“In the Spirit of Lyot” Conference

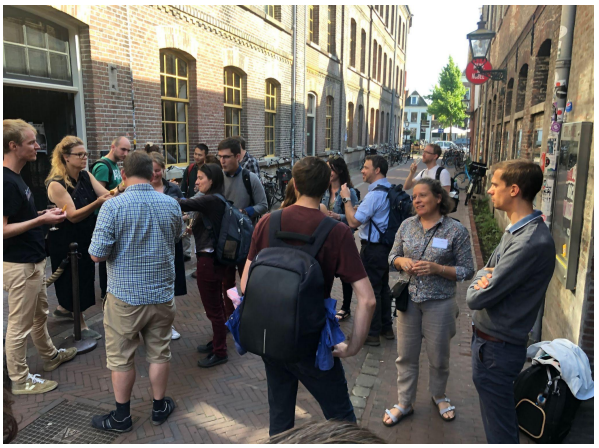
26 June - 01July 2022, Leiden

The international conference held at the Scheltema in Leiden from 27 June to 01 July 2022 was a tremendous success. The “Spirit of Lyot” conference series has been running for 17 years, and Leiden Observatory was proud to host it this year. We had 195 attendees (177 in person and 26 online). We had five days of talks from all levels from graduate students through to professors, covering all aspects of direct imaging of exoplanets and circumstellar disks.

The long coffee and lunch breaks with hosted sandwiches were especially appreciated by all the attendees to one of the largest exoplanet conferences since the Corona pandemic began. Notably, an “Early Career Event” where junior researchers had lunch and could ask candid questions of senior researchers had extremely enthusiastic and positive feedback.

Online attendees could watch the live stream of the talks, and there was a Slack channel where they could ask questions after each talk. The enthusiasm was seen with all the attendees, and was reflected in the long discussions that were held in the outside courtyard and out on the streets of Leiden.

The SOC and LOC were thanked by many attendees and many early career researchers were delighted to have the first in person meeting in their careers.



In the Spirit of Lyot @ Leiden 2022 Schedule

Monday 27th June

Time	Speaker	Title
9:30 - 10:45	*Registration, poster setup & morning coffee*	
10:45 - 11:00	**Nienke van der Marel & Matthew Kenworthy**	**Welcome talk**
11:00 - 11:40	**Robert de Rosa**	**Direct Imaging of Exoplanets: From the past to the future**
11:40 - 12:00	Maissa Salama	Large Adaptive Optics Survey for Substellar Objects (LASSO) Around Young Nearby Low-Mass Stars
12:00 - 12:20	Markus Janson	Hear ye! Tidings of the BEAST
12:20 - 13:40	*Lunch break*	
13:40 - 14:00	Thayne Currie (Julien Lozi)	The SCExAO Direct Imaging Search for Planets Around Accelerating Stars
14:00 - 14:20	Sylvestre Lacour	Spectrum, astrometry, and new detections: a trove of possibilities offered by optical interferometry
14:20 - 14:40	Carl-Henrik Dahlqvist	The SHARDDS Survey: Limits on Planet Occurrence Rates Based on Point Sources Analysis via the Auto-RSM Framework
14:40 - 15:00	Mathilde Mâlin	Atmospheric characterization of exoplanets with the medium resolution spectrometer on MIRI/JWST
15:00 - 15:40	*Afternoon coffee*	
15:40 - 16:20	**Sarah Kendrew**	**The James Webb Space Telescope**
16:20 - 16:40	Sasha Hinkley (Elizabeth Matthews)	High Contrast Imaging of Exoplanets and Exoplanetary Systems with JWST
16:40 - 17:00	Tim Pearce	The outer-planet population inferred from a large sample of debris discs
17:00 - 19:00	*Opening reception @Scheltema*	
20:00	*Astronomy on Tap @Grand Cafe de Burcht with talks from Kate Follette and Gael Chauvin*	

