

Agenda

Note: The order of talks within parallel sessions is at the discretion of the session chair and subject to change.

Parallel talks are 13 minutes + 2 minutes for Q&A, unless otherwise noted in the program or by the session chair.

8 December 2013 (Sunday): The Fairmont Hotel

3:00pm	REGISTRATION OPENS (REGENCY BALLROOM FOYER)
6:00pm	WELCOME RECEPTION (INTERNATIONAL BALLROOM)

9 December 2013 (Monday): The Fairmont Hotel

7:00am	REGISTRATION OPENS (REGENCY BALLROOM FOYER)
8:30-9:00am	OPENING CEREMONIES (REGENCY BALLROOM)
8:30am	Welcome Remarks Provost and Executive Vice President B. Hobson Wildenthal (Univ. of Texas at Dallas) Local Organizing Committee Co-Chairs Wolfgang Rindler (UT Dallas) and Mustapha Ishak (UT Dallas)
9:00am	Plenary Presentation I Session Chair: R. Penrose Joseph Taylor (<i>Princeton University</i>) Gravitational Waves, Neutron Stars, and Binary Pulsars
9:45am	Plenary Presentation II Session Chair: R. Penrose Paul Steinhardt (<i>Princeton University</i>) The Very Early Universe
10:30am	COFFEE BREAK
11:00am-12:30pm	Parallel Session I
Early Universe I Session Chair: A. Ashtekar <i>Gold Room</i>	Roger Penrose [review - 30 minutes] Signals from Before the Big Bang? Recent Results from WMAP and Planck Anna Ijjas

	<p>Scale-free primordial cosmology Daniel Sudarsky The inflationary Origin of the Seeds of Cosmic Structure: The Need for Novel Physics and the Possible Gravitation-Quantum Theory Connection Rudnei Ramos Consistency of Warm Inflation Models and Constraints from Planck Sanjeev Seahra Primordial Fluctuations from Deformed Heisenberg Algebras</p>
<p>Testing Gravity I Session Chair: J. Dossett <i>Parisian Room</i></p>	<p>Adam Solomon Inflationary Instabilities of Einstein-Aether Cosmology Jason Dossett Dark Energy Perturbations and Robust Cosmological Tests of General Relativity Jeremy Sakstein Astrophysical Tests of Gravity Jorge Cervantes-Cota Testing Modified Gravity at Large Distances with Rotation Curves Sergio Mendoza Gravitational Lensing with $f(\chi) = \chi^{3/2}$ Gravity Tsz Yan Lam Testing Gravity with the Stacked Phase Space around Galaxy Clusters</p>
<p>High Energy Astrophysics - Galactic Session Chair: L. Macri <i>Oak Room</i></p>	<p>Diane Fernandez Observation of Two Young Supernova Remnants with H.E.S.S. Dmitry Chernyshov Comparison of the Acceleration Mechanisms in Fermi Bubbles Guillaume Dubus Modeling the Puzzling Emission of Gamma-ray Binaries Jeffrey Grube Highlights of Galactic Observations with VERITAS Kerstin Perez High-energy X-ray Emission of the Galactic Center with NuSTAR Kumar Rahul</p>

<p>Supermassive Black Holes Session Chair: A. Wang <i>Continental Room</i></p>	<p>The Isotropy Problem of TeV Band Cosmic Rays</p> <p>Aleksey Generozov Lyman edges in supermassive black hole binaries</p> <p>Gregory Shields A Captured Runaway Black Hole in NGC 1277?</p> <p>Michael Eracleous Searching for Close, Supermassive Binary Black Holes</p> <p>Yue Shen Constraining Sub-parsec Binary Supermassive Black Holes in Quasars with Multi-epoch Spectroscopy</p> <p>Zoltan Haiman Rapid Formation of $\sim 10^6 M_{\odot}$ Seed Black Holes in High-Redshift Halos</p>
<p>Nuclear EOS for Compact Objects I Session Chair: A. McIntosh <i>Far East Room</i></p>	<p>Andre da Silva Schneider Nuclear Pasta Properties from Molecular Dynamics Simulations</p> <p>Baojun Cai Constraining the Skewness Parameter of Symmetric Nuclear Matter in Nonlinear Relativistic Mean Field Model</p> <p>Joseph Natowitz Probing The Nuclear Equation OF State at Low Density Using Near Fermi-Energy Heavy Ion Collisions</p> <p>Toshiki Maruyama Mean-field Approach to the Structure and Properties of Neutron Star Matter</p> <p>W. Udo Schroeder Stability of Finite Nuclei and the Nuclear EOS</p> <p>Yvonne Leifels Probing High-Density EOS of Neutron-Rich Matter with Relativistic Heavy-Ion Collisions</p>
<p>Pulsars Session Chair: V. Kaspi <i>Royal Room</i></p>	<p>Scott Ransom A Millisecond Pulsar in a Stellar Triple System</p> <p>Alessandro Patruno PSR J1023+0038: The Exceptional Behavior of the Missing Link Binary Pulsar</p> <p>Tod Strohmayer A Non-radial Oscillation Mode in an Accreting Millisecond Pulsar?</p> <p>Tyrel Johnson</p>

