



HERA 2023

Munich, Germany

WILHELM UND ELSE
HERAEUS-STIFTUNG



Credit: TNG Collaboration

WE Heraeus-EAS Early Career Researchers in Astronomy Workshop

27 Feb - 03 Mar
2023

Max Planck Institute
for Extraterrestrial
Physics
Giessenbachstr.
85748 Garching b.
München

[https://www.origins-cluster.de/
heraeus-workshop2023](https://www.origins-cluster.de/heraeus-workshop2023)

Organizers:
Matthias Steinmetz
AIP/EAS

Andreas Burkert
LMU/MPE/EAS
Excellence Cluster ORIGINS



Mon 27/02

Chairs: Andreas Burkert and Matthias Steinmetz

10:00	Arrivals & Registration		
11:00			
	<i>MPE Large Seminar Room, Foyer</i>		10:00 - 12:00
12:00	Lunch Break		
			12:00 - 13:00
13:00	Welcome <i>Andreas Burkert, Matthias Steinmetz, Stefan Jorda</i>		
			13:00 - 13:30
	Lecture "The supermassive black hole at the center of our galaxy and Sgr A**"	Stefan Gillessen	
14:00			13:30 - 14:15
	Discussion and Coffee break		
			14:15-14:45
	Lecture: "Galaxy evolution across cosmic time"	Natascha Foerster Schreiber	
15:00			14:45 - 15:30
	Discussion and Coffee Break		
			15:30 - 16:00
16:00	Chemo-dynamical and arc-like features revealed by Gaia DR3 actions	Pedro Palicio	
			16:00-16:30
	The correlations between galaxy evolution and large scale structure	Mohammadreza Ayromlou	
			16:30-17:00
17:00	Stellar populations in SDSS and TNG50: tracing past merger events from galaxy centers	Alina Boecker	
			17:00-17:30
	Reproducing the unusual tail of D100 using hydrodynamical simulations.	Claire Cashmore	
			17:30-18:00
18:00	Unveiling the low surface brightness Universe: The HERON Coma Cluster Project	Javier Román	
			18:00 - 18:30
19:00	Bavarian Buffet Dinner		
20:00			
	<i>MPE Large Seminar Room, Foyer</i>		18:30 - 20:30

Tue 28/02

Chairs: Andreas Burkert and Andrea Ferrara

09:00	Lecture: Epoch of Reionization	
10:00	<i>Andrea Ferrara</i> 09:00 - 11:00	Coffee and Tea Break 09:45 - 10:15
11:00	Chemical evolution of the Universe and its consequences for gravitational wave astrophysics	Martyna Chruslinska 11:00-11:30
	Galaxy evolution in the local universe	Cressida Cleland 11:30-12:00
12:00	Lunch Break	
13:00	12:00 - 13:30	
	Molecular gas kinematics in local early-type galaxies with ALMA	<i>Ilaria Ruffa</i> 13:30 - 14:00
14:00	The assembly of dusty galaxies at $z \geq 4$: the build-up of stellar mass and its scaling relations with hints from JWST data	Claudia Di Cesare 14:00-14:30
	The Molecular CGM: Entrainment or Thermal Instability?	<i>Ryan Farber</i> 14:30 - 15:00
15:00	Coffee & Tea Break 15:00-15:30	
	<i>MPE Large Seminar Room, Foyer</i>	Francesco Dotti
	The role of the star cluster environment in the dynamical	15:30 - 16:00
16:00	The HI discs of galaxies as tracers of the baryonic physics of galaxy evolution	<i>Jindra Gensior</i> 16:00 - 16:30
	Searching for dual AGN and its effect on the galaxy merger systems	<i>Rubinur Khatun</i> 16:30 - 17:00
17:00	Star-forming early-type galaxies & quiescent late-type galaxies in the local Universe	Evangelos Paspaliaris 17:00-17:30

