

Galaxy Clusters in the Early Universe

Gran Hotel Pucón
9-12 November 2009

Sunday 8 November

20:00-22:00 WELCOMING COCKTAIL AND REGISTRATION

Monday 9 November

08:00- Registration continues

09:00-09:20 Welcoming remarks

Morning session: Chair - Chris Lidman

09:20-10:00 **Bianca Poggianti**
Clusters over a Hubble Time: bridging the low- and high-redshift universes (invited talk)

10:00-10:20 Louise Edwards
Evolution in the moderate-redshift cluster Abell 1763

10:20-10:40 Sebastian Lopez
Unveiling cold baryons in high redshift galaxy clusters

10:40-11:00 Diego Capozzi
The ratio of luminous to faint galaxies in x-ray and optically selected low-z clusters

11:00-11:30 COFFEE BREAK AND POSTER VIEWING (plus continued registration)

11:30-11:50 Gaël Foëx
Constraining the dark matter properties in intermediate redshift clusters of galaxies

11:50-12:10 Marco Castellano
Large scale structures in the GOODS-SOUTH field up to $z \sim 2.5$

12:10-12:30 Ignacio Toledo
Intra-cluster light in clusters at intermediate redshift

12:30-12:50 Ruben Sánchez-Janssen
The properties of galaxy disks in nearby galaxy clusters

13:00-15:00 LUNCH

Afternoon session: Chair - Leopoldo Infante

15:00-15:40 **Nelson Padilla**
The theoretical view of high-z clusters (invited talk)

15:40-16:00 Nicola Menzi
The red sequence of high-redshift clusters in hierarchical galaxy formation models

16:00-16:20 Jean-Claude Waizmann
Studying thermal evolution of galaxy clusters at high redshifts: implications for observations

16:20-16:40 Alessio Romeo
The slope of the galaxy red sequence up to $z=2$ from cosmological simulations of clusters and groups

16:40- COFFEE BREAK AND POSTER VIEWING

Tuesday 10 November

Morning session: Chair – George Miley

- 09:00-09:40 **Mike Gladders**
Optically Selected Galaxy Clusters: from the SDSS to RCS (invited talk)
- 09:40-10:00 Hernan Muriel
Red sequence and environment: implications for the star formation history in protoclusters
- 10:00-10:20 Remi Cabanac
The CFHTLS Strong Lensing Legacy Survey: a window on groups scale lenses
- 10:20-10:40 Ricardo Demarco
Spectrophotometric properties of cluster galaxies: galaxy evolution and cluster structure at $z > 0.8$
- 10:40-11:00 Anand Raichoor
Mass-size relation for early-type galaxies at $z > 1$
- 11:00-11:30 COFFEE BREAK AND POSTER VIEWING
- 11:30-11:50 Tomas Verdugo
Probing the innermost density profile in the lens galaxy group SL2SJ02140-0532
- 11:50-12:10 Mathilde Jauzac
Weak lensing detection of a filamentary structure near the massive cluster MACSJ0717
- 12:10-12:30 Renbin Yan
RCS-Spec: galaxy evolution in distant clusters
- 12:30-12:50 Carolina Núñez
Morphological and photometric study of the galaxy population in XMMJ2235-2557 at $z=1.39$
- 13:00-15:00 LUNCH

Afternoon session: Chair - Felipe Barrientos

- 15:00-5:40 **Mark Brodwin**
The infrared view of high- z clusters (invited talk)
- 15:40-16:00 John Stott
The mass and size evolution of brightest cluster galaxies since $z=1.5$
- 16:00-16:20 Frank Heymann
Clustering of red galaxies around the $z=1.53$ quasar 3C 270.1
- 16:20-16:40 Gillian Wilson
The SpARCS $z > 1$ cluster survey
- 16:40-17:10 COFFEE BREAK AND POSTER VIEWING
- 17:10-17:30 Adam Muzzin
The GCLASS survey
- 17:30-17:50 Stefano Andreon
The cluster of galaxies JKCS041 at $z\sim 1.9$ and cluster scale relations
- 17:50-18:10 Roberto Muñoz
The growth of the red sequence in clusters since $z\sim 1$
- 18:10-18:30 Povilas Palunas
Ly-alpha blobs: signposts of clustering in the early universe

