



# Theoretical Elementary Particle Physics

## UCLA TEP Seminar Archives

| <b>TEP Seminars</b>                             |   |  |
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| <b>Winter 2021</b>                              |   |  |
| Tuesday, March 23 <sup>rd</sup>                 | N/A   | N/A  |
| Tuesday, March 16 <sup>th</sup>                 | N/A   | N/A  |
| Tuesday, March 9 <sup>th</sup>                  | Per Kraus (UCLA)                                | "Quantizing 3d gravity in a finite box"  |
| Tuesday, March 2 <sup>nd</sup>                  | Igor Klebanov (Princeton)                       | "Symmetries and Threshold States in 2d Models for QCD"   |
| Tuesday, February 23 <sup>rd</sup>              | Agnese Bissi (Uppsala University)               | "Towards all loop supergravity amplitudes"   |
| Tuesday, February 16 <sup>th</sup>              | Ira Rothstein (Carnegie Mellon)                 | "The IR structure of QCD in the near forward limit. A fresh look at an old problem"                      |
| Tuesday, February 9 <sup>th</sup>               | Luca Iliesiu (Princeton)                        | "The statistical mechanics of near-extremal and near-BPS black holes"                                    |
| Tuesday, February 2 <sup>nd</sup>               | Leonardo Rastelli (Stony Brook University)      | "A CFT distance conjecture"  |
| Tuesday, January 26 <sup>th</sup>               | Richard Nally (Stanford)                        | "Supersymmetric Flux Vacua and Calabi-Yau Modularity"  |
| Tuesday, January 19 <sup>th</sup>               | Mukund Rangamani (Institute for Advanced Study) | "Real-time gravitational replicas"   |
| Tuesday, January 12 <sup>th</sup>               | Shai Chester (Weizmann)                         | "Derivation of AdS/CFT for Vector Models"  |
| Tuesday, January 5 <sup>th</sup>                | Kantaro Ohmori (Stony Brook University)         | "WZW model revisited"  |
| <b>No Internal TEP Seminars for Winter 2021</b> |   |  |
| <b>Fall 2020</b>                                |   |  |
| Tuesday, December 15 <sup>th</sup>              | Kristan Jensen (San Francisco State University) | "Wormholes in AdS3 gravity, random matrix theory, and constrained instantons"                            |
| Tuesday, December 8 <sup>th</sup>               | Tim Cohen (University of Oregon)                | "Is SMEFT Enough?"   |
| Tuesday, December 1 <sup>st</sup>               | Pedro Vieira (Perimeter Institute)              | "(The two sides of) the S-matrix Bootstrap"  |
| Tuesday, November 24 <sup>th</sup>              | Thomas Dumitrescu (UCLA)                        | "2-Group Global Symmetries in Six Dimensions"  |
| Tuesday, November 17 <sup>th</sup>              | Mikhail Solon (UCLA)                            | "Binary Black Holes and Scattering Amplitudes"   |
| Tuesday, November 10 <sup>th</sup>              | Jonathan Heckman (University of Pennsylvania)   | "6D SCFTs and Spin Chains"   |
| Tuesday, November 3 <sup>rd</sup>               | Callum Jones (UCLA) and Enrico Herrmann (UCLA)  | "Extremal Black Holes and the Weak Gravity Conjecture" by C. Jones and "Amplitudes and X" by E. Herrmann |

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| Tuesday, October 27 <sup>th</sup>               | Andreas Karch (University of Texas, Austin)             | "Branes, Islands, and Massive Gravitons"                          |
| Tuesday, October 20 <sup>th</sup>               | Lampros Lamprou (MIT)                                   | "Inside the Hologram: The bulk observer's experience"             |
| Tuesday, October 13 <sup>th</sup>               | Lorenz Eberhardt (IAS)                                  | "Partition functions of the tensionless string"                   |
| Tuesday, October 6 <sup>th</sup>                | Ruben Monten (UCLA) and Konstantinos Roumpedakis (UCLA) | TBA   |
| <b>No Internal TEP Seminars for Fall 2020</b>   |   |   |
| <b>Spring 2020</b>                              |   |   |
| <b>TEP Seminars</b>                             |   |   |
| Tuesday, June 16 <sup>th</sup>                  | Scott Collier (Harvard)                                 | "Virasoro bootstrap, universality, and pure gravity"              |
| Tuesday, June 9 <sup>th</sup>                   | Victor Gorbenko (IAS)                                   | "Infrared Dynamics of Quantum Fields in Cosmology"                |
| Tuesday, June 2 <sup>nd</sup>                   | Konstantinos Roumpedakis (Stony Brook)                  | "Two-Dimensional adjoint QCD and Topological Lines"               |
| Tuesday, May 26 <sup>th</sup>                   | Kathryn Zurek (Caltech)                                 | "Infrared Spacetime Fluctuations from Quantum Gravity"            |
| Tuesday, May 19 <sup>th</sup>                   | Sasha Zhiboedov (CERN)                                  | "An analytical toolkit for the S-matrix bootstrap."               |
| Tuesday, May 12 <sup>th</sup>                   | Anton Kapustin (Caltech)                                | "Diabolical points in QFT and quantum lattice models"             |
| Tuesday, May 5 <sup>th</sup>                    | Per Kraus (UCLA)  | "Anomalous Dimensions from Thermal AdS Partition Functions"       |
| Tuesday, April 28 <sup>th</sup>                 | Jaroslav Trnka (UC Davis)                               | "New view on graviton scattering amplitudes"                      |
| Tuesday, April 21 <sup>st</sup>                 | Ying Lin (Caltech)                                      | "Playing with Topological Defects in 2d"                          |
| Tuesday, April 14 <sup>th</sup>                 | Nathaniel Craig (UCSB)                                  | "Loops, Trees, and Higgs EFTs"                                    |
| <b>No Internal TEP Seminars for Spring 2020</b> |   |   |
| <b>Winter 2020</b>                              |   |   |
| <b>TEP Seminars</b>                             |   |   |
| Tuesday, March 17 <sup>th</sup>                 | <i>*Bhaumik Lecture by D. Freedman</i>                  | <i>*Cancelled</i>   |
| Tuesday, March 10 <sup>th</sup>                 | N/A   | N/A   |
| Tuesday, March 3 <sup>rd</sup>                  | N/A   | N/A   |
| Tuesday, February 25 <sup>th</sup>              | Joe Minahan (Uppsala)                                   | "Maximal supersymmetric Yang-Mills and their holographic duals"   |
| Tuesday, February 18 <sup>th</sup>              | Group Discussion  | N/A   |
| Tuesday, February 11 <sup>th</sup>              | Julio Parra-Martinez (UCLA)                             | "Universality in the classical limit of gravitational scattering" |
| Tuesday, February 4 <sup>th</sup>               | Eric Perlmutter (Caltech)                               | "Loop Amplitudes and Extra Dimensions in AdS/CFT"                 |
| Tuesday, January 28 <sup>th</sup>               | Natalie Paquette (Caltech)                              | "Koszul duality in field theory & holography"                     |

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| Tuesday, January 14th        | Andres Luna Godoy (UCLA)                                     | "Spinning binary Hamiltonian from scattering amplitudes."                                |
| Tuesday, January 7th         | Aleksey Cherman (University of Minnesota)                    | "Confinement in 2d adjoint QCD"  |
| <b>Internal TEP Seminars</b> |  |  |
| Friday, March 13th           | *Cancelled   | N/A  |
| Friday, March 6th            | N/A  | N/A  |
| Friday, February 28th        | Discussion   | N/A  |
| Friday, February 21st        | <i>*No Internal TEP Seminar due to SoCal Strings Seminar</i> | N/A  |
| Friday, February 14th        | Discussion   | N/A  |
| Friday, February 7th         | Discussion   | N/A  |
| Friday, January 31st         | Eric Sawyer (UCLA)   | "Anomalous Dimensions from On-Shell Methods"   |
| Friday, January 24th         | 2 <sup>nd</sup> Strings Journal Club of the week             | Topic: The Unruh effect and Hawking radiation<br>Speakers: Stathis Megas and Nick Geiser |
| Friday, January 17th         | 2 <sup>nd</sup> Strings Journal Club of the week             | A review of black hole thermodynamics by Amey  |
| Friday, January 10th         | Cyril Closset (Oxford)                                       | "On 5d SCFTs and their BPS quivers."   |
| <b>Fall 2019</b>             |  |  |
| <b>TEP Seminars</b>          |  |  |
| Tuesday, December 3          | Justin Vines (Max Planck Institute)                          | "A loopy excursion: from integrands to scattering amplitudes at higher loop order"       |
| Tuesday, November 19         | Yifan Wang (Harvard)   | "Cardy formula for higher dimensional CFT from EFT"                                      |
| Tuesday, November 12         | Po-Shen Hsin (Caltech)                                       | "Lorentz symmetry fractionalizations and dualities in (2+1)d"                            |
| Tuesday, November 5          | Ahmed Almheiri (IAS)   | "Quantum extremal islands and the information paradox"                                   |
| Tuesday, October 29          | Mario Martone (UT Austin)                                    | "N=2 Superconformal field theories from mixed branches and VOAs"                         |
| Tuesday, October 22          | Zohar Komargodski (SCGP)                                     | "2+1 Dimensional Yang-Mills Theory "   |
| Tuesday, October 15          | Emanuel Malek (Max Planck Institute)                         | "A Kaluza-Klein spectrometer from exceptional field theory"                              |
| Tuesday, October 8           | Aneesh Manohar (UCSD)  | "Stress-testing the Standard Model"  |
| Tuesday, October 1           | Enrico Herrmann (SLAC)                                       | "A loopy excursion: from integrands to scattering amplitudes at higher loop order"       |
| <b>Internal TEP Seminars</b> |  |  |
| Thursday, December 5th       | Jan Steinhoff (Max Planck Institute)                         | "Classical spins: supplementary conditions, actions principles, and canonical variables" |

