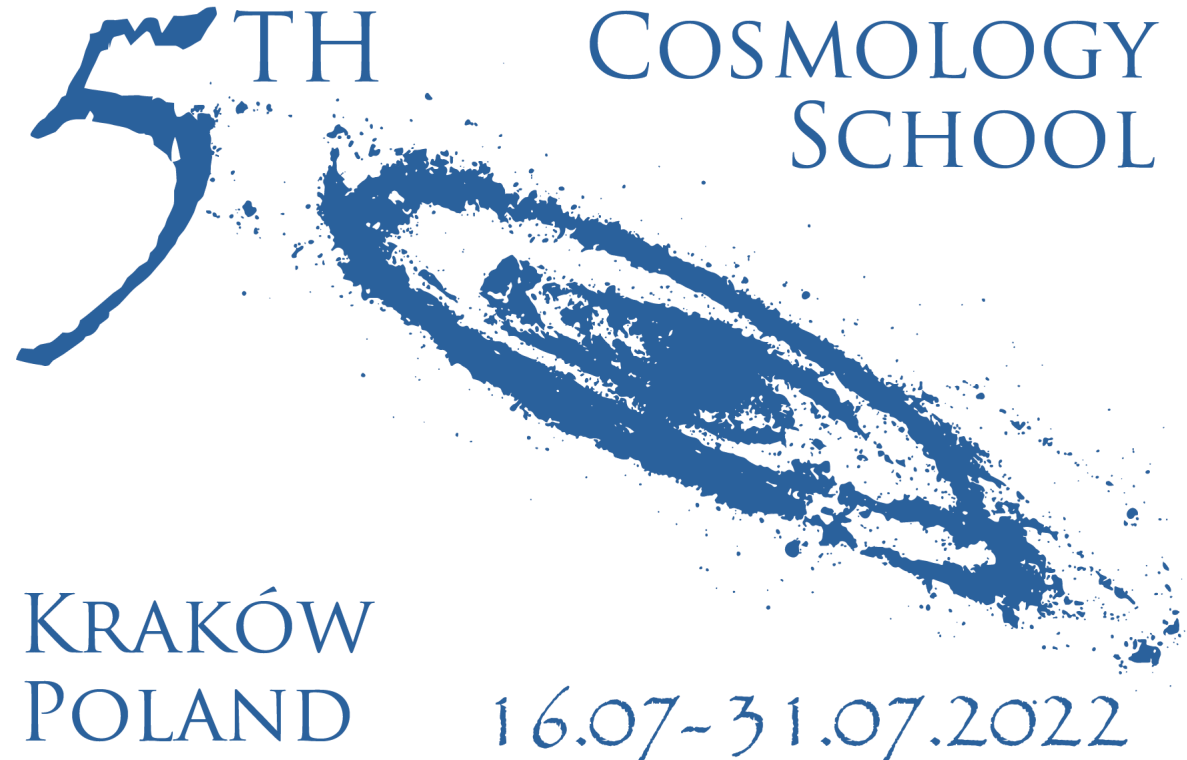


5th Cosmology School Programme



KRAKÓW
POLAND

16.07-31.07.2022

version date July 19, 2022

First week of the Conference

	16.07.2022 Saturday	17.07.2022 Sunday	18.07.2022 Monday	19.07.2022 Tuesday	20.07.2022 Wednesday	21.07.2022 Thursday	22.07.2022 Friday	23.07.2022 Saturday
09:00 - 09:30			Official opening					
09:30 - 10:00			Morning session I					
10:00 - 10:30								
10:30 - 11:00			Coffee break I					
11:00 - 11:30								
11:30 - 12:00			Morning session II					
12:00 - 12:30								
12:30 - 13:00			Lunch break					
13:00 - 13:30								
13:30 - 14:00			Afternoon session I					
14:00 - 14:30								
14:30 - 15:00			Afternoon session I	Excursion	Afternoon session I			
15:00 - 15:30		Public lecture						
15:30 - 16:00	Registration		Coffee break II	Excursion	Coffee break II			
16:00 - 16:30		Observations						
16:30 - 17:00			Afternoon session II		Afternoon session II			
17:00 - 17:30		Registration						
17:30 - 18:00				Welcome Grill & OA tour				
18:00 - 18:30								
18:30 - 19:00		Opening Cocktail						
19:00 - 19:30				Observational workshop				
19:30 - 20:00								
20:00 - 20:30								
20:30 - 21:00								
21:00 - 21:30								
21:30 - 22:00								
22:00 - 22:30								
22:30 - 23:00								

