[ISMgalaxies2021 summer school] Hands-on session participant list

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Contents

1 Project 1: Estimating the gas content and kinetic temperature using the [CI] lines in lensed high-redshift galaxies

Supervisors: Matthieu BÉTHERMIN & Gayathri GURURAJAN

1.1 LLERENA, Mario

E-mail: mario.llerena@userena.cl

Institute: Universidad de La Serena

Laboratory: Departamento de Astronomia

Location: Chile

Level: PhD student

Dissertation topic: I am studying the properties of a population of CIII]1908 emitters selected at z=2-4, mainly focused on the ionized gas and the chemical enrichment in their ISM. I want to understand how galaxies grow and what are the properties of the ISM that could favor the escape of ionizing photons in the earli

English: Fluent

Internet connection speed: Higher than 100 Mb/s

Interests: Nearby galaxies, Distant galaxies, Cosmic dawn

Motivations: The main focus of my PhD thesis is to study the ISM properties of a sample of galaxies at z=2-4. This summer school is a great opportunity to learn more about the ISM at different epochs, and particularly, to learn about theoretical models that are useful to interpret observations.

1.2 TRAN, Thi Thai

E-mail: ttthai@vnsc.org.vn

Institute: Vietnam National Space Center

Laboratory: Department of Astrophysics

Location: Vietnam

Level: PhD student

Dissertation topic: cosmic reionization

English: Fluent

Internet connection speed: Between 1 and 10 Mb/s

Interests: The Milky Way, Nearby galaxies, Distant galaxies, Ionized gas, Atomic gas, Molecular gas, Dust, Instrumentation, Observations, Modeling, Simulations

Motivations: I would like to improve my knowledge in galaxy field and getting some new ideas.

1.3 NAGY, David

E-mail: david.nagy@unige.ch

Institute: University of Geneva (UniGE)

Laboratory: Observatoire de Genève

Location: Switzerland

Level: PhD student

Dissertation topic: Sub-kpc study of strongly lensed high-redshift galaxies.

English: Proficient

Internet connection speed: Higher than 100 Mb/s

Interests: Distant galaxies, Small-scale ISM structures, Molecular gas, Dust, Observations, Modeling

Motivations: A deeper understanding of the ISM, getting ideas for my PhD project, and meeting other people sharing my science interests.

1.4 ARELLANO CORDOVA, Karla

E-mail: kzarellano@austin.utexas.edu

Institute: The University of Texas at Austin

Laboratory: -

Location: United States

Level: Postdoc

English: Proficient

Internet connection speed: Higher than 100 Mb/s

Interests: The Milky Way, Nearby galaxies, Distant galaxies, Ionized gas, Observations

Motivations: I want to continue learning about the different topics related to the ionized gas in the Milky Way, nearby and distant galaxies. I am excited to learn new techniques of data analysis. I would like to discuss the challenges we need to assess concerning the next generation of space and ground-based telescopes concerning the ISM studies. Share my ideas and get feedback. I want to improve my research skills and increase my network. I am interested in making future collaborations. I believe that this summer school is ideal to do it.

1.5 HARRINGTON, Kevin

E-mail: kharring@eso.org

Institute: European Southern Observatory

Laboratory: ALMA

Location: Chile

Level: Postdoc

English: Native speaker

Internet connection speed: Higher than 100 Mb/s

Interests: Distant galaxies

Motivations: A synthesis of techniques and approaches used to study the ISM in local (MW or nearby) systems and in distant galaxies. What are the major observables to constrain in near and far in the next 10 years?

2 Project 2: Deriving dust mass and temperature in distant star-forming galaxies

Supervisors: Longji BING, Nathalie YSARD, Karine DEMYK & Jean-Philippe BERNARD

2.1 ROMAN OLIVEIRA, Fernanda

E-mail: romanoliveira@astro.rug.nl

Institute: University of Groningen

Laboratory: Kapteyn Astronomical Institute

Location: Netherlands

Level: PhD student

Dissertation topic: Kinematics of high redshift galaxies

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Distant galaxies, Ionized gas, Atomic gas, Molecular gas, Dust, Observations, Modeling, Simulations

Motivations: As I am fairly new to my PhD project, this will be an opportunity to learn more about the field and what is done, as well as to know other people working on similar projects.

2.2 PENSABENE, Antonio

E-mail: antonio.pensabene2@unibo.it

Institute: INAF-Astrophysics and Space Science Observatory

Laboratory: INAF-OAS

Location: Italy

Level: PhD student

Dissertation topic: Dynamics and interstellar medium in high-z galaxies and quasar hosts, co-evolution between supermassive black holes and their host galaxies, astronomy at (sub-)mm wavelengths.

English: Proficient

Internet connection speed: Between 10 and 100 Mb/s

Interests: Distant galaxies, Cosmic dawn, Atomic gas, Molecular gas, Dust, Observations

Motivations: I would expect to deepening aspects of scientific interpretation of ISM diagnostics in galaxies and radiative transfer modeling. This is a unique opportunity to learn more about these topics in order to develop new ideas for my future studies in this field.

2.3 DECLEIR, Marjorie

E-mail: mdecleir@stsci.edu

Institute: Space Telescope Science Institute

Laboratory: ISM* group

Location: United States

Level: Postdoc

English: Fluent

Internet connection speed: Higher than 100 Mb/s

Interests: The Milky Way, Nearby galaxies, Dust, Instrumentation, Observations

Motivations: Although I have studied interstellar dust during my PhD and first postdoc year, I feel I lack in-depth knowledge on the interstellar medium, and how it can be studied observationally. My projects are very focussed on a tiny aspect of interstellar dust. In this summer school I hope to learn more about both the big picture of the interstellar medium in different galaxies, and details on the methods used to study the ISM. Since I am still at the beginning of my career, I am searching my path forward, so meeting new people, and perhaps kick-start new projects would be very valuable at this point in my career.

2.4 NASCIMENTO, Ana Carolina

E-mail: ana.posses@mail.udp.cl

Institute: Universidad Diego Portales

Laboratory: Astronomy Nucleus

Location: Chile

Level: PhD student

Dissertation topic: As I mentioned before, my work is divided into 3 different fronts: (1) study of kinematics and morphology of the high-resolution [CII] emission line in ""normal"" star-forming galaxies at the end of the reionization epoch. Comparison with HST images can permit us to understand if the cooling is taki

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Nearby galaxies, Distant galaxies, Cosmic dawn, Small-scale ISM structures, Ionized gas, Molecular gas, Observations, Modeling

Motivations: I have high expectations for the school as it may be essential for helping me to better develop my Ph.D. project. My work is divided into 3 different fronts: (1) study of kinematics and morphology of the [CII] emission line in galaxies at the end of the reionization epoch, (2) kinematic study of a rotation-dominated disk galaxy at z = 2.2 using the CO (4-3), CO (7-6), [CI] (1-0), and [CI] (2-1) emission lines and (3) study of ~50 faint dusty star-forming galaxies at z < 3 as part of the ASPECS survey. I would like to mention that this is the first time that I am working with the interstellar medium of galaxies, and I did not have an undergraduate and master's program that approached with satisfactory detail on the properties and evolution of the ISM with cosmic time. So I feel the school will help me to enhance my knowledge in this new universe that has great complexity. I list below my expectations about the school. 1) The classes within the topic of ""Observational Inventory"" will help me to understand more about the properties of the interstellar medium and to put in perspective what we know about the distant (which is part of my Ph.D. project) and near universe. I believe that knowing about the nearby Universe is fundamental to have insights for the question I am trying to answer in my field. I highlight the importance of Dr. Leroy's, Dr. Ferrara's, and Dr. Elbaz's classes in my training. 2) Classes within the topic of ""Interpreting ISM Observations"" will be fundamental for me to understand more about the models that describe the physical processes that happen in the ISM. I still feel great difficulty in understanding them and I believe that the classes of Dr. Ferland, Dr. Bron, Dr. Cabrit, and Dr. Buat will have a great impact on the better understanding of my research. 3) The other classes and topics will allow me to obtain additional knowledge on the subject and I believe that this diversity will allow me to think outside the box and propose more robust so

2.5 SHARMA, Monu

E-mail: m.sharma.17@ucl.ac.uk

Institute: UCL

Laboratory: MSSL

Location: United Kingdom

Level: PhD student

Dissertation topic: I am studying Star Formation Rate of intermediate redshift (0.5-1) galaxies.