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| Thursday, November 22nd | Justin Kaidi (UCLA)                          | "Superstrings and Topological Superconductors"   |
| Thursday, November 14   | Thomas Dumitrescu (UCLA)                     | "Large-N Surprises in Three-Dimensional QCD"   |
| Thursday, November 7    | Boris Pioline (Sorbonne Université)          | "BPS black holes, wall-crossing and mock modular forms"                                      |
| Thursday, October 31    | Dingyu Shao (UCLA)                           | "All-order methods in effective field theory"  |
| Thursday, October 22    | Emily Nardoni (UCLA)                         | "Anomalies of QFTs from M-theory"  |
| Thursday, October 17    | Per Kraus (UCLA)                             | N/A  |
| <b>Spring 2019</b>      |  |  |
| Wednesday, June 5       | Guilherme Pimentel (University of Amsterdam) | "Bootstrapping Inflationary Fluctuations"  |
| Tuesday, May 21         | Gustavo Joaquin Turiaci (UC Santa Barbara)   | "Two Dimensional de Sitter Gravity"  |
| Wednesday, May 8        | Daniel Avila (UNAM)                          | "Lowering the melting temperature of holographic mesons by means of a strong magnetic field" |
| Tuesday, May 7          | David Kosower (Saclay)                       | "From Scattering Amplitudes to Classical Observables"  |
| Friday, May 1           | David Simmons-Duffin (Caltech)               | "Shocks, Superconvergence, and a Stringy Equivalence Principle"                              |
| Tuesday, April 30       | Walter Goldberger (Yale)                     | "Black hole finite size effects, Hawking radiation, and binary inspirals"                    |
| Tuesday, April 23       | Sergio Ferrara (UCLA, CERN)                  | "A second lecture on Conformal Supergravity"   |
| Tuesday, April 16       | Sergio Ferrara (UCLA, CERN)                  | "A second lecture on Conformal Supergravity"   |
| Tuesday, April 8        | Simon Knapen (IAS)                           | "Searching for whispers from beyond the standard model"                                      |
| Tuesday, April 4        | Mikhail Solon (Caltech)                      | "Precision Physics for Sky Surveys"  |
| Tuesday, April 1        | Rachel Rosen (Columbia)                      | "Fundamental Constraints for Fundamental Theories"   |
| <b>Winter 2019</b>      |  |  |
| Monday, March 18        | Mark Mezei (SUNY Stony Brooke)               | "Hydrodynamics of Entanglement"  |
| Thursday, March 14      | Ian Mould (UC Berkeley)                      | "Novel Tools in Effective Field Theory: From Quantum Chromodynamics to Dark Matter"          |
| Monday, March 11        | Kimberly Boddy (Johns Hopkins)               | "Unraveling the Structure of Dark Matter throughout Cosmic History"                          |
| Thursday, March 7       | Silviu Pufu (Princeton)                      | "Solvable sectors in conformal field theory and applications to holography"                  |
| Tuesday, February 26    | Massimo Porrati (NYU)                        | "Two applications of the infrared factorization of IR dynamics."                             |
| Tuesday, February 5     | Gabriele Veneziano (CERN)                    | "Soft gravitational radiation from high energy collisions: a progress report"                |
| Tuesday, January 29     | Ibrahima Bah (Johns Hopkins)                 | "Anomaly Inflow for M5-branes wrapping a Riemann Surface"                                    |
| Tuesday, January 22     | Zvi Bern (UCLA)                              | "Scattering Amplitude Techniques for LIGO"   |

| <b>Fall 2018</b>       |  |   |
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| Tuesday, December 11   | Matt Reece (Harvard)   | "Photon Masses in the Landscape and Dark Photon Dark Matter."   |
| Friday, November 29*   | Robert Schabinger (Michigan State University)                | "Constructing multi-loop scattering amplitudes with manifest singularity structure"                                 |
| Tuesday, November 27   | Silviu Pufu (Princeton)                                      | "Scattering amplitudes, bootstrap, and supersymmetric localization"   |
| Tuesday, November 20   | Alejandra Castro (University of Amsterdam)                   | "Holography and Siegel paramodular forms"   |
| Tuesday, November 13   | Daniel Brennan (Rutgers, The State University of New Jersey) | "t Hooft Defects, Monopole Bubbling, and SQM Localization"  |
| Friday, November 9*    | Gabriel Wong (Fudan University)                              | "Entanglement Branes, Modular Flow, and Extended TQFT"  |
| Tuesday, November 6    | Markus Luty (UC Davis)                                       | "A positive sum rule for the central charge in 4D conformal field theory"   |
| Tuesday, October 30    | Alex Belin (University of Amsterdam)                         | "Holographic symplectic forms and a CFT prescription to compute extremal volumes"                                   |
| Thursday, October 25 * | Avner Karasik (Weizmann Institute of Science)                | "On the phase diagram of SU(N)XSU(N) gauge theory with bifundamental Fermion"                                       |
| Tuesday, October 23    | Clay Cordova (Institute for Advanced Study)                  | "Light-Ray Operators and the BMS Algebra"   |
| Thursday, October 18*  | Masataka Watanabe (IPMU)                                     | "The Large Charge Expansion and the Universal Correlation Functions in Rank-1 SCFT"                                 |
| Tuesday, October 16    | Anna Ijjas (Harvard University)                              | "Stability and the Gauge Problem in Early-Universe Cosmology"   |
| Tuesday, October 9     | Tom Hartman (Cornell University)                             | "Quantum Gravity in a Finite Box"   |
| Tuesday, October 2     | Mark Trodden (U Penn)  | "Extending the Double Copy"   |
| Tuesday, September 27  | Marco Fazzi (Technion, Israel Institute of Technology)       | "Chiral SU(3) SQCD3 and N=2 mirror symmetry"  |
| Tuesday, September 11  | Achilleas Passias (Uppsala)                                  | "A massive class of N=2 AdS4 IIA solutions"   |
| <b>Spring 2018</b>     |  |   |
| Tuesday, May 22        | Alessandro Georgoudis (Uppsala)                              | Bootstrapping 5-loop p-Integrals  |
| Tuesday, May 15        | Matthew Heydeman (CalTech)                                   | Unifying Super-Amplitudes in Six Dimensions: The Tree Level S-Matrix of D-Branes, M-Branes, Yang-Mills, and Gravity |
| Tuesday, May 8         | Martin Fluder (CalTech)                                      | A 5d Superconformal Odyssey   |
| Tuesday, April 24      | Costas Bachas (Ecole Normale, Paris)                         | Massive AdS Gravity, Holography and String Theory   |
| Tuesday, April 17      | Oscar Varela (Utah State University)                         | Spectrum universality properties of holographic Chern-Simons theories   |
| Tuesday, April 10      | Moshe Rozali (University of British Columbia)                | Fine-Grained Chaos in AdS2 Gravity  |
| Tuesday, April 3       | Maxim Perelstein (Cornell)                                   | SIMPs and ELDERs: New Ideas for Dark Matter   |

| <b>Winter 2018</b>   |  |  |
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| Tuesday, March 13    | Gregor Kalin (Uppsala)                                   | Color-Kinematics Duality for Fundamental Matter at Two-Loops   |
| Tuesday, March 6     | Mark Wise (CalTech)                                      | Loop induced inflationary non-Gaussianities that give rise to enhanced galaxy bias at small wave-vectors |
| Tuesday, February 6  | Sumit Das (University of Kentucky)                       | Dual Space-time of the SYK Model   |
| Monday, February 5   | Gabriele Veneziano (CERN)                                | Spontaneous CP breaking and the axion potential: an effective Lagrangian approach                        |
| Tuesday, January 23  | Aneesh Manohar (UCSD)                                    | Dimension 6 operators in the Standard Model Effective Theory and Holomorphy                              |
| Tuesday, January 16  | Eliot Hijano (University of British Columbia)            | Non-linear gravity from CFT entanglement   |
| Tuesday, January 9   | Philip Argyres (CalTech)                                 | Dimensions of Coulomb branch operators at all ranks  |
| <b>Fall 2017</b>     |  |  |
| <b>Date</b>          | <b>Speaker</b>   | <b>Title</b>   |
| Tuesday, December 12 | Andres Karch (University of Washington)                  | Embedding 3d Bosonization into String Theory   |
| Tuesday, December 5  | Himanshu Raj (SISSA)                                     | Non-supersymmetric conformal manifolds and constraints on the CFT data                                   |
| Monday, December 4   | Emily Nardoni (UCSD)                                     | Anomalies for 4d SCFTs from M5-branes  |
| Tuesday, November 21 | Surbhi Khetrpal (Indian Institute of Science, Bangalore) | "Local Quenches: Universal Corrections to Entanglement Entropy and Quantum Chaos"                        |
| Tuesday, November 14 | Andy Royston (Texas A&M)                                 | Holography for Yang-Mills solutions  |
| Tuesday, October 31  | Shria Chapman (Perimeter Institute)                      | Complexity in Holography and QFT   |
| Tuesday, October 24  | Ashoke Sen (Harish-Chandra Research Institute)           | Soft Graviton Theorem in a Generic Quantum Theory of Gravity   |
| Tuesday, October 17  | Samir Mathur (Ohio State)                                | Spacetime Has a "Thickness"  |
| Tuesday, October 10  | Roji Pius (Perimeter Institute)                          | Quantum Closed Superstring Field Theory and the Weil-Petersson Symplectic Geometry                       |
| Tuesday, October 3   | Mao Zeng (UCLA)  | Unitarity cuts and loop amplitudes in QCD and supersymmetric theories                                    |
| <b>Summer 2017</b>   |  |  |
| <b>Date</b>          | <b>Speaker</b>   | <b>Title</b>   |
| Tuesday, June 20     | Boris Pioline (CERN, Université Pierre et Marie Curie)   | Protected couplings and BPS black holes  |
| <b>Spring 2017</b>   |  |  |
| <b>Date</b>          | <b>Speaker</b>   | <b>Title</b>   |
| Tuesday, June 6      | Valentina Prilepina (UC Davis)                           | Pitting Weyl against Conformal   |