Tuesday 28th June

Time	Speaker	Title
9:00 - 9:40	**Grant Kennedy**	**Circumstellar and Circumplanetary Disks**
9:40 - 10:00	Evan Rich	Gemini-LIGHTS: a survey of Herbig Ae/Be and massive T-Tauri protoplanetary disks imaged with Gemini Planet Imager
10:00 - 10:20	Schuyler Wolff	Digging Deep with HST+JWST on Archetypal debris disks; Epsilon Eridani, Fomalhaut and Vega
10:20 - 11:00	*Morning coffee*	
11:00 - 11:20	Nick Oberg	Circumplanetary Disks in the Mid-Infrared with METIS
11:20 - 11:40	Hans Martin Schmid	Quantitative polarimetry of circumstellar dust with high contrast observations
11:40 - 12:00	Ryo Tazaki	Characterization of complex-shaped dust aggregates in planet-forming disks by optical and near-infrared observations
12:00 - 12:20	Sarah Betti	Detection of Near-infrared Water Ice at the Surface of the (Pre)Transitional Disk of AB Aur
12:20 - 13:40	*Lunch break & Early career event*	
13:40 - 14:00	Christian Ginski	SPHERE-DESTINYS: Imaging the cradles of planet formation
14:00 - 14:20	Katie Crotts	A Multi-Wavelength Study of the Extreme Debris Disk Around HD 111520
14:20 - 14:40	Gabriele Cugno	Revealing the population of forming giant planets
14:40 - 15:00	Nienke van der Marel	The impact of icy dust transport and dust traps on exoplanet atmospheres
15:00 - 15:40	*Afternoon coffee*	
15:40 - 16:00	Dorian Demars	Emission line variability of young accreting planet and brown-dwarf companions
16:00 - 16:20	Gabriel-Dominique Marleau	Accreting protoplanets: Spectral signatures and extinction of gas and dust extinction at H α
16:20 - 16:40	Stefan Kraus	Exoplanet Spectroscopy and Planetary System Architectures with the VLTI/BIFROST instrument
16:40 - 17:00	Carles Cantero	Using local noise statistics to improve the supervised learning of exoplanets detection

Wednesday 29th June

Time	Speaker	Title
9:00 - 9:40	**Faustine Cantalloube**	**Algorithms for High Contrast Imaging**
9:40 - 10:00	Kate Follette	Robust Detection and Interpretation of Accreting Protoplanet Signals
10:00 - 10:20	Markus Johannes Bonse	Comparing Apples with Apples: Statistically sound Detection Limits for Exoplanet High Contrast Imaging
10:20 - 11:00	*Morning coffee*	
11:00 - 11:20	Antoine Chomez	Improving detection limits on direct imaging: The PACO algorithm performances
11:20 - 11:40	Bin Ren	Total intensity circumstellar disk imaging from data imputation: towards optimal extraction of disks for planet-disk dis
11:40 - 12:00	Sarah Steiger	The MKID Exoplanet Camera (MEC) for Subaru SCExAO: Using Stochastic Speckle Discrimination for High-Contrast Imaging wit
12:00 - 12:20	Rico Landman	Trade-offs in high-contrast integral field spectroscopy for exoplanet detection and characterisation
12:20 - 13:40	*Lunch break*	
13:40 - 14:00	Nour Skaf	Structures in the Beta Pictoris disk at 12 um with NEAR-VISIR
14:00 - 14:20	Christian Marois	Deployment of focal plane WFS technologies on 8-m telescopes: from the Subaru SPIDERS pathfinder, to the facility-class
14:20 - 14:40	Kevin Barjot	First light of the upgraded FIRST visible fibered interferometer at the Subaru telescope
14:40 - 15:00	Olivier Guyon	High Contrast Imaging at the Photon Noise Limit with WFS-based PSF Calibration
15:00 - 15:40	*Afternoon coffee*	
15:40 - 16:00	Rob van Holstein	Expanding the polarimetric capabilities of SPHERE-IRDIS to uniquely characterize the formation environments of planets
16:00 - 16:20	Sebastiaan Haffert	Observing giant planet accretion kinematics with MagAO-X and the Visible Integral Field spectrograph eXtreme (VIS-X)
16:20 - 16:40	Steph Sallum (Deno Stelter)	Thermal Infrared Exoplanet Science with SCALES and PSI-Red
16:40 - 17:00	Daniel Echeverri	Vortex Fiber Nulling Demonstration with the Keck Planet Imager and Characterizer
18:00	*Conference dinner @Scheltema*	