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Distant galaxies, Cosmic dawn, Ionized gas, Atomic gas, Molecular gas, Dust, Observations, Modeling

Motivations: Formal introduction to the field as I do have a very scattered knowledge about few concepts; meeting potential collaborators on current and future projects.

2.6 PASPALIARIS, Evangelos-Dimitrios

E-mail: edpaspaliaris@gmail.com

Institute: National Observatory of Athens

Laboratory: Institute of Astronomy, Astrophysics, Space Applications and Remote Sensing

Location: Greece

Level: PhD student

Dissertation topic: Stellar populations in nearby and distant galaxies and their contribution to the properties of the ISM.

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Nearby galaxies, Distant galaxies, Dust, Observations, Modeling, Simulations

Motivations: Getting new ideas about how to handle my ongoing or future projects. Learning new concepts. Meet new people that could collaborate in the future and discuss our ideas. Take part in small projects during the summer school.

2.7 ROBERSON, Joshua

E-mail: robersju@mail.uc.edu

Institute: University of Cincinnati

Laboratory: Bayliss Group

Location: United States

Level: PhD student

Dissertation topic: Formation parameters of bright high-z galaxies

English: Native speaker

Internet connection speed: Between 10 and 100 Mb/s

Interests: Distant galaxies, Cosmic dawn, Dust, Observations, Modeling, Simulations

Motivations: An introduction to advanced projects and meeting people further along in the field than I am

2.8 PAUDEL, Madhu

E-mail: mspaudel27@gmail.com

Institute: Tri - Chandra Multiple Campus, Tribhuvan University, Nepal

Laboratory: B. P. Koirala Planetarium

Location: Nepal

Level: PhD student

Dissertation topic: I am currently working as a lecturer in Tri-Chandra Multiple Campus, Tribhuvan University but I have not completed PhD. I have just completed M. Sc. in Physics with major in astrophysics before 7 year. The topic of my M. Sc. thesis is: - ""A New Isolated Far Infrared Nebula at - 37 degree Galactic L

English: Proficient

Internet connection speed: Between 10 and 100 Mb/s

Interests: Dust

Motivations: Learning new concept for the study of dust in ISM, specially using latest data, eg. spitzer data, and meet virtually with new paper in new project in collaboration.

2.9 BURAGOHAIN, Mridusmita

E-mail: ms.mridusmita@gmail.com

Institute: The University of Tokyo

Laboratory: Astronomy

Location: India

Level: Postdoc

English: Proficient

Internet connection speed: Between 10 and 100 Mb/s

Interests: The Milky Way, Nearby galaxies, Distant galaxies, Cosmic dawn, Small-scale ISM structures, Ionized gas, Atomic gas, Molecular gas, Dust, Instrumentation, Observations, Modeling, Simulations

Motivations: I expect to learn about new trends and skills used in recent/new observations (data reduction) and gain insights on dust models. I would also like to do hand on projects on data reduction of telescope data, particularly with ALMA. Connecting to new people and building collaboration is another aspect that I am looking forward in this school.

2.10 NEGMELDEEN, Mahmoud

E-mail: Negmeldeen@cu.edu.eg

Institute: Astronomy Department - Faculty of Science

Laboratory: Astrophysics

Location: Egypt

Level: PhD student

Dissertation topic: my Master Topic is studying physical properties of short period eclipsing binary stars PhD topic is the Physical modelling of galaxy clusters

English: Proficient

Internet connection speed: Between 10 and 100 Mb/s

Interests: Modeling

Motivations: getting new ideas and kick-starting projects

3 Project 3: The Ionized and Magnetized Interstellar Medium with LOFAR Observations

Supervisors: Andrea BRACCO & Vibor JELIC

3.1 DOKARA, Rohit

E-mail: rdokara@mpifr.de

Institute: Max Planck Institute for Radio astronomy

Laboratory: Menten group

Location: Germany

Level: PhD student

Dissertation topic: Mapping the Milky Way, focusing on new Supernova remnants.

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: The Milky Way, Small-scale ISM structures, Observations

Motivations: I want to learn how I can connect my observational studies on the Milky Way's ISM to extragalactic ones. I'm also interested to have a refresher for my theoretical understanding and to get ideas for a new project that might answer some big open questions of astronomy.

3.2 ZHOU, Dazhi

E-mail: dodgie.chou@gmail.com

Institute: Leiden University

Laboratory: Leiden Observatory

Location: Netherlands

Level: Graduate student

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Nearby galaxies, Distant galaxies, Cosmic dawn, Small-scale ISM structures, Ionized gas, Molecular gas, Dust, Observations, Modeling

Motivations: Get a better understanding of the cosmic history of star formation and the role of ISM

3.3 BEHIRI, meriem

E-mail: meriembehiri96@gmail.com

Institute: University of Bologna

Laboratory: University of Bologna

Location: Italy

Level: Graduate student

English: Fluent

Internet connection speed: Higher than 100 Mb/s

Interests: Distant galaxies, Cosmic dawn, Molecular gas, Dust, Observations, Modeling, Simulations

Motivations: Improving my knowledge about ISM both from a theoretical and an observational point of view; learning more about the state of the art in this field; having a new perspective about the interpretation of ISM observations; meeting astronomers from all over the world, who certainly have an interesting approach to astrophysics different than mine.

3.4 JAIN, PARUL

E-mail: jainparul71@gmail.com

Institute: IISC Bangalore

Laboratory: astrophysics

Location: Germany

Level: Graduate student

English: Proficient

Internet connection speed: Higher than 100 Mb/s

Interests: Nearby galaxies

Motivations: I am enthusiastic about this summer school as it matches with my interest ,looking for my new ideas to explore this program.This school will help me to build up my career in astrophysics and research further,after this school probably will try to publish my work since already working on a project on galaxies formation and ISM.

3.5 CHAFI, Jamal

E-mail: chafi.jamal2@gamil.com

Institute: FSSM

Laboratory: LPHEA

Location: Morocco

Level: Graduate student

English: Beginner

Internet connection speed: Between 1 and 10 Mb/s

Interests: Instrumentation

Motivations: getting new ideas, learning new concepts.

3.6 VIJAYARAGHAVAN, Vijayatha

E-mail: cosmosastro4@gmail.com

Institute: AMRITA VISHWA VIDYAPEETHAM UNIVERSITY, COIMBATORE

Laboratory: AMRITA VISHWA VIDYAPEETHAM UNIVERSITY, COIMBATORE

Location: India

Level: Graduate student

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Nearby galaxies, Distant galaxies, Cosmic dawn, Small-scale ISM structures, Ionized gas, Atomic gas, Molecular gas, Dust, Instrumentation, Observations, Modeling, Simulations

Motivations: To enhance my independent learning skills. To meet great minds who are working and doing research in this field. To meet like minded peers who share interest in same area of research. To gain insights in to domain and how to venture into to it. To gain ideas for pursuing my doctoral studies. To clear my doubts in some of the topics in this summer school. To get inspired.

4 Project 4: Millimeter rotational lines as powerful diagnostics of the physical conditions inside a Giant Molecular Cloud – The Orion B case

Supervisors: Émeric BRON & Jérôme PETY

4.1 GKOGKOU, Athanasia

E-mail: athanasia.gkogkou@lam.fr

Institute: Aix-Marseille Universite

Laboratory: Laboratoire d?Astrophysique de Marseille

Location: France;Greece

Level: PhD student

Dissertation topic: Mapping the star formation and cold gas in post-reionization and reionization epoch with CONCERTO

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Distant galaxies, Cosmic dawn, Molecular gas, Dust, Observations, Modeling, Simulations

Motivations: An introduction (or revision) to each field, learning new concepts, getting familiar with ongoing projects and (maybe)the people working on them, and of course getting new ideas

4.2 RAWLINS, Katherine

E-mail: katherine.rawlins@gmail.com

Institute: St. Xavier's College, Mumbai

Laboratory: Department of Physics

Location: India

Level: Postdoc

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: The Milky Way, Nearby galaxies, Distant galaxies, Atomic gas, Molecular gas, Dust, Observations, Modeling, Simulations

Motivations: For my PhD (completed in January 2021), I studied the physical environment of high-redshift damped Lyman-alpha absorbers (DLAs) harbouring molecular hydrogen. This was achieved through a combination of high-resolution spectroscopic data analysis at rest-frame ultraviolet wavelengths (VLT/UVES, Keck HIRES), and numerical simulations using the code CLOUDY. The results of the study had implications for the dust grain and radiation field properties of the probed DLAs, and were published in two papers in Monthly Notices of the Royal Astronomical Society. For my current and future research, I am focussed on studies of environments harbouring other molecular species like simple hydrides, leading towards more complex chemistry. I am interested in applying both observational and computational methods and techniques for the same. Through this online school, I hope to acquire a better understanding of topics and research techniques allied to my research background, enabling me to develop new research ideas and projects. Further, I look forward to the school as an opportunity to interact with renowned researchers in the field, and to enhance my professional network.