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|                    |  | Invariance in Quantum Field Theory: Does Conformal Imply Weyl Invariance?  |
| Tuesday, May 23    | Sergio Ferrara (UCLA, CERN)  | Superconformal Formulation of Supergravity   |
| Tuesday, May 16    | Dan Xie (Harvard University)   | 3-fold canonical singularity and 5d N=1 SCFT   |
| Monday, May 15     | <b>Bhaumik Luncheon Seminar:</b><br>• Rahul Roy (UCLA)<br>• Dolores Bozovic (UCLA)   | <ul style="list-style-type: none"> <li>• Topology and phases of non-equilibrium driven systems</li> <li>• Physics of Hearing</li> </ul>  |
| Thursday, May 11   | Thomas Dumitrescu (Harvard University)   | Aspects of Supersymmetric Field Theories in Curved Space   |
| Tuesday, May 9     | Gabriel Wong (University of Virginia)  | Entanglement branes in a two-dimensional string theory   |
| Tuesday, May 2     | Efrat Gerchkovitz (Weizmann Institute)   | Vortices in 4d, N=2 SQCD and their Worldsheet Theory from Supersymmetric Localization  |
| Tuesday, Apr 18    | <b>Bhaumik Lecture: Sudip Chakravarty (UCLA)</b>   | Superconductivity!   |
| Wednesday, Apr 5   | Tom Hartman (Cornell)  | Causality and Universality at Strong Coupling  |
| Tuesday, Apr 4     | Chiara Toldo (Columbia University)   | AdS4 black holes from M-theory   |
| <b>Winter 2017</b> |  |  |
| <b>Date</b>        | <b>Speaker</b>   | <b>Title</b>   |
| Tuesday, Mar 21    | <b>Bhaumik Luncheon Seminar:</b><br>• Shenshen Wang (UCLA)<br>• Paul Hamilton (UCLA)<br>• David Saltzberg (UCLA)               | <ul style="list-style-type: none"> <li>• Wonders of the adaptive immune system</li> <li>• Precision AMO tools for fundamental physics</li> <li>• Large-Area Particle Physics: Borrowing from Stokes's Theorem and Stealing from Accelerator Physics</li> </ul> |
| Monday, Mar 6      | Tongyan Lin (UC Berkeley)  | Exploring the low mass frontier in dark matter direct detection  |
| Thursday, Mar 2    | David Curtin (University of Maryland)  | Hidden Sectors and New Signatures  |
| Monday, Feb 27     | Eric Perlmutter (Princeton University)   | Scattering in Quantum Gravity and the Conformal Bootstrap  |
| Thursday, Feb 23   | Jacob Bourjaily (University of Copenhagen)   | The Surprising Simplicity of Scattering Amplitudes   |
| Wednesday, Feb 22  | Ellis Yuan (Institute for Advanced Study)  | Projective geometry of scattering amplitudes   |
| Tuesday, Feb 21    | Oliver Schlotterer (Max-Planck-Institut für Gravitationsphysik)  | Strings tying gauge theories to gravity  |
| Tuesday, Feb 14    | Finn Larsen (University of Michigan)   | Logarithmic Corrections to Black Hole Entropy  |
| Thursday, Feb 9    | Anson Hook (Stanford University)   | Confronting the strong CP problem at the LHC   |
| Tuesday, Feb 7     | <b>Bhaumik Lecture: Frank Wilczek (MIT, Stockholm University, Arizona State University, Zhejiang University of Technology)</b> | Augmenting Reality: Axions, Anyons, and Entangled Histories  |
| Monday, Feb 6      | Thomas Dumitrescu (Harvard University)   | New Tools for Exploring Strongly Coupled Quantum Field Theories  |
| Tuesday, Jan 31    | Ken Intriligator (UCSD)  | Phases and RG flows of 4d (susy) gauge theories  |
| Wednesday, Jan 25  | Brian Willett (UCSB)   | The twisted superpotential of 3d N=2   |

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|  |  | theories  |
| Tuesday, Jan 24  | <b>Bhaumik Lecture: Claudio Pellegrini</b> (Stanford & UCLA)   | Exploring matter at the angstrom-femtosecond space and time scales with X-ray free-electron lasers  |
| Wednesday, Jan 18                                      | Dorota Grabowska (UC Berkeley)   | Understanding Chiral Gauge Theories via Extra Dimensions  |
| Tuesday, Jan 17  | Gabriele Veneziano (Collège de France, Paris)  | Recent progress on gravitational bremsstrahlung from transplanckian-energy collisions   |
| <b>Fall 2016</b>                                       |  |   |
| <b>Date</b>  | <b>Speaker</b>   | <b>Title</b>  |
| Tuesday, Dec 6   | <b>Bhaumik Lecture: Nima Arkani-Hamed</b> (Institute for Advanced Study)   | Unification and Fundamental Physics: A Status Report  |
| Monday-Friday Dec 5-9                                  | <b>QCD Meets Gravity Workshop</b>  |   |
| Monday, Nov 28   | <b>Bhaumik Luncheon Seminar:</b> <ul style="list-style-type: none"> <li>• Smadar Naoz (UCLA)</li> <li>• Robijn Bruinsma (UCLA)</li> <li>• Wes Campbell (UCLA)</li> </ul> | <ul style="list-style-type: none"> <li>• AstroDynamics Here and There<br/>AstroDynamics Everywhere</li> <li>• The use of quantum mechanics to solve traffic problem on biopolymers</li> <li>• The Swiss Army Knife of Experimental Physics</li> </ul> |
| Tuesday, Nov 22  | Congkao Wen (Caltech)  | Constraining effective actions via scattering amplitudes  |
| Thursday, Nov 17                                       | Jerome Gauntlett (Imperial College, London)  | Black Holes and Thermoelectric Transport  |
| Tuesday, Nov 15  | Elias Kiritsis (Universtiy of Crete)   | Holography and the tuning of the cosmological constant  |
| Monday, Nov 7  | Kristan Jensen (San Francisco State University)  | Schwinger-Keldysh fluid dynamics  |
| Tuesday, Nov 1   | Lars Brink (Chalmers University of Technology, Sweden)   | Exceptional vs superPoincaré algebra as the defining symmetry of maximal Supergravity   |
| Tuesday, Oct 25  | Parijat Dey (Indian Institute of Science, Bangalore)   | Mellin space analytic bootstrap for O(N) models   |
| Friday, Oct 21   | <b>Southern California Strings Seminar</b> (hosted at UCLA)  |   |
| Tuesday, Oct 18  | Eric D'Hoker (UCLA)  | Five-dimensional gauge theory via holography  |
| Monday-Wednesday Oct 10-12                             | <b>California Amplitudes Meeting</b>   |   |
| Tuesday, Oct 4   | Victoria Lynn Martin (Stanford University)   | Spectral Weight in Holographic Superfluids t  |
| Tuesday, Sept 27                                       | Matthew Walters (Boston University)  | Studying IR Dynamics with Conformal Truncation  |
| <b>Spring 2016</b>                                     |  |   |
| <b>Date</b>  | <b>Speaker</b>   | <b>Title</b>  |
| <b>Finkelstein Centennial Seminar: Tuesday, May 24</b> | <b>Robert Finkelstein (UCLA)</b>   | The $Sl_q(2)$ Extension of the Standard Model II  |
| Monday, May 23   | TEPAPP Seminar   |   |
| Tuesday, May 17  | TEPAPP Seminar   |   |
| Tuesday, May 17  | <b>SoCal Grad Strings and Fields (SCGSF)</b> hosted at Caltech   |   |
| Thursday, May 5<br>Friday, May 6                       | <b>Southern California Strings Seminar</b> hosted at UCSB / KITP   |   |



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| Tuesday, April 26  | Sergio Ferrara (UCLA)   | The Minimal Supersymmetric Inflationary Model (MSIM)   |
| Tuesday, April 19  | Jonathan Maltz (UC Berkeley)                                      | Chaos in matrix models and black hole evaporation  |
| Monday, April 18   | TEPAPP Seminar  |  |
| Tuesday, April 12  | Alex Maloney (McGill University)                                  | Black Holes, Holography and Quantum Gravity in Three Dimensions  |
| Tuesday, April 5   | TEPAPP Seminar  |  |
| Tuesday, March 29  | Lampros Lamprou (Stanford University)                             | A Stereoscopic Look into the Bulk  |
| <b>Winter 2016</b> |   |  |
| <b>Date</b>        | <b>Speaker</b>  | <b>Title</b>   |
| Monday, March 14   | Jacob Bourjaily (Niels Bohr Institute, University of Copenhagen)  | Grassmannian Geometry of Scattering Amplitudes   |
| Monday, March 7    | Xi Dong (institute for Advanced Study)                            | Entanglement, Gravity, and Quantum Information   |
| Thursday, March 3  | Brian Swingle (Stanford University)                               | Measuring Quantum Information Scrambling   |
| Monday, Feb 29     | Andrea Puhm (UC Santa Barbara)                                    | Microscopic Structure of Black Holes   |
| Thursday, Feb 25   | Aron Wall (Institute for Advanced Study)                          | Negative Energy and the Focussing of Light Rays  |
| Monday, Feb 22     | Simon Caron-Huot (Niels Bohr Institute, University of Copenhagen) | The quest for precision in particle physics  |
| Tuesday, Feb 16    | Daniel Harlow (Harvard University)                                | Bulk Locality and Quantum Error Correction in AdS/CFT  |
| Tuesday, Jan 12    | Alec Ridgway (Caltech)  | Spherically Symmetric Kerr-Schild Metrics and the Classical Double Copy  |
| <b>Fall 2015</b>   |   |  |
| <b>Date</b>        | <b>Speaker</b>  | <b>Title</b>   |
| Tuesday, Dec 8     | John Fuini (University of Washington)                             | Far-from-equilibrium dynamics of a strongly coupled non-Abelian plasma with non-zero charge density or external magnetic field |
| Friday, Dec 4      | <b>Southern California Strings Seminar</b> hosted at UCLA         |  |
| Thursday, Dec 3    | Tommi Tenkanen (University of Helsinki)                           | Cosmological constraints on Dark Matter properties   |
| Tuesday, Dec 1     | Doojin Kim (University of Florida)                                | Interpreting Cosmic Ray Signals "Energy-peak" Way  |
| Monday, Nov 30     | Ulrich Schubert (Max-Planck Institute for Physics in Munich)      | New Developments for Scattering Amplitudes   |
| Tuesday, Nov 24    | Christoph Uhlemann (University of Washington)                     | Supersymmetric flavors on curved space and a precision test of AdS/CFT   |
| Tuesday, Nov 17    | Swapnamay Mondal (Harish-Chandra Research Institute, India)       | Black hole microstate counting using pure D brane systems  |
| Monday, Nov 16     | Dmitri Semikoz (APC Paris)  | Looking for the origin of astrophysical neutrinos  |
| Thursday, Nov 12   | Michael Green (University of Cambridge)                           | Modular properties of superstring scattering amplitudes  |
| Tuesday, Nov 10    | Edgar Shaghoulian (UCSB)  | Modular forms and black hole entropy   |