16.07.2022 Saturday

16:00 - 19:00 Registration

17.07.2022 Sunday

15:00 - 16:30 *Open public lecture in English*

Rien van de Weijgaert *The Cosmic Web: the largest structure in the Universe*

16:30 - 17:30 Optical observations of the Sun for public and participants

17:30 - 19:30 Registration open & opening cocktail

18.07.2022 Monday

08:30 - 09:00 Registration open

09:00 - 09:30 Official opening of the conference

09:30 - 11:00 Morning session I

Leszek Sokołowski *The puzzle of the early universe or why is there something rather than nothing?*

11:00 - 11:30 Coffee break I

11:30 - 13:00 Morning session II

Guido Chincarini *Some aspects of the GRBs transients*

13:00 - 14:30 Lunch break

14:30 - 16:00 Afternoon session I

Rien van de Weijgaert *The Cosmic Web: structure, dynamics, and classification 1*

16:00 - 16:30 Coffee break II

16:30 - 18:00 Afternoon session II

Maciej Bilicki *Observing the large-scale structure*

19.07.2022 Tuesday

09:30 - 11:00 Morning session I

Henk Hoekstra *Cosmological surveys (in particular LSST and Euclid) and weak gravitational lensing*

11:00 - 11:30 Coffee break I

11:30 - 13:00 Morning session II

Rien van de Weijgaert *The Cosmic Web: structure, dynamics, and classification 2*

13:00 - 14:30 Lunch break
15:00 - 18:00 Afternoon excursion - a visit to UJ Muzeum
18:00 - 21:00 Welcome grill at the Astronomical Observatory & Observatory tour
21:00 - 23:00 LOC
Observational workshop

20.07.2022 Wednesday

09:30 - 11:00 Morning session I
Henk Hoekstra *Applications of weak lensing 1: clusters, CGL, cosmic shear*

11:00 - 11:30 Coffee break I

11:30 - 13:00 Morning session II
Rien van de Weijgaert *The Cosmic Web: structure, dynamics, and classification 3*

13:00 - 14:30 Lunch break

14:30 - 16:00 Afternoon session I
Clotilde Laigle *Co-evolution of galaxies and the cosmic web: 1. observational facts and measurements*

16:00 - 16:30 Coffee break II

16:30 - 18:00 Afternoon session II
Henk Hoekstra *Applications of weak lensing 2: clusters, CGL, cosmic shear*

21.07.2022 Thursday

09:30 - 11:00 Morning session I
Sebastian Szybka *Beyond Friedmann, Robertson-Walker models*

11:00 - 11:30 Coffee break I

11:30 - 13:00 Morning session II
Clotilde Laigle *Co-evolution of galaxies and the cosmic web: 2. gas accretion and galaxy growth within the cosmic web*

13:00 - 14:30 Lunch break

14:30 - 16:00 Afternoon session I

Young researchers session 1

- Daria Dobrycheva (Main astronomical observatory of National academy of sciences of Ukraine)
“Machine learning and photometry redshift reconstruction for the SDSS galaxies at $z \sim 1.0$ ”
- Aditya Narendra (Jagiellonian University) “Predicting the redshift of gamma-ray loud AGNs using supervised machine learning”
- Luis Suelves (National Centre for Nuclear Research) ”Merger identification through photometric bands, color and errors”
- Mateusz Rałowski (Jagiellonian University) “The Covering Factor in AGNs: Evolution or Selection?”
- Mr. Zakhar Pysarevskyi (Odessa I.I.Mechnikov National University) “Morphology of Isolated Galaxy Clusters”
- Anna Wójtowicz,” Astronomical Observatory of the Jagiellonian University, Department of Theoretical Physics and Astrophysics of Masaryk University”, Radio Emission of Nearby Early-type Galaxies at Low and Very Low Radio Luministy Range”
- Suhani Gupta (Center for Theoretical Physics, PAN) “Universality of halo mass function in modified gravity cosmologies”