Wednesday 11 November

Morning session: Chair – Gus Evrard

- 09:00-09:40 **Kathy Romer**
The x-ray view of high-z clusters (invited talk)
- 09:40-10:00 Florence Durret
An x-ray to infrared view of the young cluster RX J1257.2+4738 at $z=0.866$
- 10:00-10:20 Rene Fassbender
New high-z x-ray clusters from the XMM-Newton Distant Cluster Project
- 10:20-10:40 Antoine Chamballu
The Planck cluster catalog: S-Z and x-ray expected properties
- 10:40-11:00 Jeeseon Song
Characterizing the image of SPT AGN in SZE cluster finding
- 11:00-11:30 COFFEE BREAK AND POSTER VIEWING
- 11:30-11:50 Ilona Soechting
Quasars and galaxy clusters – where are the connections?
- 11:50-12:10 Luis Campusano
Finding galaxy clusters at $z>1$ embedded in large quasar group complexes
- 12:10-12:30 Eduardo Cypriano
 $z\sim 1$ galaxy clusters around quasar pairs
- 12:30-12:50 Craig Harrison
The environments of $z \sim 1$ 3C radio sources
- 13:00-15:00 LUNCH

Afternoon session: Chair – Marc Huertas

- 15:00-15:40 **George Miley**
Radio sources as probes of clusters in the early universe (invited talk)
- 15:40-16:00 Nina Hatch
Cluster progenitors: radio-selected galaxy overdensities at $z \sim 2.4$
- 16:00-16:20 Audrey Galametz
Probing high redshift galaxy clusters at $z \sim 1.5$ using radio galaxies
- 16:20-16:40 Jaron Kurk
H-alpha emitters in a forming cluster at $z=1.6$ in the GMASS field
- 16:40- COFFEE BREAK AND POSTER VIEWING
- 20:00 CONFERENCE DINNER

Thursday 12 November

Morning session: Chair – Gus Evrard

- 09:00-09:40 **Tadayuki Kodama**
Panoramic views of cluster evolution since $z=3$ with Subaru (invited talk)
- 09:40-10:00 Marc Huertas-Company
The role of environment in the morphological transformation of galaxies in 9 rich intermediate redshift clusters
- 10:00-10:20 Alessandro Rettura
Probing stellar populations and structural evolution in the early universe: star formation histories and sizes of massive early type galaxies in field, groups and clusters
- 10:20-10:40 Percy Gomez
The very massive central galaxy in the nearby Abell 3287 cluster
- 10:40-11:00 Raphael Gobat
Star formation histories of $z \sim 1$ cluster early-type galaxies
- 11:00-11:30 COFFEE BREAK AND POSTER VIEWING
- 11:30-11:50 Ruth Grutzbauch
The star formation history of the XMMU J2235.3-2557 galaxy cluster at $z=1.4$
- 11:50-12:10 Ernst Kuiper
Growing up in the city: galaxy populations in a protocluster at $z \sim 3$
- 12:10-12:30 Luke Davies
Galaxy clustering at the very highest redshift
- 12:30-12:50 Matteo Maturi
Cosmology with galaxy cluster counts in weak-lensing surveys
- 13:00-15:00 LUNCH

Afternoon session: Chair – Michael West

- 15:00-15:40 **Gus Evrard**
The agony and the ecstasy: cluster cosmology in the data-rich era (invited talk)
- 15:40-16:00 Chris Lidman
Using Type Ia supernovae in distant galaxy clusters as a dark energy probe
- 16:00-16:20 Hao-Yi Wu
Precision cosmology from future galaxy cluster surveys
- 16:20-16:40 Eric Jullo
Dark matter and dark energy with strong lensing in galaxy clusters
- 16:40-17:00 Marceau Limousin
A new window of exploration in the Mass Spectrum: strong Lensing by galaxy groups in the Strong Lensing Legacy Survey

CONFERENCE END

Posters

- Heather Andrews: *Unveiling cold baryons in high redshift cluster galaxies*
- Pablo Araya Melo: *Identifying Shocks in the Cosmic Spine*