Wed 01/03

Chairs: Stefan Heigl, Odele Straub and Alice M. Smith-Gicklhorn

09:00	Properties of DM Halos of Light-cone N-body Simulations	<i>Maria Chira</i>	09:00 - 09:30
	On the baryon-driven contraction of dark matter halos	<i>Pengfei Li</i>	09:30 - 10:00
10:00	The complex nature of the ISM in local and high-z star-forming galaxies	Manuel Behrendt	10:00 - 10:30
	Coffee and Tea Break		10:30 - 11:00
11:00	Extremely relativistic tidal disruption events by supermassive black holes	<i>Taeho Ryu</i>	11:00 - 11:30
	Comparison of the observed properties of Milky Way satellites on and off the Vast Polar Structure	<i>Salvatore Taibi</i>	11:30 - 12:00
12:00	Can spirals help the Milky Way 'breathe'? - a quest with simulations & Gaia mission	Soumavo Ghosh	12:00-12:30
	Lunch Break		12:30 - 14:00
13:00			
14:00	Cannibalism Caught in the Act -- on the Frequency of Occurrence of Multiple Cores in Brightest Cluster Galaxies	Yun-Hsin Hsu	14:00-14:30
	TOP200: Survey and catalogue of dense cores in the 200 brightest Planck compact sources	Andras Peter Joo	14:30-15:00
15:00	Strong evidence of ram-pressure stripping in low surface brightness galaxies of the Virgo cluster	<i>Junais</i>	15:00 - 15:30
	Coffee and Tea Break		15:30 - 16:00
16:00	Anomalous Cepheids: what we know so far and why are they interesting	Monika Jurkovic	16:00-16:30
	The infalling elliptical galaxy NGC 4552: Chemical composition of the hot atmosphere	Sinancan Kara	16:30-17:00
17:00			

Thu 02/03

Chair: Andreas Burkert

08:00

**Lecture: Large-scale structure formation/
evolution and the galaxy-dark matter
connection**

Shaun Cole

09:00

Tea & Coffee Break

09:15 - 09:45

10:00

08:30 - 10:30

11:00

Group Bus to Wendelstein Gondel in Bayrischzell

12:00

11:00 - 12:30

13:00

Cable Car to Wendelstein Mountain Top Observatory

12:45 - 13:15

Group 1: Elevator to Observatory

13:15 - 13:30

Group 2: Wendelstein Restaurant

14:00

Group 1 : Observatory Tour

13:30 - 14:15

13:15 - 14:15

14:15 - 14:30

15:00

Group 2: Observatory Tour

14:30 - 15:15

Group 1: Wendelstein Restaurant

Group 2: Elevator to Restaurant

15:15 - 15:30

14:30 - 15:30

Cable Car down the Mountain

15:30 - 16:00

16:00

Group bus back to Munich/Garching

17:00

16:00 - 17:30

Fri 03/03

Chairs: Andreas Burkert and Stefanie Walch-Gassner

09:00	Lecture: Physics of the turbulent interstellar medium <i>Stefanie Walch-Gassner</i>	
10:00		Coffee and Tea Break 09:45 - 10:15
	09:00 - 11:00	
11:00	Self-Tour of ESO Supernova Exhibition	11:00 - 12:00
12:00	ESO Planetarium Show: Europe to the Stars	12:00 - 13:00
13:00	Lunch Break	
14:00		13:00 - 14:30
	Lighting up the dark side of the Universe: new insights on the galaxy build-up through the ALPINE survey <i>Michael Romano</i>	14:30 - 15:00
15:00	The measurement of galaxy population properties with forward-modelling <i>Luca Tortorelli</i>	15:00 - 15:30
	Observations of intergalactic gas with the DESI survey <i>Michael Walther</i>	15:30 - 16:00
16:00	Coffee and Tea Break	16:00 - 16:30
	Investigating the Galactic metallicity gradient with asteroseismic ages <i>Emma Willett</i>	16:30 - 17:00
17:00	The relation between black-hole growth and host-galaxy compactness among star-forming galaxies <i>Qingling Ni</i>	17:00 - 17:30