



<http://kicp-workshops.uchicago.edu/glc-2010/>

WORKSHOP PROGRAM



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ADLER
PLANETARIUM

<http://www.adlerplanetarium.org/>



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June 14, 2010 - Monday

- 8:40 am - 8:45 am **WORKSHOP OPENING**
- SESSION 1**
Chair: John Carlstrom
- 8:45 am - 9:15 am **Marco Peloso** (University of Minnesota)
Invited Talk: Status of Inflation
- 9:15 am - 9:30 am **Cora Dvorkin** (KICP/University of Chicago)
Generalized Slow Roll for Large Power Spectrum Features
- 9:30 am - 9:45 am **Marzieh Farhang** (University of Toronto, CITA)
Measuring the Amplitude of Gravitational Waves by CMB Experiments
- 9:45 am - 10:00 am **Michael Milligan** (University of Minnesota)
The E and B Experiment (EBEX)
- 10:00 am - 10:15 am **Immanuel Buder** (University of Chicago, KICP)
QUIET and QUIET-II: HEMT-based coherent CMB polarimetry
- 10:15 am - 10:30 am **POSTER PRESENTATIONS I**
Posters 1 - 15 from Day 1
- 10:30 am - 11:00 am **COFFEE BREAK**
- SESSION 2**
Chair: Jon Sievers
- 11:00 am - 11:15 am **Amanda C Gault** (University of Wisconsin Madison)
The Millimeter-wave Bolometric Interferometer (MBI)
- 11:15 am - 11:30 am **Christopher D Sheehy** (University of Chicago)
The Keck array and BICEP2: ground based CMB polarimeters
- 11:30 am - 12:00 pm **Tom Shutt** (Case Western Reserve University)
Invited Talk: Dark matter detection: living large
- 12:00 pm - 12:15 pm **Scott Fallows** (University of Minnesota)
The future of CDMS
- 12:15 pm - 12:30 pm **Drew Fustin** (KICP, University of Chicago)
Latest dark matter limits from COUPP
- 12:30 pm - 1:30 pm **LUNCH**
- SESSION 3**
Chair: Kathryn Schaffer
- 1:30 pm - 1:45 pm **Antonio J Melgarejo** (Columbia University)
First results of the XENON100 detector

- 1:45 pm - 2:15 pm **Carsten Rott** (Ohio State University / CCAPP)
Invited Talk: Neutrino Telescopes and the Hunt for Dark Matter
- 2:15 pm - 2:30 pm **Rebecca R Reesman** (Ohio State University)
Anisotropy Signatures of Millisecond Pulsars in Diffuse Gamma Ray Emission
- 2:30 pm - 2:45 pm **Eric J Baxter** (University of Chicago)
Constraining Dark Matter in Galactic Substructure
- 2:45 pm - 3:05 pm **POSTER PRESENTATIONS II**
Posters 16 - 35 from Day 1
- 3:05 pm - 3:45 pm **COFFEE BREAK & POSTERS VIEWING**
- SESSION 4**
Chair: Brian O'Shea
- 3:45 pm - 4:15 pm **Tiziana Di Matteo** (Carnegie Mellon University)
Invited Talk: Structure Formation in the Early Universe: the build-up of supermassive black holes
- 4:15 pm - 4:30 pm **Nick Battaglia** (University of Toronto, CITA)
Simulations of Large-Scale Structure with AGN Feedback
- 4:30 pm - 4:45 pm **Colin DeGraf** (Carnegie Mellon University)
Small Scale Quasar Clustering from Hydrodynamic Simulations
- 4:45 pm - 5:00 pm **Nachiketa Chakraborty** (University of Illinois, Urbana-Champaign)
The Primordial Lithium Problem: Can We Avoid New Physics?
- 6:00 pm - 8:00 pm **BANQUET DINNER**
at the Adler Planetarium
- 8:15 pm - 9:45 pm **VISUALIZATION SESSION**

June 15, 2010 - Tuesday**SESSION 1**

Chair: Mark Subbarao

- 9:00 am - 9:30 am **Keith Vanderlinde** (McGill University)
Invited Talk: An SZ-selected Cluster Catalog from the South Pole Telescope
- 9:30 am - 9:45 am **Lindsey Bleem** (University of Chicago)
An Overview of SPT-POL
- 9:45 am - 10:00 am **Hsiang-Yi Karen Yang** (University of Illinois at Urbana-Champaign)
The Impact of Cluster Structure and Dynamical State on Scatter in the SZ Flux-Mass Relation
- 10:00 am - 10:15 am **Ryan Keisler** (University of Chicago)
The mm-wave Emission of Galaxy Clusters and Implications for SZE Surveys
- 10:15 am - 10:30 am **Erwin T Lau** (University of Chicago)
Shape of Intracluster Gas as Probe of Cluster Physics
- 10:30 am - 11:00 am **COFFEE BREAK**

SESSION 2

Chair: Jeffrey Kubo

- 11:00 am - 11:30 am **Megan Donahue** (Michigan State University)
Invited Talk: Baryon Fractions in Clusters of Galaxies
- 11:30 am - 11:45 am **Luke Leisman** (Calvin College)
Connecting Brightest Cluster Galaxies and Core Gas
- 11:45 am - 12:00 pm **Alexander van Engelen** (McGill University)
On the Cosmological Baryon Fraction
- 12:00 pm - 12:15 pm **Megan B Gralla** (University of Chicago)
SZA Observations of Strong Lensing Galaxy Clusters
- 12:15 pm - 12:30 pm **Matthew B Bayliss** (University of Chicago/KICP)
Strong Lensing Clusters in RCS-2 and the SDSS: Statistics and Properties of Lenses and Lensed Sources
- 12:30 pm - 1:30 pm **LUNCH**

