

Conference Program: Cosmology and First Light

Monday Dec. 7, 2015

08:30-09:00 | Registrations (entrance hall) and posters installation

09:00-09:10 Welcome address by **Rennan Barkana**

Session: DARK MATTER AND BLACK HOLES

09:10-09:40 **Neta Bahcall** (Princeton U., USA):
Lighting Up The Dark: Where Is The Dark Matter?

9:40-10:10 **Jerry Ostriker** (Columbia U., USA):
Choosing the nature of dark matter to address small scale structure dramatically changes early galaxy formation

10:10-10:35 **Zoltan Haiman** (Columbia U., USA):
Forming massive seed black holes at high redshift

Coffee break (entrance hall) and posters display

11:05-11:30 **Tal Alexander** (Weizmann Institute, Israel):
Supra-exponential growth of seed black holes in the early universe

11:30-11:55 **Tom Broadhurst** (Ikerbasque, Spain):
Comparison of the latest Hubble Data with the First Simulations of Bosonic Dark Matter for the "No-WIMP Era"

11:55-12:30 | Session of brief introductions to posters

Lunch break

Session: HIGH-REDSHIFT GALAXIES

14:00-14:25 **George Becker** (University of California, Riverside):
Reionization: What We Know From Quasar Absorption Lines

14:25-14:45 **Mia Bovill** (STScI, USA) [replacing Massimo Stiavelli]:
Detecting First Light with the JWST

14:45-15:05 **Jaiyul Yoo** (U. of Zurich, Switzerland):
Relativistic Effect in Galaxy Clustering as A Novel Probe of Cosmology

15:05-15:25 **Tommaso Treu** (UCLA, USA):
The first galaxies through a magnifying GLASS

Coffee break (entrance hall)

16:00-16:30 **Rogier Windhorst** (Arizona State, USA):
HST Observations of Escaping Lyman Continuum Radiation from Galaxies and Weak AGN at $2.3 < z < 5$: (How) Did they Reionize the Universe, and what JWST must do next

16:30-17:00 **Paul Shapiro** (U. of Texas at Austin, USA):
Simulating Reionization and Its Observable Consequences

17:00-17:25 **Dominique Aubert** (Observatoire Astronomique de Strasbourg, France):
Looking at galaxy populations during the reionization using cosmological simulations

18:30 - 21:00 Cocktail reception (Observatoire de Paris, Cassini Hall)

Tuesday Dec. 8, 2015

Session: RADIATIVE EMISSION OR ABSORPTION

09:00-09:30	Marc Kamionkowski (Johns Hopkins U., USA): <i>Intensity mapping with CO (and other) lines</i>
09:30-09:55	Martin Haehnelt (U. of Cambridge, UK): <i>Probing the end of hydrogen reionization with Lyman-alpha absorption</i>
09:55-10:20	Tzu-Ching Chang (ASIAA, Taiwan): <i>21cm Intensity Mapping</i>

Coffee break

10:50-11:10	Asantha Cooray (UC Irvine, USA): <i>Near-Infrared Background and Anisotropies as a Probe of Reionization</i>
11:10-11:30	Nathalie Mashian (Harvard U., USA): <i>Predicting the intensity mapping signal for multi-J CO lines in the early universe</i>
11:30-11:55	Andrei Mesinger (Scuola Normale Superiore, Italy): <i>Lyman alpha emitters as a probe of reionization</i>
11:55-12:25	Richard Ellis (Caltech, USA): <i>Spectroscopic Studies of Galaxies in the Reionization Era</i>

Lunch break

Session: SIMULATIONS

14:00-14:25	Volker Bromm (U. of Texas at Austin, USA): <i>The Formation of the First Stars and Galaxies</i>
14:25-14:45	Gen Chiaki (U. of Tokyo, Japan): <i>Numerical simulations of low-metallicity collapsing gas clouds</i>
14:45-15:10	Ilian Iliev (U. of Sussex, UK): <i>Radiative Feedback of the First Objects and its Effects on Galaxy Formation and the Detectability of the Epoch of Reionization</i>
15:10-15:30	John Wise (Georgia Institute of Technology, USA): <i>Synthetic Observations of the First Galaxies</i>

Coffee break (entrance hall)

16:00-16:25	Garrelt Mellema (Stockholm U., Sweden): <i>The three-dimensional view of the redshifted 21cm signal from reionization</i>
16:25-16:45	Bradley Greig (Scuola Normale Superiore, Italy): <i>21CMC: an MCMC framework for the astrophysics of reionisation</i>
16:45-17:05	Stuart Wyithe (U. of Melbourne, Australia): <i>Modelling galaxy formation and reionization with DRAGONS</i>
17:05-17:30	Kyungjin Ahn (Chosun U., Korea): <i>Role of First Galaxies in Cosmic Reionization and Their Impact on the Intergalactic Medium</i>