4.3 HOEMANN, Elena

E-mail: Hoemann@usm.lmu.de

Institute: LMU

Laboratory: University Observatory Munich

Location: Germany

Level: PhD student

Dissertation topic: In my PhD I investigate the dynamics of the cold interstellar medium and the formation, evolution and fragmentation of its filamentary structure. We develop models, validated by hydrodynamic simulations to understand the underlying mechanisms of star formation.

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: The Milky Way, Small-scale ISM structures, Molecular gas, Dust, Modeling, Simulations

Motivations: overview of the broad topic; better understanding of the big picture and dependencies of the subtopics; getting new ideas and perspectives; meet new people and exchange ideas

4.4 TELIKOVA, Ksenia

E-mail: ks.telikova@mail.ru

Institute: Ioffe Institute

Laboratory: Department of Theoretical Astrophysics

Location: Russia

Level: PhD student

Dissertation topic: My PhD project is devoted to study of the high-redshift Universe by means of the spectroscopy of the distant quasars. Currently I am working on two on-going observational topics in my PhD, both related to the physical conditions at high redshifts and the thermal state of the gas probed by quasar abs

English: Proficient

Internet connection speed: Between 10 and 100 Mb/s

Interests: Nearby galaxies, Distant galaxies, Ionized gas, Atomic gas, Molecular gas, Instrumentation, Observations

Motivations: Since significant part of my PhD is dedicated to the interstellar medium in high-redshift (z~2-3) galaxies, I am very encouraged by the program of this summer school, embraces crucial topics on interstellar medium from the early Universe to the present days. From participating to the summer school I expect to learn more about the microphysical models and their applications to the real cases of the multiphase nature of the interstellar medium, galaxy lifecycle and feedback processes. Additionally, I am highly interested in study of nearby galaxies and the Milky Way, which will be extensively discussed during the school program, since the understanding of the modern galaxy properties will be a key information for the interpretation of my observational work in context of relationship of high- and low-redshift galaxies. Apart from that, I also expect to communicate with experts in the interstellar medium study during the lectures and proposed projects, and meet new people, who work in the surrounding scientific fields. I hope this summer school will provide me starting points for new scientific projects and collaborations at the intersection of the neighboring topics.

4.5 G. SANTA-MARIA, Miriam

E-mail: miriam.g.sm@csic.es

Institute: CSIC

Laboratory: IFF

Location: Spain

Level: PhD student

Dissertation topic: Warm molecular gas in massive star-forming regions.

English: Intermediate

Internet connection speed: Between 10 and 100 Mb/s

Interests: The Milky Way, Nearby galaxies, Atomic gas, Molecular gas, Observations, Modeling

Motivations: An introduction to nearby galaxies and to pdr and shocks models

5 Project 5: Spectrophotometric modeling of galaxies and AGNs

Supervisors: Véronique BUAT & Patrice THEULÉ

5.1 RICKARDS VAUGHT, Ryan

E-mail: rjrickar@ucsd.edu

Institute: University of California San Diego

Laboratory: Team Nearby Galaxies

Location: United States

Level: PhD student

Dissertation topic: Spatially resolved metallicity in nearby galaxies

English: Native speaker

Internet connection speed: Between 1 and 10 Mb/s

Interests: Nearby galaxies, Small-scale ISM structures, Ionized gas, Observations, Modeling

Motivations: Strengthen prior knowledge and learn new concepts. Network as well as start new projects/collaborations

5.2 JHA, Vivek

E-mail: vivekjha173@gmail.com

Institute: ARIES, Nainital

Laboratory: Astronomy

Location: India

Level: PhD student

Dissertation topic: Resolving the innermost regions of Active galactic Nuclei

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Distant galaxies, Cosmic dawn, Dust, Observations, Modeling

Motivations: I want to learn new techniques about extragalactic astronomy. Some part of my Ph.D. work involves studying the outflowing gas from the inner regions of active galaxies. Apart from that, I want to get in sync with and develop some ideas regarding the recent advances in this area of research.

5.3 YAROVOVA, Anastasia

E-mail: yaan.ph@gmail.com

Institute: Lomonosov Moscow State University

Laboratory: radioastronomy

Location: Russia

Level: PhD student

Dissertation topic: Study of the interaction of stars and the interstellar medium in nearby low-metallicity galaxies.

English: Proficient

Internet connection speed: Between 10 and 100 Mb/s

Interests: Nearby galaxies, Distant galaxies, Small-scale ISM structures, Ionized gas, Atomic gas, Molecular gas, Observations

Motivations: I expect to learn new things about the interaction between stars and ISM and its influence on the evolution of galaxies. It would be useful to find out something about the modern methods of gas and dust observations and ISM modelling. I also aim to expand my understanding of the processes occurring in low-metallicity galaxies, both in local dwarfs and in the most distant ones. I would appreciate participation in the project, as it can provide me the experience of using new methods and communication with my colleagues from other countries.

5.4 MUÑOZ-VERGARA, Dania

E-mail: dania.munoz@userena.cl

Institute: Universidad de La Serena

Laboratory: Astronomy Department

Location: Chile

Level: PhD student

Dissertation topic: I am focusing my research on the chemical and kinematical analysis of the ionized gas in dwarf galaxies in the Local Universe, specifically between redshift 0.1 to 0.4, known as ?Green Pea Galaxies?. They are very compact and have an outstanding star formation rate and very low metallicities. These

English: Proficient

Internet connection speed: Higher than 100 Mb/s

Interests: Nearby galaxies, Ionized gas, Observations

Motivations: As I am in the 3rd year (out of 4) of my Ph.D., I would like to learn more about the interpretation of data on the topic and how to correlates my nearby universe data with high redshift ones and with simulations, since the last one is a new field for me. Also, I would like to get new ideas because I have to start to think about a postdoc project next year. I think that the school is a good opportunity to learn about the generalities of the ISM in galaxies in a wide spectrum of topics since a Ph.D. in Astronomy is focused on a specific one. This will help me to better understand the big picture of the study of the ISM in galaxies.

5.5 SULEIMAN, Nofoz

E-mail: n.suleiman@astro.elte.hu

Institute: Eötvös Loránd University

Laboratory: Department of Astronomy, I am not working in a certain Laboratory

Location: Hungary;Jordan

Level: PhD student

Dissertation topic: Star Formation and Active Galactic Nuclei

English: Intermediate

Internet connection speed: Higher than 100 Mb/s

Interests: Distant galaxies, Dust, Observations, Modeling

Motivations: Getting deep and more details in my field. Learning new concepts and other research fields. Get to know new scientists of the same speciality. looking for new projects ideas and collaborations.

5.6 SULZENAUER, Nikolaus

E-mail: nsulzenauer@mpifr-bonn.mpg.de

Institute: Max-Planck-Institute for Radio Astronomy

Laboratory: sub-/millimetre astronomy

Location: Germany

Level: PhD student

Dissertation topic: Investigations on cold gas reservoirs in high-redshift star-forming galaxies and how they are influenced by the environment (galaxy protocluster/field)

English: Proficient

Internet connection speed: Between 1 and 10 Mb/s

Interests: Nearby galaxies, Distant galaxies, Cosmic dawn, Atomic gas, Molecular gas, Dust, Instrumentation, Observations, Modeling

Motivations: * Get a comprehensive picture of current methods in understanding the ISM in galaxies in general * Learn what is missing (or could be improved) in models/physical recipes of the ISM * Understand to what extend scaling laws of the ISM measured in the Milky Way/local galaxies can be extrapolated to the early Universe. * Get knowledge about common observing techniques of the warm/cold gas phase: what is possible to be currently observed at z>5, and what would be key but is hard to get with current facilities? * Coming closer to the answer of what role star-forming galaxies might have to powering cosmic reionization * Meet new people in the same and neighboring scientific fields

5.7 RAMAMBASON, Lise

E-mail: lise.ramambason@cea.fr

Institute: CEA

Laboratory: AIM

Location: France

Level: PhD student

Dissertation topic: Multi-phase study of the interstellar medium in primitive galaxies and interaction between compact objects and interstellar medium

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Nearby galaxies, Ionized gas, Atomic gas, Molecular gas, Dust, Observations, Modeling

Motivations: I am especially interested by the sessions on Cloudy models, multi-phase modeling of the ISM and observation of nearby galaxies which are at the core of my PhD subject. I am looking forward to interacting with the speakers and the other students to get new ideas and stay up to date about current projects and possible collaborations. I am also interested in learning more about PDR and shock models which could serve as comparison in my current work. Finally I hope to gain a broader view on the general context of ISM studies with the sessions on high-redshift observations and simulation results.