	<p>The Fermi Large Area Telescope View of Gamma-ray Pulsars Luigi Tibaldo PSR J2021+4026 in the Gamma Cygni Region: The First Variable Gamma-ray Pulsar Seen by the Fermi Large Area Telescope</p>
<p>Submillimeter Cosmology Session Chair: D. Clements <i>Regency Ballroom</i></p>	<p>Andrew Blain The Redshift Distribution of Submillimeter-selected Galaxies David Clements Distant Galaxy Clusters Uncovered by Herschel & Planck Paolo Serra Constraints on the Cosmic Star Formation History from Planck Cosmic Infrared Background Anisotropies Rachael Livermore Galaxies Under the Cosmic Microscope</p>
12:30pm	LUNCH BREAK
2:00pm	<p>Plenary Presentation III Session Chair: R. Wagoner Steven Weinberg (<i>University of Texas at Austin</i>) The Higgs Boson and Cosmology</p>
2:40pm	<p>Plenary Presentation IV Session Chair: R. Wagoner Virginia Trimble (<i>University of California – Irvine and LCOGT</i>) Looking Backward, Forward, And Sideways From Dallas, 1963</p>
3:30pm	<p>Plenary Presentation V Session Chair: R. Wagoner</p>
4:00pm	COFFEE BREAK
4:30-6:00pm	Parallel Session II
<p>Higgs Boson: A Roadmap for Astrophysicists Session Chair: F. Olness <i>Gold Room</i></p>	<p>Joseph Izen Discovery: How a Higgs is Produced, Detected, and Dissected at the LHC Chris Jackson Connecting the Dots: The Path from the Higgs Boson to the Dark Sector</p>

	<p>Darien Wood One is a Lonely Number: LHC Searches for Higgs Families, Deviant (Non-SM) Higgs, and Dark-Sector Higgs</p>
<p>Magnetars Session Chair: M. Baring <i>Parisian Room</i></p>	<p>Victoria Kaspi [review – 20 minutes] Magnetars: An Observational Overview</p> <p>Andrea Tiengo A Unique X-ray Line Unveils a Strong Magnetic Field in the Low Field Magnetar SGR 0418+5729</p> <p>Zorawar Wadiasingh Hard X-ray Emission by Resonant Compton Upscattering in Magnetars</p> <p>Simin Mahmoodifar A New Crystalline Phase in Magnetar Crusts</p> <p>Wei Wang Understanding Isolated And Accreting Magnetars In Hard X-rays</p>
<p>Gravitational Waves Session Chair: N. Cornish <i>Oak Room</i></p>	<p>Alex Nielsen Aligned Spinning Search</p> <p>Alexandros Gianninas The Link Between Underluminous Supernovae Explosions, Gravitational Waves and Extremely Low Mass White Dwarfs</p> <p>Eliu Huerta Self-forced Evolutions for Intermediate Mass Ratio Inspirals</p> <p>Keith Riles Recent Searches for Periodic Continuous Gravitational Waves with the LIGO and Virgo Detectors</p> <p>Neil Cornish Gravitational Waves Tests of General Relativity</p> <p>Richard O'Shaughnessy A Single-spin Precessing Gravitational Wave in Closed Form</p> <p>Soumya Mohanty Meeting the Detection and Estimation Challenge of Un-modeled Narrowband Transient Gravitational Wave Signals</p>
<p>Galaxies & Clusters Session Chair: L. King</p>	<p>Paul Shapiro [review – 20 minutes] Simulating Cosmic Reionization and Its Observable Consequences</p>

<p><i>Continental Room</i></p>	<p>Alexander Kaurov Effect of Lyman Limit Systems and Local Clumping Factor on the History of Cosmic Reionization</p> <p>Francois Hammer Formation of the Hubble Sequence During the Last 8 Gyr</p> <p>Hao-Yi Wu Probing Growth of Cosmic Structure Using Galaxy Dynamics: A Converging Picture of Velocity Bias</p> <p>Jacob White Gemini Multi-Object Spectroscopy of Bullet-Type Cluster Cluster Abell 2146</p> <p>Nick Kaiser Measuring Gravitational Redshifts in Galaxy Clusters</p> <p>Rodney Delgado-Serrano The Observed Hubble Sequence 6 Gyr Ago: Implications in Galaxy Evolution and Mergers Simulations</p>
<p>Shock Acceleration Session Chair: D. Ellison <i>Far East Room</i></p>	<p>Alexander Philippov Particle Acceleration in Collisions of Strong Alfvén Waves</p> <p>Atul Chhotray Monte Carlo Simulations of Radiative Processes in Photon-Lepton Plasmas</p> <p>Don Ellison Monte Carlo Simulations of Diffusive Particle Acceleration in Relativistic Shocks</p> <p>Donald Warren Monte Carlo Simulations of Cosmic Ray Acceleration in Early GRB Afterglows</p> <p>Joseph Barchas Electrostatic Considerations in Shock Acceleration</p> <p>Nozomu Tominaga Development of a Multidimensional Relativistic Radiative Transfer Code</p> <p>Yves Gallant 100-TeV Gamma-ray Halos as Signatures of Short-lived Galactic PeVatrons</p>
<p>Modified Gravity I Session Chair: M. Ishak <i>Royal Room</i></p>	<p>Adrian Lupu Cosmology, The General Theory of Relativity and G-conjugated Models</p> <p>Anzhong Wang Post-Newtonian Approximations in the General Covariant Theory of Horava-Lifshitz Gravity</p> <p>Emmanuel Saridakis</p>

