IAU Symposium 376 Programme, 1 April 2023

Sunday 16 April 2023
19:00–21:00 Welcome cocktail Hotel Danubius Helia – conference venue

Monday 17 April 2023			
09:00–12:20 Chair: Róbert Szabó			
09:00–09:30		*Opening ceremony*	Addresses by the SOC and LOC
09:30–10:00	R	Wendy Freedman (remote)	The Extragalactic Cepheid Distance Scale
Session I: Setting the Scene – The Extragalactic 'Problem'			
10:00–10:30	R	Adam Riess	Local Value of the Hubble Constant from SH0ES
10:30–11:00		*Coffee/tea break*	
11:00–11:30	I	Rachael Beaton	H0 at its Foundation: The Limitations of Anchors of the Distance Scale
11:30–11:50	C	Louise Breuval	The Cepheid Distance Scale and its Metallicity Dependence
11:50–12:20	I	Myung Gyoon Lee	The Tip of the Red Giant Branch as a Cosmological Probe
12:20–13:30		*Lunch*	
13:30–15:30 Chair: Richard de Grijs			
13:30–13:50	C	Gergely Dálya	Tackling the Hubble Tension with Gravitational Waves
13:50–14:10	C	Richard I. Anderson	A 1% Calibration of Long-period Variable Stars for the Extragalactic Distance Scale
14:10–14:30	C	Pierre Kervella	Inspecting the Ladder: the Cepheid Distance to the SN Ia Host Galaxy NGC 5584
14:30–15:00	R	Igor Soszyński	Period–Luminosity Relations in the Local Group of Galaxies
15:00–15:30	P	*Poster sparkler pitches (for schedule, see page 6)*	
15:30–16:00		*Coffee/tea break*	
16:00–18:00 Chair: László Kiss			
Session II: Stellar Pulsation Physics			
16:00–16:20	C	Arief Ahmad	Self-excited Pulsations in Global 3D Simulations of Cool, Luminous and Evolved Stars
16:20–16:40	C	Giulia De Somma	New theoretical Period–Luminosity–Colour and Period–Wesenheit relations for Anomalous Cepheids
16:40–17:00	C	Richard de Grijs	New Double Mode Cepheids from the Zwicky Transient Facility Survey
17:00–17:20	C	Saniya Khan	Investigating *Gaia* (E)DR3 Parallax Systematics Using Asteroseismology of Cool Giant Stars Observed by *Kepler*, *K2*, and *TESS*
17:20–17:40	C	Gergely Hajdu	Circumstellar Matter Around RR Lyrae Variables
17:40–18:00	C	Ernst Paunzen (remote)	Pulsation of Chemically Peculiar Stars

