

# X IBERIAN COSMOLOGY MEETING

Aranjuez, 30 March – 1 April 2015

## Programme

The duration of invited talks will be 45 minutes plus 15 minutes for questions, except the short talks, which will be 10 + 5 minutes long.

### Monday 30 March

Hour	Speaker	Title
08:30 - 9:15		<b>Registration</b>
09:15 - 09:30		<b>Opening</b>
	Chairperson: <a href="#">Peter K. S. DUNSBY</a>	
09:30 - 10:30	Enrique MARTÍNEZ GONZÁLEZ	Latest cosmological results from the Planck mission
10:30 - 10:45	Fernando ATRIO-BARANDELA	Probing the Dark Flow signal in WMAP 9 yr and PLANCK cosmic microwave background maps.
10:45 - 11:00	David ALONSO	The challenges of HI Intensity Mapping.
11:00 - 11:15	Soebur RAZZAQUE	Astrophysical Sources of the IceCube Cosmic Neutrino Events.
11:15 - 11:30	Alma D. ROJAS	Corrections to the TBM ansatz.
11:30 - 12:00		<b>Coffee break</b>
	Chairperson: <a href="#">Fernando ATRIO-BARANDELA</a>	
12:00 - 12:15	Marc MANERA	THE DARK ENERGY SURVEY, status, first results, and mocks.
12:15 - 12:30	Francisco J. SÁNCHEZ-LOPEZ	Homogeneity and isotropy in the 2MASS Photometric Redshift catalogue.
12:30 - 12:45	Carlos MARTINS	The UVES Large Program for Testing Fundamental Physics: New Results and Cosmological Implications.
12:45 - 13:00	Ana Catarina LEITE	Optimization of ESPRESSO Fundamental Physics Tests.
13:00 - 13:15	Franco D. ALBARETI	Nebulium tests the fine-structure constant evolution.
13:15 - 13:30	Lara SOUSA	Observational Consequences of Varying-alpha Domain Walls
13:30 - 15:00		<b>Lunch</b>

Chairperson: [Sergey ODINTSOV](#)

Hour	Speaker	Title
15:00 - 16:00	Gianluca CALGACNI	Cosmology and quantum gravities: Where are we?
16:00 - 16:15	Flavio MERCATI	Shape Dynamics: a new tool for General Relativity, Cosmology and Quantum Gravity.
16:15 - 16:30	Ana ALONSO-SERRANO	Quantum cosmology: Games without frontiers.
16:30 - 16:45	Raúl CARBALLO-RUBIO	Gravitational symmetries and the quantum vacuum.
16:45 - 17:15		<b>Coffee break</b>
	Chairperson: Antonio DOBADO	
17:15 - 17:30	Sergey ODINTSOV	Accelerating cosmology from modified and quantum gravity.
17:30 - 17:45	Ismael AYUSO	On the consistency of universally non-minimally coupled $f(R, T, R_{\mu\nu}T^{\mu\nu})$ theories.
17:45 - 18:00	Mikjel THORSRUD	Horndeski's vector-tensor theory.
18:00 - 18:15	Jose Pedro MIMOSO	Conformal time and Radiation.
18:30 - 18:30	Dario BETTONI	Dynamics of non-minimally coupled fluids.
18:30 - 18:45	Lucía FONSECA DE LA BELLA	Effective field theory of dark energy and constraints in quintessence models.
18:45 - 19:00	Jack MORRICE	Disformal extensions to the rescue.
20:00		<b>SEGRE assembly</b>

## Tuesday 31 March

Hour	Speaker	Title
	Chairperson: Prado MARTÍN-MORUNO	
09:00 - 10:00	Mariam BOUHMADI LÓPEZ	Possible doomsday behaviours for the Universe: classical versus quantum.
10:00 - 10:15	Johannes NOLLER	Graviton theories.
10:15 - 10:30	Adam SOLOMON	Are Two Metrics Better Than One?: The Cosmology of Massive (Bi)gravity.
10:30 - 10:45	Macarena LAGOS	Cosmological perturbations in massive gravity.
10:45 - 11:00	João MORAIS	Dark Radiation in a Modified Gravity Scenario.
11:00 - 11:15	Ippocratis SALTAS	Reconstructing the dark sector of the Universe.
11:15 - 11:30	Sulona KANDHAI	Dynamical system approach to $f(R)$ gravity