Thursday 30th June

Time	Speaker	Title
9:00 - 9:20	Mona El Morsy	Development of a prototype instrument for the direct characterization of young giant exoplanets
9:20 - 9:40	Jules Dallant	A new PACO based method to push the exoplanets detection limits and to estimate their orbital parameters simultaneously
9:40 - 10:00	Quinn Konopacky	The Development of HISPEC for Keck and MODHIS for TMT
10:00 - 10:20	Olivier Absil	Final design and expected performance of the METIS high-contrast imaging modes
10:20 - 11:00	*Morning coffee*	
11:00 - 11:20	Elisabeth Matthews	Dynamical Masses and Spectroscopic Analysis of Brown Dwarfs: long-period companions with RVs and high contrast imaging.
11:20 - 11:40	Kyle Franson	Searching for Planets and Brown Dwarfs around Young Accelerating Stars
11:40 - 12:00	Rachel Bowens-Rubin	The tale of the Wolf 359b campaign: combining high-contrast imaging and RV data to study a cold Neptunian exoplanet
12:00 - 12:20	**Lucie Leboulleux**	**Socio-demographic study of the high-contrast imaging community**
12:20 - 13:40	*Lunch break*	
13:40 - 14:00	Emily Rickman	Precise Dynamical Masses of New Directly Imaged Companions from Combining Relative Astrometry, Radial Velocities, and Hi
14:00 - 14:20	Kevin Wagner	Imaging Habitable-Zone Exoplanets with Mid-Infrared Coronagraphy
14:20 - 14:40	Jared Males	The potential, and limits, of high contrast imaging with the ELTs
14:40 - 15:00	Nemanja Jovanovic	Phase II of the Keck Planet Imager and Characterizer: System-level Laboratory Characterization and Preliminary On-Sky Co
15:00 - 15:40	*Afternoon coffee*	
15:40 - 16:00	Raphael Galicher (Anthony Boccaletti)	Upgrading the high contrast imaging facility SPHERE: science drivers and instrument choices
16:00 - 16:20	Saavidra Perera	Upgrading the Gemini Planet Imager to GPI 2.0
16:20 - 16:40	Michael Fitzgerald	The Planetary Systems Imager for TMT: Overview and Status
16:40 - 17:00	Dan Sirbu	Exoplanet Yield Sensitivity for the Hybrid Lyot Coronagraph from end-to-end modeling for LUVOIR-A

Friday 1st July

Time	Speaker	Title
9:00 - 9:40	**Marta Bryan**	**Characterizing Gas Giants Using High-Resolution Spectroscopy**
9:40 - 10:00	Garima Singh	End-to-end high-contrast imaging simulations with the LLOWFS and FAST sensors for TMT
10:00 - 10:20	Jean-Baptiste Ruffio	High resolution spectroscopy of directly imaged exoplanets with KPIC
10:20 - 11:00	*Morning coffee*	
11:00 - 11:20	Evert Nasedkin	Four of a Kind: A Systematic Characterization of the HR8799 planets.
11:20 - 11:40	Simon Petrus	X-SHYNE: a new sample of young, cold, low-mass planetary analogs
11:40 - 12:00	Beth Biller	Variability of Young, Giant Exoplanets : Opportunity or Obstacle?
12:00 - 12:20	**Matthew Kenworthy & Nienke van der Marel**	**Closing remarks**

				outgoing	**incoming**			https://docs.goog
income			# days		total	cost/person	#people	
	registration	in person			€61,950.00	€350.00	177	paying
						€0.00	20	comped
							197	total people atten
	registration	online			€1,820.00	€70.00	26	online watching
	NOVA				€4,500.00			
	NWO				€0.00			
	LKBF				€1,000.00			
expenses	scheltema dinner and borrel included			€56,058.00				
	childcare			€600.00				
	Paylogic registration			€1,665.00				
	unforeseen			€1,000.00				
	junior grants/waivers			€7,600.00		€100.00	76	
	stickers			€179.08				
	conference photo			€172.43				
	LOC t-shirts			€200.00				
	dinners and misc gifts			€680.00				
TOTAL				**€68,154.51**	**€69,270.00**	**€1,115.49**		