Tuesday 18 April 2023			
09:00–10:30 Chair: Nancy Evans			
09:00–09:20	C	Mami Deka	A Study of Stellar Photosphere – Hydrogen Ionisation Front Interaction in δ Scuti Stars
09:20–09:40	C	Susmita Das	A Multiwavelength Analysis of BL Her Stars: Models versus Observations
09:40–10:00	C	Géza Csörnyei	How 'Accurate' is 'Precise'? The effect of Period Fluctuations on PL Relations
Session III: Primary period–luminosity relation calibrators in the Milky Way			
10:00–10:30	R	Gisella Clementini	Impact of the ESA *Gaia* mission on the primary Period – Luminosity Relation Calibrators in the Milky Way: Cepheids and RR Lyrae
10:30–11:00		*Coffee/tea break*	
11:00–12:30 Chair: Tatiana Muraveva			
11:00–11:30	R	Martin Groenewegen	Primary Period–Luminosity Relation Calibrators in the Milky Way: Cepheids and RR Lyrae – Physical basis, Calibration, and Applications
11:30–11:50	C	Bogumił Pilecki	Cepheids with Giant Companions – A New Abundant Source of Cepheid Astrophysics
11:50–12:10	C	Mauricio Cruz Reyes	A calibration of the Galactic Cepheid luminosity scale based on *Gaia* DR3 open cluster astrometry
12:10–12:30	C	Erasmo Trentin	Cepheid Metallicity in the Leavitt Law (C-MetaLL) Survey. The Metallicity Dependence of Cepheid Period–Luminosity Relations
12:30–13:40		*Lunch*	
13:40–15:30 Chair: Caroline Huang			
13:40–14:10	I	Tatiana Muraveva	RR Lyrae stars as distance indicators in the *Gaia* Era
14:10–14:30	C	Laurent Eyer	Exploring the Complexities of Determining Mean Luminosity in Variable Stars: The Impact of Biased Means in Weighted Procedures
14:30–14:50	C	Giuliana Fiorentino	RRLs to Trace Early Galaxy Formation
14:50–15:10	C	Bartłomiej Zgirski	Near-infrared Period–Luminosity Relations for Galactic RR Lyrae based on Photometry from OCA and *Gaia* DR3 Parallaxes
15:10–15:30	C	Ilaria Musella	The Cepheid Based Cosmic Distance Scale: New Constraints from Updated Synthetic Multi-filter Cepheid PL Relations
15:30–16:00		*Coffee/tea break*	
16:00–17:10 Chair: Martin Groenewegen			
16:00–16:30	I	Abdelmajid Benhida	Photometric and spectroscopic measurement campaign on the RR Lyr (RR Lyrae) and R Scuti (RV Tauri), at the Oukaimeden Observatory in Morocco
16:30–16:50	C	Weronika Narloch	Period–Luminosity Relations for Galactic Classical Cepheids in the Sloan bands
16:50–17:10	C	Vincenzo Ripepi	On the Origin of Galactic Anomalous Cepheids
17:10–18:00		*Panel discussion (Chair: László Kiss: New stellar observations and tools)*	

Wednesday 19 April 2023			
09:00–12:30 Chair: Gisella Clementini			
Session IV: Disentangling the structural components of the Milky Way			
09:00–09:30	R	Vasiliy Belokurov (remote)	Milky Wy components with RR Lyrae
09:30–10:00	I	Akiharu Nakagawa	Implication of the Period–Magnitude relation for massive AGB stars and its astronomical applications
10:00–10:30	I	Dorota Skowron	The Structure of the Milky Way from Period–Luminosity Relations
10:30–11:00		*Coffee/tea break*	
11:00–11:20	C	Fran Jiménez-Esteban	Variability properties of the *Gaia* DR3 catalogue of Galactic AGB stars
11:20–11:40	C	Yi Ren (remote)	Granulation in Red Supergiants: The Scaling Relations
11:40–12:20	P	*Poster sparkler pitches (for schedule, see page 7)*	
12:20–13:40		*Lunch*	
14:00–17:00		*Budapest sightseeing*	
18:30–20:30	R	Adam Riess	*Public talk at the Hungarian Academy of Sciences: The Surprising Expansion History of the Universe*

Thursday 20 April 2023			
09:00–10:40 Chair: Vincenzo Ripepi			
09:00–09:20	C	Matteo Monelli	Towards Homogeneous Distances in the Local Group
09:20–09:40	C	Teresa Sicignano	The Distance Scales of Anomalous and Type 2 Cepheids from Near Infrared Observations in the Magellanic Clouds
09:40–10:00	C	Mónica Taormina	Early-type Eclipsing Binaries as Distance Indicators
10:00–10:20	C	Alexandre Gallenne	Sub-percent Binary Star Masses and Distances from Interferometric Observations
10:20–10:40	C	Maria Tantalo	On the Use of the Mean *J*-band Magnitude of Carbon Stars as a Distance Indicator
10:40–11:10		*Coffee/tea break*	
11:10–12:20 Chair: Dorota Skowron			
11:10–11:40	I	Armando Arellano Ferro (remote)	RR Lyrae Light Curves and their Role in the Globular Cluster Metallicity and Distance Determination
11:40–12:00	C	Javier Minniti	Using Classical Cepheids to Study the Far Side of the Milky Way Disk
12:00–12:20	C	Antonio Garcia Hernandez	The PL Diagram for dSct: Back in Business as Distance Estimators
12:20–13:30		**Group photo** *Lunch*	
13:30–15:30 Chair: Biwei Jiang			
13:30–14:00	R	Marcella Marconi (remote)	Theoretical Stellar Pulsation Physics
Session V: Period–luminosity relations in the nearby universe			
14:00–14:30	I	Anupam Bhardwaj	Period–Luminosity–Metallicity relations for classical pulsators at near-infrared wavelengths
14:30–14:50	C	Zoi Spetisieri	First Direct Measurement of the Stellar Association Bias in the SN Host Galaxy M101
14:50–15:10	C	Kayla Owens	An Independent Analysis of the Multi-Wavelength Cepheid PL Relations in NGC 7250
15:10–15:30	C	Kerdaris Kurbah	A Multi-phase Study of Theoretical and Observed Light Curves of Classical Cepheids in the Magellanic Clouds
15:30–16:00		*Coffee/tea break*	
16:00–18:00 Chair: Rachael Beaton			
16:00–16:20	C	Vincent Hocdé	Metallicity estimations of MW, SMC, and LMC classical Cepheids from the shape of the *V*- and *I*-band light curves
16:20–16:40	C	Shu Wang	Double-mode RR Lyrae Stars – A Robust Distance and Metallicity Indicator
16:40–17:00	C	Felipe Espinoza-Arancibia	Empirical Constraints for the Instability Strip from the Analysis of LMC Cepheids
17:00–18:00		*Panel discussion – (Chair: Patricia Whitelock: The Role of Machine Learning and its Applications)*	