Hour	Speaker	Title
11:30 - 12:00		<b>Coffee break</b>
	Chairperson: Gianluca CALCAGNI	
12:00 - 12:15	Ali MOZAFFARI	Phenomenology of preferred scale gravity.
12:15 - 12:30	Lorenzo REVERBERI	Gravitational contraction in $f(R)$ gravity: curvature singularities and particle production.
12:30 - 12:45	Denitsa STAICOVA	Minimal Dilatonic Gravity from cosmology to compact massive objects.
12:45 - 13:00	Pedro Avelino PINA	Interacting dark energy: the role of microscopic feedback in the dark sector.
13:00 - 13:15	Houri ZIAEPOUR	Formation and evolution of quantum condensates as origin of inflation and dark energy.
13:15 - 13:30	Adrian BODNARESCU	On the dynamics of some hyperbolic Universe models driven by a spontaneous symmetry breaking scalar field.
13:30 - 13:45	Ivan DE MARTINO	Constraining the redshift evolution of the Cosmic Microwave Background black-body temperature with Planck data.
13:45 - 15:00		<b>Lunch</b>
	Chairperson: Nelson NUNES	
15:00 - 16:00	Peter K. S. DUNSBY	The Emergence of Late Time Cosmological Acceleration in $f(R)$ Theories of Gravity.
16:00 - 16:15	Christian BYRNES	The post Planck curvaton.
16:15 - 16:30	Masato MINAMITSUJI	The Initial State of a Primordial Anisotropic Stage of Inflation.
16:30 - 16:45	Juan Carlos BUENO	Hidden in the background.
16:45 - 17:15		<b>Coffee break</b>
	Chairperson: Mar BASTERO-GIL	
17:15 - 17:45	Qaisar SHAFI	Standard Model Higgs Inflation and Beyond.
17:45 - 18:00	Laura PADURARU	A simple extension to the Starobinsky model of inflation.
18:00 - 18:15	Constantinos PALLIS	Observables Gravitational Waves from Non-Minimal Inflation in Supergravity.
18:15 - 18:30	Igor RUDENOK	Post-inflationary preheating with weak coupling.
19:00 - 20:00	Carlos MUÑOZ	<b>Public talk (in Spanish)</b>
21:00 - 23:00	IberICOS2015 dinner	Casa Delapio (Av. Plaza de Toros, 7)

Wednesday 1 April

Hour	Speaker	Title
Chairperson: Carlos MARTINS		
09:30 - 10:30	Nelson NUNES	Three-form Cosmology.
10:30 - 10:45	Bruno BARROS	Inflation driven by 3-form fields.
10:45 - 11:00	Osamu SETO	Axion monodromy inflation with modulation corrections.
11:00 - 11:15	Carlos TAMARIT	Higgs valleys, stability and inflation.
11:15 - 11:30	Ricardo ZAMBUJAL FERREIRA	Universal Constraints on Axions from Inflation.
11:30 - 11:45	Sraavan KUMAR	DBI galileon inflation in the light of Planck 2015.
11:45 - 11:50	IberICOS2016 Announcement	
11:50 - 12:15		<b>Coffee break</b>
Chairperson: Mariam BOUHADI		
12:15 - 12:30	Carlos MUÑOZ	Gravitino Dark Matter: Model and Searches.
12:30 - 12:45	Viviana GAMMALDI	Results and Prospects on TeV Dark Matter at the Galactic Center.
12:45 - 13:00	Sam YOUNG	Signatures of non-gaussianity in isocurvature modes in primordial black hole dark matter.
13:00 - 13:15	Rafael CEREZO	Inflaton dark matter from incomplete decay.
13:15 - 13:30	Asier LÓPEZ-EIGUREN	Chasing monopoles.
13:30 - 13:45	César BONILLA	Flavor symmetry and mass relation
13:45 - 14:00		<b>Final remarks and farewell</b>
14:00 - 15:30		<b>Lunch</b>