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| Thursday, Oct 29   | Aleksey Cherman (University of Washington)   | Emergent symmetries and 4D-2D relations for confining large N gauge theories  |
| Monday, Oct 26     | Zuhair Khandker (Boston University)  | Twistor methods for superconformal blocks                                     |
| Tuesday, Oct 20    | Dean Carmi (Tel-Aviv University, Israel)   | Shape dependence and RG flow of entanglement entropy                          |
| Tuesday, Oct 13    | Bogdan Stoica (California Institute of Technology)   | The Holographic Entropy Cone  |
| Tuesday, Oct 6     | Alexandros Anastasiou (Imperial College London)  | Gravity as the square of Yang-Mills   |
| Monday, Sept 28    | Anupam Mazumdar (Lancaster University)   | Ghost free and singularity free theory of gravity                             |
| <b>Spring 2015</b> |  |   |
| <b>Date</b>        | <b>Speaker</b>   | <b>Title</b>  |
| Monday, June 8     | Adam Bzowski (KU Leuven)   | Conformal Invariance in Momentum Space  |
| Tuesday, May 26    | Alexandre Belin (Stanford University)  | String Universality for Permutation Orbifolds                                 |
| Monday, May 18     | Augusto Sagnotti (Scuola Normale and CERN)   | String Theory clues for the low $z$ CMB ?                                     |
| Tuesday, May 12    | Sergio Ferrara (UCLA and CERN)   | Nilpotent Superfields, Born-Infeld Duality and Supersymmetry Breaking         |
| Tuesday, May 5     | Kellogg Stelle (Imperial College London)   | Localizing gravity on branes in infinite spaces                               |
| Monday, April 27   | Henry Maxfield (Durham University)   | Topology and holographic entanglement entropy                                 |
| Tuesday, April 21  | Dalit Engelhardt (UCLA)  | Quench dynamics in confined 1+1-dimensional systems                           |
| Thursday, April 17 | <b>Southern California Strings Seminar</b> hosted at USC                                       |   |
| Tuesday, April 14  | Andrew Spray (CoEPP, Australia)  | The Unnatural Composite Higgs   |
| Friday, April 10   | Itay Yavin (McMaster University and Perimeter Institute)                                       | New frontiers in particle physics   |
| Monday, April 6    | Jonathan Walsh (UC Berkeley)   | The Frontier of the Standard Model  |
| Friday, April 3    | Matthew Reece (Harvard University)   | Searching for Supersymmetry, Natural or Not                                   |
| Monday, March 30   | Chiara Arina (Insitut d'Astrophysique de Paris and Université Pierre et Marie Curie (Paris 6)) | A WIMP view of particle dark matter: from data analysis to theoretical models |
| <b>Winter 2015</b> |  |   |
| <b>Date</b>        | <b>Speaker</b>   | <b>Title</b>  |
| Monday, Mar 9      | Jaroslav Trnka (California Institute of Technology)  | Geometric picture for scattering amplitudes                                   |
| Friday, March 6    | Yanou Cui (Perimeter Institute)  | New Insights into Cosmic Abundances of Matter and Related Phenomenology       |
| Thursday, March 5  | Blaise Goutéraux (Stanford University)   | Metals, insulators and momentum dissipation in holography                     |
| Monday, Mar 2      | Liam Fitzpatrick (Stanford University)   | Universal Dynamics from the Conformal Bootstrap                               |
| Thursday, Feb 26   | Simeon Hellerman (IPMU, Tokyo)   | BIG J   |
| Monday, Feb 23     | Matthew Buckley (Rutgers University)   | Dark Matter in the Age of Data  |
| Friday, Feb 20     | Stefania Gori (Perimeter Institute)  | Discovering new particles after the Higgs                                     |
| Tuesday, Jan 27    | William Kelly (UCSB)   | Making sense of the Generalized Entropy of Gauss-Bonnet Gravity               |

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| Monday, Jan 12     | Yue Zhao (Stanford University)   | The AdS <sub>3</sub> /CFT <sub>2</sub> Avatar of the (Little) Hierarchy Problem     |
| <b>Fall 2014</b>   |  |   |
| <b>Date</b>        | <b>Speaker</b>   | <b>Title</b>  |
| Tuesday, Dec 9     | Richard Davison (Leiden University)  | Holographic momentum dissipation and effective theories of transport                |
| Tuesday, Nov 25    | Christoph Uhlemann (University of Washington)                                  | Holographic entanglement entropy, probe branes & non-Fermi liquids                  |
| Monday, Nov 24     | James Unwin (University of Notre Dame)   | Freeze-in Dark Matter   |
| Friday, Nov 21     | Mikhail Shifman (University of Minnesota)                                      | New Exact Results in Supersymmetry in Two and Four Dimensions                       |
| Tuesday, Nov 18    | Jonathan David Maltz (Tokyo University and IPMU)                               | Deconfinement transition as black hole formation by the condensation of QCD strings |
| Friday, Nov 14     | <b>Southern California Strings Seminar</b> hosted at UCLA                      |   |
| Thursday, Nov 13   | Falk Hassler (LMU Munich)  | String Geometry Beyond the Torus  |
| Tuesday, Nov 4     | Benjamin Withers (University of Southampton)                                   | Checkerboard black branes and inhomogeneity in AdS/CFT                              |
| Tuesday, Oct 28    | Farinaldo Da Silva Queiroz (UC Santa Cruz)                                     | On the connection of the Dark and Visible Sectors                                   |
| Tuesday, Oct 21    | Herb Fried (Brown University)  | An Exact, Finite, Gauge-Invariant, Non-Perturbative Model of QCD Renormalization    |
| Tuesday, Oct 14    | Sergio Palomares-Ruiz (Instituto de Física Corpuscular (IFIC) València, Spain) | On the flavor composition of the high-energy neutrinos in IceCube                   |
| Tuesday, Oct 7     | Vladimir Kazakov (Ecole Normale Supérieure and University of Paris)            | Quantum spectral curve of N=4 SYM and its BFKL limit                                |
| <b>Summer 2014</b> |  |   |
| <b>Date</b>        | <b>Speaker</b>   | <b>Title</b>  |
| Tuesday, Sept 30   | Radu Roiban (Penn State University)  | A twistor string for the ABJ(M) theory  |
| Monday, Sept 29    | Mads Søgaard (Niels Bohr Institute)  | Direct Extraction of Multiloop Integral Coefficients                                |
| Tuesday, Sept 16   | Leo Hughes (Imperial College)  | A Magic Pyramid of Supergravities   |
| <b>Spring 2014</b> |  |   |
| <b>Date</b>        | <b>Speaker</b>   | <b>Title</b>  |
| Tuesday, June 10   | Pierre Salati (LAPTh, Université de Savoie)                                    | The cosmic ray positron excess: the revenge of orthodoxy                            |
| Tuesday, June 3    | Hai-Bo Yu (UC Riverside)   | Beyond Collisionless Dark Matter  |
| Monday, June 2     | Philip "Flip" Tanedo (UC Irvine)   | Heavy Hidden Hooperon   |
| Tuesday, May 27    | Haoning He (UCLA and Purple Mountain Observatory)                              | The possible origins of Sub-PeV to PeV neutrinos observed by the IceCube            |
| Tuesday, May 20    | Massimo Porrati (NYU)  | Single-field Inflationary Models in Supergravity                                    |
| Tuesday, May 13    | Brian Shuve (Perimeter Institute)  | Shedding New Light on Sterile Neutrinos   |
| Monday, May 12     | Robert Finkelstein (UCLA)  | The Preon Sector of the SL <sub>q</sub> (2) Model and the Binding Problem           |
| Tuesday, May 6     | Aitor Lewkowycz (Princeton University)   | Exact results for the entanglement entropy and the energy radiated by a quark       |
| Tuesday, April 22  | Guillaume Bossard (École Polytechnique)  | Supersymmetry constraints on type II effective actions                              |

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| Monday, April 21     | Sergio Ferrara (UCLA)  | "The Volkov-Akulov-Starobinsky Supergravity"  |
| Tuesday, April 15    | Benedict Fraser (Swansea University)   | Lifshitz geometries from backreacted Wilson lines   |
| <b>Winter 2014</b>   |  |   |
| <b>Date</b>          | <b>Speaker</b>   | <b>Title</b>  |
| Tuesday, March 18    | Eric Braaten (Ohio State)  | Making Sense of the XYZ Mesons using the Born-Oppenheimer Approximation                   |
| Monday, March 10     | Aron Wall (UC Santa Barbara)   | The Generalized Second Law as a Quantum Singularity Theorem                               |
| Tuesday, March 4     | Johannes Henn (IAS)  | Evaluating Feynman integrals algebraically  |
| Friday, February 28  | Kenzo Ishikawa (Hokkaido University, Japan)  | Finite-size Corrections to Fermi's Golden Rule  |
| Tuesday, February 25 | Rutger Boels (University of Hamburg)   | A Color-Kinematic Duality Triptych  |
| Tuesday, February 18 | Nabil Iqbal (KITP)   | Holographic Entanglement Entropy and Gravitational Anomalies                              |
| Monday, February 3   | Jaroslav Trnka (Caltech)   | The Amplituhedron   |
| <b>Fall 2013</b>     |  |   |
| <b>Date</b>          | <b>Speaker</b>   | <b>Title</b>  |
| Tuesday, December 10 | Gabriele Veneziano (CERN/Collège de France)  | Transplanckian collisions of particles, strings and branes: what can (have) we learn(ed)? |
| Tuesday, December 3  | Seodong Shin (Indiana University)  | A New Avenue to Charged Higgs Discovery in Multi-Higgs Doublet Models                     |
| Tuesday, November 19 | Sergio Ferrara (UCLA)  | Minimal Models for Supergravity Inflation   |
| Monday, November 18  | Yang Zhang (Niels Bohr Institute)  | Multi-loop unitarity via computational algebraic geometry                                 |
| Tuesday, November 12 | Rakibur Rahman (Université Libre de Bruxelles)   | Gravitational Interactions of Higher-Spin Fermions  |
| Tuesday, October 29  | David Kubiznak (Perimeter Institute)   | Kerr-AdS analogue of triple point and solid/liquid/gas phase transition                   |
| Friday, October 18   | <b>Southern California Strings Seminar</b> hosted at UCSD                                    |   |
| <b>Spring 2013</b>   |  |   |
| <b>Date</b>          | <b>Speaker</b>   | <b>Title</b>  |
| Tuesday, June 4      | Edgar Shaghoulian (Stanford University)  | New CMB signatures of the string landscape  |
| Monday, June 3       | Shunsaku Horiuchi (UC Irvine)  | When will the supernova neutrinos be detected, and what will they tell us?                |
| Friday, May 31       | <b>Southern California Strings Seminar</b>   |   |
| Tuesday, May 21      | Robert Finkelstein (UCLA)  | The Preon Sector of the $SL_q(2)$ (Knot) Model  |
| Tuesday, April 30    | Clifford Cheung (Caltech)  | Prospects and Blind Spots for Neutralino Dark Matter                                      |
| Monday, April 22     | Atri Bhattacharya (Harish-Chandra Research Institute, India)                                 | Ultra-high energy neutrino events at the IceCube and the Glashow resonance                |
| Tuesday, April 16    | Kasper Larsen (Nikhef, The Netherlands)  | From trees to two loops by maximal unitarity  |
| Monday, April 15     | Sheldon Campbell (The Ohio State University, Center for Cosmology and AstroParticle Physics) | Uncovering Properties of Cosmic Dark Matter through Indirect Detection                    |

