



The Abdus Salam
**International Centre
for Theoretical Physics**



Workshop on Large Scale Structure

Organizer(s): S. Borgani (INAF - OATS), P. Creminelli (ICTP), A. Paranjape (ICTP), E. Sefusatti (ICTP) U. Seljak (UC & LBNL Berkeley & Zürich U.), R. Sheth (ICTP & UPenn)
Collaboration(s): the Italian Institute for Nuclear Physics (INFN)
Trieste - Italy, 30 July 2012 - 2 August 2012

Venue: Leonardo da Vinci Building Main Lecture Hall

Programme

Monday, 30 July 2012 (Room:Leonardo da Vinci Building Main Lecture Hall)

30 July 2012

- 08:30 - 09:15** (Room: Leonardo da Vinci Building, Lobby)
--- REGISTRATION ---
PLEASE NOTE: Those who have already registered for the 'Summer School on Cosmology' do not need to register again.
- 09:15 - 09:30** **Welcome by the Organizers**
- 09:30 - 10:00** **U. Seljak / UC & LBNL Berkeley & Zürich U.**
Galaxy clustering and weak lensing: recent developments and future prospects
- 10:00 - 10:30** **P. Norberg / Durham U.**
Large scale structure and galaxy formation studies with GAMA
- 10:30 - 11:00** (Room: Leonardo da Vinci Building Terrace)
--- Coffee Break ---
- 11:00 - 11:30** **E. Gaztanaga / ICE (IEEC/CSIC)**
Cross-correlation of photometric and spectroscopic galaxy surveys
- 11:30 - 12:00** **R. Angulo / Max Planck Institute for Astrophysics**
The Millennium-XXL project

- 12:00 - 12:30** **J. Cohn / U. of California at Berkeley**
Galaxy Clusters and the Cosmic Web
- 12:30 - 14:00** (Room: Leonardo da Vinci Building Cafeteria)
 --- Lunch Break ---
- 14:00 - 14:30** **M. Viel / INAF - OA di Trieste**
Non-linearities in the matter power spectrum: neutrinos and warm dark matter
- 14:30 - 15:00** **J. Lee / Seoul National U.**
Massive Neutrinos Promote the Size Growth of Early-Type Galaxies
- 15:00 - 15:30** **A. Slosar / Brookhaven National Laboratory**
Lyman-Alpha in Three Dimensions: New developments
- 15:30 - 16:00** (Room: Leonardo da Vinci Building Terrace)
 --- Coffee Break ---
- 16:00 - 16:30** **R. Durrer / U. of Geneva**
The measured galaxy correlation function
- 16:30 - 17:00** **L. Senatore / Stanford U.**
The Effective Field Theory of Cosmological Large Scale Structures

Tuesday, 31 July 2012 (Room:Leonardo da Vinci Building Main Lecture Hall)

31 July 2012

- 09:30 - 10:00** **M. White / U. of California at Berkeley**
Redshift space distortions for biased tracers
- 10:00 - 10:30** **L. Guzzo / INAF - OA di Brera**
Tracing the growth of structure with redshift-space distortions in current and future surveys
- 10:30 - 11:00** (Room: Leonardo da Vinci Building Terrace)
 --- Coffee Break ---
- 11:00 - 11:30** **V. Desjacques / U. of Geneva**
TBA
- 11:30 - 12:00** **T. Matsubara / KMI - Nagoya U.**
Deriving the scale-dependent bias from the integrated perturbation theory
- 12:00 - 12:30** **M. Musso / U. Catholique de Louvain**
Memory matters: random walks to galaxies
- 12:30 - 14:00** (Room: Leonardo da Vinci Building Cafeteria)
 --- Lunch Break ---
- 14:00 - 14:30** **H. Boehringer / Max Planck Institute for Extraterrestrial Physics**
X-ray Galaxy Clusters as Cosmological and Astrophysical Probes
- 14:30 - 15:00** **S. Majumdar / Tata Institute of Fundamental Research**
Energy Feedback and Entropy in Galaxy Clusters
- 15:00 - 15:30** **D. Hutereu / U. of Michigan**
Falsifying LambdaCDM with clusters

