



# The 13<sup>th</sup> Hellenic Astronomical Conference

Heraklion 2-6 July 2017

## Program

### Organizing Committee

**SOC:** A. Mastichiadis (Chair), M. Georgoulis, P. Patsis, V. Pavlidou, P. Reig, N. Stergioulas, E. Xilouris, S. Basilakos, A. Zezas, O. Malandraki, and G. Tsiropoula

**LOC:** N. Kylafis (Chair), P. Reig, I. Papadakis, V. Pavlidou, I. Liodakis, K. Anastasopoulou, and K. Kouroumpatzakis

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# PROGRAM

**Session 1: Heliophysics and the Solar System**

**Session 2: Extragalactic Astronomy and Astrophysics**

**Session 3: Cosmology and Relativistic Astrophysics**

**Session 4: Stars, Planets and the Interstellar Medium**

<b>Monday, 3 July</b>		
	<b>SESSION 1</b>	<b>SESSION 2</b>
9:00-9:15	Opening address	
<b>Chair</b>	<b>L. Vlahos</b>	<b>A. Mastichiadis</b>
9:15-9:45	<b>D. Jess (Invited):</b> Current overarching science questions in solar physics and challenges from the future ground-based telescopes	<b>N. Vlahakis (Invited):</b> Astrophysical jet dynamics
9:45-10:05	<b>Al. Nindos:</b> Center-to-limb Observations of the Sun with ALMA: Implications for Solar Atmospheric Models	<b>K. Gourgouliatos:</b> 3-D Simulations of FR-I Jets
10:05-10:25	<b>G. Tsiropoula:</b> Analysis of multi-wavelength observations of persistent and spatially-extended quiet Sun vortex	<b>D. Blinov:</b> Connection between optical polarization plane rotations and gamma-ray flares in blazars
10:25-10:45	<b>M. Georgoulis:</b> Linking Solar Eruptions with Fundamental Physical Parameters at the Solar Atmospheric Base	<b>E. Kalafountzou :</b> A benchmark study of AGN: Feedback, orientation and AGN activity at a single epoch
10:45-11:05	<b>G. Chintzoglou:</b> Elucidating the Role of Magnetic Cancellation in Triggering Energetic Solar Eruption	<b>D. Giannios:</b> Star-disk interactions in the Galactic center
11:05-11:30	<b>COFFEE BREAK</b>	
11:30-12:15	<b>PLENARY TALK 1</b> <b>V. Bothmer:</b> Heliophysics and Space Weather – Challenges and Perspective	
<b>Chair</b>	<b>G. Tsiropoula</b>	<b>I. Papadakis</b>
12:30-12:50	<b>L. Vlahos:</b> Particle acceleration and heating in turbulent reconnecting astrophysical plasmas	<b>A. Mastichiadis:</b> On the flaring gamma-ray activity of quasar 3c279
12:50-13:10	<b>I. Kontogiannis:</b> Non-neutralized currents and flaring activity in solar active regions	<b>M. Charisi:</b> Quasars with periodic variability as milliparsec supermassive black hole binary candidates
13:10-13:30	<b>V. Archontis:</b> Solar bombs in the cool solar atmosphere	
13:30-15:00	<b>LUNCH BREAK</b>	
15:00-15:30	<b>BEST PhD</b> <b>I. Liodakis:</b> Scale invariant jets: from blazars to microquasars	
<b>Chair</b>	<b>V. Archontis</b>	<b>P. Patsis</b>
15:30-16:00	<b>S. Patsourakos (Invited):</b> Observations of Coronal Mass Ejections: Recent Results and Upcoming Developments	<b>T. Naab (Invited):</b> Theoretical challenges in galaxy formation