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| Tuesday, April 9<br><b>Jt. TEP/EEP Seminar</b> | Alexander Friedland (LANL)  | Stellar Particle Physics  |
| Tuesday, April 2                               | Debajyoti Sarkar<br>(City University of New York)                             | Black Hole formation at the<br>Correspondence Point   |
| <b>Winter 2013</b>                             |   |   |
| <b>Date</b>                                    | <b>Speaker</b>  | <b>Title</b>  |
| Tuesday, March 5                               | Wouter Waalewijn (UCSD)   | Correlations in Double Parton<br>Scattering   |
| Tuesday, Feb 26                                | Henrik Johansson (CERN)   | Supergravity from 2 and 3-Algebra<br>Gauge Theory   |
| Tuesday, Feb 12                                | Eduardo Guendelman (Ben-<br>Gurion University of the Negev &<br>Fresno State) | A two measure model of dark energy<br>and dark matter   |
| Tuesday, Jan 29                                | Eugenio Del Nobile (UCLA)   | Generalizing the assumptions behind<br>the usual interpretation of Dark Matter<br>direct searches       |
| Tuesday, Jan 8                                 | Mikhail Shifman (FTPI, University<br>of Minnesota)                            | Non-Abelian Strings in Supersymmetric<br>Yang-Mills   |
| <b>Fall 2012</b>                               |   |   |
| <b>Date</b>                                    | <b>Speaker</b>  | <b>Title</b>  |
| Friday, Dec 13                                 | <b>Southern California Strings<br/>Seminar</b> hosted at USC $\beta$          |   |
| Tuesday, Dec 4                                 | Mihailo Cubrovic (Institute<br>Lorentz, Leiden University)                    | Toward phase diagram of strongly<br>correlated fermions from bottom-up<br>AdS/CFT                       |
| Tuesday, Nov 27                                | Benson Way (UCSB)   | Black Funnels   |
| Tuesday, Nov 20                                | Ji-Haeng Huh (UCLA)   | Complementarity in Direct Detection of<br>Dark Matter   |
| Tuesday, Nov 13                                | Yang Zhang (Neils Bohr Institute)   | Integrand-level reduction of high-loop<br>scattering amplitudes via computational<br>algebraic geometry |
| Tuesday, Nov 6                                 | Michael Gutperle (UCLA)   | Holographic Boundary CFTs   |
| Tuesday, Oct 30                                | Jorge Santos (UCSB)   | Playing with Holographic Lattices   |
| Tuesday, Oct 23                                | Matthew Roberts (New York<br>University)                                      | Entanglement Entropy, Disconnected<br>Boundaries, and Thermo Field Doubling                             |
| Tuesday, Oct 16                                | Alexander Belikov (IAP Paris)   | Indirect detection of dark matter at GeV<br>and TeV scales  |
| Tuesday, Oct 9                                 | Stefan Leichenauer (Caltech)  | Null Geodesics, Local CFT Operators,<br>and AdS/CFT for Subregions                                      |
| <b>Summer 2012</b>                             |   |   |
| <b>Date</b>                                    | <b>Speaker</b>  | <b>Title</b>  |
| Tuesday, July 17                               | Cobi Sonnenschein (Tel Aviv<br>University)                                    | Baryonic popcorn or: holographic<br>nuclear matter and multi-instanton<br>chains and lattices           |
| <b>Spring 2012</b>                             |   |   |
| <b>Date</b>                                    | <b>Speaker</b>  | <b>Title</b>  |
| Monday, June 4                                 | Gerben Stavenga (Fermilab)  | Non-perturbative proton stability   |
| Tuesday, May 29                                | Sander Mooij (Nikhef, The<br>Netherlands)                                     | Sgoldstino inflation  |
| Tuesday, May 22                                | Efunwande Osoba (Harish<br>Chandra Research Institute, India)                 | Recent Developments in Fourth<br>Generation Physics   |
| Tuesday, May 15                                | Sergio Ferrara (UCLA)   | Groups of type E7, degeneration and<br>minimal coupling in Supergravity                                 |
| Monday, May 14                                 | Robert Finkelstein (UCLA)   | A Quantum Group Extension of the<br>Standard Model (continued)  |

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| Tuesday, May 8                                 | Christoph Keller (Caltech)                                  | The ABCDEFG of Instantons and W-algebras   |
| Tuesday, April 24                              | Kelly Stelle (Imperial College London)                      | Supergravity divergences and puzzles   |
| Monday, April 23                               | Harald Fritzsch   | Composite Weak Bosons at the LHC   |
| Tuesday, April 17                              | Bartosz Fornal (Caltech)                                    | Standard model with compactified spatial dimensions  |
| Tuesday, April 10                              | Alexander Kusenko (UCLA)                                    | Cosmic connections: from cosmic rays to gamma rays, to cosmic backgrounds and magnetic fields  |
| Tuesday, April 3<br><b>Jt. TEP/EEP Seminar</b> | Bo Jayatilaka (Duke University)                             | Precision measurement of the W boson mass at CDF   |
| <b>Winter 2012</b>                             |   |  |
| <b>Date</b>                                    | <b>Speaker</b>  | <b>Title</b>   |
| Tuesday, Feb 28                                | Kohta Murase (Ohio State University)                        | Hadronic Emissions from Luminous Cosmic Explosions   |
| Tuesday, Jan 24                                | Pierre van Baal (University of Leiden)                      | Calorons with non-trivial holonomy   |
| Tuesday, Jan 10                                | Andrei Derevianko (University of Nevada-Reno)               | Magic, precise, and electroweak  |
| <b>Fall 2011</b>                               |   |  |
| <b>Date</b>                                    | <b>Speaker</b>  | <b>Title</b>   |
| Tuesday, Nov 29                                | Maria Eugenia Cabrera (IFT, Universidad Autonoma de Madrid) | A Bayesian trek in the search of Supersymmetry and other New Physics at the LHC  |
| Tuesday, Nov 22                                | Tohru Eguchi (Kyoto University)                             | K3 surface and Mathieu Group M24   |
| Monday, Nov 21                                 | Yu-tin Huang (UCLA)   | Amplitudes from M theory   |
| Tuesday, Nov 15                                | Massimo Taronna (Scuola Normale Superiore)                  | Higher-Spin Interactions: three-point functions and beyond   |
| Tuesday, Nov 8                                 | Bartlomej Czech (UBC)                                       | Three perspectives on eternal inflation  |
| Tuesday, Nov 1                                 | Jaewon Song (Caltech)                                       | Renormalization (in)dependence of N=2 SCFT and 4d/2d correspondence  |
| Tuesday, Oct 25                                | Aristomenis Donos (Imperial College)                        | Holographic stripes and helical superconductors  |
| Monday, Oct 24                                 | Herbert Fried (Brown University)                            | A New Analytic Non-Perturbative Gauge Invariant Realistic QCD  |
| Friday, Oct 21                                 | <b>Southern California Strings Seminar</b> hosted at UCLA   |  |
| Tuesday, Oct 11                                | Denis Bashkirov (Caltech)                                   | Exploring symmetries in $N \geq 6$ Superconformal Quantum Field Theories in three dimensions   |
| Monday, Oct 10                                 | John M. Cornwall (UCLA)                                     | Renormalization group invariance in the pinch technique  |
| Tuesday, Oct 4                                 | Johanna Erdmenger (MPI-Munich)                              | New insights into strongly coupled systems from holography: Finite isospin density, imbalanced mixtures, and non-universal shear viscosity |
| Monday, Oct 3                                  | Janet Hung (Perimeter)                                      | Holographic Renyi Entropy  |
| Tuesday, Sept 20                               | Andy O'Bannon (U of Cambridge, UK)                          | On Stability and Transport of Cold Holographic Matter  |
| Tuesday, Sept 6                                | Sergio Ferrara (CERN, UCLA)                                 | Black Holes and Groups of Type E7  |
| <b>Summer 2011</b>                             |   |  |
| <b>Date</b>                                    | <b>Speaker</b>  | <b>Title</b>   |
| Thursday, July 14, 2011                        | Amit Sever (Perimeter Institute)                            | Flux tubes, Integrability and the S-matrix of N=4 SYM  |
| <b>Spring 2011</b>                             |   |  |