5.8 KAUR, Tejpreet

E-mail: tejpreetkaur95@gmail.com

Institute: Panjab University, Chandigarh, India

Laboratory: Department of Physics, Panjab University, Chandigarh, India

Location: Switzerland

Level: PhD student

Dissertation topic: The title of my PhD thesis is ""The dynamical and isotopic abundance evolution of the Milky Way galaxy"".

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: The Milky Way, Nearby galaxies, Small-scale ISM structures, Observations, Modeling, Simulations

Motivations: I work in the field of formation and chemical evolution of the Milky Way galaxy. In my work, the gas accreted from intergalactic medium is used to form halo thick and thin disc of the galaxy. Various generation of stars are formed and evolved according to variable star formation rate and initial mass function. These stars give their nucleosynthetic yields to the ISM and the metallicity of the ISM keeps on enriching over the galactic time scale. This school seems to cover all the topics which are highly relevant for my research work. I am looking forward to learn new techniques to understand the ISM of the galaxy. I am excited to meet experts across the globe and exchange new ideas with them. I hope the interactions during the school will result in some potential collaborations for my future projects.

5.9 BOLAN, Patricia

E-mail: pmbolan@ucdavis.edu

Institute: UC Davis

Laboratory: Bradac Group

Location: United States

Level: PhD student

Dissertation topic: Galaxies at Reionization - Lya and CIII] emission

English: Native speaker

Internet connection speed: Between 10 and 100 Mb/s

Interests: Distant galaxies, Cosmic dawn, Ionized gas, Observations

Motivations: learning more about ISM details and how it pertains to my research, meeting new people

5.10 SANTOSH, Harish

E-mail: harish.santosh@gmail.com

Institute: Arizona State University

Laboratory: School of Earth and Space Exploration

Location: United States

Level: PhD student

Dissertation topic: Understanding galaxy evolution using emission-line galaxies at low and high redshifts

English: Proficient

Internet connection speed: Between 10 and 100 Mb/s

Interests: Nearby galaxies, Distant galaxies, Cosmic dawn, Ionized gas, Observations

Motivations: learn about advances in the field, getting new ideas to kick-start projects, meeting (virtually) new people

6 Project 6: Modeling interstellar shock observations

Supervisors: Sylvie CABRIT & LE Ngoc Tram

6.1 SONG, Yiqing

E-mail: ys7jf@virginia.edu

Institute: University of Virginia

Laboratory: Department of Astronomy

Location: United States

Level: PhD student

Dissertation topic: I use high frequency radio continuum observations from the Very Large Array to study extreme nuclear star formation in local luminous infrared galaxies on 100pc scales

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Nearby galaxies, Ionized gas, Molecular gas, Observations

Motivations: I hope to get a comprehensive overview of the field to better organize my current limited knowledge of the ISM and to learn new concepts and techniques to develop new proposal and project ideas.

6.2 ERCEG, Ana

E-mail: aerceg@irb.hr

Institute: Ruder Boskovic Institute

Laboratory: Laboratory for astroparticle physics and astrophysics

Location: Croatia

Level: PhD student

Dissertation topic: As part of my PhD research, I am currently working on Faraday tomography of a huge low-frequency polarisation mosaic in the northern sky (LOFAR LoTSS survey data). My work includes multiwavelenght analysis (comparison with data at other frequencies, HI, magnetic fields from Planck dust observations)

English: Fluent

Internet connection speed: Higher than 100 Mb/s

Interests: The Milky Way, Small-scale ISM structures, Ionized gas, Atomic gas, Dust, Observations

Motivations: I would love to participate in this school to deepen my knowledge of the ISM and the underlying physical concepts, as I am currently a PhD student working in this field (polarisation LOFAR data and Faraday tomography). I would also very much like to meet some new people (at least online) with similar interests and hear about other new researches being done in my own and other connected fields.

6.3 POLLES, Fiorella

E-mail: fpolles@usra.edu

Institute: SOFIA Science Centre, USRA

Laboratory: SOFIA Science Centre, USRA

Location: United States

Level: Postdoc

English: Proficient

Internet connection speed: Higher than 100 Mb/s

Interests: Nearby galaxies, Ionized gas, Atomic gas, Molecular gas, Dust, Observations, Modeling

Motivations: expanding my knowledge on the field, learning new concepts, and keep me updated with the last news/progresses on the study of the ISM and tools used.

6.4 FRANCO, Maximilien

E-mail: francomaximilien@gmail.com

Institute: University of Hertfordshire

Laboratory: Physics, Astronomy, Mathematics

Location: United Kingdom

Level: Postdoc

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Distant galaxies, Molecular gas, Dust, Observations, Modeling

Motivations: The workshop has a really interesting format, and I'm hoping that through the combination of lectures and projects I'll have the opportunity to meet new people and have interesting discussions, which could lead to new ideas and future collaborations. I'm also really looking forward to getting an overview of all of these interesting fields, some of which I work closely with, and some of which are newer to me.

6.5 EIBENSTEINER, Cosima

E-mail: eibensteiner@astro.uni-bonn.de

Institute: Argelander Institute of Astronomy, University Bonn

Laboratory: Radio Astronomy and Interstellar Medium

Location: Germany

Level: PhD student

Dissertation topic: Spectroscopy and star formation in nearby galaxies (especially centers); data reduction and imaging (VLA, ALMA);

English: Proficient

Internet connection speed: Between 10 and 100 Mb/s

Interests: Nearby galaxies

Motivations: get a better/deeper insight into concepts; meeting new people

7 Project 7: Cloudy Workshop

Supervisors: Gary FERLAND & Patrice THEULÉ

7.1 ANDIKA, Irham

E-mail: andika@mpia.de

Institute: Max Planck Institute for Astronomy

Laboratory: -

Location: Germany

Level: PhD student

Dissertation topic: My research is focused on the discovery and characterization of the quasars in the early universe (redshift > 6). These objects are indispensable tracers to decipher the build-up of the first supermassive black holes and their host galaxies, the early structure formation, and the history of cosmic r

English: Proficient

Internet connection speed: Between 10 and 100 Mb/s

Interests: Distant galaxies, Cosmic dawn, Ionized gas, Atomic gas, Dust, Instrumentation, Observations

Motivations: I'm hoping to get some insights on finding the connection between interstellar medium at low- and high-redshift universe, to understand how they would affect the build up of the first supermassive black holes and their host galaxies, the early structure formation, and the history of cosmic reionization. In addition, I want to expand my network with other participants by discussing our research and if possible, I would like to initiate a collaborative research with them.

7.2 AYUBINIA, Ashraf

E-mail: ayubinia@mail.ustc.edu.cn

Institute: University of Science and Technology of China

Laboratory: Astronomy department

Location: Iran

Level: PhD student

Dissertation topic: 1. Investigation of Stellar and Ionized Outflow Kinematics In local [U]LIRGs 2. The fundamental mechanism in driving the ionized outflows in AGNs

English: Fluent

Internet connection speed: Between 1 and 10 Mb/s

Interests: Nearby galaxies, Distant galaxies, Ionized gas, Atomic gas, Molecular gas, Dust, Observations

Motivations: Improving my knowledge, meeting new people, kick-starting projects

7.3 SOLIMANO, Manuel

E-mail: masolimano@uc.cl

Institute: Universidad Diego Portales

Laboratory: Núcleo de Astronomía

Location: Chile

Level: PhD student

Dissertation topic: Molecular gas in high redshift galaxies

English: Fluent

Internet connection speed: Higher than 100 Mb/s

Interests: Distant galaxies, Atomic gas, Molecular gas, Dust, Observations

Motivations: Meeting people and learning new fundamental ideas, methods and discoveries on ISM science.