16:00-16:20	<b>K. Moraitis:</b> Calculating relative magnetic helicity in spherical wedge volumes	<b>G. L. Granato:</b> Hydrodynamical simulations of galaxy clusters including the evolution of dust
16:20-16:40	<b>COFFEE BREAK</b>	
<b>Chair</b>	<b>A. Nindos</b>	
16:40:17:00	<b>P. Syntelis:</b> The process of magnetic flux emergence as a major driver for solar jets and eruptions.	<b>A. Maragkoudakis:</b> The sub-galactic and nuclear main sequences for local star-forming galaxies
17:00-17:20	<b>K. Florios:</b> Forecasting solar flares using magnetogram-based predictors and machine learning	<b>K. Kolokythas:</b> Radio properties and feedback implications of brightest group galaxies in the Local Universe
17:20-17:40	<b>An. Anastasiadis:</b> Foretelling Flares and Solar Energetic Particle Events: the FORSPEF tool	<b>M. Kopsacheili:</b> Detection of extragalactic Supernova Remnants

### Special talk

17:45-18:30 **P. Rojo:** Chilean Astronomy

<b>Tuesday, 4 July</b>		
	<b>SESSION 1</b>	<b>SESSION 2</b>
<b>Chair</b>	<b>M. Georgoulis</b>	<b>V. Pavlidou</b>
9:00-9:30	<b>P. Zucca (Invited):</b> Energetic particles from the Sun: HESPERIA studies on gamma-ray events, particle forecasting and recent observations of shock signatures with the Low Frequency ARray (LOFAR)	<b>A. Mesinger (invited):</b> Illuminating the Cosmic Dawn
9:30-9:50	<b>O. Malandraki:</b> Solar Particle Radiation Storms Forecasting and Analysis: The HESPERIA HORIZON 2020 project and beyond	<b>A. Zezas:</b> The hard X-ray view of galaxies
9:50-10:10	<b>K. Dialynas:</b> Voyager and Cassini measurements suggest a bubble-like shape for the global heliosphere	<b>K. Kouroumpatzakis:</b> The Star Formation Reference Survey Ha emission line campaign: Description and first results.
10:10-10:30	<b>G. Balasis:</b> Statistics of Pc3 waves and plasma instabilities observed by Swarm satellites in low-Earth orbit	<b>K. Anastasopoulou:</b> Studying the ULX population of the X-ray starburst galaxies NGC 3310 and NGC 2276
10:30-10:50	<b>G. Anagnostopoulos:</b> New space application to the earthquake prediction research	<b>K. Dasyra:</b> Consequences of the detection of optically thin and highly excited CO in the wind of the radio galaxy IC5063
10:50-11:30	<b>COFFEE BREAK</b>	
11:30-12:15	<b>PLENARY TALK 2</b>	
	<b>A. Burkert:</b> The dynamics of high-redshift star-forming galaxies, driven by disk instabilities	
<b>Chair</b>	<b>K. Tsiganis</b>	<b>A. Zezas</b>
12:30-12:50	<b>M. Xilouris:</b> The NEO Lunar Impact Monitoring Project NELIOTA	<b>P. Patsis:</b> Gaseous flows and star-forming dynamical mechanisms in the spiral arms of barred-spirals
12:50-13:10	<b>Al. Liakos:</b> First lunar impact flash results from NELIOTA	<b>A. Katsianis:</b> The evolution of the star formation rates of $z \sim 0-8$ galaxies