	<p>f(T) Gravity and Cosmology Muhammad Sharif Dynamics of Bianchi Type Scalar-Tensor Cosmology Qiang Wu Effects of Parity Violation on Polarization and Non-Gaussianity of Primordial Gravitational Waves in Horava-Lifshitz Gravity Satheeshkumar VH Gravitational Collapse in Horava-Lifshitz Theory Xinwen Wang Lifshitz Spacetimes in the Horava-Lifshitz Theory in 2+1 Dimensions</p>
<p>Dark Matter I Session Chair: S. Majumdar <i>Regency Ballroom</i></p>	<p>Katherine Freese [review – 30 minutes] Searches for Dark Matter in the Universe: A Review Cosmin Ilie Dark Stars and Their Detectability Tanja Rindler-Daller Supermassive Dark Stars and Their Primordial Environment Ken'ichi Saikawa Evolution of Dark Matter Axions in the Condensed Regime</p>

10 December 2013 (Tuesday): The Fairmont Hotel

8:00am	REGISTRATION OPENS (REGENCY BALLROOM FOYER)
9:00am	Plenary Presentation VI Session Chair: C. Hogan David Spergel (<i>Princeton University</i>) Cosmology After Planck
9:45am	Plenary Presentation VII Session Chair: C. Hogan Charles Horowitz (<i>Indiana University</i>) Review on Nuclear Equation of State for Compact Objects
10:30am	COFFEE BREAK

<p>11:00am-12:30pm Parallel Session III</p>	
<p>Early Universe II Session Chair: X. Chen <i>Gold Room</i></p>	<p>Ryo Namba Gauge-flation Confronted with CMB Observations Takeshi Kobayashi Large Tensor-to-Scalar Ratio in Small-Field Inflation Tao Zhu Inflationary Cosmology with Nonlinear Dispersion Relations</p>
<p>Modified Gravity II Session Chair: L. Pogosian <i>Parisian Room</i></p>	<p>Chunshan Lin Massive Gravity on a Spatial Condensation Web Hayato Motohashi Cosmology with $f(R)$ Gravity and Massive Neutrinos Jun-Qi Guo Spherical Collapse in $f(R)$ Gravity Noureddine Mebarki Ungravity Contribution to FRW Cosmology: Viable Models Timothy Hodgkinson Gravitational Theoretical Development Supporting MOND Yabo Wu Energy Conditions and Stability in $f(R, L_m)$</p>
<p>Pulsar Timing Arrays Session Chair: X. Siemens <i>Oak Room</i></p>	<p>Brian Christy Detecting Nanohertz Gravitational Waves with Pulsars Latham Boyle Pulsar Timing Arrays as Imaging Gravitational Wave Telescopes: Angular Resolution and Source (De)Confusion Sarah Burke-Spolaor Using Light and Gravity from Late-Evolution Binary Supermassive Black Holes Xavier Siemens When Will NANOGrav Detect Gravitational Waves? Scott M. Ransom But Wait, There's More!: "Secondary" Science from PTAs</p>

<p>Magnetohydrodynamics Session Chair: E. Baron <i>Continental Room</i></p>	<p>Alejandro Cruz Osorio Morelia: A New Special Relativistic MHD Code Astrid Lamberts Simulating Gamma-ray Binaries with a Relativistic Extension to the RAMSES Code Bruno Giacomazzo Magnetic Field Effects in the Merger of Binary Neutron Stars David Neilsen Neutron Star Binary Mergers with Neutrino Cooling Fabio Lora Clavijo QPOs in Relativistic Magnetized Bondi-Hoyle Accretion Krzysztof Nalewajko Bulk Flows and Gamma Rays from Relativistic Magnetic Reconnection</p>
<p>Nuclear EOS for Compact Objects II Session Chair: B. Li <i>Far East Room</i></p>	<p>Farrukh Fattoyev Probing the High-density Behavior of Symmetry Energy with Gravitational Waves Ben Lackey What Can We Learn About the Neutron-star Equation of State from Gravitational-wave Observations of Inspiralling Binary Neutron Stars? Sebastien Guillot The Neutron Star Radius and the Dense-matter Equation of State Sharon Morsink Neutron Star Equation of State Constraints from Pulsed X-ray Emission William Newton Tidal Interactions During Neutron Star Mergers: Equation of State Considerations Xiaoyu Lai Quarks in Strange Matter: Localized or Not?</p>
<p>Relativity I Session Chair: R. Kantowski <i>Royal Room</i></p>	<p>Hideo Kodama Superradiance Instability of a Kerr Black Hole and Axionic Bose Nova Ioannis Contopoulos The Orthogonal GRB Model Jonas Pereira Black Hole Mass Decomposition in Nonlinear Electrodynamics and Applications</p>