7.4 YANITSKI, Craig

E-mail: yanitski@ph1.uni-koeln.de

Institute: Universität zu Köln

Laboratory: Physikalische Institut

Location: Germany

Level: PhD student

Dissertation topic: I am modelling the clumpy structure of PDRs and comparing with observations.

English: Native speaker

Internet connection speed: Between 10 and 100 Mb/s

Interests: The Milky Way, Nearby galaxies, Small-scale ISM structures, Dust, Modeling, Simulations

Motivations: I want to learn more of the field outside my topic, get to know some of the people, and hopefully gain a new insight to my work.

7.5 ZAMORA ARENAL, Sandra

E-mail: sandra.zamora@uam.es

Institute: Universidad Autónoma de Madrid

Laboratory: Departamento de Física Teórica

Location: Spain

Level: PhD student

Dissertation topic: HII Regions and Circumnuclear Star Forming Regions.

English: Intermediate

Internet connection speed: Higher than 100 Mb/s

Interests: Nearby galaxies, Ionized gas, Atomic gas, Observations

Motivations: I believe that my attendance to this School would be really useful to carry out my actual work. I am focused on HII Regions and Circumnuclear Star Forming Regions, studying physical conditions of gas, ionic abundances and dynamical properties of gas and stars present in these objects. In addition, the ideas and tools that I could be able to learn trough these sessions would make the difference in my present and future research in all these topics.

7.6 PRAMANICK, Suman

E-mail: sumanhorse@gmail.com

Institute: Indian Institute of Technology Kharagpur, Kharagpur, India.

Laboratory: Astrophysics group

Location: India

Level: PhD student

Dissertation topic: My broad area of research is Cosmology. More specifically, heating of 21 cm radiation during cosmic dawn. The 21 cm radiation originated from neutral hydrogen in the primordial universe has to go through several heating mechanisms. The recent discovery by EDGES collaboration detected heating of 21 c

English: Fluent

Internet connection speed: Higher than 100 Mb/s

Interests: The Milky Way, Distant galaxies, Cosmic dawn, Observations, Modeling, Simulations

Motivations: I am a Ph.D. student, doing research in Astrophysics and Cosmology. This school will broaden my idea in research frontiers in different fields. I would like to start a project also.

7.7 GELLI, Viola

E-mail: viola.gelli@unifi.it

Institute: Università degli Studi di Firenze

Laboratory: Università degli Studi di Firenze

Location: Italy

Level: PhD student

Dissertation topic: I am currently at the second year of my PhD, and I study dwarf galaxies at high-redshifts using high-resolution cosmological simulations. In my first paper ""The stellar populations of high-redshift dwarf galaxies"" (Gelli et al. 2020 MNRAS), I analyse in details the formation, evolution and expecte

English: Fluent

Internet connection speed: Higher than 100 Mb/s

Interests: Distant galaxies, Cosmic dawn, Molecular gas, Dust, Observations, Modeling, Simulations

Motivations: I think that this school will provide a unique opportunity to widen my knowledge of the physics of the interstellar-medium of galaxies in many ways, learning directly from the experts of the field. I'd like to deepen my knowledge of models and simulations, but I'm also particularly interested in learning new concepts about observations and how to use them to infer the ISM properties, which is not my specific aerea of expertise but I'm looking forward to explore. I hope I will have to chance to participate to hands-on sessions because they represent a great occasion to both acquire new skills and get to know new people to exchange ideas with.

7.8 KHATRI, Prachi

E-mail: prachikhatri95@gmail.com

Institute: Argelander Institute for Astronomy

Laboratory: Argelander Institute for Astronomy

Location: Germany

Level: PhD student

Dissertation topic: I am working on studying the atomic and molecular gas content in galaxies at high redshifts using cosmological simulations of galaxy formation. I am particularly interested in carbon chemistry and the use of different carbon species as tracers of the different phases of the ISM at high-z.

English: Fluent

Internet connection speed: Higher than 100 Mb/s

Interests: Molecular gas

Motivations: To learn about the current efforts in the study of the gas content in galaxies, particularly at high redshifts, and understand the most important processes that are yet to be addressed in cosmological simulations of galaxies.

7.9 BARMAN, Susmita

E-mail: barmansusmita147@gmail.com

Institute: University Of Hyderabad

Laboratory: Physics

Location: United Arab Emirates

Level: PhD student

Dissertation topic: Physical properties of HII region in the Large Magellanic Cloud

English: Intermediate

Internet connection speed: Between 10 and 100 Mb/s

Interests: The Milky Way, Nearby galaxies, Small-scale ISM structures, Ionized gas, Atomic gas, Molecular gas, Observations

Motivations: learning new concepts, getting new ideas and meeting (virtually) new people

7.10 SCHEUERMANN, Fabian

E-mail: f.scheuermann@uni-heidelberg.de

Institute: Heidelberg University

Laboratory: Astronomisches Rechen-Institut (ARI)

Location: Germany

Level: PhD student

Dissertation topic: As part of the PHANGS collaboration, I use a combination of MUSE and HST observations to study the ionized gas in nearby galaxies with a focus on measuring metallicities.

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Nearby galaxies, Small-scale ISM structures, Ionized gas, Observations

Motivations: Coming from an observational background, I want to get a better theoretical understanding of the ISM.

8 Project 8: Dust Properties of DustPedia Galaxies

Supervisors: Frédéric GALLIANO & Angelos NERSESIAN

8.1 MERCIER, Wilfried

E-mail: wilfried.mercier@irap.omp.eu

Institute: CNRS

Laboratory: IRAP

Location: France

Level: PhD student

Dissertation topic: Evolution of galaxy dynamics over the last 10 Gyr with MUSE/VLT

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Distant galaxies, Ionized gas, Atomic gas, Molecular gas, Dust, Instrumentation, Observations, Modeling, Simulations

Motivations: Extending my current understanding of galaxy evolution through cosmic time, in particular how the different phase of the ISM can be modelled and related to observations.

8.2 RALSTON, Amy

E-mail: ralstona@uci.edu

Institute: University of California Irvine

Laboratory: Cooray Group

Location: United States

Level: PhD student

Dissertation topic: My PhD topic is studying high-redshift dusty star forming galaxies (DSFGs) as tracers of protocluster structures at z = 1-4 with panchromatic data.

English: Native speaker

Internet connection speed: Higher than 100 Mb/s

Interests: Distant galaxies

Motivations: I'm working on writing my first, first-author paper investigating proto-galaxy clusters comprised of massive, active-star forming galaxies (DSFGs). These proto-galaxy structures have no intracluster medium (as these are structures pre-virialization), so investigating more about the ISM of each of these extreme, high-redshift galaxies is critical to characterizing their composition and therefore star formation. I would greatly appreciate the chance to learn about the ISM over cosmic time in different galaxies, not only to gain the context for my clustered high-z sample in the broader and field populations, but also to learn about new ways I could analyze my sample with regards to the content of their ISMs. Since I am also new to the field as a 2nd year PhD student, I would be very excited to meet peers in the field internationally while we have the special opportunity of being virtual.

8.3 YANCHULOVA MERICA-JONES, Petia

E-mail: petiay@gmail.com

Institute: STScI

Laboratory: ISM*

Location: United States

Level: Postdoc

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: The Milky Way, Nearby galaxies, Distant galaxies, Small-scale ISM structures, Atomic gas, Molecular gas, Dust, Observations, Modeling, Simulations

Motivations: Learning new concepts and techniques, meeting new people, starting collaborative projects, getting new ideas.

8.4 COOGAN, Rosemary

E-mail: cooganrosemary@gmail.com

Institute: Max Planck Institute for Extraterrestrial Physics

Laboratory: IR-submm group

Location: Germany

Level: Postdoc

English: Native speaker

Internet connection speed: Between 10 and 100 Mb/s

Interests: Distant galaxies, Ionized gas, Atomic gas, Molecular gas, Dust, Instrumentation, Observations

Motivations: I'd hope to get some new ideas for projects/research in the field, to further my current ISM research and perhaps even start new collaborations, in slightly different areas from what I'm currently doing. For that reason I'm both looking forward to meeting people with similar and broader interests, and also learning about some of the areas of ISM research that I'm less familiar with.

