

Tensions in Cosmology



Sep 7 - Sep 12, 2022 – Corfu, Greece

TIMETABLE

Wednesday 07/09/2022

Session	Time	Title
	11:00 –13:30	Registration
	18:00-20:00	

* PL=Plenary, PS A=Parallel Session A, PS B=Parallel Session B

Thursday 08/09/2022

Session	Time	Speaker	Title
	8:00 – 8:45		Registration
	8:45-9:00		Welcome – E. Saridakis, E. Di Valentino
PL	9:00-9:30	L. Verde	How many h are there? And what do they mean?
	9:30-10:00	D. Scolnic	Constraints on Cosmological Expansion With Type Ia Supernovae
	10:00-10:30	C. Hill	Toward Cosmological Concordance with New Physics in the Dark Sector
	10:30-10:50	M. Moresco	Addressing cosmological tensions with new emerging probes: a perspective from cosmic chronometers
	10:50-11:10	L. Koopmans	Measuring H0 with strongly lensed quasars
		11:10-11:30	
PL	11:30-11:50	P. Brax	Inhomogeneous Hubble diagram from vector K-mouflage
	11:50-12:10	S. Dhawan	A uniform Zwicky Transient Facility-tip of the red giant branch distance ladder Implications for the Hubble constant
	12:10-12:30	C. Escamilla-Rivera	Cosmological tension analyses in extended theories of gravity: artificial neutral path
	12:30-12:50	Y. Akrami	Large-Scale Anomalies in the Cosmic Microwave Background Current Status, Future Prospects, and Possible Explanations
	12:50-15:30		Lunch Break

Session	Time	Speaker	Title
PL	15:30-15:50	I. Saltas	Hubble tension: Understanding the theoretical uncertainties of TRGB calibrations theoretical uncertainties of TRGB> calibrations
	15:50-16:10	D. Staicova	Inferring cosmological parameters from Baryon Acoustic Oscillations datasets
	16:10-16:30	M. Zumalacárregui	Towards solutions to the Hubble problem beyond Einstein's Gravity
	16:30-16:50	W. Handley	Next generation cosmological analysis with nested sampling
	16:50-17:10	R. Anderson	A 1% calibration of the Galactic Cepheid Luminosity scale based on cluster Cepheids strengthens the Hubble tension
	21:00		Welcome Drinks

Friday 09/09/2022

Session	Time	Speaker	Title
PL	9:00-9:30	M. Plionis	Cosmological Constraints using Alternative Hubble Expansion Tracers
	9:30-10:00	G. Efstathiou	A possible non-linear solution to the S8 tension
	10:00-10:30	A. Amon	The Dark Energy Survey and the S8 tension
	10:30-10:50	S. Mukohyama	Modified gravity with 2 d.o.f. as a tool to address tensions in cosmology
	10:50-11:10	A. De Felice	How to address tensions in cosmology by modified gravity with 2 d.o.f.
11:10-11:30			Coffee Break
PL	11:30-11:50	J. Blakeslee	Current and Future Constraints on H0 from Infrared SBF
	11:50-12:10	A. Kamenshchik	Tensions with cosmological singularities: Should we try to avoid their appearance?
	12:10-12:30	S. Kumar	A robust explanation of CMB anomalies with a new formulation of inflationary quantum fluctuations
	12:30-12:50	P. Frampton	Is there Additional Dark Matter?
	12:50-13:10	M. Dabrowski	Barrow holographic dark energy and a possible reduction of the Hubble tension
	13:10-13:30	L. Perivolaropoulos	The tensions of Λ CDM and a late gravitational transition
13:30-15:30			Lunch Break