	<p>Phuc Nguyen Analytical Models for Relativistic, Anisotropic Stellar Systems</p> <p>Yuanbin Wu Nonrotating Charged Black Holes in Einstein-Euler-Heisenberg Theory</p>
<p>History of Relativistic Astrophysics I Session Chair: J. Renn <i>Regency Ballroom</i></p>	<p>Charles Misner Early Black Hole Development: A Princeton View</p> <p>E. Ted Newman The Route to the Einstein/Einstein-Maxwell metrics of an uncharged or charged spinning particle</p> <p>Engelbert Schucking Reminiscences</p>
12:30pm	LUNCH BREAK
2:00pm	<p>Plenary Presentation VIII Session Chair: V. Kaspi</p> <p>Edmund Bertschinger (<i>Massachusetts Institute of Technology</i>) Topic: Cosmological Tests of General Relativity</p>
2:45pm	<p>Plenary Presentation IX Session Chair: V. Kaspi</p> <p>Roger Blandford (<i>Stanford University</i>) Active Galactic Nuclei</p>
3:30pm	COFFEE BREAK
4:00-5:30pm	Parallel Session IV
<p>Inhomogeneous Cosmologies, Backreaction and Averaging Session Chair: C. Hellaby <i>Gold Room</i></p>	<p>Charles Hellaby Observations in Inhomogeneous Models and the Szekeres Metric</p> <p>Mariusz Dabrowski Redshift Drift and Supernovae in Inhomogeneous Pressure Cosmology</p> <p>Maxim Eingorn Gravitation of Discrete Inhomogeneities for Different Topologies of Universe</p> <p>Roberto Sussman Intuitive and Efficient Model Building with Szekeres Solutions.</p> <p>Ryan Keenan</p>

	<p>Evidence for a Large Local Underdensity and the Implications for Cosmology Wessel Valkenburg Quantifying the Copernican Principle and Cosmic Variance on H_0 Austin Peel Large-Scale Growth Evolution in the Szekeres Inhomogeneous Cosmological Models with Comparison to Growth Data Michael A. Troxel The Effects of Structure Anisotropy on Lensing Observables in an Exact General Relativistic Setting for Precision Cosmology</p>
<p>Tidal Disruption Events Session Chair: M. Kesden <i>Parisian Room</i></p>	<p>Ashley Zauderer Radio Observations of the Tidal Disruption Event Swift J1644+57 James Guillochon A Joint Analysis of PS1-10jh and PS1-11af: Comparing and Contrasting Two Near-Eddington Tidal Disruption Events Marek Nikolajuk Tidal Disruption of a Sub-stellar Object in NGC 4845 Nicholas Stone General Relativistic Precession in Tidal Disruption Events Roseanne Cheng The Fate of Debris for a Tidally Disrupted Star Ryan Chornock Pan-STARRS1 Observations of Tidal Disruption Events</p>
<p>High Energy Astrophysics - Extragalactic Session Chair: B. Dingus <i>Oak Room</i></p>	<p>Frank Rieger [review – 20 minutes] VHE Gamma-rays from Radio-galaxies Manel Errando VERITAS Observations of Active Galactic Nuclei above 0.1 TeV Matthew Baring [review – 20 minutes] Particle Acceleration at Shocks in Relativistic Jets Yasuyuki Tanaka Fermi Large Area Telescope Detection of Two Very-High-Energy ($E > 100$ GeV) Gamma-ray Photons from the $z=1.1$ Blazar PKS 0426-380</p>

	<p>Yaxk'in Ú Kan Coronado A Hydrodynamical Model for the Gamma-ray Light Curve of Blazar PKS 1510–089.</p>
<p>Large-Scale Structure Session Chair: P. Shapiro <i>Continental Room</i></p>	<p>Wendy Freedman Recent Direct Measurements of H_0 and Future Prospects</p> <p>Alice Pisani Real-space Density Profile Reconstruction of Stacked Voids</p> <p>David Spergel AFTA/WFIRST and Dark Energy</p> <p>Jens Jasche Large Scale Bayesian Inference in Cosmology</p> <p>Nishikanta Khandai The Large Scale Clustering of the Lyman-alpha Forest</p> <p>Paul Sutter Innovative Cosmology with Cosmic Voids</p>
<p>Nuclear Astrophysics I Session Chair: T. Aumann <i>Far East Room</i></p>	<p>Akram Mukhamedzhanov Indirect Methods in Nuclear Astrophysics: Asymptotic Normalization Coefficients and Trojan Horse.</p> <p>Grant Mathews Key Issues Regarding Neutrinos and Nucleosynthesis in Core Collapse Supernovae</p> <p>Livius Trache Nuclear Physics for Astrophysics: From the Laboratory to the Stars</p> <p>Moshe Gai Interaction of Neutrons With ^7Be; Last Nuclear Physics Attempt to Solve the "Primordial ^7Li Problem"</p> <p>Taka Kajino Cosmological and Supernova Neutrinos and Nucleosyntheses</p> <p>Yoshiteru Satou Measurement of the $^{14}\text{Be}(p,n)^{14}\text{B}(1+)$ Reaction in Inverse Kinematics</p>
<p>Gamma Ray Bursts I Session Chair: W. Burgett <i>Royal Room</i></p>	<p>Andrew MacFadyen The Dynamics of Laterally Spreading Ultra-Relativistic Jets</p> <p>Antonios Nathanail Black Hole Magnetospheres</p>