13:10-13:30	<b>M.A. Barucci:</b> Ice spots on the nucleus of comet 67P/Churyumov-Gerasimenko as observed by Rosetta mission	<b>P. Bonfini:</b> Studying galaxy stellar cores to constrain the co-evolution of early-type galaxies and their host super-massive black holes
13:30-15:00	<b>LUNCH BREAK</b>	
	<b>SESSION 1</b>	<b>SESSION 4</b>
<b>Chair</b>	<b>O. Malandraki</b>	<b>A. Zezas</b>
15:00-15:30	<b>A. Coustenis (Invited):</b> The icy moons of the gas giants as possible habitat	<b>E. Ntormousi (Invited):</b> The formation and evolution of interstellar filaments
15:30-15:50	<b>K. Tsiganis:</b> New models of asteroid belt formation	<b>K. Tassis:</b> PASIPHAE: Clearing the path to inflationary B-modes through optopolarimetric magnetic tomography
15:50-16:10	<b>A.Toliou:</b> Constraining the magnitude and timing of the giant planet instability from the perspective of the asteroid belt	<b>A. Tritsis:</b> The Musca molecular cloud: An interstellar symphony
16:10-16:40	<b>COFFEE BREAK</b>	
<b>Chair</b>	<b>A. Anastasiadis</b>	
16:40:17:00	<b>G. Tsirvoulis:</b> Reconstructing the size distribution of the primordial Main Belt	<b>G. Panopoulou:</b> Molecular cloud filaments: do they really have a characteristic width?
17:00-17:20	<b>D. Skoulidou:</b> Dynamical study of the near-Earth space environment for passive debris removal	<b>I. Leonidaki:</b> Towards a complete optical atlas of Galactic Supernova Remnants
17:20-17:40	<b>A.Rosengren:</b> Killing satellites with resonances: the dynamics of passive debris removal	<b>M. Zapartas:</b> The impact of stellar binarity on core-collapse supernovae

### 18:00-19:00 General Assembly

	<b>Wednesday, 5 July</b>	
	<b>SESSION 4</b>	<b>SESSION 3</b>
<b>Chair</b>	<b>P. Reig</b>	
9:00-9:30	<b>V. Antoniou (Invited):</b> The fast and the furious: the young accreting binary population of the Small Magellanic Cloud	<b>M. Plionis (Invited):</b> Using HII galaxies as a tracer of the high-z Hubble expansion
9:30-9:50	<b>A. Strantzalis:</b> Main Sequence Luminosity Functions in the central 1.5 degrees of the main body of the SMC	<b>V. Pavlidou:</b> Where the world stands still: cosmology at turnaround scales
9:50-10:10	<b>G. Maravelias:</b> Investigating the circumstellar structures of B[e] Supergiants	<b>M. Chira:</b> Environmental Dependence of the Abundance function of Dark Matter Halos
10:10-10:30	<b>M. Koutoulaki:</b> VLTI/AMBER NIR interferometric observations of the Bracket gamma and high-n pfund emitting regions of the Herbig B[e] star HD50138	<b>K. Tanidis:</b> Indications for Anisotropy of the Hubble flow
10:30-10:50	<b>A. Manousakis:</b> Stellar Winds in Massive X-ray Binaries	<b>D. Tseneklidou:</b> Relativistic magnetised cosmological perturbations in the post-recombination era
10:50-11:30	<b>COFFEE BREAK</b>	