16:00 - 16:30 Coffee break II

16:30 - 18:00 Afternoon session II

Kasia Małek & Misha Hamed *SED fitting workshop 1*

22.07.2022 Friday

- 09:30 - 11:00** Morning session I
Elena Panko *Inner structure of galaxy clusters*
- 11:00 - 11:30** Coffee break I
- 11:30 - 13:00** Morning session II
Marek Demiański *The Lyman-alpha forest*
- 13:00 - 14:30** Lunch break
- 14:30 - 16:00** Afternoon session I
Kasia Malek & Misha Hamed *SED fitting workshop 2*
- 16:00 - 16:30** Coffee break II
- 16:30 - 18:00** Afternoon session II
Kasia Małek & Misha Hamed *SED fitting workshop 3*

23.07.2022 Saturday

- 09:30 - 11:00** Morning session I
Hendrik Heintz & Stefania Amodeo *VO for Cosmology 1*
- 11:00 - 11:30** Coffee break I
- 11:30 - 13:00** Morning session II
Hendrik Heintz & Stefania Amodeo *VO for Cosmology 2*
- 13:00 - 14:30** Lunch break
- 14:30 - 16:00** Afternoon session I
Hendrik Heintz & Stefania Amodeo *VO for Cosmology 3*
- 16:00 - 16:30** Coffee break II
- 16:30 - 18:00** Afternoon session II
Hendrik Heintz & Stefania Amodeo *VO for Cosmology 4*
- NIGHT LOC** Introduction to observations for theorists

Second week of the Conference

	24.07.2022 Sunday	25.07.2022 Monday	26.07.2022 Tuesday	27.07.2022 Wednesday	28.07.2022 Thursday	29.07.2022 Friday	30.07.2022 Saturday	31.07.2022 Sunday
09:00 - 09:30								
09:30 - 10:00		Morning session I						
10:00 - 10:30								
10:30 - 11:00								
11:00 - 11:30		Coffee break I			Early Lunch	Coffee break I		
11:30 - 12:00		Morning session II				Morning session II		
12:00 - 12:30								
12:30 - 13:00		Lunch break			Conference Excursion	Lunch break		
13:00 - 13:30								
13:30 - 14:00		Afternoon session I				Afternoon session I		
14:00 - 14:30	Public lecture							
14:30 - 15:00								
15:00 - 15:30	Observations	Coffee break II			Coffee break II			
15:30 - 16:00								
16:00 - 16:30		Afternoon session II			Afternoon session II	Closing of the conference		
16:30 - 17:00								
17:00 - 17:30								
17:30 - 18:00								
18:00 - 18:30								
18:30 - 19:00								
19:00 - 19:30					Conference Dinner			
19:30 - 20:00								
20:00 - 20:30								
20:30 - 21:00								

24.07.2022 Sunday

14:00 - 15:30 *Otwarty wykład popularnonaukowy w j. polskim*
Marek Demiański *Ciemne strony Wszechświata*

15:30 - 19:00 Optical observations of the Sun for public

NIGHT LOC Introduction to observations for theorists

25.07.2022 Monday

09:30 - 11:00 Morning session I
Hendrik Heintz & Stefania Amodeo *VO for Cosmology 5*

11:00 - 11:30 Coffee break I

11:30 - 13:00 Morning session II
Jérémy Fensch *Galaxy evolution and interactions 1: observations and simulations*

13:00 - 14:30 Lunch break

14:30 - 16:00 Afternoon session I
Francesco Maria Valentino *Main sequence, different paths of galaxy evolution 1: current observational status*

16:00 - 16:30 Coffee break II

16:30 - 18:00 Afternoon session II
Young researchers session 2

- Athanasia Gkogkou (Laboratoire d'Astrophysique de Marseille) "The Simulated Infrared Dusty Extragalactic Sky: status and application to galaxy surveys and intensity mapping experiments"
- Mathilde Van Cuyck (Laboratoire d'Astrophysique de Marseille) "Measuring the [CII] power spectrum in the Epoch of Reionisation with CONCERTO"
- Subhrata Dey (OA UJ) "Spectral energy distribution modeling of 11 local Luminous Infrared Galaxies (LIRGs) in radio and infrared domains"