	<p>Attila Meszaros Number of the Subclasses of the Gamma-ray Bursts: Two or Three?</p> <p>Omer Bromberg Unraveling the Secrets of GRSs with the help of Collapsar Jets</p> <p>Paul Duffell Rayleigh-Taylor Instability in a Relativistic Fireball on a Moving Computational Grid</p> <p>Rob Preece The Extremely Bright, Nearby GRB 130427A Challenges the Internal Shock Model</p>
<p>Cosmology I Session Chair: L. Boyle <i>Regency Ballroom</i></p>	<p>Alberto Dominguez The Measurement of the Expansion Rate of the Universe from Gamma-ray Attenuation</p> <p>Bruce Miller Cosmology in One-dimension: Correlation, Power Spectra and Void Geometry</p> <p>Christoph Schmid Exact Dragging of Inertial Axes by Cosmic Energy Currents on the Past Light-cone in Linear Perturbation Theory</p> <p>Pedro Isaac Ramirez-Baca Conformal Stealth on Cosmology</p> <p>Yin-Zhe Ma How Much Cosmological Information can be Measured?</p>
7:00pm	<p>BANQUET (INTERNATIONAL BALLROOM) AFTER-DINNER PLENARY SPEAKER: M. TURNER</p>

11 December 2013 (Wednesday): The Fairmont Hotel/The University of Texas at Dallas

8:00am	REGISTRATION OPENS (REGENCY BALLROOM FOYER)
9:00am	<p>Plenary Presentation X (REGENCY BALLROOM) Session Chair: W. Freedman Remo Ruffini (<i>International Centre for Relativistic Astrophysics</i>) Supernovae, Neutron Stars and Black Holes in the GRBs Era</p>
9:45am	<p>Plenary Presentation XI Session Chair: W. Freedman</p>

	Krzysztof Gorski (<i>JPL, California Institute of Technology</i>) Recent Results From Planck
10:30am	COFFEE BREAK
11:00am-12:30pm Parallel Session V	
Cosmic Microwave Background Session Chair: D. Scott <i>Gold Room</i>	Amir Hajian Exploring the Microwave Sky Beyond CMB Using Cross Correlations Dragan Huterer CMB Anomalies Kin-Wang Ng Imprint of Scalar Dark Energy on Cosmic Microwave Background Polarization Soma De Linear and Circular Polarization of CMB and Cosmic 21cm Radiation Abigail Crites New Measurements of the Polarization of the Cosmic Microwave Background with the South Pole Telescope Bin Chen Embedded Lensing Time Delays, the Fermat Potential, and CMB Temperature Fluctuations
Nuclear EOS for Compact Objects III Session Chair: C. Horowitz <i>Parisian Room</i>	Carlos Bertulani Nuclear Matter Incompressibility and Giant Monopole resonances Gang Shen Low Density Nuclear Matter in Supernova Hajime Sotani Neutron Stars and Nuclear Symmetry Energy Hiroshi Ueda QCD Phase Diagram at Finite Baryon and Isospin Chemical Potentials in the Polyakov Loop Extended Quark Meson Model with Vector Interaction Stefano Gandolfi Microscopic Calculations of Neutron Matter, Symmetry Energy and Neutron Star Structure Thomas Aumann Relativistic Radioactive Beams as a Tool for Nuclear Astrophysics

<p>Dark Matter II Session Chair: K. Freese <i>Oak Room</i></p>	<p>Bedile Karabuga Recent Results and Future Plans from SuperCDMS Bohua Li Cosmological Constraints on Bose-Einstein-Condensed Scalar Field Dark Matter Francisco Guzman Dynamics of Bose Einstein Condensate Dark Matter Halos Miguel Gracia Linares Non-linear Accretion of Collisional Dark Matter onto a Spherically Symmetric Supermassive Black Hole Mikhail Medvedev Cosmology with Two-Component Flavor-Mixed CDM Tonatiuh Matos Structure Formation with Scalar Field Dark Matter</p>
<p>Binary Black Holes Session Chair: Z. Haiman <i>Continental Room</i></p>	<p>Bence Kocsis Self-consistent Analytic Model of Circumbinary Accretion Disks and Type-1.5 Migration Brian Farris Binary Black Hole Accretion From A Circumbinary Disk: Gas Dynamics Inside the Central Cavity Dennis Bowen Binary Black Hole Accretion Disks in General Relativistic Viscous Hydrodynamics Giuseppe Lodato On the Likelihood and Prompt Electromagnetic Emission of Black Hole Binary Mergers Miguel Zilhao Warped Dynamical Grids for Accreting Binary Black Holes</p>
<p>X-Ray I Session Chair: H. Marshall <i>Far East Room</i></p>	<p>Norbert Schartel XMM-Newton's impact on Relativistic Astrophysics Wei Wang Hard X-ray Observations of Young Supernova Remnants by INTEGRAL Xinyu Dai Microlensing Constraints on Quasar X-ray Emission Regions Alicia Soderberg Supernova Forensics</p>

