

Euclid and beyond: the many faces of modern cosmology

Rome 11-14 February 2019
Sala convegni, Pl.e Aldo Moro 7

Scientific Program(*)

Day 1 - Monday February 11				
Session 1 - State of the art and perspectives				
10:30-13:15	<i>Chair: C. Carbone</i>			
Adriano	Fontana		15	Welcome & introduction
Nicola	Bartolo	Review Talk	30	Inflation and its observables, primordial gravitational waves and Non-Gaussianity
Salvatore	Capozziello	Review Talk	30	Dark Energy vs. Modified gravity models
Cristian	Galbiati	Review Talk	30	Dark Matter: theoretical aspects and instrumental search
Michele	Punturo	Review Talk	30	The detection of GW
Elena	Pian	Review Talk	30	Multi-messenger astrophysics: State of the art of GW and UHE neutrino electromagnetic follow-up
Lunch break (13:15-14:15)				
Session 2 - CMB				
14:15-15:55	<i>Chair: L. Stanco</i>			
Marco	Bersanelli	Invited Talk	25	CMB experiments
Silvia	Galli	Invited Talk	25	Cosmological results from the final data release of the Planck satellite
Paolo	Natoli	Invited Talk	25	The Planck cosmological legacy and what can be done with it
Carlo	Baccigalupi	Invited Talk	25	CMB Polarization: theoretical motivations and observational perspectives.
Coffe Break (16:00-16:30)				
16:30-17:30				
Erminia	Calabrese	DISCUSSION LEADER		
Paolo	De Bernardis	DISCUSSION LEADER	60	DISCUSSION
Nicola	Vittorio	DISCUSSION LEADER		
17:30:18:15	Special lecture: "The Gruber Prize to Planck", Prof. Reno Mandolesi			

Day 2 - Tuesday February 12				
Session 3: Other astrophysical probes				
9:00-11:00	<i>Chair: P. Blasi</i>			
Stefano	Cristiani	Invited Talk	25	Cosmological constraints from high resolution spectroscopy
Guido	Risaliti	Invited Talk	25	Cosmological constraints from the Hubble diagram of quasars at high redshifts
Gabriela	Zaharijas	Invited Talk	25	Searching for dark matter particle properties in astrophysical data
Nicola	Menci	Invited Talk	25	Constraints on DM particles from galaxy surveys
Michele	Moresco	Invited Talk	25	Moving beyond standard probes: a new method to constrain the expansion history of the Universe with cosmic chronometers
Coffe Break (11:00-11:30)				
11:30-13:00	<i>Chair: B. Garilli</i>			
Martino	Romaniello	Invited Talk	25	The Hubble constant: current tension from different experiments
Simona	Gallerani	Invited Talk	25	The physical properties of $z \sim 6$ quasars
Fabrizio	Nicastro	Invited Talk	25	Missing Baryons and the Warm-Hot Intergalactic Medium
Stefano	Ettori	Contributed Talk	15	X-ray, SZ and dark matter in galaxy clusters
Lunch break (13:00-14:00)				
14:00-16:00	<i>Chair: L. Guzzo</i>			
Stefano	Cavuoti	Contributed Talk	15	Stellar Formation Rates for large samples of galaxies using Machine learning methods.
Giacomo	Girelli	Contributed Talk	15	CONSTRAINTS ON THE STELLAR-TO-HALO MASS RELATION FROM $z=0$ TO $z=4$
Alessandro	Spagna	Contributed Talk	15	How could Euclid address local cosmology issues?
Luigi	Bassini	Contributed Talk	15	Black hole mass and cluster mass relation in cosmological hydrodynamical simulations
Giuseppe	Bono	DISCUSSION LEADER		
Andrea	Cimatti	DISCUSSION LEADER	60	DISCUSSION
Raffaella	Shneider	DISCUSSION LEADER		
Coffe Break (16:00-16:30)				
Session 4: LSS and clustering				
16:30-18:15	<i>Chair: L. Moscardini</i>			
Ben	Granett	Invited Talk	25	Mapping the large-scale structure of the Universe with spectroscopic redshift surveys
Isabella	Prandoni	Invited Talk	25	The SKA Project and its role in cosmology
Massimo	Meneghetti	Invited Talk	25	Unveiling the inner structure of galaxy clusters using strong lensing
Carlo	Giocoli	Invited Talk	25	Simulations for weak lensing studies

Day 3 - Wednesday February 13

Session 4: LSS and clustering

9:00-10:40

Chair: E. Sefusatti

Maria	Archidiacono	Invited Talk	25	Neutrino constraints from future surveys
Marco	Baldi	Invited Talk	25	Simulations for LSS
Alex	Saro	Invited Talk	25	The South Pole Telescope (SPT) cluster survey and its cosmological implications
Daniele	Bertacca	Invited Talk	25	Light cone effects in the wide-angle galaxy 2-point correlation function

Coffe Break (10:40-11:10)

11:10-13:00

Chair: R. Scaramella

Andrea	Biviano	Contributed Talk	15	DM from kinematics in galaxy clusters
Stefano	Camera	Contributed Talk	15	Synergetic cosmology across the spectrum
Federico	Marulli	Contributed Talk	15	The clustering of XXL galaxy clusters
Mauro	Serenio	Contributed Talk	15	Galaxy clusters scaling relations for astrophysics and cosmology
Enzo	Branchini	DISCUSSION LEADER		
Vincenzo Fabrizio	Cardone	DISCUSSION LEADER	50	DISCUSSION
Matteo	Viel	DISCUSSION LEADER		

Lunch break (13:00-14:00)

Session 5: Summary and conclusion

14:00-15:30

Chair: A. Fontana

Sabino	Matarrese	Review Talk	45	Summary Talk
S. Borgani, B. Negri, M. Pallavicini, F. Zerbi			45	Round table: Conclusions and perspectives

Coffe Break (15:30-16:00)

16:00-18:00

Euclid Italia Consortium Meeting - see separate program

POSTERS

<i>Ivano</i>	<i>Baronchelli</i>	<i>Identification of single line emitters in large spectroscopic surveys: WISPs</i>
<i>Marco</i>	<i>Bonici</i>	<i>Constraints on interacting dynamical dark energy from the cosmological equation of state</i>
<i>Federico</i>	<i>De Luca</i>	<i>A multi-wavelength study of the dynamical state of galaxy clusters with The Three Hundred numerical cluster catalogue</i>
<i>Chiara</i>	<i>Moretti</i>	<i>Extending approximated methods to generate mock catalogs to modified gravity theories</i>
<i>Carolina</i>	<i>Parroni</i>	<i>HOWLS - Higher Order Weak Lensing Statistics</i>
<i>Federica</i>	<i>Sassano</i>	<i>Light, heavy or intermediate? The nature of the first supermassive black hole seeds.</i>

(*) Program Version 7, last updated on Feb 4, 2019