| <b>Date</b>                | <b>Speaker</b>   | <b>Title</b>   |
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| Tuesday, May 24, 2011      | Emery Sokatchev (LAPTH, Annecy)                              | Triality scattering amplitudes/correlation functions/Wilson loops                |
| Monday, May 23, 2011       | Alessio Marrani (CERN)                                       | Multi-centered Black Holes and Horizontal Symmetry                               |
| Wednesday, May 18, 2011    | Nicole Bell (University of Melbourne)                        | Indirect Detection of Dark Matter - Electroweak Bremsstrahlung and Other Stories |
| Tuesday, May 17, 2011      | Sergey Cherkis (Trinity College)                             | Super-Yang-Mills with Impurity Walls and Instantons on multi-Taub-NUT            |
| Tuesday, May 10, 2011      | David Skinner (Perimeter)                                    | Correlation Functions, Wilson Loops and Scattering Amplitudes                    |
| Friday, May 6, 2011        | <b>Southern California Strings Seminar</b> hosted at USC     |  |
| Tuesday, May 3, 2011       | Stephan Stieberger (MPI Munich)                              | The harmony of superstring amplitudes: Implications from/to field-theory         |
| Monday, May 2, 2011        | Donald Marolf (UCSB)   | Gauge/Gravity Duality Beyond the Unitarity bound                                 |
| Tuesday, April 19, 2011    | Paul Frampton (UNC)  | Seeking Evolution of Dark Energy   |
| Tuesday, April 12, 2011    | Gil Paz (U Chicago)  | The charge radius of the proton: a 5 sigma discrepancy                           |
| Monday, April 11, 2011     | Sakura Schaefer-Nameki (Kings College)                       | The F-ate of GUTs  |
| Tuesday, March 29, 2011    | Alex Friedland (LANL)  | Collective Oscillations of Supernova Neutrinos                                   |
| <b>Winter 2011</b>         |  |  |
| <b>Date</b>                | <b>Speaker</b>   | <b>Title</b>   |
| Tuesday, March 15, 2011    | CongKao Wen (Brown/KITP)                                     | Twistor String and Grassmannian: Tree Amplitudes in N=4 SYM                      |
| Monday, March 7, 2011      | Anastasios Taliotis (Arizona)                                | Heavy Ion Collisions from Evolving Geometries                                    |
| Tuesday, March 1, 2011     | Jason Evans (IPMU)   | Low-Scale GMSB from Radiative R Symmetry Breaking                                |
| Tuesday, February 22, 2011 | Harold Steinacker (Vienna U.)                                | Branes, N=4 gauge theory and gravity from the IIB matrix model                   |
| Tuesday, February 15, 2011 | Henrik Johansson (CEA-Saclay)                                | Gravity as a Double Copy of Gauge Theory   |
| Monday, February 7, 2011   | Roberto Peccei (UCLA)  | Hierarchical mass matrices and CP Violation                                      |
| Friday, February 4, 2011   | Nima Arkani-Hamed (IAS)                                      | Space-Time, Quantum Mechanics and Scattering Amplitudes                          |
| Monday, January 31, 2011   | Chad Kishimoto (UCLA)  | keV Sterile Neutrinos in Astrophysics: Pulsar Kicks and Dark Matter              |
| Monday, January 24, 2011   | John M. Cornwall (UCLA)                                      | Entropy, Confinement, and Chiral Symmetry Breaking                               |
| Tuesday, January 18, 2011  | Michael Kiermaier (Princeton)                                | Counterterms in N=8 supergravity   |
| Tuesday, January 11, 2011  | Qaisar Shafi (University of Delaware)                        | Inflation, Gravity Waves and Dark Matter   |
| Monday, January 10, 2011   | Felix Aharonian (MPI, Germany/Dublin Inst. For Adv. Studies) | Exploring extreme particle accelerators with X-rays, gamma-rays and neutrinos    |
| Tuesday, January 4, 2011   | Dongsu Bak (Seoul University)                                | Phase Transitions in the U(1) Charged Sector of ABJM Theory                      |
| <b>Fall 2010</b>           |  |  |
| <b>Date</b>                | <b>Speaker</b>   | <b>Title</b>   |

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| Tuesday, December 7, 2010            | Yi-Zen Chu (Arizona State Univ.)                          | Part I: Don't Shake That Solenoid Too Hard: Particle Production from Aharonov-Bohm // Part II: The N-Body Problem in General Relativity from Perturbative (Quantum) Field Theory |
| Tuesday, November 30, 2010           | Keith Copsey (Waterloo Univ.)                             | New Puzzles for AdS/CFT: Bubble Trouble  |
| Monday, November 29, 2010            | Gabriele Veneziano (CERN)                                 | Transplanckian collisions of particles, strings, and branes  |
| Tuesday, November 23, 2010           | Joao Gomes (University of Paris)                          | Exact results in black hole entropy counting   |
| Monday, November 22, 2010            | Chris Fronsdal (UCLA)                                     | Relativistic Thermodynamics  |
| Tuesday, November 16, 2010           | Gianfranco Bertone (CNRS & Univ. of Zurich)               | Identifying Dark Matter Particles  |
| Tuesday, November 9, 2010            | Wen-Yu Wen (National Taiwan University/Caltech)           | Quantum Criticality in Einstein-Maxwell-Dilaton Gravity  |
| Monday, November 8, 2010             | Robert Finkelstein (UCLA)                                 | A Possible SL <sub>q</sub> (2) Substructure of the Standard Model  |
| Tuesday, November 2, 2010            | Pierre Artoisenet (Ohio State Univ.)                      | Automation of the matrix element reweighting method  |
| Tuesday, October 26, 2010            | Oleg Kalashev (Moscow, INR)                               | Propagation of ultrahigh-energy cosmic rays  |
| Tuesday, October 19, 2010            | Sergio Ferrara (CERN & UCLA)                              | Matrix Norms, BPS Bounds and Marginal Stability in N=8 Supergravity  |
| Monday, October 18, 2010             | Antoine Calvez (UCLA)                                     | Galactic Sources, Magnetic Fields and the Energy-Dependent composition of UHECRs   |
| Friday, October 15, 2010             | Yannick Meurice (University of Iowa)                      | Renormalization Group flows in the complex coupling plane: a new perspective on mass gaps and color confinement  |
| Tuesday, October 12, 2010            | Noppadol Mekareeya (Imperial College)                     | Chiral Operators on Hypermultiplet Moduli Spaces   |
| Monday, October 11, 2010             | Kumiko Kotera (Univ. of Chicago)                          | A quest for sources of ultrahigh energy cosmic rays  |
| Tuesday, October 5, 2010             | Oliver Schlotterer (Munich)                               | Gauge multiplet tree amplitudes in pure spinor superspace  |
| Monday, October 4, 2010              | Shimon Rubin (Ben-Gurion Univ.)                           | Non-closed Universe and Zero Cosmological Constant from Normalized General Relativity  |
| Friday-Saturday, October 1 – 2, 2010 | <b>Southern California Strings Seminar</b> hosted at UCLA |  |
| Tuesday, September 28, 2010          | William Rubens (Imperial College)                         | The Black Hole/Qubit Correspondence  |
| <b>Spring 2010</b>                   |   |  |
| <b>Date</b>                          | <b>Speaker</b>  | <b>Title</b>   |
| Tuesday, June 1, 2010                | Devin Walker (Berkeley)                                   | Distinguishing Different Types of Dark Matter at the LHC.  |
| Tuesday, May 25, 2010                | Nikolay Bobev (USC)                                       | Charged Clouds in Gauged Supergravity  |
| Monday, May 24, 2010                 | Philip Argyres (Cincinnati)                               | Mass Deformations of Rank-1 Superconformal Field Theories  |
| Tuesday, May 18, 2010                | Steve Carlip (UC Davis)                                   | Spontaneous Dimensional Reduction in Short-Distance Quantum Gravity?   |
| Monday, May 17, 2010                 | Plijin Yi (KIAS)  | Holographic Baryons  |
| Tuesday, May 4, 2010                 | Janet Hung (Perimeter)                                    | 1+1 d holographic quantum liquids  |
| Tuesday, April 27, 2010              | Itamar Yaakov (Caltech)                                   | Exact Results for Wilson Loops in Superconformal Chern-Simons Theories with Matter   |
| Monday, April 19, 2010               | Yu-tin Huang (UCLA)                                       | Superconformal scattering amplitudes in 3 and 6D   |