8.5 MORDINI, Sabrina

E-mail: sabrinamordini@uniroma1.it

Institute: La Sapienza University-ROME

Laboratory: INAF-IAPS Rome

Location: Italy

Level: PhD student

Dissertation topic: I am analyzing different mid- and far-IR lines and features as tracers for star formation rate and black hole accretion rate, depending on galaxy metallicity and active status. I have systematically reviewed the relation between lines and features in the 6 to 200 micron interval to the total IR lumi

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Nearby galaxies, Distant galaxies, Cosmic dawn, Ionized gas, Atomic gas, Molecular gas, Dust, Instrumentation, Simulations

Motivations: I expect to learn new methods of analysis of real data, coupled with a review of the principal mechanisms that act in the ISM. I also expect to learn new concepts on the 'galaxy evolution through cosmic time' topic, with the possibility of better orient my current and future work

8.6 ALQEEQ, Soboh

E-mail: soboh.alqeeq@lpp.polytechnique.fr

Institute: Sorbonne University

Laboratory: LPP

Location: France

Level: PhD student

Dissertation topic: Dissipation and acceleration at the vicinity of dipolarization fronts

English: Proficient

Internet connection speed: Higher than 100 Mb/s

Interests: The Milky Way, Nearby galaxies, Distant galaxies, Cosmic dawn, Small-scale ISM structures, Ionized gas, Atomic gas, Molecular gas, Dust, Instrumentation, Observations, Modeling, Simulations

Motivations: I think I can take an introduction to the field, and also learning new concepts and getting new ideas, I think it good for my work.

8.7 QUINATOA, Daysi

E-mail: daysi.quinatoa@postgrado.uv.cl

Institute: Universidad de Valparaíso

Laboratory: Instituto de Física y Astronomía

Location: Chile

Level: PhD student

Dissertation topic: The state of molecular gas in galaxies from the VALES sample

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Molecular gas

Motivations: I am particularly keen to attend this summer school, as the lectures are an excellent match for my research project. My project focuses on the study of the molecular gas content in a sample of galaxies at different redshifts. I expect to learn how to derive relevant physical parameters from observations in nearby galaxies and the distant Universe. Additionally, learn and get new ideas about the numerical simulations of the dynamics of the ISM. After a difficult year due to the pandemic and travel restrictions, this will be a great opportunity to meet virtually new people and participate in one of the kick-starting projects.

8.8 LE, Ngan

E-mail: nganle@doktorant.umk.pl

Institute: Nicolaus Copernicus University

Laboratory: Institute of Astronomy; Faculty of Physics, Astronomy and Informatics

Location: Poland

Level: PhD student

Dissertation topic: My Ph.D. thesis is to focus on the study of hot and warm gas in star-forming regions in the Outer Galaxy. I am currently using the near-infrared spectroscopic data from NASA IRTF/SpeX and VLT/KMOS toward a sample of YSO candidates in the CMa-l224 star-forming region to quantify accretion and ejectio

English: Fluent

Internet connection speed: Higher than 100 Mb/s

Interests: Observations

Motivations: I wish to understand more about the properties of ISM (mainly gas and dust) in galaxies, especially in nearby galaxies and star-forming regions. Attending the school also gives me chances to understand and have ideas of using the valuable models (e.g., dust, shocks, or photodissociation models)to constraint/derive the physical parameters from observational data. Moreover, I would like to know and exchange knowledge with new people who might be doing a relevant field to get new ideas for my research study.

9 Project 9: Turbulence statistics in nearby molecular clouds

Supervisors: Eric KOCH & Annie HUGHES

9.1 LIOW, Kong You

E-mail: kl457@exeter.ac.uk

Institute: University of Exeter

Laboratory: Astrophysics Department

Location: United Kingdom

Level: PhD student

Dissertation topic: Simulating the formation of young massive clusters

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Small-scale ISM structures, Ionized gas, Molecular gas, Modeling, Simulations

Motivations: Learning new concepts

9.2 KONSTANTIN, Vasilyev

E-mail: kvasiliev95@mail.ru

Institute: Sternberg Astronomical Institute of Moscow State University

Laboratory: Radioastronomy

Location: Russia

Level: PhD student

Dissertation topic: Analysis of the noncircular gas motions in the star-forming regions of the nearby galaxies

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Atomic gas

Motivations: I expect to get some new experience, especially in the fields of instrumentation, modeling and simulations. More generally, i expect to gain some new ideas about future research in the field of extragalactic astrophysics.

9.3 PANAM PARAMBIL, FAZLU RAHMAN

E-mail: fazlu.rahman@iiap.res.in

Institute: Indian Institute of Astrophysics, Bangalore

Laboratory: Theoretical Division

Location: India

Level: PhD student

Dissertation topic: Statistical Properties of CMB and Galactic Foreground Emissions

English: Fluent

Internet connection speed: Higher than 100 Mb/s

Interests: The Milky Way, Cosmic dawn, Dust, Observations, Modeling, Simulations

Motivations: I work on understanding the characteristics of Galactic emissions in the context of cosmological observations such as that of the Cosmic Microwave Background (CMB) and the Epoch of Reionization (EoR) 21 cm radiation. Currently, I am studying the statistical features of Galactic synchrotron radiation whose understanding is important to improve the efficiency of the component separation pipelines in various missions as well as to explore the astrophysics behind these emissions. Attending this meeting, I would like to understand the recent updates in the field of interstellar medium which can surely assist my research works. Moreover, I am planning to meet people with similar interests and begin collaborating with them on possible projects. My next project is on the polarization of interstellar dust emissions and the morphology of Galctic magnetic field. The dedicated lecturers in the school on dust grains, I hope, will help me in this direction. I understand that the school comprises short projects and lectures by experts in the field. Through this, I am confident that I am able to enhance my knowledge of the field of ISM and gain a lot of experience working with small groups.

9.4 SHAHHOSEINI, Mohammad Javad

E-mail: mjshahhoseini@gmail.com

Institute: Institute for research in fundamental sciences (IPM)

Laboratory: School of Astronomy

Location: Iran

Level: Graduate student

English: Fluent

Internet connection speed: Lower than 1 Mb/s

Interests: Nearby galaxies, Small-scale ISM structures, Ionized gas, Molecular gas, Dust, Observations

Motivations: Learning new concepts, meeting new people, getting new ideas

9.5 LIU, Yuankang

E-mail: yuankang.liu@gmail.com

Institute: University of Zurich & ETH Zurich

Laboratory: Institute for Computational Science

Location: Switzerland

Level: Graduate student

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Distant galaxies, Cosmic dawn, Small-scale ISM structures, Observations, Modeling, Simulations

Motivations: learning new ideas in the simulation of ISM; keeping up with new observational results; trying to work on some side projects; meeting new people

10 Project 10: Measuring rotation curves and mass profiles in nearby galaxies

Supervisors: Adam LEROY & Annie HUGHES

10.1 MANCERA PIÑA, Pavel

E-mail: pavel@astro.rug.nl

Institute: University of Groningen

Laboratory: Kapteyn Astronomical Institute

Location: Netherlands

Level: PhD student

Dissertation topic: My research focuses on studying the kinematics of galaxies, using resolved observations of neutral and ionized gas. In the last couple of years, I have focused on studying the dynamics and angular momentum of dwarf galaxies, especially in the so-called ultra-diffuse galaxies, for which we have found

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Nearby galaxies, Distant galaxies, Ionized gas, Atomic gas, Molecular gas, Observations

Motivations: I would like to get a general overview of all the topics that will be discussed during the School, to give me the necessary background to explore more the things I found the most interesting and/or useful for my research. Besides this, I always enjoy meeting people with similar interests, and I am more than happy if somehow this turns into a kick-start project.

10.2 PANDEY, Divya

E-mail: divyapandey1212@gmail.com

Institute: National Institute of Technology, Rourkela

Laboratory: Department of Physics and Astronomy

Location: India

Level: PhD student

Dissertation topic: My PhD thesis revolves around studying multi-wavelength properties of galaxies in different environment such as voids and filaments.I program in Python language. I'm comfortable in working with the following software: 1. Source Extractor 2. IRAF 3. ds9 4. GALFIT 5. Profiler 6. CIGALE 7. EAZY

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Nearby galaxies, Distant galaxies

Motivations: The knowledge gained from the conference would help me in carrying out my research in a more efficient manner. I work in the field of observational astronomy where we actively perform spectroscopic and photometric observation of nearby galaxies. The conference may help to extract additional information from our observations. Meeting new people in conferences is an added advantage. I'm willing to participate in new projects and to stumble upon a new idea.