<p>Relativity II Session Chair: V. Trimble <i>Royal Room</i></p>	<p>Charles Torre The Spacetime Geometry of a Null Electromagnetic Field Daniel Blaschke Geometry as a Semiclassical Effect in a Quantum World - Emergent Gravity from Matrix Models Daniele Malafarina Avoiding Singularities in Gravitational Collapse Thomas Zannias A Tangent Bundle Formulation of Relativistic Kinetic Theory: A Few Applications</p>
<p>History of Relativistic Astrophysics II Session Chair: C. Misner <i>Regency Ballroom</i></p>	<p>Roy Kerr The Kerr Solution at the first Texas Symposium 1963 Marcia Bartusiak Bermuda Triangles of Space: How the Public First Met Black Holes</p>
<p>12:30pm</p>	<p>LUNCH BREAK</p>
<p>1:45pm</p>	<p>Depart Fairmont to University of Texas at Dallas</p>
<p>3:15pm</p>	<p>Plenary Presentation XII (Davidson Auditorium) Roundtable Discussion: Recollections of the Relativistic Astrophysics Revolution Moderator: Jürgen Renn Supported by UTD, Austin College, the Center for the History of Physics, and the Max Planck Institute for the History of Physics</p> <p>Welcome remarks by Dean Bruce Novak (University of Texas at Dallas) and Vice-President Sheila Piñeres (Austin College)</p> <p>James Anderson (<i>Stevens Institute of Technology</i>) Dieter Brill (<i>University of Maryland</i>) Cecile DeWitt (<i>University of Texas at Austin</i>) Joshua Goldberg (<i>Syracuse University</i>) Roy Kerr (<i>University of Canterbury</i>) Charles Misner (<i>University of Maryland</i>) Ted Newman (<i>University of Pittsburgh</i>) Roger Penrose (<i>University of Oxford</i>)</p>

	Wolfgang Rindler (<i>University of Texas at Dallas</i>) Louis Witten (<i>University of Cincinnati</i>)
5:30pm	DINNER (EXECUTIVE EDUCATION DINING ROOM)
7:30pm	Public Lecture [<i>Lecture Hall, Edith O'Donnell Arts and Technology (ATEC) Building</i>] Edward "Rocky" Kolb (<i>University of Chicago</i>) Mysteries of the Dark Universe
9:00pm	Outreach Event [<i>Lobby, Edith O'Donnell Arts and Technology (ATEC) Building</i>]
9:30pm	Return to Fairmont Hotel

12 December 2013 (Thursday): The Fairmont Hotel

8:00am	REGISTRATION OPENS (REGENCY BALLROOM FOYER)
9:00am	Plenary Presentation XIII (<i>Regency Ballroom</i>) Session Chair: K. Lake George Ellis (<i>University of Cape Town</i>) Inhomogeneous Cosmologies
9:45am <i>Regency Ballroom</i>	Plenary Presentation XIV (<i>Regency Ballroom</i>) Session Chair: K. Lake Robert Kirshner (<i>Harvard/Smithsonian Center for Astrophysics</i>) The Accelerating Universe: A Nobel Surprise
10:30am	COFFEE BREAK
11:00am-12:30pm Parallel Session VI	
Dark Matter III Session Chair: J. Cooley <i>Gold Room</i>	Mei-Yu Wang Lyman-alpha Forest constraints on Decaying Dark Matter and Implications for Galactic Substructure Properties Pearl Sandick Direct Dark Matter Searches and Supersymmetric Resonance Regions Subha Majumdar

	<p>The Velocity Distribution of Galactic Dark Matter Particles and Implications for Dark m=Matter Detection Experiments Victor Robles Finite Temperature Scalar Field DM Halos Alejandro Lopez-Suarez New Dark Matter Detector using DNA for Nanometer Tracking</p>
<p>Nuclear EOS for Compact Objects IV & Nuclear Astrophysics Session Chair: S. Reddy <i>Parisian Room</i></p>	<p>Bao-An Li High-Density Symmetry Energy, Non-Newtonian Gravity and the Structure of Neutron Stars Indrani Banerjee Nucleosynthesis in the Accretion Disks and Outflows Associated with Type II Collapsars Samina Masood Nucleosynthesis in Compact Stars Steven Liebling Magnetized Neutron Stars With Realistic Equations of State and Neutrino Cooling Veronica Dexheimer Equation of State for Hybrid Compact Stars</p>
<p>Testing Gravity II Session Chair: P. Zhang <i>Oak Room</i></p>	<p>Jian-E He Gravity-induced Phase Shift and its Implications Leo Stein Parametrizing Scalar Corrections to General Relativity Marco Bruni Non-linear Structure Formation Beyond the Newtonian Approximation Pogosian Levon Cosmological Parameters of Modified Gravity Homer Ellis A Coherent Geometric Model of Inflation, Acceleration, Dark Matter, and Dark 'Energy' Vladimir Burdyuzha Testing of Dark Energy Xavier Hernandez Gravitational Anomalies Signaling the Breakdown of Classical Gravity</p>
<p>Compact Objects</p>	<p>Banibrata Mukhopadhyay</p>