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| Monday, April 5, 2010       | John M. Cornwall (UCLA)                      | Positivity Issues in QCD   |
| Winter 2010                 |  |  |
| Monday, March 15, 2010      | Warren Essey (UCLA)                          | Cosmic Ray Astronomy with Secondary Gamma Rays and Neutrinos                               |
| Tuesday, March 9, 2010      | Clifford Cheung (Berkeley)                   | Goldstini  |
| Tuesday, March 2, 2010      | Diego Trancanelli (UCSB)                     | A supermatrix model for AdS <sub>4</sub> /CFT <sub>3</sub>                                 |
| Tuesday, February 23, 2010  | Shigehiro Nagataki (YITP)                    | Numerical High-Energy Astrophysics   |
| Monday, February 22, 2010   | Yael Shadmi (Technion/UCI)                   | Flavor at the LHC  |
| Tuesday, February 16, 2010  | Moira Gresham (CalTech)                      | Primordial Power Spectra from Anisotropic Inflation  |
| Tuesday, February 9, 2010   | Masahito Yamazaki (IPMU University of Tokyo) | Crystal Melting and Wall Crossing Phenomena  |
| Tuesday, February 2, 2010   | Arthur Lipstein (CalTech)                    | One-Loop Corrections in AdS <sub>4</sub> x CP <sup>3</sup>                                 |
| Monday, January 25, 2010    | Shamit Kachru (KITP)                         | New Horizons in AdS/CFT  |
| Tuesday, January 12, 2010   | Joe Polchinski (KITP)                        | Semi-holographic Fermi Liquids   |
| Monday, January 11, 2010    | Jerome Gauntlet (Imperial College)           | Holographic Superconductivity in M-Theory  |
| Tuesday, January 5, 2010    | Ido Ben-Dayan (Ben-Gurion Univ.)             | Small Field Models of Inflation  |
| <b>Fall 2009</b>            |  |  |
| <b>Date</b>                 | <b>Speaker</b>                               | <b>Title</b>   |
| Tuesday, December 1, 2009   | Ido Adam (MPI Potsdam)                       | On Integrable Backgrounds Self-dual under Fermionic T-duality.                             |
| Tuesday, November 24, 2009  | Tameem Albash (USC)                          | Phenomenological AdS/CFT: Applications to Superconductors                                  |
| Tuesday, November 17, 2009  | Kristan Jensen (UW, Seattle)                 | Mirror Symmetry and M2 branes  |
| Tuesday, November 10, 2009  | Daniel Grin (CalTech)                        | Two cosmological aspects of ~eV scale physics.   |
| Monday, November 9, 2009    | Christoph Sieg (Niels-Bohr Institut)         | Perturbative spectra in gauge theories with gravity duals at four loops and beyond.        |
| Tuesday, November 3, 2009   | Guiseppe Dito (Universite de Bourgogne)      | Asymptotic QED and Representation Theory   |
| Monday, November 2, 2009    | Yu-tin Huang (UCLA)                          | Superspaces for maximal super Yang-Mills in four and six dimensions.                       |
| Tuesday, October 27, 2009   | Johannes Broedel (MPI Berlin)                | Constraints from E <sub>7</sub> on the R <sup>4</sup> counterterm in maximal supergravity? |
| Monday, October 26, 2009    | Brian Shieh (Perimeter)                      | Holographic effective theories for condensed matter physics.                               |
| Monday, October 19, 2009    | John Joseph M. Carrasco (UCLA)               | Relations between gravity and gauge theory amplitudes, and their multiloop applications.   |
| Tuesday, October 13, 2009   | Omid Saremi (McGill University, Montreal)    | Hydrodynamic Long-time Tails from AdS/CFT  |
| Tuesday, October 6, 2009    | Mu-Chun Chen (UC Irvine)                     | Geometrical Origin of CP Violation   |
| Monday, October 5, 2009     | Martin Ammon (MPI Munich)                    | Transport coefficients and Holographic (Super-)fluids in the D3/D7 model                   |
| Tuesday, September 22, 2009 | Ivo Sachs (Munich)                           | On a consistent chiral gravity in 2+1 dimensions.  |
| <b>Spring 2009</b>          |  |  |
| <b>Date</b>                 | <b>Speaker</b>                               | <b>Title</b>   |
| Tuesday, June 2, 2009       | Henrik Johansson (UCLA)                      | The Ultraviolet Behavior of N = 8 Supergravity at Four Loops and Beyond                    |
| Monday, June 1, 2009        | Sandor Katz (Eotvos Lorand University)       | Recent lattice results on the QCD phase diagram  |
| Tuesday, May 26, 2009       | Bob Finkelstein (UCLA)                       | SL <sub>q</sub> (2), Knots, and Preons   |
| Tuesday, May 19, 2009       | Emery Sokatchev (Savoie)                     | Dual Superconformal Symmetry of Scattering Amplitudes in N=4 Super-Yang-Mills              |

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|-----------------------------|---|---|
| Monday, May 18, 2009        | Aneesh Manohar (UCSD)                                 | Electroweak Radiative Corrections at LHC Energies.  |
| Tuesday, April 21, 2009     | Mike Cornwall (UCLA)                                  | The running charge and the gluon mass   |
| Tuesday, April 14, 2009     | Matthew Johnson (CalTech)                             | Dynamical compactification from higher dimensional de Sitter space  |
| Tuesday, April 7, 2009      | Mark Wise (CalTech)                                   | The Lee-Wick Standard Model   |
| Tuesday, March 31, 2009     | David Berenstein (Santa Barbara)                      | Aspects of strongly coupled SCFT's  |
| Winter 2009                 |   |   |
| Monday, March 16, 2009      | Steven Avery (Ohio State)                             | The Vertex Operator for Emission out of AdS <sub>3</sub>  |
| Tuesday, March 10, 2009     | Don Marolf (Santa Barbara)                            | Unitarity and Holography in Gravitational Physics   |
| Monday, March 9, 2009       | Fabio Siringo (University of Catania)                 | The Gaussian Effective Potential Revisited: a Non-Perturbative Approach to the SM Higgs Sector and Beyond                                   |
| Tuesday, March 3, 2009      | Leonidas Moustakas (JPL)                              | Constraining the nature of dark matter through strong gravitational lensing   |
| Monday, March 2, 2009       | Geoffrey Mills (Los Alamos)                           | Nus and Anti-Nus from MiniBooNE   |
| Tuesday, February 24, 2009  | Tony Zee (KITP)                                       | Galactic communication using neutrinos  |
| Tuesday, February 17, 2009  | Joseph Marsano (Caltech)                              | Supersymmetry Breaking in F-Theory GUTs   |
| Tuesday, February 10, 2009  | Anupam Mazumdar (Lancaster U. / Niels Bohr Institute) | Inflation, past, present and future   |
| Monday, January 26, 2009    | Masahito Yamazaki (University of Tokyo)               | Crystal Melting and Toric Calabi-Yau Manifolds  |
| Tuesday, January 13, 2009   | Gary Horowitz (Santa Barbara)                         | Holographic Superconductors   |
| Monday, January 12, 2009    | Chris Fronsdal (UCLA)                                 | Heat and Gravitation  |
| <b>Fall 2008</b>            |   |   |
| <b>Date</b>                 | <b>Speaker</b>  | <b>Title</b>  |
| Tuesday, December 2, 2008   | John H. Schwarz (Caltech)                             | Superconformal Chern--Simons Theories   |
| Tuesday, November 18, 2008  | Christopher Lee (Berkeley)                            | Probing the Structure of Jets: Factorization and Resummation of Event Shape Distributions   |
| Tuesday, November 11, 2008  | Diego Rodriguez-Gomez (Princeton)                     | Towards M2 branes probing generic toric singularities   |
| Monday, November 10, 2008   | Matthias Wapler (Perimeter Institute)                 | Applied String Theory: Transport properties of holographic defects  |
| Monday, October 20, 2008    | Arnab Kundu (USC)                                     | External Fields and the Dynamics of Flavours in Holographic Duals of Large N Gauge Theories   |
| Tuesday, October 14, 2008   | Konstantin Bobkov (SLAC)                              | TeV Scale Physics from G2 Compactifications of M-theory   |
| Monday, September 29, 2008  | Bartek Czech (UPenn)                                  | Statistics of Black Hole Microstates  |
| Tuesday, September 23, 2008 | Johan Alwall (SLAC)                                   | First characterization of excesses at the LHC   |
| Monday, September 15, 2008  | Rene Meyer (Max Planck Institute)                     | Two Uses of Kalb-Ramond fields in AdS/CFT with Flavour  |
| <b>Spring 2008</b>          |   |   |
| <b>Date</b>                 | <b>Speaker</b>  | <b>Title</b>  |
| Monday, June 9, 2008        | Aalok Misra (ICTP)                                    | dS Minimum Without Anti-D3 Branes, Large Volume Axionic Inflation, (Non-Supersymmetric Black Hole Attractors and Swiss-Cheese Calabi Yau's) |
| Tuesday, June 3, 2008       | Esko Keski-Vakkuri (Helsinki)                         | N-point functions in rolling tachyon background   |
| Monday, June 2, 2008        | Alexei Bazavov (Arizona)                              | Static Quark Correlators in SU(2) Gauge Theory at Finite Temperature  |
| Tuesday, May 27, 2008       | Sven-Olaf Moch (DESY)                                 | Expectations at LHC from hard QCD   |

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| Tuesday, May 20, 2008        | Barak Bringoltz (Washington)                               | Large-N volume reduction in Lattice gauge theory   |
| Monday, May 19, 2008         | Norihiro Iizuka (KITP)                                     | A Matrix Model for Black Hole Thermalization   |
| Tuesday, May 13, 2008        | Alexander Velytsky (Chicago)                               | Entanglement entropy in d+1 SU(N) gauge theory   |
| Monday, May 12, 2008         | Serguey Petcov (SISSA)                                     | Neutrino Mixing, Dirac and Majorana Leptonic CP-Violation and Leptogenesis                       |
| Monday, May 5, 2008          | Bob Finkelstein (UCLA)                                     | Extension of the SL <sub>q</sub> (2) Knot Model Beyond Electroweak.                              |
| Tuesday, April 29, 2008      | Matthew Schwartz (Johns Hopkins)                           | The World's Best Extraction of $\alpha_s$ from LEP Data and Some Collider Physics Implications   |
| Monday, April 28, 2008       | Gouranga C Nayak (University of Illinois)                  | Shift Theorem and Schwinger Mechanism in the Presence of Arbitrary Time Dependent Electric Field |
| Tuesday, April 22, 2008      | Hiroataka Sugawara (Japanese Society Promotion of Science) | Space- Time Duality and Vacuum Energy  |
| Monday, April 21, 2008       | Michael Czakon (Wuerzburg)                                 | Top Quarks at the LHC  |
| Monday, April 14, 2008       | Radovan Dermisek (IAS)                                     | Natural Electroweak Symmetry Breaking, LEP puzzle and a light Higgs at Bfactories                |
| Tuesday, April 8, 2008       | Rouzbeh Allahverdi (New Mexico)                            | MSSM inflation, WMAP and LHC   |
| Monday, April 7, 2008        | Sergei Dubovsky (Harvard)                                  | The Accelerating Universe: Landscape or Modified Gravity?  |
| Monday, March 31, 2008       | Michele Papucci (IAS)                                      | TBA  |
| <b>Winter 2008</b>           |  |  |
| <b>Date</b>                  | <b>Speaker</b>   | <b>Title</b>   |
| Thursday, March 13, 2008     | Philip Mannheim (Connecticut)                              | Conformal Gravity Challenges String Theory   |
| Tuesday, March 11, 2008      | Chris Fronsdal (UCLA)                                      | An Action Principle for Thermodynamics: Heat and Gravity   |
| Monday, March 10, 2008       | Kostas Skenderis (Amsterdam)                               | The fuzzball proposal for black holes  |
| Tuesday, March 4, 2008       | Sean Carroll (Caltech)                                     | Rehabilitating the Aether  |
| Monday, March 3, 2008        | Larry Yaffe (University of Washington)                     | Heavy quark dynamics in strongly coupled non-Abelian plasma                                      |
| Wednesday, February 27, 2008 | Herb Fried (Brown)   | Analytic, Non-Perturbative, Almost Exact QED (Note special day, time)                            |
| Tuesday, February 26, 2008   | Richard Hill (Fermilab)                                    | The anomalous baryon current and neutrino-photon interactions in the Standard Model              |
| Monday, February 25, 2008    | Osamu Seto (Madrid)  | Right-handed sneutrino dark matter in an extended MSSM   |
| Tuesday, February 19, 2008   | Terry Tomboulis (UCLA)                                     | From short to long scales and confinement in non-abelian gauge theory                            |
| Wednesday, February 13, 2008 | Dan Freedman (MIT)   | Fun with Tree Amplitudes: N=4 and N=8  |
| Tuesday, February 12, 2008   | Diego Trancanelli (Santa Barbara)                          | On supersymmetric Wilson loops   |
| Monday, February 11, 2008    | Sean Hartnoll (KITP)                                       | Tabletop AdS/CFT: From Black Holes to Superconductors  |
| Tuesday, January 29, 2008    | Juan Garcia-Bellido (Madrid)                               | Signatures from reheating after inflation: gravitational waves and primordial magnetic fields    |
| Monday, January 28, 2008     | Mikhail Voloshin (Minnesota)                               | Unusual peaks near the open charm threshold  |
| Tuesday, January 22, 2008    | Christof Wetterich (Heidelberg)                            | Dark energy with growing neutrino mass   |
| Friday, January 11, 2008     | Mikhail Shifman (Minnesota)                                | Non-Abelian Strings in Supersymmetric QCD  |

