

**From inflation to galaxies:  
Bridging two millennia and three generations of researchers in cosmology  
A workshop in honour of Sabino Matarrese**

## Program

Each keynote talk is 25 min + 5 min discussion

Each contributed talk is 15 min + 5 discussion

<b>Mon 31/8 PM</b>	
13:30 – 14:00	Registration
14:00 – 14:15	Welcome and logistics <span style="float: right;"><i>Porciani</i></span>
	<b>First session – LSS: observations and survey science</b> <span style="float: right;"><b>Chair: Bartelmann</b></span>
14:15 – 14:45	Position-dependent power spectrum <span style="float: right;"><i>Komatsu</i></span>
14:45 – 15:15	Explorations and adventures in non-Gaussianity <span style="float: right;"><i>Wandelt</i></span>
15:15 – 15:35	Cosmic Degeneracies: a new challenge for Precision Cosmology <span style="float: right;"><i>Baldi</i></span>
15:35 – 15:55	Searching for Fermi Gamma-Ray Diffuse Extragalactic Signal via Cross-correlations with LSS Catalogs <span style="float: right;"><i>Xia</i></span>
<b>15:55 – 16:25</b>	<b>Coffee break</b>
	<b>Chair: Schneider</b>
16:25 – 16:55	Weak lensing analysis: the principled way <span style="float: right;"><i>Heavens</i></span>
16:55 – 17:00	Introduction to the best-presentation award offered by Physics of the dark universe <span style="float: right;"><i>Verde</i></span>
17:00 – 17:20	Testing cosmological models with galaxy clustering <span style="float: right;"><i>Raccanelli</i></span>
17:20 – 17:40	Precision cosmology with 21cm intensity mapping in the post-reionization era <span style="float: right;"><i>Villaescusa</i></span>
17:40 – 18:00	Beyond standard probes: mapping the expansion history of the Universe with cosmic chronometers <span style="float: right;"><i>Moresco</i></span>
18:00 – 18:30	Discussion (Led by Branchini, Jimenez, Viel)
<b>19:00</b>	<b>Welcome cocktail at the seaside</b>

<b>Tue 1/9 AM</b>	
	<b>Second session – LSS: theory and simulations</b> <span style="float: right;"><b>Chair: Heavens</b></span>
9:00 – 9:30	Multi-stream portrait of the cosmic web <span style="float: right;"><i>Shandarin</i></span>
9:30 – 9:50	Analytic halo formation <span style="float: right;"><i>Musso</i></span>
9:50 – 10:10	Genetically modified halos: towards controlled experiments in galaxy formation <span style="float: right;"><i>Roth</i></span>
10:10 – 10:30	Scale dependent bias from an inflationary bispectrum: a peak model approach <span style="float: right;"><i>Biagetti</i></span>
<b>10:30 – 11:00</b>	<b>Coffee Break</b>
	<b>Chair: Pietroni</b>
11:00 – 11:30	A microscopic approach to cosmic structure formation <span style="float: right;"><i>Bartelmann</i></span>
11:30 – 11:50	Evading non-linearities: Baryon Acoustic Oscillations at the linear point <span style="float: right;"><i>Anselmi</i></span>
11:50 – 12:10	Relativistic effects on galaxy clustering <span style="float: right;"><i>Di Dio</i></span>
12:10 – 12:30	Relativistic corrections for small and large scales <span style="float: right;"><i>Bertacca</i></span>
12:30 – 12:50	Relativistic perturbations in LCDM: Eulerian and Lagrangian approaches <span style="float: right;"><i>Villa</i></span>
<b>12.50 – 14:30</b>	<b>Lunch</b>
	<b>Chair: Mollerach</b>
14.30 – 15:00	Adventures with the 1-Point Distribution Function <span style="float: right;"><i>Coles</i></span>
	<b>Subsession – High-redshift objects</b>
15:00 – 15:30	The first stars and galaxies <span style="float: right;"><i>Schneider</i></span>
15:30 – 15:50	Understanding the properties of the most distant quasars and galaxies in the ALMA era <span style="float: right;"><i>Gallerani</i></span>
<b>15:50 – 16:20</b>	<b>Coffee break</b>
<b>16:20 – 16:50</b>	<b>Discussion (Led by Porciani, Verde)</b>
	<b>Third session – Modified gravity</b> <span style="float: right;"><b>Chair: Bruni</b></span>
16.50 - 17:20	Lorenz violating cosmology <span style="float: right;"><i>Nusser</i></span>
17:20 – 17:40	The Horndeski cocktail: shaken or stirren? <span style="float: right;"><i>Bettoni</i></span>
17:40 – 18:00	Signatures of Horndeski gravity on the dark-matter bispectrum <span style="float: right;"><i>Bellini</i></span>
18:00 – 18:20	The two faces of mimetic Horndeski gravity: disformal transformation and Lagrange multipliers <span style="float: right;"><i>Karmakar</i></span>
<b>20:30</b>	<b>Conference dinner</b>