Session	Time	Speaker	Title
PS A	15:30-15:40	V. Zarikas	Asymptotic Safety and the Cosmic Coincidence Problem
PS B		C. Paganini	A Mechanism of Baryogenesis for Causal Fermion Systems
PS A	15:40-15:50	H. Nielsen	Domaine walls low tension
PS B		B. Giblin	Slicing through the tension: getting more cosmology from weak lensing
PS A	15:50-16:00	E. Bellini	Towards realistic constraints on alternative theories of gravity
PS B		N. Robertson	Consistent lensing and clustering in a low- S_8 Universe with BOSS, DES Year 3, HSC Year 1 and KiDS-1000
PS A	16:00-16:10	M. Lucca	Is a new cosmological tension emerging from the (Lyman- α) forest?
PS B		H. Tzerefos	Alleviation of the σ_8 tension in soft cosmology
PS A	16:10-16:20	C. Moreno Pulido	Quantum vacuum, a cosmic chameleon
PS B		K. Asvesta	Tilted cosmology and tensions with the Λ CDM model using SNIa
PS A	16:20-16:30	M. Haslbauer	The KBC void and Hubble tension in Λ CDM and Milgromian dynamics
PS B		G. Korkidis	A new probe of dark energy
PS A	16:30-16:40	M. Cruz Reyes	A 1.7% calibration of the Galactic Cepheid luminosity scale based on Gaia EDR3 open cluster astrometry
PS B		R. Briffa	Late-time Accelerating Universe in Teleparallel Gravity (Student Talk)
PS A	16:40-16:50	E. Teixeira	Cosmological Implications of a Kinetically Coupled Dark Sector
PS B		M. Caruana	Well-Tempered Cosmology in Teleparallel Horndeski

Session	Time	Speaker	Title
PS A	16:50-17:00	T. Hoyt	A Legacy Calibration of the Tip of the Red Giant Branch Distance Scale as Constrained by the Hubble Space Telescope Implications for the Hubble Constant
PS B		G. Galloni	Assessing the hemispherical power asymmetry with gravitational waves
PS A	17:00-17:10	D. Milakovic	A new era of fine structure constant measurements at high redshift
PS B		L. Pizzuti	Testing tension with GR using the mass profiles of galaxy clusters
PS A	17:10-17:20	A. Reeves	Early Dark Energy meets massive neutrinos
PS B		S. Kadam	Teleparallel scalar-tensor gravity through cosmological dynamical systems and Its relevance to H0 Tension
17:20-18:00		Coffee Break	
	18:00-18:30	W. Freedman	Increasing Accuracy in the Measurement of H0 Using the Tip of the Red Giant Branch
	18:30-18:50	F. Renzi	The Etherington-Hubble relation
PL	18:50-19:10	A. Marcianò	Hubble tension and quantum gravity effects
	19:10-19:30	E. Mottola	Dynamical Vacuum Energy and Cosmological Tensions
	19:30-19:50	E. Guendelman	Resolving tensions in cosmology via the modified measures approach to control vacuum energies
PS B	21:00	Conference Dinner (Greek Night)	

Saturday 10/09/2022

Session	Time	Speaker	Title
PL	9:00-9:30	A. Riess	Comprehensive Measurements of the Local Value of H_0 with 1 km/s/Mpc Uncertainty from the SH0ES Team
	9:30-9:50	P. Kroupa	The existence-of-dark-matter tension
	9:50-10:10	L. Breuval	The Cepheid Distance Scale and its Metallicity Dependence
	10:10-10:30	D. Pesce	A geometric measurement of H_0 by the Megamaser Cosmology Project
	10:30-10:50	T. Clifton	Generalizing the Friedmann Model in Light of Cosmological Tensions
	10:50-11:10	M. Dainotti	On the Hubble constant tension and its evolution
11:10-11:30			Coffee Break
PL	11:30-11:50	A. Cuesta	The H_0 tension and the physics of the neutrino sector
	11:50-12:10	A. Coley	Cosmological Tensions: revisiting spatial curvature.
	12:10-12:30	R. Maartens	Testing the foundations of the concordance model
	12:30-12:50	C. Marinoni	The art of building a smooth cosmic distance ladder in a perturbed universe
13:00-20:00			BUS EXCURSION

