td>
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<td></td>
<td></td>
<td>Coffee Break</td>
<td>10:15</td>
<td>11:00</td>
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**Session VII (Chair: David Meyer, UC San Diego)**

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<tr>
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<th>Student</th>
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</thead>
<tbody>
<tr>
<td>Bela Szilagyi</td>
<td>Caltech</td>
<td>Spectral Numerical Simulations of High-spin Binary Black Hole Mergers</td>
<td>2:15</td>
<td>2:30</td>
<td></td>
</tr>
<tr>
<td>Mark Scheel</td>
<td>Caltech</td>
<td>Spectral Numerical Simulations of Unequal-Mass Binary Black Hole Mergers</td>
<td>2:30</td>
<td>2:45</td>
<td></td>
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<tr>
<td>Jeff Kaplan</td>
<td>Caltech</td>
<td>Simulations of Neutron-Star Binaries using SpEC</td>
<td>2:45</td>
<td>3:00</td>
<td></td>
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<tr>
<td>Tony Chu</td>
<td>Caltech</td>
<td>Estimating gauge errors in numerical waveforms</td>
<td>3:00</td>
<td>3:15</td>
<td></td>
</tr>
<tr>
<td>Keith D. Matthews</td>
<td>Caltech</td>
<td>Quasi-Equilibrium Initial Data For Simulations of Generic Black-Hole Binaries in Harmonic Coordinates</td>
<td>3:30</td>
<td>3:45</td>
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<td></td>
<td></td>
<td>Coffee Break</td>
<td>3:45</td>
<td>4:15</td>
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**Session VIII (Chair: Jim Isenberg, University of Oregon)**

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<tr>
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<th>End</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nicholas Taylor</td>
<td>Caltech</td>
<td>Second order in space spectral methods for numerical relativity</td>
<td>4:15</td>
<td>4:20</td>
<td></td>
</tr>
<tr>
<td>Lee Lindblom</td>
<td>Caltech</td>
<td>A Spectral Approach to the Relativistic Inverse Stellar Structure Problem</td>
<td>4:35</td>
<td>4:50</td>
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</tr>
<tr>
<td>Krzysztof Bolejko</td>
<td>University of Arizona</td>
<td>Inhomogeneous cosmology: from dark energy to homogenization of the Universe</td>
<td>4:50</td>
<td>5:05</td>
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</tbody>
</table>
Notes on relative locations of AP&M, Ledden Auditorium, and Muir Upper Lot for Parking.

**RED** = AP&M

**YELLOW** = Ledden Hall
Notes on lunch options near UCSD:

**RED** = Ledden Hall and AP&M

**BLUE** = Subway, La Salsa, Starbucks, etc

**PURPLE** = Nice Food Court (ethnic foods, Starbucks, etc)

**GREEN** = More upscale (Piatti’s Italian, etc)