- Francesco Pistis (National Centre for Nuclear Research) “Reviewing the FMR up to z 0.7: analyzing different approaches”
- Szymon Nakoneczny (National Centre for Nuclear Research) “Constraining bias of radio galaxies in LOFAR LoTSS DR2”
- Unnikrishnan Sureshkumar Astronomical Observatory of the Jagiellonian University “Correlations between galaxy properties and environment in the cosmic web”
- Julius Serbenta, (Center for Theoretical Physics, PAN) “Testing the null energy condition with precise distance measurements”

26.07.2022 Tuesday

09:30 - 11:00 Morning session I

Jérémy Fensch *Galaxy evolution and interactions 2: current observational status*

11:00 - 11:30 Coffee break I

11:30 - 13:00 Morning session II

Bohdan Novosyadlyj

Possible signals from the Dark Ages and Cosmic Dawn in the redshifted HI line

13:00 - 14:30 Lunch break

14:30 - 16:00 Afternoon session I

Francesco Maria Valentino

Main sequence, different paths of galaxy evolution 2

16:00 - 16:30 Coffee break II

16:30 - 18:00 Afternoon session II

John Peacock *CMB Lensing: foreground LSS reconstruction*

27.07.2022 Wednesday

- 09:30 - 11:00** Morning session I
John Peacock *CMB Lensing: tomography and fluctuation growth*
- 11:00 - 11:30** Coffee break I
- 11:30 - 13:00** Morning session II
John Peacock *CMB Tensions: H_0 , S_8 and implications*
- 13:00 - 14:30** Lunch break
- 14:30 - 16:00** Afternoon session I
Wojciech Hellwing *The role and usability of structure formation simulations in modern cosmology*
- 16:00 - 16:30** Coffee break II
- 16:30 - 18:00** Afternoon session II
Wojciech Hellwing
Introduction to analyzing and post-processing cosmological simulations

28.07.2022 Thursday

- 09:30 - 11:00** Morning session I
Maciej Bilicki *Cosmological distances and redshifts*
- 11:00 - 12:30** Early Lunch break
- 12:30 - 19:00** Conference excursion
- 19:00 - 21:00** Conference Dinner

29.07.2022 Friday

- 09:30 - 11:00** Morning session I
Archisman Ghosh *Gravitational waves: theory and observations 1*
- 11:00 - 11:30** Coffee break I
- 11:30 - 13:00** Morning session II
Archisman Ghosh *Cosmology with gravitational waves 2*
- 13:00 - 14:30** Lunch break

14:30 - 16:00 Afternoon session I
Wojciech Hellwing
Introduction to analyzing and post-processing cosmological simulations

16:00 - 16:30 Coffee break II

16:30 - 18:00 Afternoon session II
Wojciech Hellwing
Introduction to analyzing and post-processing cosmological simulations

30.07.2022 Saturday

09:30 - 11:00 Morning session I
Bohdan Novosyadlyj
The first molecules in the Dark Ages and Cosmic Dawn epochs: formation/destruction and luminescence

11:00 - 11:30 Coffee break I

11:30 - 13:00 Morning session II
Young researchers session 1

- Pratik Lonare (Tor Vergata University of Rome and National Institute for Astrophysics (INAF))
“Globular Clusters/Unresolved Stellar Populations”
- Franciszek Humieja (UJ) “Conformally coupled scalar field in the framework of nonlinear field space theory”
- Paola Carolina Moreira Delgado (UJ) “Gravitational waves decay to matter via parametric resonance”
- Syed Naqvi (Astronomical Observatory of the Jagiellonian University) “Standing waves in the context of gravity”
- Malgorzata Bankowicz “A curious case of HE 0435-5304”

- Paweł Drozda (CFT PAN) “TBA”
- Olena Kompaniets, Main Astronomical Observatory of NAS of Ukraine “TBA”
- Angel Priyana Noel (Astronomical Observatory of the Jagiellonian University) BL Lacertae:
Unravelling the change in spectral upturn with flux variation

13:00 - 14:30 Lunch break

14:30 - 16:00 Afternoon session I

Marek Biesiada *Future prospects of precision cosmology*

16:00 - 16:30 Coffee break II

16:30 - 17:30 Discussion and closing of the conference

NIGHT LOC Introduction to observations for theorists

31.07.2022 Sunday

09:30 - 11:30 TBD