- Ricardo Bustos: *Prospectives with ALMA Band 1*
- Mauricio Carrasco: *Gravitational lensing in clusters of the RCS*
- Georgina Coldwell: *Triplet of quasars at high redshifts: environmental analysis*
- Hector Cuevas: *Photometric and spectral properties of low x-ray galaxy clusters*
- Arjen de Hoon: *Discovery of a X-Ray Selected Strong Lensing Cluster at $z=1.08$*
- Jorge Diaz: *Unveiling the end of star formation in u^* - selected massive galaxies*
- Erica Ellingson: *Chandra observations of the optical/IR-selected $z=1.34$ cluster SpaRcs ES1-351*
- Ashley Faloon: *A spectroscopic survey of the $z=0.9$ supercluster RCS231953+00*
- Percy Gomez: *Flamingos-2: Gemini's new instrument for studying high- z galaxy clusters*
- Rodrigo Holanda: *On the distance duality and the geometry of the galaxy clusters*
- Kousai Katsuki: *Spectroscopic LBG survey in SSA22*
- Jaron Kurk: *H-alpha emitters in a forming cluster at $z=1.6$ in the GMASS field*
- Veronica Motta: *Spectroscopic follow-up of lensing groups in the CFHTL Strong Lensing Legacy Survey*
- José Luis Nilo Castellón: *Photometric and spectral properties of low x-ray galaxy clusters*
- Allison Noble: *Submillimeter imaging of high-redshift galaxy clusters*
- Fernando Selman: *Anti-hierarchical evolution in the line of sight toward RXJ0054-2823*
- Jeeseon Song: *Analyzing cluster finders with realistic mock catalogs*
- Jorge Diaz Tello: *Unveiling the End of Star Formation in u^* -selected Massive Galaxies*
- Ignacio Toledo: *Diffuse light component in a medium cluster at redshift 0.3*
- Yuji Yang: *Extended Lyman Alpha nebulae: tracer for high- z proto-cluster?*

An ESO workshop on:

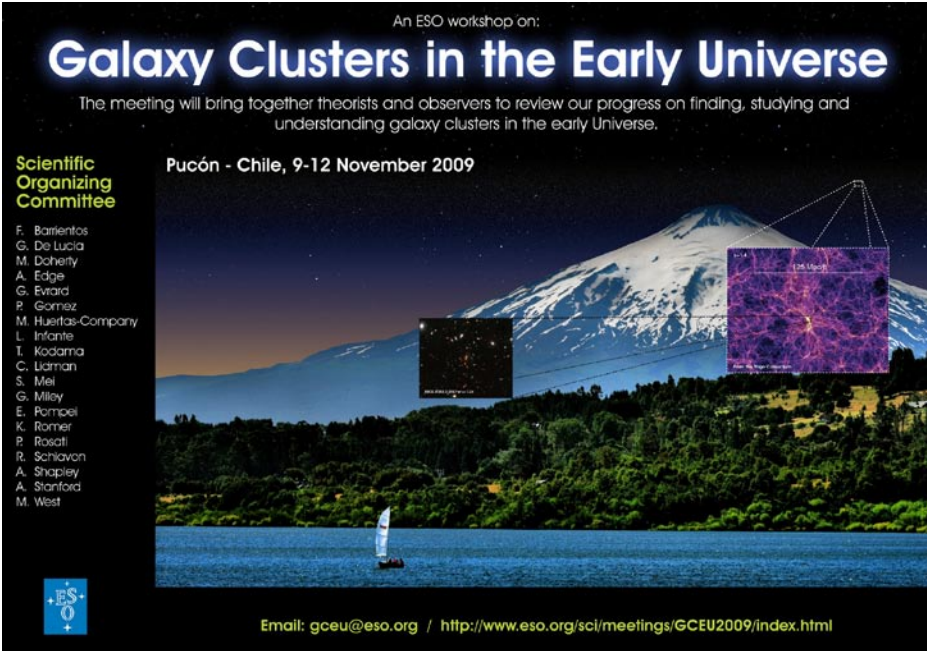
Galaxy Clusters in the Early Universe

The meeting will bring together theorists and observers to review our progress on finding, studying and understanding galaxy clusters in the early Universe.

Pucón - Chile, 9-12 November 2009

Scientific Organizing Committee

F. Ballesteros
G. De Lucia
M. Doherty
A. Edge
G. Evariz
P. Gomez
M. Huertas-Company
L. Infante
T. Kodama
C. Lieman
S. Mei
G. Milly
E. Rempel
K. Rosser
P. Rosati
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M. West



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