11:30-12:15	<b>PLENARY TALK 3</b>	
	<b>J. Solá:</b> Is the 100 years old cosmological constant in Einstein's equations really constant? Maybe not!	
	<b>SESSION 4</b>	<b>SESSION 2</b>
<b>Chair</b>	<b>V. Antoniou</b>	<b>M. Xilouris</b>
12:30-12:50	<b>A. Filothodoros:</b> Analysis and Classification of the Spectral States of Cyg X-1 based on INTEGRAL Data	<b>G. Vasilopoulos:</b> Spectral and temporal properties of BeXRB pulsars during super-Eddington outbursts
12:50-13:10	<b>D. Hatzidimitriou:</b> The Hubble Catalog of Variables	<b>G. Leloudas:</b> The nature of the extremely bright nuclear transient ASASSN-15lh
13:10-13:30	<b>Z. Spetsieri:</b> Variability of massive stars in the Virgo Cluster galaxy NGC 4535 with the Hubble Space Telescope	<b>P. Sell:</b> The Classification and Analysis of Distinct X-ray Binary Populations in M81
13:30-15:00	<b>LUNCH BREAK</b>	
15:00-15:30	<b>BEST PhD</b>	
	<b>A. Nathanail:</b> The magnetic field structure in the vicinity of a black hole	
	<b>SESSION 4</b>	<b>SESSION 2</b>
<b>Chair</b>	<b>D. Hatzidimitriou</b>	<b>D. Giannios</b>
15:40-16:00	<b>P. Kalas:</b> Detecting dusty debris disks, exoplanets, and exoplanetary rings using the Gemini Planet Imager, HST and Antarctic observatories	<b>I. Georgantopoulos:</b> The most obscure AGN at low and high redshift
16:00-16:20	<b>N. Georgakarakos:</b> Long term evolution of planetary systems with a terrestrial planet and a giant planet	<b>E. Pouliaxis:</b> Active Galactic Nuclei selected by optical variability in the GOODS South field
16:20-16:40	<b>COFFEE BREAK</b>	
<b>Chair</b>		<b>G. Magdis</b>
16:40-17:00	<b>A. Tsiaras:</b> A population study of hot Jupiter atmospheres	<b>V. Charmandaris:</b> The physical properties of galaxies with Spitzer/IRS spectra: SED modeling
17:00-17:20	<b>K. Karpouzas:</b> A survey for non-transiting planets with Kepler	<b>M. Xilouris:</b> DustPedia: A Definitive Study of Cosmic Dust in the Local Universe
17:20-17:40	<b>A. Kokori:</b> Developing a user-friendly photometric software for exoplanets to increase participation in Citizen Science	<b>S. Lianou:</b> Hierarchical Bayesian modelling of 900 DustPEDIA Galaxies: Insights into their global dust and star formation properties
17:40-18:00		<b>A. Psychogyios:</b> Multi-wavelength structure analysis of galaxies in the WINGS

<b>Thursday, 6 July</b>		
	<b>SESSION 4</b>	<b>SESSION 2</b>
<b>Chair</b>	<b>P. Kalas</b>	<b>V. Charmandaris</b>
9:10-9:30	<b>O. Dionatos:</b> Links between protostellar accretion and ejection observed with ALMA	<b>G. Magdis:</b> Exploring scaling relations between gas and dust across cosmic time
9:30-9:50	<b>E. Christopoulou:</b> V912 Per: A new twin low-mass binary with a third component	<b>T. Bitsakis:</b> Star cluster formation history in the Large Magellanic Cloud
9:50-10:10	<b>A. Liakos:</b> The new catalogue of delta Sct pulsators in binary systems	<b>V. A. Masoura:</b> Using Machine Learning Techniques to estimate photometric redshifts for X-ray sources
10:10-10:30	<b>G. Loukaidou:</b> Evolution of low mass contact binaries close to the orbital period cut-off	<b>E. Paraskeva:</b> High-cadence photometry of bright Type Ia Supernovae with the 2.3m Aristarchos telescope
10:30-10:50	<b>G. Kleftogiannis:</b> The O'Connell effect: one of the most celebrated problems in contact binaries. The cases of NSVS 13943900, NSVS 10384295 and NSVS 4316778	<b>D. Kantzas:</b> Temporal evolution of high energy radiation in Type II <sub>n</sub> Supernovae
10:50-11:30	<b>COFFEE BREAK</b>	
11:30-12:15	<b>PLENARY TALK 4</b> <b>I. Spyromilio:</b> Supernova 1987A at 30	
	<b>SESSION 3</b>	<b>SESSION 2</b>
<b>Chair</b>	<b>K. Gazeas</b>	
12:20-12:40	<b>D. Papadopoulos:</b> Rayleigh-Taylor instability limits on the magnetic flux in astrophysical black holes	<b>F. Koliopoulos:</b> ULX spectra revisited: Are accreting, highly magnetized neutron stars the engines of ultraluminous X-ray sources?
12:40-13:00	<b>A. Manusakis:</b> Relativistic hydrodynamical tori: QPO & PPI	<b>K. Kowlakas:</b> Ultra-Luminous X-ray sources in Chandra Source Catalog 2.0 and a master catalog of nearby galaxies
13:00-13:20	<b>A. Tsouros:</b> The energy distribution of electrons in radio jets	<b>P. Bonfimi:</b> Mass characterization of star-forming galaxies in the local Universe