- 15:30 - 16:00 (Room: Leonardo da Vinci Building Terrace)
--- Coffee Break ---
- 16:00 - 16:30 **N. Sehgal / Princeton U.**
Relation Between Galaxy Cluster Optical Richness and SZ Effect
- 16:30 - 17:00 **B. Benson / U. of Chicago**
The South Pole Telescope: The Sunyaev-Zel'dovich Cluster Survey and Future Plans

Wednesday, 1 August 2012 (Room:Leonardo da Vinci Building Main Lecture Hall)

1 August 2012

- 09:30 - 10:00 **T. Davis / U. of Queensland**
The WiggleZ Dark Energy Survey - Final Results (almost!)
- 10:00 - 10:30 **B. Wandelt / IAP - U. Pierre et Marie Curie**
Bayesian cosmological inference from Large Scale Structure data
- 10:30 - 11:00 (Room: Leonardo da Vinci Building Terrace)
--- Coffee Break ---
- 11:00 - 11:30 **F. Bernardeau / CEA Saclay**
New results and insights into the dynamics of Gravitational Instabilities
- 11:30 - 12:00 **M. Crocce / ICE (IEEC/CSIC)**
MPTbreeze : fast computations of density and velocity spectra
- 12:00 - 12:30 **S. Anselmi / ICE (IEEC/CSIC)**
Resummed non-linear Power Spectrum: Beyond the BAO Scale
- 12:30 - 14:00 (Room: Leonardo da Vinci Building Cafeteria)
--- Lunch Break ---
- 14:00 - 14:30 **E.A. Kazin / Swinburne U. of Technology**
Clustering Wedges: An alternative approach to measuring $H(z)$ and $D_a(z)$ with galaxy clustering
- 14:30 - 15:00 **A. Raccanelli / Caltech**
Testing Gravity using Large-Scale Redshift-Space Distortions
- 15:00 - 15:30 **J. Yoo / U. of Zurich**
Going beyond the Kaiser redshift-space distortion formula
- 15:30 - 16:00 (Room: Leonardo da Vinci Building Terrace)
--- Coffee Break ---
- 16:00 - 16:30 **E. Semboloni / Leiden Observatory**
On the importance of feedback modelling for weak lensing precision cosmology
- 16:30 - 17:00 **G. Holder / McGill U.**
Gravitational Lensing of the CMB

Thursday, 2 August 2012 (Room:Leonardo da Vinci Building Main Lecture Hall)

2 August 2012

- 09:30 - 10:00** **B. Bassett** / *U. of Cape Town*
TBA
- 10:00 - 10:30** **V. Pettorino** / *U. of Geneva*
Probing dark interactions
- 10:30 - 11:00** (Room: Leonardo da Vinci Building Terrace)
--- Coffee Break ---
- 11:00 - 11:30** **E. Sefusatti** / *ICTP*
TBA
- 11:30 - 12:00** **J.I. Norena Sanchez** / *U. de Barcelona*
Prospects for constraining the shape of non-Gaussianity with the scale-dependent bias
- 12:00 - 12:30** **T. Baldauf** / *U. of Zurich*
Halo Clustering Beyond the Local Bias Model
- 12:30 - 14:00** (Room: Leonardo da Vinci Building Cafeteria)
--- Lunch Break ---
- 14:00 - 14:30** **Y.C. Cai** / *Durham U.*
Towards understanding the stacked ISW signal
- 14:30 - 15:00** **M. Manera** / *U. of Portsmouth*
The clustering of 3D galaxies in Boss, and the construction of mock galaxy catalogues
- 15:00 - 15:30** **Conclusions**