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| Monday, January 7, 2008     | Fernando Febres Cordero (UCLA)         | Weak Boson Production Associated to Heavy Quark Jet Pairs at Hadron Colliders                |
| <b>Fall 2007</b>            |  |  |
| <b>Date</b>                 | <b>Speaker</b>                         | <b>Title</b>   |
| Tuesday, December 4, 2007   | Jason Kumar (Irvine)                   | Intersecting Brane Models and Phenomenology  |
| Monday, December 3, 2007    | Gabriele Veneziano (CERN)              | Transplanckian Superstring Collisions II: Towards a Quantum Description of Critical Collapse |
| Tuesday, November 27, 2007  | Dan Boyanovsky (Pittsburgh)            | Dynamics of sterile neutrinos: WDM candidates?   |
| Monday, November 19, 2007   | Oscar Varela (Imperial)                | AdS spacetimes and Kaluza-Klein consistency  |
| Thursday, November 15, 2007 | Niklas Beisert (Max-Planck-Institut)   | The World-Sheet S-Matrix of Planar N=4 Gauge Theory  |
| Tuesday, November 13, 2007  | Gabriele Veneziano (CERN)              | Transplanckian Superstring Collisions I: Generalized Eikonal and String-size Effects         |
| Tuesday, November 6, 2007   | Finn Larsen (Michigan)                 | Resolution of Gravitational Singularities  |
| Monday, November 5, 2007    | Umut Gursoy (Ecole Polytechnique)      | Exploring holographic approaches to QCD  |
| Tuesday, October 30, 2007   | Andy O'Bannon (Washington)             | Metallic AdS/CFT   |
| Tuesday, October 23, 2007   | Vasilis Niarchos (Ecole Polytechnique) | The Many Phases of Higher Dimensional Black Holes  |
| Monday, October 22, 2007    | Sergio Ferrara (CERN and UCLA)         | Non-BPS Attractors in Diverse Dimensions   |
| Tuesday, October 16, 2007   | Eric D'Hoker (UCLA)                    | Exact half-BPS solutions to Type IIB supergravity  |
| Monday, October 15, 2007    | Mu-Chun Chen (Irvine)                  | Tri-bimaximal Neutrino Mixing and Quark CKM Matrix from Finite Group (d)T                    |
| Monday, October 8, 2007     | Veselin Filev (USC)                    | Large N gauge theory with quarks in an external magnetic field                               |
| Monday, October 1, 2007     | Richard Lebed (ASU)                    | Baryons and large Nc in happy resonance  |
| <b>Spring 2007</b>          |  |  |
| <b>Date</b>                 | <b>Speaker</b>                         | <b>Title</b>   |
| Monday, June 4, 2007        | Don Marolf (UCSB)                      | A global view of quantum de Sitter space   |
| Wednesday, May 30, 2007     | L Fernando Alday (Utrecht)             | Gluon scattering amplitudes at strong coupling   |
| Tuesday, May 29, 2007       | Norihiro Iizuka (KITP)                 | Attractors and Spinning strings  |
| Tuesday, May 22, 2007       | Sergio Ferrara (UCLA)                  | N=2,1 SUGRA Black-Hole attractors: Magic models and pure spinors                             |
| Thursday, May 17, 2007      | Michael Graesser (Rutgers U.)          | Conformal field theories and mush at the LHC   |
| Tuesday, May 15, 2007       | Kirill Melnikov (Hawaii)               | Physics at the LHC: from Standard Model to new discoveries                                   |
| Monday, May 14, 2007        | Michael Ramsey-Musolf (Caltech)        | Baryogenesis, electric dipole moments and singlet Higgs phenomenology                        |
| Tuesday, May 8, 2007        | Sergio Palomares (Durham)              | Redshift-integrated resonance dips in the cosmic neutrino spectrum                           |
| Tuesday, April 24, 2007     | Emery Sokatchev ( )                    | Twistors, Harmonics, and Off-Shell Supersymmetry   |
| Monday, April 23, 2007      | Oliver Rosten ( )                      | Invariants of the Generalized Polchinski Equation  |
| Tuesday, April 17, 2007     | Chris Dawson (Riken-BNL)               | The Kaon B-parameter from lattice QCD  |

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| Tuesday, April 10, 2007      | Ruth Britto (Amsterdam U.)             | Constructing QCD scattering amplitudes   |
| Monday, April 9, 2007        | Robert Finkelstein (UCLA)              | The quantum groups and standard electroweak (A field theory of knotted solitons)     |
| Tuesday, April 3, 2007       | Bo Feng (Imperial College)             | Unitarity reduction for one-loop amplitudes  |
| Monday, April 2, 2007        | Ian Low (UCI)                          | Probing new physics with the Higgs boson at the LHC                                  |
| Winter 2007                  |  |  |
| Tuesday, March 20, 2007      | Reinhold Ruckl (Wurzburg U.)           | Lepton flavor violation, leptogenesis and collider searches                          |
| Wednesday, March 14, 2007    | Kirill Melnikov (Hawaii)               | Perturbative QCD for hadron collider physics   |
| Tuesday, March 13, 2007      | Harald Fritzsch (Munich)               | Fundamental constants in physics and their time dependence                           |
| Monday, March 12, 2007       | Jos Edelstein (Santiago de Compostela) | A string dual perspective on quark-gluon plasmas of QCD-like theories                |
| Tuesday, March 6, 2007       | York Schroder (Bielefeld U.)           | Frontiers in perturbative quantum field theory                                       |
| Tuesday, February 27, 2007   | James Osborn (Boston U.)               | Localization transition in QCD at nonzero temperature                                |
| Wednesday, February 21, 2007 | Ruikiro Kitano (SLAC)                  | A new model of Higgs bosons  |
| Tuesday, February 20, 2007   | Alexey Smirnov (ICTP)                  | Neutrino oscillograms of the Earth   |
| Tuesday, February 13, 2007   | Stan Brodsky (SLAC)                    | Optimal renormalization scale and schemes for QCD                                    |
| Monday, February 12, 2007    | Kazuhiro Tobe (MSU)                    | Light MSSM Higgs boson scenario and its test at hadron colliders                     |
| Tuesday, January 30, 2007    | Herrman Nicolai ( )                    | E10: Searching for a fundamental symmetry  |
| Tuesday, January 23, 2007    | Michael Graesser (Rutgers)             | Right-handed neutrinos and Higgs boson decay   |
| Monday, January 22, 2007     | Mike Cornwall (UCLA)                   | A Conjecture on the QCD Wave Functional  |
| Tuesday, January 16, 2007    | Carola Berger (SLAC)                   | Boostrapping one-loop amplitudes (needles and large haystacks)                       |
| <b>Fall 2006</b>             |  |  |
| <b>Date</b>                  | <b>Speaker</b>                         | <b>Title</b>   |
| Tuesday, December 5, 2006    | Wu-yen Chuang (Stanford)               | Mirror symmetry and topological twisted model in generalized geometry                |
| Monday, December 4, 2006     | Christel Smith (UCSD)                  | Big-bang nucleosynthesis and sterile neutrinos                                       |
| Tuesday, November 28, 2006   | Minxin Huang (University of Wisconsin) | Topological strings on compact Calabi-Yau spaces: modularity and boundary conditions |
| Monday, November 27, 2006    | Federico Urban (University of Ferrara) | Baryogenesis below the TeV scale   |
| Tuesday, November 21, 2006   | Vishnu Jejjala (Durham)                | Geometry of N=1 Vacua  |
| Monday, November 20, 2006    | Ina Sarcevic (Arizona)                 | Probing the Origin of Neutrino Mass and Neutrino Properties with Supernova Neutrinos |
| Tuesday, November 14, 2006   | Piyush Kumar (University of Michigan)  | LHC String Phenomenology   |
| Monday, November 6, 2006     | Ivan Kostov (Saclay)                   | Long strings and chiral non-singlets in Matrix Quantum Mechanics                     |
| Tuesday, October 31, 2006    | Darren Forde (UCLA)                    | On-shell recurrence relations and all multiplicity amplitudes in QCD                 |
| Monday, October 30, 2006     | Ivo Sachs (Munich)                     | Open-closed string correspondence and D-brane decay in curved space                  |

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| Tuesday, October 17, 2006  | Yutaka Ookouchi (Caltech) | Meta-stable SUSY breaking vacua in geometrically realized gauge theories |
| Tuesday, October 10, 2006  | Carlos E Yaguna (UCLA)    | Relaxing the dark matter constraint on supersymmetric models             |
| Monday, October 9, 2006    | Mathias Gaberdiel (ETH)   | D-branes and matrix factorisations                                       |
| Tuesday, October 3, 2006   | Aninda Sinha (Cambridge)  | Small black holes in string theory                                       |
| Monday, October 2, 2006    | Sergei Winitzki ( )       | Quantum cosmology and the conditions at birth of the universe            |
| Monday, September 25, 2006 | Alexander Velytsky (UCLA) | Deconfinement transition dynamics and thermalization in QGP              |