Wednesday Dec. 9, 2015

Session: COSMIC DAWN AND BEYOND

09:00-09:30	Andrea Ferrara (Scuola Normale Superiore, Italy): <i>First stars, First Black Holes</i>
09:30-09:55	Rennan Barkana (Tel Aviv U., IAP Paris, U. of Oxford): <i>Cosmic Dawn: From Theoretical Ideas to the SKA</i>
09:55-10:20	Matt Jarvis (U. of Oxford, UK): <i>Searching for high-redshift radio sources in the EoR: Problems and solutions</i>

Coffee break

10:50-11:15	Leon Koopmans (Kapteyn Astro. Institute, Netherlands): <i>Route 21: A bumpy road towards the Cosmic Dawn</i>
11:15-11:35	Olivier Dore (JPL/Caltech, USA): <i>The SPHEREx mission</i>
11:35-11:55	Jorryt Matthee (Leiden Observatory, The Netherlands): <i>Discovery of the brightest Lyman-alpha emitters in the epoch of re-ionisation</i>
11:55-12:25	Uros Seljak (UC Berkeley): <i>Nonlinear clustering of large scale structure: from first light until today</i>

Lunch break

Session: REIONIZATION AND FIRST GALAXIES

14:00-14:20	Josh Dillon (UC Berkeley, USA): <i>21 cm Power Spectrum Estimation in Theory and in Practice: Statistical Techniques and Early Results from First Generation Interferometers</i>
14:20-14:40	Charlotte Mason (UCSB/UCLA, USA): <i>The Galaxy UV Luminosity Function Before the Epoch of Reionization</i>
14:40-15:05	Anastasia Fialkov (ENS Paris, ITC Harvard): <i>The effect of first X-ray sources on cosmic observables</i>
15:05-15:30	Masahiro Takada (IPMU, Japan): <i>Halo bias</i>

Coffee break (entrance hall)

Session: COSMOLOGY

16:00-16:20	Irina Dvorkin (IAP, France): <i>The origin of dispersion in DLA metallicities</i>
16:20-16:50	Mario Livio : <i>Type Ia Supernovae and Cosmology</i>
16:45-17:15	Rogier Windhorst (Arizona State, USA): <i>Pre-Dinner Talk: Lessons learned from JWST and HST, that may help with WFIRST and other future big space missions.</i>

20:45 - 23:15 Conference Dinner at the Eiffel Tower

Thursday Dec. 10, 2015

Session: COSMOLOGY AND ENERGETIC PARTICLES

09:00-09:30	Ofer Lahav (UCL, UK): <i>Galaxy Surveys: More Than Dark Energy</i>
09:30-09:55	Raul Jimenez (iCrea, Spain): <i>Do we Understand the Universe</i>
09:55-10:20	Yoel Rephaeli (Tel Aviv U., Israel): <i>Galactic Energetic Particles and Their Radiative Yields in Clusters</i>

Coffee break

10:50-11:10	Lorenzo Amati (INAF - IASF Bologna, Italy): <i>Shedding light on the dark Universe with Gamma-Ray Bursts</i>
11:10-11:30	Sergey Sazonov (Space Research Institute, Moscow, Russia): <i>Preheating of the Universe by cosmic rays from primordial supernovae at the beginning of cosmic reionization</i>
11:30-11:50	Anna Schauer (ITA / Heidelberg U., Germany): <i>Lyman-Werner UV Escape Fractions from Primordial Halos</i>
11:50-12:15	Ben Wandelt (IAP Paris): <i>Analysis challenges for cosmological data sets</i>

Lunch break

Session: REIONIZATION AND COSMIC DAWN

14:00-14:25	Jonathan Pritchard (Imperial College London, UK): <i>Linking 21cm statistics and astrophysics</i>
14:25-14:45	Felix Mirabel (CEA-Saclay, France): <i>High Energy Sources in the Reionization Epoch</i>
14:45-15:10	Lincoln Greenhill (Harvard U., USA): <i>The Large Aperture Experiment to Detect the Dark Age (LEDA): Results and Prospects</i>
15:10-15:30	Daniel Whalen (ITA / Heidelberg U., Germany): <i>Finding the First Cosmic Explosions</i>

Coffee break (entrance hall)

16:00-16:25	Benoit Semelin (LERMA, Observatoire de Paris): <i>How much physics do you need to model the 21 cm forest?</i>
16:25-16:45	Pierre Ocvirk (Observatoire Astronomique de Strasbourg, France): <i>Cosmic Dawn (CoDa): the First Radiation-Hydrodynamics Simulation of Reionization and Galaxy Formation in the Local Universe</i>
16:45-17:10	Saleem Zaroubi (Kapteyn Astro. Institute, Netherlands): <i>Upper limits on the EoR from LOFAR</i>