<p>Session Chair: A. Upadhye <i>Continental Room</i></p>	<p>New Mass Limit of Magnetized White Dwarfs and Its Observational Implications Diego Caceres Uribe Magnetospheric Emission of Soft Gamma-ray Repeaters (SGRs) and Anomalous X-ray Pulsars (AXPs) Within the White Dwarf Model Roland Walter Jets and Pulsar Wind Expelled by the Supersonic IGR J11014-6103 Sam Gralla Exact Force-Free Magnetospheres Sophia Han Energy Dissipation in Hybrid Stars</p>
<p>Electromagnetic Signatures of Binary Mergers Session Chair: Z. Musielak <i>Far East Room</i></p>	<p>Daniel Siegel Electromagnetic counterparts to binary neutron-star mergers: the role of hypermassive neutron stars Jonathan Zrake Magnetic Energy Production by Turbulence in Binary Neutron Star Mergers Maxim Lyutikov Black Hole Hair and Electromagnetic Signatures of Merging and Collapsing Compact Objects. Patrick Motl Electromagnetic Emissions from the Coalescence of Magnetized Binary Neutron Stars Valeri Frolov Charged particle motion in magnetized black holes</p>
<p>X-Rays II Session Chair: X. Dai <i>Royal Room</i></p>	<p>Denis Leahy Using X-ray eclipses to determine the disk structure of Hercules X-1 Filippos Koliopanos X-ray Diagnostics of Chemical Composition of the Accretion Disk and Donor Star in Ultra-compact X-ray Binaries Georgios Vasilopoulos The XMM-Newton Surveys of the Magellanic Clouds Herman Marshall Formation and Evolution of the SS 433 Jets</p>
<p>Cosmic Microwave</p>	<p>Aurelien Fraisse</p>

<p>Background II Session Chair: A. Hajian <i>Regency Ballroom</i></p>	<p>A Last Pre-flight Update on the SPIDER Mission Branislav Vlahvic Uniformity of CMB as a non-inflationary Geometrical Effect Douglas Scott Doppler boosting effects in Planck Elinore Roebber The Polarization Signature of a Large Local Bulk Flow Jounghun Lee The Effect of Primordial Anti-Biasing on the Local Measurements of the Key Cosmological Parameters Simone Aiola LCDM Predictions on the Stacked Late-ISW Signal</p>
<p>12:30pm</p>	<p>LUNCH BREAK</p>
<p>2:00pm</p>	<p>Plenary Presentation XV (<i>Regency Ballroom</i>) Session Chair: TBC Nick Kaiser (<i>IFA, University of Hawaii</i>) Gravitational lensing and Applications to Cosmology</p>
<p>2:45pm</p>	<p>Plenary Presentation XVI (<i>Regency Ballroom</i>) Session Chair: TBC Fiona Harrison (<i>California Institute of Technology</i>) First Results From The Nuclear Spectroscopic Telescope Array (NuSTAR) High-Energy X-ray Mission</p>
<p>3:30pm</p>	<p>COFFEE BREAK (REGENCY FOYER)</p>
<p>4:00-5:30pm Parallel Session VII</p>	
<p>Cosmic Acceleration/Dark Energy Session Chair: D. Huterer <i>Gold Room</i></p>	<p>Alexei Poludnenko Systematic Effects of Progenitor Composition on the Spontaneous Deflagration-to-Detonation Transition in Type Ia Supernovae Brett Bochner Testing Lambda and the Limits of Cosmography with the Union2.1 Supernova Compilation Amol Upadhye Large-scale Structure Formation with Dark Energy and Massive Neutrinos</p>

	<p>Luis Pimentel Classical and Quantum Bianchi type I cosmology in K-essence theory</p> <p>Shantanu Desai The Dark Energy Survey: Status Report and First Results</p> <p>William S Burgett [review – 25 minutes] Advancing Relativistic Astrophysics with the Pan-STARRS Wide Field High Resolution Optical Survey</p>
<p>Lensing Session Chair: T. Brainerd <i>Parisian Room</i></p>	<p>Andrea Petri Cosmology with Minkowski Functionals and Moments of the Weak Lensing Convergence Field</p> <p>Pengjie Zhang Self-calibrating Weak Lensing Systematics</p> <p>Roger Hurtado Mojica A New Approach to Gravitational Lensing by Spherical Mass Profiles</p> <p>Ronald Kantowski The Embedded Transparent Lens</p> <p>Ryuichi Takahashi Effects of Survey Geometry on Power Spectrum Covariance for Cosmic Shear Survey</p> <p>Teresa Brainerd The Trouble(s) with Anisotropic Galaxy-Galaxy Lensing</p> <p>Anna Nierenberg Strong lensing probes of the nature of dark matter</p>
<p>Active Galactic Nuclei Session Chair: R. Walter <i>Oak Room</i></p>	<p>Bob Wagoner Theories of QPOs (Diskoseismology, ...) Confront Black Hole Spin</p> <p>Ken-Ichi Nishikawa Radiation from Accelerated Particles in Relativistic Jets with Shocks, Shear-flow, and Reconnection</p> <p>Krista Smith XBONGs and Optically Elusive AGN: Infrared Insights</p> <p>Marek Sikora What Makes the Jet Production Efficiency in AGN So Diverse</p> <p>Maria Petropoulou Effects of the Second Generation of SSC Photons on the Broadband Modelling of Centaurus A</p> <p>Markus Boettcher</p>