10.3 REICHARDT CHU, Bronwyn

E-mail: breichardtchu@swin.edu.au

Institute: Swinburne University of Technology

Laboratory: Centre for Astrophysics and Supercomputing

Location: Australia

Level: PhD student

Dissertation topic: Mapping spatially resolved star formation driven outflows in starbursting disk galaxies using the DUVET survey. I am using KCWI observations of local starbursting disks to measure outflows resolved on scales of a few hundred parsecs.

English: Native speaker

Internet connection speed: Higher than 100 Mb/s

Interests: Nearby galaxies, Distant galaxies, Small-scale ISM structures, Ionized gas, Observations, Modeling

Motivations: I expect to learn more about and get a better understanding of the physics that underpins my PhD topic: star formation driven outflows. I also expect to get new ideas on how to treat my own data, and how to interpret my results by applying ISM physics on galaxy-wide scales. It is very important for my own research that I understand what current simulations can tell us about how star formation feedback drives outflows. I will then be able to more comprehensively compare my observations to simulations. This summer school will also be a good opportunity to meet virtually with people in my field, particularly since travel from Australia is very complicated at the moment. The possibility of starting new collaborations is always exciting.

10.4 BHAT, bhavana

E-mail: bhavana.bhat2@unibo.it

Institute: Unviersity of Bologna

Laboratory: University of Bologna

Location: Italy

Level: PhD student

Dissertation topic: Cosmic-Lab: Globular clusters as cosmic laboratories for astro-archeology and multi-body dynamics

English: Proficient

Internet connection speed: Between 10 and 100 Mb/s

Interests: The Milky Way, Nearby galaxies, Distant galaxies, Cosmic dawn, Observations, Modeling, Simulations

Motivations: I want to learn more about ISM in galaxies using both observations and simulations and to understand the subject in context of my PhD topic to derive a connection. Especially I am interested in the state-of-art numerical simulation of galactic evolution. I am looking forward to get a hands-on experience through projects. At the same time even though virtually, I would like to get to know people in Astrophysics community(it's a rare opportunity given the current situation).

10.5 DI GIOIA, Serafina

E-mail: serafina.digioia@inaf.it

Institute: University of Trieste

Laboratory: Observatory of Trieste

Location: Italy

Level: PhD student

Dissertation topic: I am completing my PhD at the University of Trieste, under the supervision of Stefano Cristiani and Gabriella De Lucia. My PhD thesis investigates the connection between denser HI absorbers (DLAs) in the IGM and galaxies, by means of the GAEA semi-analytical model, with a particular focus on the pea

English: Proficient

Internet connection speed: Higher than 100 Mb/s

Interests: Distant galaxies, Atomic gas, Molecular gas, Observations, Modeling, Simulations

Motivations: I expect to learn more details on the observed redshift evolution of the ISM properties, and some basic ideas on the modeling of dust and metals in high-z ISM studies. I will appreciate very much the possibility of talking with new people about the modeling of ISM in high-z galaxies, and I hope that this school could be the right place to kick-start new projects on this topic.

10.6 BESLIC, Ivana

E-mail: ibeslic@uni-bonn.de

Institute: University of Bonn

Laboratory: Argelander Institute for Astronomy

Location: Germany

Level: PhD student

Dissertation topic: My PhD topic is based on the study of molecular gas, spectroscopy of dense molecular gas tracers, their properties, and links to star formation at giant molecular cloud scales (~100pc) across nearby galaxies, such as NGC 3627, NGC 253.

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: The Milky Way, Nearby galaxies, Small-scale ISM structures

Motivations: I expect to meet new people with similar interests, get familiar with their work, and get new ideas on future projects. I will also broaden my knowledge and get an opportunity to improve my skills and learn new concepts.

10.7 TIKHONENKO, Iliya

E-mail: iliya.t@mail.ru

Institute: St Petersburg State University

Laboratory: N/A

Location: Russia

Level: PhD student

Dissertation topic: Orbital composition of B/PS bulges in disk galaxies

English: Proficient

Internet connection speed: Between 10 and 100 Mb/s

Interests: The Milky Way, Nearby galaxies, Simulations

Motivations: Learn more about ISM (beyond the basic university course) and how to take it into account in simulations of galaxies.

10.8 LEE, Lilian

E-mail: lilian@mpe.mpg.de

Institute: Max-Planck-Institut für extraterrestrische Physik

Laboratory: Max-Planck-Institut für extraterrestrische Physik

Location: Germany

Level: PhD student

Dissertation topic: Dynamics of High Redshift Galaxies, Interfacing, Observation and Theory

English: Fluent

Internet connection speed: Higher than 100 Mb/s

Interests: Observations

Motivations: a deepening of understandings of the field, from basics to the frontier; acquiring new insights into the field

11 Project 11: Multi-scale and statistical analysis of observed and simulated astrophysical data

Supervisors: Frédérique MOTTE, Jean-François ROBITAILLE & Benoît COMMERÇON

11.1 VAN CUYCK, Mathilde

E-mail: mathilde.van-cuyck@lam.fr

Institute: AMU

Laboratory: LAM

Location: France

Level: PhD student

Dissertation topic: Measuring the power spectrum of [CII] emitting galaxies during the Epoch of Reionization and post Reionisation with the CONCERTO instrument.

English: Fluent

Internet connection speed: Higher than 100 Mb/s

Interests: Distant galaxies, Cosmic dawn, Observations, Modeling, Simulations

Motivations: An introduction to the ISM to add with my graduate lectures on the subject. Meet new people in this covid epoch. Learn more about the challenges of studying the EoR on which I am working with the CONCERTO instrument.

11.2 MANNFORS, Emma

E-mail: emma.mannfors@helsinki.fi

Institute: University of Helsinki

Laboratory: Advisor/group leader: Dr. Mika Juvela

Location: Finland

Level: PhD student

Dissertation topic: A multiscale analysis of the interstellar medium, studying (mostly cold) gas from cold cores to galactic haloes. My goal is to find ways to link the processes happening on small scales with those which happen on Galactic scales.

English: Native speaker

Internet connection speed: Between 10 and 100 Mb/s

Interests: The Milky Way, Nearby galaxies, Small-scale ISM structures, Molecular gas, Dust, Observations, Modeling, Simulations

Motivations: From this school, I hope to gain a better understanding of the ""big picture"" of the ISM. My experience is in Milky Way cold cores, however I also have future projects studying e.g. extraplanar gas in galaxies. This summer school would be excellent for providing an introduction to the various scales of the ISM from experts in the field. I would also be excited to learn new methods, and to learn ways to further my research. Our astronomy department is quite small and there are very few people studying the ISM in Finland. Meeting new people with similar scientific interests to mine would be excellent, and hopefully lead to opportunities for collaboration.

11.3 PAPACHRISTOU, Michalis

E-mail: mpapaxristou@noa.gr

Institute: National and Kapodistrian University of Athens/National Observatory of Athens

Laboratory: Department of Astronomy, Astrophysics and Mechanics

Location: Greece

Level: PhD student

Dissertation topic: The impact of Supermassive Black Holes on the star formation process

English: Proficient

Internet connection speed: Between 10 and 100 Mb/s

Interests: Nearby galaxies, Distant galaxies, Cosmic dawn, Molecular gas, Observations, Modeling, Simulations

Motivations: I am interested in deeper understanding of (and learning new) concepts that I already use in my research and excited to meet people working, learning, studying on these very insteresting topics. Thanks a lot for this opportunity!

11.4 GROTH, Frederick

E-mail: fgroth@usm.lmu.de

Institute: University Observatory, LMU Munich

Laboratory: -

Location: Germany

Level: PhD student

Dissertation topic: Impact of the Hydrodynamical Scheme on Simulations of Galaxies & Galaxy Clusters

English: Proficient

Internet connection speed: Between 10 and 100 Mb/s

Interests: Simulations

Motivations: With participating at this summer school I hope to get an introduction to the field of ISM and galactic physics, after I changed my focus from massive stars in my Master thesis towards galaxies in my PhD. Especially, the attendance in the lectures will provide me with valuable knowledge both concerning theoretical models and observational constraints. In addition, I hope to establish new contacts to people working in a similar field.

11.5 CERAJ, Lana

E-mail: lceraj@irb.hr

Institute: Ruder Boskovic Institute

Laboratory: Laboratory for astroparticle physics and astrophysics

Location: Croatia

Level: Postdoc

English: Fluent

Internet connection speed: Higher than 100 Mb/s

Interests: The Milky Way, Cosmic dawn, Small-scale ISM structures, Ionized gas, Observations, Simulations

Motivations: I expect to learn new concepts and meet new people who study similar things as we do in our group.