<b>Wed 2/9 AM</b>		
		<b>Chair: Nusser</b>
9:00 – 9:20	Cosmology of massive gravity	<i>Fasiello</i>
9:20 – 9:40	Effective field theory for cosmic acceleration	<i>Hu</i>
9:40 – 10:00	Modified gravity signatures on the large scale structure distribution	<i>Raveri</i>
10:00 – 10:30	Discussion (Led by Bruni, Kolb)	
10:30 – 11:00	Coffee break	
	<b>Fourth session: Galaxy clusters and high-energy phenomena</b>	<b>Chair: Jimenez</b>
11:00 – 11:30	Galaxy clusters and cosmology	<i>Borgani</i>
11:30 – 11:50	High energy observations of Clusters of Galaxies is turning 50: it is now the time for cluster's "diagnostics" via high resolution X-rays and Microwave imaging	<i>Mazzotta</i>
11:50 – 12:20	The cosmic ray connection	<i>Mollerach</i>
12:20 – 12:50	Discussion (Led by Moscardini)	
12:50 – 14:30	Lunch	
	<b>Fifth session – Inflation and CMB</b>	<b>Chair: Burigana</b>
14:30 – 15:00	Violation of parity and of statistical isotropy during inflation	<i>Peloso</i>
15:00 – 15:20	Diffeomorphism breaking in the Effective Field Theory of Inflation	<i>Cannone</i>
15:20 – 15:40	Inflationary tensor fossils in CMB and LSS	<i>Dimastrogiovanni</i>
15:40 – 16:00	Planck constraints on primordial non-Gaussianity and implications for inflation	<i>Arroja</i>
16:00 – 16:30	Coffee break	
		<b>Chair: Marinucci</b>
16:30 – 16:50	A directional analysis with a needlet-based modal estimator in temperature and polarization	<i>Renzi</i>
16:50 – 17:10	Is there evidence for anisotropy in CMB data?	<i>Saadeh</i>
17:10 – 17:30	Primordial symmetry breakings and new CMB observables	<i>Shiraishi</i>
17:30 – 18:00	Discussion (Led by Baccigalupi, Bartolo, Liguori)	

<b>Thurs 3/9 AM</b>	<b>Sixth session: Large-scale perturbations</b>	<b>Chair: Riotto</b>
9:00 – 9:30	Effective Dark Energy from Unmodified Gravity	<i>Kolb</i>
9:30 – 10:00	The many mistakes of my scientific life	<i>Matarrese</i>
10:00 – 10:30	Discussion (Led by Riotto)	
10:30 – 11:00	Coffee break	
	<b>Final session</b>	<b>Chair: Porciani</b>
11:00 – 11:05	Best-presentation award offered by Physics of the dark universe	<i>Verde</i>
11:05 - 11:35	Concluding remarks <i>Coles+Kolb</i>	
11:35 – 13:00	Unconference/brainstorming (led by SOC)	
13:00 - 13:10	Farewell	<i>Verde</i>
13:10	END	