	<p>Diagnostics of Leptonic Vs. Hadronic Emission Models for Blazars</p>
<p>Gamma Ray Bursts II Session Chair: M. Lyutikov <i>Continental Room</i></p>	<p>Daisuke Nakauchi Blue Supergiant Model For Ultra-Long Gamma-Ray Burst With Superluminous-Supernova-Like Bump</p> <p>Rachid Ouyed Two- and Three-Component Jets from 3-d=Dimensional Magnetohydrodynamic Jet Simulations of Disk Winds</p> <p>Sanshiro Shibata Radiative Transfer Simulations in Gamma-ray Burst Jets</p>
<p>Relativity III Session Chair: L. Ammann <i>Far East Room</i></p>	<p>Adam Helfer Exchange of Energy-momentum Between Matter and Gravitational Waves</p> <p>Deborah Konkowski Quantum Resolution of Timelike Singularities in Spherically Symmetric, Conformally Static Spacetimes</p> <p>Dinesh Singh A Many-Body Generalization of the Mathisson-Papapetrou-Dixon (MPD) Equations in Analytic Perturbative Form</p> <p>Kaca Bradonjic Unimodular Conformal and Projective Relativity</p> <p>Kashif Arshad Instability Threshold of Ion-acoustic Wave in Non-Maxwellian Magnetospheric Electron-positron-ion Plasma.</p> <p>Tevian Dray The Geometry of Relativity</p> <p>Zdzislaw Musielak New Fundamental Wave Equation on Curved Space-time and Its Cosmological Applications</p>
<p>High Energy Astrophysics-Exp Session Chair: F. Rieger <i>Royal Room</i></p>	<p>Brenda Dingus The TeV Sky Observed by HAWC</p> <p>Corbin Covault Recent Results from the Pierre Auger Cosmic Ray Observatory: Energy Spectrum and Arrival Directions of the Highest Energy Cosmic Rays</p> <p>Edison Liang</p>

	<p>High Energy Astrophysics Experiments Using Intense Laser Eric Charles [review – 20 minutes] Fermi at Five: Highlights from the Fermi Large Area Telescope Fabian Schüssler Results from the ANTARES Neutrino Telescope Patrick Allison Recent Results from the Pierre Auger Observatory: Composition and Hadronic Interactions of the Highest Energy Cosmic Rays Jordan Camp ISS-Lobster: A Low-cost, Wide-field X-ray Transient Mission on the ISS</p>
<p>Nuclear Astrophysics II Session Chair: C. Bertulani <i>Regency Ballroom</i></p>	<p>Jordi Jose Classical Novae at the Crossroads of Astrophysics, Nuclear physics, and Cosmochemistry Livio Lamia The Astrophysical Lithium, Beryllium and Boron Problem in Astrophysics in view of the Recent Trojan Horse Burning Reaction Rate Determinations Maria Sergi The $^{17}\text{O}(p,?)^{14}\text{N}$ Reaction Measurement Via the Trojan Horse Method and its Application to ^{17}O Nucleosynthesis Marisa Gulino Recent Results on the $^{18}\text{F}(p,a)$ Reaction Studied with Trojan Horse Method Rosario Pizzone Trojan Horse Cross Section Measurements and Their Impact on Primordial Nucleosynthesis Werner Richter Nuclear Structure Input for Rp-process Rate Calculations in the Sd Shell</p>
7:00pm	POSTER SESSION (REGENCY BALLROOM)

13 December 2013 (Friday): The Fairmont Hotel

8:00am	REGISTRATION OPENS (REGENCY BALLROOM FOYER)
9:00am	Plenary Presentation XVII (<i>Regency Ballroom</i>) Session Chair: M. Diaz

	<p>Manuela Campanelli (<i>Rochester Institute of Technology</i>) Numerical Relativity and Binary Black Hole Mergers at 50</p>
9:45am	<p>Plenary Presentation XVIII (<i>Regency Ballroom</i>) Session Chair: M. Diaz Bernard Schutz (<i>Max Planck Institute Potsdam-Golm</i>) Gravitational Wave Astronomy in the Next Decade</p>
10:30am	COFFEE BREAK
11:00am	<p>Plenary Presentation XIX (<i>Regency Ballroom</i>) Session Chair: Cecile DeWitt Sanjay Reddy (<i>University of Washington</i>) Nuclear Astrophysics: Interpreting Transients in the Era of Multi-Messenger Astronomy</p>
11:45am	<p>Closing Remarks (<i>Regency Ballroom</i>) Session Chair: Cecile DeWitt Katherine Freese (<i>University of Michigan</i>) Cosmology After Fifty Years of Texas Meetings</p>
12:30pm	SYMPOSIUM CLOSES