12 Project 12: Classifying the Evolutionary States of Giant Molecular Clouds in M33

Supervisors: Erik ROSOLOWSKY & Annie HUGHES

12.1 CHEN, Huanqing

E-mail: hqchen@oddjob.uchicago.edu

Institute: UChicago

Laboratory: Astronomy&Astrophysics Department

Location: United States

Level: PhD student

Dissertation topic: Simulating Quasar Proximity Zones during Cosmic Reionization

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Nearby galaxies, Distant galaxies

Motivations: I want to learn about new concepts/techniques and kick-start projects with new people.

12.2 VITTE, Eloïse

E-mail: eloise.vitte@unige.ch

Institute: University of Geneva

Laboratory: Observatory of Geneva

Location: France

Level: PhD student

Dissertation topic: My topic is focusing on the diversity and inclusion among Lyman-alpha emitters, through cosmic time. For the moment I am working on distant Lyman-alpha emitters ($3 < z < 7$) which present a double-peaked Lyman-alpha emission. The shape of this emission line is very dependent of the environment where

English: Proficient

Internet connection speed: Between 10 and 100 Mb/s

Interests: Distant galaxies, Ionized gas, Atomic gas, Observations, Simulations

Motivations: I am expecting to know more about the ISM properties in general and especially during the epoch of Reionization. I am also interesting to know how the ISM of early galaxies could influence my observations. Moreover, I would like to discover the numerical simulation part of this field. I really appreciate the way we can link observations and simulations. Finally, it will be the opportunity to meet new people and share some ideas about our respective works.

12.3 ATHIKKAT-EKNATH, Gayathri

E-mail: g.athikkat.eknath@gmail.com

Institute: Cardiff University

Laboratory: Astronomy

Location: United Kingdom

Level: PhD student

Dissertation topic: Dust, gas and stars in the Andromeda galaxy

English: Native speaker

Internet connection speed: Between 10 and 100 Mb/s

Interests: The Milky Way, Nearby galaxies, Small-scale ISM structures, Atomic gas, Molecular gas, Dust, Observations

Motivations: Understanding the processes and nature of the ISM globally, across many galaxies as well as our own; improving my knowledge on dust emission and its properties and how the observational work fits with theoretical and simulation work; being exposed to new concepts and people which will hopefully help me to generate interesting observing/research ideas in the future, improving my confidence through increased knowledge.

12.4 GRISHUNIN, Konstantin

E-mail: kgrishunin@mpifr-bonn.mpg.de

Institute: Max Planck Institute for Radio Astronomy

Laboratory: Millimeter and Submillimeter Astronomy

Location: Germany

Level: PhD student

Dissertation topic: Star formation in low-metallicity systems (with the focus on LMC).

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: The Milky Way, Nearby galaxies, Distant galaxies, Small-scale ISM structures, Molecular gas, Dust, Observations

Motivations: The topics of the school are closely related to my PhD project that I am working on. I would like to learn new concepts/techniques as well as meet people working in the same field.

12.5 ARMANTE, Mélanie

E-mail: melanie.armante@phys.ens.fr

Institute: ED127

Laboratory: LPENS

Location: France

Level: PhD student

Dissertation topic: Constraining the Origin of Stellar Masses and of the Chemical Complexity in Hierarchical Infalling Clouds?

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: Small-scale ISM structures

Motivations: improve my knowledge in this field

13 Project 13: Molecular gas and star formation in spiral arms

Supervisors: Jiayi SUN & Annie HUGHES

13.1 XU, Fengwei

E-mail: fengwei.astro@pku.edu.cn

Institute: Peking University, School of physics

Laboratory: Wu's Star Formation Group

Location: China

Level: PhD student

Dissertation topic: local ISM, astrochemistry, massive star formation, initial condition

English: Proficient

Internet connection speed: Between 10 and 100 Mb/s

Interests: The Milky Way, Small-scale ISM structures, Atomic gas, Molecular gas, Dust, Observations

Motivations: Getting new ideas, learning new concepts and meeting some famous people

13.2 ILES, Elizabeth

E-mail: iles@astro1.sci.hokudai.ac.jp

Institute: University of Hokkaido

Laboratory: Graduate School of Science, Department of Physics, Theoretical Astrophysics Group

Location: Japan

Level: PhD student

Dissertation topic: Understanding the evolution of galactic morphology and star formation with numerical simulations of resolved galaxies.

English: Native speaker

Internet connection speed: Higher than 100 Mb/s

Interests: The Milky Way, Nearby galaxies, Distant galaxies, Observations, Modeling, Simulations

Motivations: I am hoping to develop a broader understanding of the science which underpins and is interrelated with my current PhD research, deepening my existing foundation. This is an opportunity to meet and learn about the most current work of both the invited lecturers and my contemporaries. It would be good to generate new ideas and new collaborations, as well as consolidate existing knowledge and relationships while moving forward into a new age of hybrid interactions (both online and off-line).

13.3 SAAD, Cynthia

E-mail: Crs07@mail.aub.edu

Institute: American university of beirut

Laboratory: Theoretical studies

Location: Lebanon

Level: PhD student

Dissertation topic: Phd student studying the formation of the first stars in the Universe called pop iii stars and the effect of magnetic field on their formation, their multiplicity, rotation and mass spectrum.

English: Fluent

Internet connection speed: Between 1 and 10 Mb/s

Interests: Distant galaxies, Cosmic dawn, Small-scale ISM structures, Molecular gas, Modeling, Simulations

Motivations: I expect to learn new things about milky way, and get new ideas for future postdoc projects, also meet new and old connections

13.4 ESPOSITO, Federico

E-mail: federico.esposito7@unibo.it

Institute: University of Bologna 'Alma Mater Studiorum'

Laboratory: Department of Physics and Astronomy

Location: Italy

Level: PhD student

Dissertation topic: Characterizing the cold gas of galaxies, in the local universe and in the epoch of reionization

English: Fluent

Internet connection speed: Between 10 and 100 Mb/s

Interests: The Milky Way, Nearby galaxies, Distant galaxies, Cosmic dawn, Small-scale ISM structures, Molecular gas, Dust, Observations, Modeling

Motivations: Learning new concepts, getting new ideas and meeting new people

13.5 YADAV, jyoti

E-mail: jyoti@iiap.res.in

Institute: Indian Institute Of Astrophysics

Laboratory: Astronomy and astrophysics

Location: India

Level: PhD student

Dissertation topic: Star Formation in Nearby Galaxies

English: Proficient

Internet connection speed: Between 10 and 100 Mb/s

Interests: Nearby galaxies

Motivations: I work on star formation in nearby galaxies. There are lectures on the topics related to my research works such as Overview of Extragalactic ISM Properties which will be helpful and on other topics which will expand my horizon. This school will help me to get new ideas. I will meet new people virtually and discuss the ideas. The school can also help me for collabrating with others for my future work.

13.6 MOUMEN, Ismael

E-mail: ismael@cfht.hawaii.edu

Institute: Université Laval / CFHT

Laboratory: Astrophysics

Location: Canada

Level: PhD student

Dissertation topic: Spectroscopy of nearby galaxies

English: Proficient

Internet connection speed: Between 10 and 100 Mb/s

Interests: Nearby galaxies, Small-scale ISM structures, Ionized gas, Instrumentation, Observations, Modeling

Motivations: Learning new concepts Meeting (virtually) new people;

13.7 KAPOOR, Anand Utsav

E-mail: anandutsav.kapoor@ugent.be

Institute: University of Ghent

Laboratory: Department of Astronomy

Location: Belgium

Level: PhD student

Dissertation topic:

English: Native speaker

Internet connection speed: Higher than 100 Mb/s

Interests: The Milky Way, Nearby galaxies, Distant galaxies, Cosmic dawn, Small-scale ISM structures, Ionized gas, Atomic gas, Molecular gas, Dust, Modeling, Simulations

Motivations: I am in my second year of PhD, post processing simulated galaxies. For the next leg of my PhD, I want to implement nebular emission from diffused ISM gas in a Monte Carlo radiative transfer code. Given the itinerary, I expect to gain a lot from this school. I also expect to meet people working on the radiative transfer of simulated galaxies, which would be very useful as JWST will be flying soon.