Sunday 11/09/2022

Session	Time	Speaker	Title
PL	9:00-9:30	H. Gil-Marín	Model-agnostic interpretation of 10 billion years of cosmic evolution traced by BOSS and eBOSS data
	9:30-10:00	M. Asgari	Cosmology with the Kilo Degree Survey
	10:00-10:20	A. Silvestri	Reconstructed gravity and cosmological tensions
	10:20-10:40	A. Melchiorri	Current constraints on the curvature of the Universe
	10:40-11:00	M. Sloth	The Hubble tension and new physics at the eV scale The path to New Early Dark Energy
11:00-11:30			Coffee Break
PL	11:30-11:50	M, Bouhmadi López	3-forms as a mean of resolving tensions
	11:50-12:10	K. Gourgouliatos	Resolving Dark Matter Tension: The impact of dynamical friction due to fuzzy dark matter on satellites with triaxial and logarithmic potentials
	12:10-12:30	K. Dimopoulos	Explaining the Hubble tension and dark energy from alpha-attractors
	12:30-12:50	G. Leon	Cosmology under the fractional calculus approach: a possible H_0 tension resolution?
	12:50-13:10	M. Quartin	Solving tensions faster with velocities
	13:10-13:30	M. Benetti	Tensions in Cosmological Probes and Quasar Cosmology
13:30-15:30			Lunch Break

Session	Time	Speaker	Title
PS A	15:30-15:40	P. Asimakis	BBN constraints in models that alleviate the H0 tension
PS B		F. Anagnostopoulos	Alleviation of H0 tension in f(Q) gravity
PS A	15:40-15:50	E. Asencio	The interacting galaxy cluster "El Gordo" a massive blow to LCDM cosmology
PS B		M. Petronikolou	Alleviating H0 tension in Horndeski gravity
PS A	15:50-16:00	B. Bidenko	Testing robustness of supernovae cosmological parameter inference with Gaussian process
PS B		A. Hell	The massless limit and tension in massive gauge theories
PS A	16:00-16:10	W. Giarè	A look beyond Λ CDM theory, phenomenology and observations
PS B		B. Moser	Boltzmann solvers in the era of cosmological tensions: symbolic implementation of extensions in PyCosmo
PS A	16:10-16:20	D. Benisty	Quantifying the S8 tension with the Redshift Space Distortion data set
PS B		K. Migkas	Challenging LCDM and the isotropy of the local Universe with galaxy clusters
PS A	16:20-16:30	P. Motloch	Correlations between galaxy angular momenta and initial conditions
PS B		Z. Sakr	Can intermediate time scales modified gravity theories solve the s8 and H0 tensions ?
PS A	16:30-16:40	S. Banerjee	Resolving Hubble Tension with New Gravitational Scalar Tensor Theories
PS B		C. Garcia Garcia	The last 10 billion years of cosmic structure growth
			The induced gravitational waves of ultra-light

PS A		T. Papanikolaou	PBH Poisson fluctuations and the Hubble tension
PS B	16:40-16:50		

Session	Time	Speaker	Title
PS A	16:50-17:00	L. Herold	A new constraint on Early Dark Energy using the profile likelihood
PS B		J. Wagner	As good as it gets -- solving the H0-tension \tilde{A} la Ellis & Stoeger
PS A	17:00-17:10	J. Santiago	Tensions in the deceleration parameter the effect of peculiar velocities in the time-like and null q
PS B		K. Dialektopoulos	Can we alleviate the tensions using ANN?
PS A	17:10-17:20	S. Fischbacher	Impact of redshift systematics and intrinsic alignment modelling on the S8-tension
PS B		J. Carron Duque	Assessing tensions in CMB Polarization data by extending the Minkowski Functional framework
PS A	17:20-17:30	R. Gspaner	Early dark energy in the light of large scale structure data
PS B		M. Kalomenopoulos	Clustering effects on GWs Dark Sirens determination of H_0 A simulations study
	17:30-18:30		Coffee Break
	18:30-19:00	D. Holz	Update on GW standard siren cosmology
PL	19:00-19:20	A. Pollo	Tensions and anomalies: how well do we understand subtle dependencies of galaxy clustering on their properties?
	19:20-19:40	M. Bruni	Interacting vacuum and tensions
	19:40-20:00		Closure - E. Saridakis, E. Di Valentino