# Porto MW-Gaia WG3 Workshop Exoplanets in the era of Gaia

CT = Contributed Talk; IT = Invited Talk; P = Poster

## Monday, November 18

**Gaia and exoplanets:** Overview of the Gaia mission; Exoplanet detection with Gaia; Overview of Exoplanet research

### Coordinator – Vardan Adibekyan

09:00-09:25	REGISTRATION		
09:25-09:30	WELCOME		
09:30-10:00	Nicholas Walton	MW-Gaia: Revealing the Milky Way with Gaia	CT
10:00-10:45	Berry Holl	Gaia: where we are now and what is to come	IT
10:45-11:15	Coffee Break		
11:15-11:45	Alessandro Sozzetti	Gaia astrometry and exoplanets: A treasure trove	IT
11:15-11:45	Alessandro Sozzetti	Gaia astrometry and exoplanets: A treasure trove of synergies	IT
<b>11:15-11:45</b> 11:45-12:15	Alessandro Sozzetti  Antoine Grandjean	•	<b>IT</b> CT
		of synergies	

#### 12:15-13:30 Lunch

# **Exoplanetary systems:** Physical properties of exoplanets and their orbital architecture **Coordinator – Alexandre Correia**

13:30-14:15	Lars A. Buchhave	Statistical properties of exoplanets	IT
14:15-14:45	Elke Pilat-Lohinger	Planetary architectures in binary stars	CT
14:45-15:15	Solène Ulmer-Moll	Forecasting exoplanet radii with machine learning	CT
15:15-15:45	Coffee Break		
15:45-16:15	Sérgio Sousa	The metallicity-period-mass diagram of low-mass exoplanets	CT
16:15-17:00	DISCUSSION (coord	inator Alessandro Sozzetti)	

#### 17:00-17:40 PLANETARIUM SHOW - Dawn of the Space Age (optional)

## Tuesday, November 19

# **Exoplanet surveys:** synergies between Gaia and ground-based RV exoplanet surveys **Coordinator – Nicholas Walton**

09:00-09:45	Oscar Barragán	The needle in the haystack: disentangling planetary	IT
		and stellar activity signals in RV time series	
09:45-10:15	Nuno Santos	ESPRESSO and its first science	CT
10:15-10:45	Hugo Tabernero	CARMENES in the era of Gaia	CT
10:45-11:15	Coffee Break		
11:15-11:45	Domenico Barbato	Search and characterization of wide companions of	CT
		transiting hot Jupiters	
11:45-12:15	Elisa Delgado Mena	RV variations in evolved stars in open clusters: planets,	CT
		oscillations or stellar activity?	

#### 12:15-13:30 Lunch

**Exoplanet surveys:** synergies between Gaia and other ongoing/upcoming space missions and ground-based exoplanet surveys (e.g. Transit, Direct Imaging)

### Coordinator - Elisa Delgado Mena

13:30-14:15	Mariangela Bonavita	TBD/ Direct imaging (remote)	IT
14:15-14:45	Maksym Lisogorskyi	PEXO: a global modeling framework for nanosecond	CT
		timing, microsecond astrometry, and μm/s radial velocities	
14:45-15:15	Paolo Giacobbe	Detection and characterization of giant planets combining	CT
		astrometry, radial velocities and transits: the GAIA potential	
15:15-15:45	<b>Coffee Break</b>		
15:45-16:15	Ozgur Basturk	Exoplanet Studies and Observation Facilities in Turkey	CT
16:15-17:00	DISCUSSION (coordi	nator Shay Zucker)	

## Wednesday, November 20

**Star-planet connection:** Exoplanet host stars as an instrument to study planet formation and evolution in different environments

### Coordinator - Sergio Sousa

09:30-10:15	Tiago Campante	Synergy between asteroseismology and exoplanet	IT
		science: an outlook	
10:15-10:45	Jacob Hamer	Hot Jupiters are Tidally Destroyed While Their Hosts are	CT
		on the Main Sequence	
10:45-11:15	Coffee Break		
11:15-11:45	Dolev Bashi	Exoplanets in the galactic context (the Gaia era)	CT
11:45-12:15	Vardan Adibekyan	Heavy metal rules. Exoplanet incidence and metallicity	CT
12:15-12:45	(POSTER SESSION)		
	Ana Ulla-Miguel	Stellar cosmic rays and potential exoplanet habitability	P
	Alan Alves	Dynamics of the 3/1 planetary mean-motion resonance:	P
		an application to the HD60532 b-c planetary system	
	Nicolas Unger	Reanalisis of the radial velocities data of HD40307	P
		with the evidence estimator PolyChord	
12:45-14:00	Lunch		
14:00-15:00	DISCUSSION (coordi	inator Nuno Santos)	
15:00	Closing		

### **POSTERS**

Alexandre Correia Exoplanets and the Cradle of Life with the SKA
Ema Valente Dynamics and Habitability of Multi-Planet Systems