Friday 21 April 2023			
09:00–10:40 Chair: Patricia Whitelock			
Session VI: Non-traditional period–luminosity relations			
09:00–09:30	I	Biwei Jiang	The Period–Luminosity Relation of Red Supergiants
09:30–10:00	I	Michał Pawlak (remote)	Period–luminosity relations formed by contact and close binary systems
10:00–10:20	C	Patryk Iwanek (remote)	Comprehensive Analysis of Mira-type Stars Variability and the Structure of the Milky Way
10:20–10:40	C	Miora Andriantsaralaza	Distance Estimates for AGB Stars – *Gaia* DR3 Parallax and PL Relation
10:40–11:10		*Coffee break*	
11:10–12:40 Chair: Anupam Bhardwaj			
11:10–11:30	C	Clara Martinez-Vazquez	Breaking the Law: A Segmented Period - Luminosity Relation in delta Scuti Stars
11:30–12:00	I	Michele Trabucchi (remote)	Long-Period Variables as Distance and Age Indicators in the Era of *Gaia* and LSST
12:00–12:20	C	Caroline Huang	The Mira Distance to M101
12:20–12:40	C	Piotr Wielgórski	Near-infrared Period–Luminosity Relations for Type II and Anomalous Cepheids in the Solar Neighbourhood
12:40–14:00		*Lunch*	
14:00–15:30 Chair: Shu Wang			
14:00–14:30	I	Xiaodian Chen	Possible studies on variable stars based on *CSST*
14:30–14:50	C	Dieter Engels	OH/IR Stars and the Period–Luminosity–Relation of Mira Variables
14:50–15:10	C	Fangzhou Ren	An uncharted but valuable distance indicator: Period–luminosity relation of W Ursae Majoris-type contact binaries
15:10–15:30	C	Megan Lewis	Galactic Center Miras: Period–luminosity Relations and Circumstellar Effects
15:30–		*Summary and closing ceremony*	