SESSION 3

Chair: Carla Frohlich

- 1:30 pm - 1:45 pm **Mark Wyman** (Perimeter Institute)
Enhanced Peculiar Velocities in Brane-Induced Gravity
- 1:45 pm - 2:00 pm **Farzad Sadjadi** (School of Physics & Astronomy, University of Minnesota, Twin Cities)
Effects of substructure distribution along the line of sight in multi-plane gravitational lensing simulations.
- 2:00 pm - 2:15 pm **Matthew R Becker** (University of Chicago)
NlogN Multiple-plane Ray Tracing on the Sphere

- 2:15 pm - 2:45 pm **Steve Kuhlmann** (Argonne National Laboratory)
Invited Talk: Challenges for Future Supernova Surveys
- 2:45 pm - 3:00 pm **Amy Y Lien** (University of Illinois at Urbana-Champaign)
The Cosmic Supernova Inventory from Future Sky Surveys: Cosmic Star Formation, Neutrinos,
and Invisible Collapse
- 3:00 pm - 3:20 pm **POSTER PRESENTATIONS**
Posters 1 - 20 for Day 2
- 3:20 pm - 4:00 pm **COFFEE BREAK & POSTERS VIEWING**
- SESSION 4**
Chair: Jennifer Sobeck
- 4:00 pm - 4:30 pm **Michael Wood-Vasey** (University of Pittsburgh)
Invited Talk: Supernovae and other Transients from Pan-STARRS1 and Future Surveys
- 4:30 pm - 4:45 pm **David Chamulak** (Argonne National Laboratory)
How standard is the candle?: A theoretical look at metallicity effects in Type Ia supernovae.
- 4:45 pm - 5:00 pm **Ravi R. Gupta** (University of Pennsylvania)
Constraining SN Ia Host Galaxy Properties Using Multi-wavelength Photometry
- 5:00 pm - 5:15 pm **Benedikt Diemer** (University of Chicago)
Confronting Simulations and Observations of Type Ia Supernovae
- 5:15 pm - 5:30 pm **Amir Shahmoradi** (Michigan Tech University)
Gamma-Ray Bursts as Cosmological Tools

June 16, 2010 - Wednesday**SESSION 1**

Chair: Joseph Bernstein

- 8:45 am - 9:15 am **Christy A Tremonti** (University of Wisconsin-Madison)
Invited Talk: The Role of Feedback in Galaxy Formation
- 9:15 am - 9:30 am **Alexander L Muratov** (University of Michigan)
The Cosmological Origin of The Globular Cluster Metallicity Distribution
- 9:30 am - 9:45 am **Sam N Leitner** (University of Chicago)
Fuel Efficient Galaxies: Sustaining Star Forming Disks with Gas Recycling
- 9:45 am - 10:00 am **Robert Feldmann** (Fermi National Accelerator Laboratory)
The Morphological Evolution of Group Galaxies
- 10:00 am - 10:15 am **Sarah L Nickerson** (McMaster University)
Shedding Light on Dark Satellites

10:15 am - 10:45 am **COFFEE BREAK****SESSION 2**

Chair: Loren Hoffman

- 10:45 am - 11:15 am **Ue-Li Pen** (Canadian Institute for Theoretical Astrophysics)
Invited Talk: 21cm cosmology
- 11:15 am - 11:30 am **Nishikanta Khandai** (Carnegie Mellon University)
On Detecting HI in emission at $z=1$
- 11:30 am - 11:45 am **Smadar Naoz** (Northwestern University)
Gas in the first generation of galaxies
- 11:45 am - 12:00 pm **Jean-Rene Gauthier** (University of Chicago/OCIW)
Constraining the gas content of dark matter halos

12:00 pm - 12:45 pm **LUNCH**12:45 pm - 1:55 pm **CAREER DEVELOPMENT**1:55 pm - 2:00 pm **BREAK****SESSION 3**

Chair: Stephan Meyer

- 2:00 pm - 2:30 pm **Carlos Cunha** (University of Michigan)
Invited Talk: Photometric redshift statistics or how to avoid biased cosmological constraints
- 2:30 pm - 2:45 pm **Andrew Hearin** (University of Pittsburgh)
The Influence of Catastrophic Photo-z Errors on Cosmology with Cosmic Shear
- 2:45 pm - 3:00 pm **Daniel J Matthews** (University of Pittsburgh)
Reconstructing Redshift Distributions with Cross-Correlations

- 3:00 pm - 3:15 pm **Brett Ragozzine** (Ohio University)
Weak Lensing Results of the Merger A1758
- 3:15 pm - 3:30 pm **Ali Vanderveld** (Caltech/JPL)
Gravitational lensing with HALO
- 3:30 pm - 4:00 pm **COFFEE BREAK & POSTERS VIEWING**
- SESSION 4**
 Chair: Andrew Zentner
- 4:00 pm - 4:30 pm **Hee-Jong Seo** (Fermi National Accelerator Laboratory)
Invited Talk: High-precision predictions for the acoustic scale in the non-linear regime.
- 4:30 pm - 4:45 pm **Chris Orban** (Ohio State University)
Self-similar Bumps and Wiggles: Isolating the Evolution of the BAO Peak with Power-law Initial Conditions
- 4:45 pm - 5:00 pm **Yan-Chuan Cai** (University of Pennsylvania)
Minimizing bias stochasticity
- 5:00 pm - 5:15 pm **Molly S Peebles** (Ohio State University)
Can SPH correctly solve for hydrostatic equilibrium?
- 5:15 pm - 5:30 pm **Amanda Yoho** (Case Western Reserve University)
Degree Scale Anomalies in the CMB: Localizing the Dip in the First Peak to the North Ecliptic Pole