Poster Session 1: Monday 17 April 2023, 15:00–15:30		
No.	**Presenting author**	**Poster title**
P01	Christine Clement	Helen Sawyer Hogg and the Globular Cluster Period–Luminosity Relation
P02	Zsófia Bora	Distance Measurements of Type Ia Supernovae from Light Curve Fitting
P03	Anton Afanasiev	Decreasing the scatter of SN Ia host Cepheid PL relations
P04	Chul Chung	Population Age Origin of the Host Mass Step in Type Ia Supernovae
P05	Seunghyun Park	Evidence for strong progenitor age bias in type Ia supernova distance scale: Lessons from Cepheids
P07	Steve Ardern	First Detection of CO Emission from Cepheid Variables: a Step to Reducing the H_0 Error Budget
P08, P09	John Baruch	- A proposal for the absorption of light by dark matter to explain the Hubble Tension - Is the Period–Luminosity Relation for Cepheids upset by a small threshold for the absorption of light by Dark Matter?
P10	Géza Csörnyei	Cepheids in M51: cross-checking the PLR distance with independent estimates
P11	Maria Tantalo	Variable stars in NGC 6822
P12	Mahtab Gholami	Variable Stars in an Irregular Dwarf Galaxy, IC10
P13	Hedieh Abdollahi	Detection of Long-Period Variable Stars in And IX to Study Star Formation History and Dust Production Rate
P15	Jesper Storm	The effect of metallicity on the PL relation from a Baade–Wesselink type analysis of a Cepheids in the Milky Way and the Magellanic Clouds
P16	Tahere Parto	The Star Formation History and Chemical Enrichment of Sagittarius Dwarf Irregular Galaxy Derived from Long-period Variable Stars
P18	Gustavo Medina Toledo	RR Lyrae Stars as Standard Candles and Tools to Disentangle the Milky Way's History
P19	Bastian Lengen	On the Consistency of the Cepheid and TRGB Distance Scales
P20	Zehao Zhang	Dependence of Pulsation Mode of Cepheids on Metallicity
P21	Henryka Netzel	Non-Radial Modes in Classical Pulsators — Perspectives for Asteroseismology
P22	Emese Plachy	Classifying Milky Way Cepheids with *TESS*
P23	Dóra Tarczay-Nehéz	Testing Ultra-low Amplitude Cepheid Candidates in the Galactic Disk by *TESS* and *Gaia*
P24	Gábor Kovács	Thousand faces of convection

Poster Session 2: Wednesday 19 April 2023, 12:00–12:30		
No.	**Presenting author**	**Poster title**
P26	József M. Benkő	How Accurate are those Periods?
P27	Giordano Viviani	VELOcities of Cepheids (VELOCE) DR1: An Unprecedented View of Cepheid RV Variability and Spectroscopic Binarity
P28	Young-Beom Jeon	Review of BOAO Short Period Variable Star Surveys to Calibrate Period–Luminosity Relations
P29	Giovanni Catanzaro	Metallicity determination from IGRINS spectra for a sample of Galactic Cepheids
P30	Nancy Evans	The Mass of the Cepheid S Mus
P31	Javier Minniti	Spectral Energy Distribution Fitting to Find and Characterize Cepheids in Binary Systems
P32	Garance Bras	Observational Calibration of the Projection Factor of RR Lyrae Stars Using the SPIPS Pulsation Modeling
P33	Manuel Sánchez-Benavente	Multiband Photometry and Spectroscopy of RR Lyrae Field Stars
P34	Vázsony Varga	Improving the *Gaia* RR Lyrae Photometric Metallicities
P35	Cecilia Mateu	Calibrating RR Lyrae Absolute Magnitudes as a Function of Period Shift to Correct Post-ZAHB Evolution Systematics
P36	Olivera Latković	WUMaCat — The Largest Catalog of Individually Studied W UMa Stars
P38	Eric Hintz	IR Spectroscopy of stars in various instability strips
P39	Adrienn Forró	Validation of the RR Lyrae Identifications in the PanSTARRS PS1 3π Survey with K2 and *Gaia*
P40	Csilla Kalup	Combined *Gaia* and K2 Studies of Globular Cluster Variables
P41	Ernst Paunzen	Catalogue of Variable Stars in Open Cluster Fields
P42	Monika I. Jurkovic	The Classification Intricacy of Different Types of Cepheid Variable Stars and the Case of RU Camelopardalis
P43	Mahdi Abdollahi	Hierarchical Classification of Variable Stars Using Deep Convolutional Neural Networks
P45	Marcella Di Criscienzo	Light Curve Recovery with the Rubin Observatory's LSST
P46	Vittorio Francesco Braga	Light curve templates of RR Lyrae in the LSST photometric system
P47	Jae Woo Lee	The Post-Mass Transfer Eclipsing Binary WASP 1814+48: Absolute Properties and Multiperiodic Pulsations
P48	Justyna Olszewska	Spectroscopic Analysis of the Variable Star CO Aurigae with the GATS Telescope
P49	Tahereh Ramezani	Non-Variable Stars