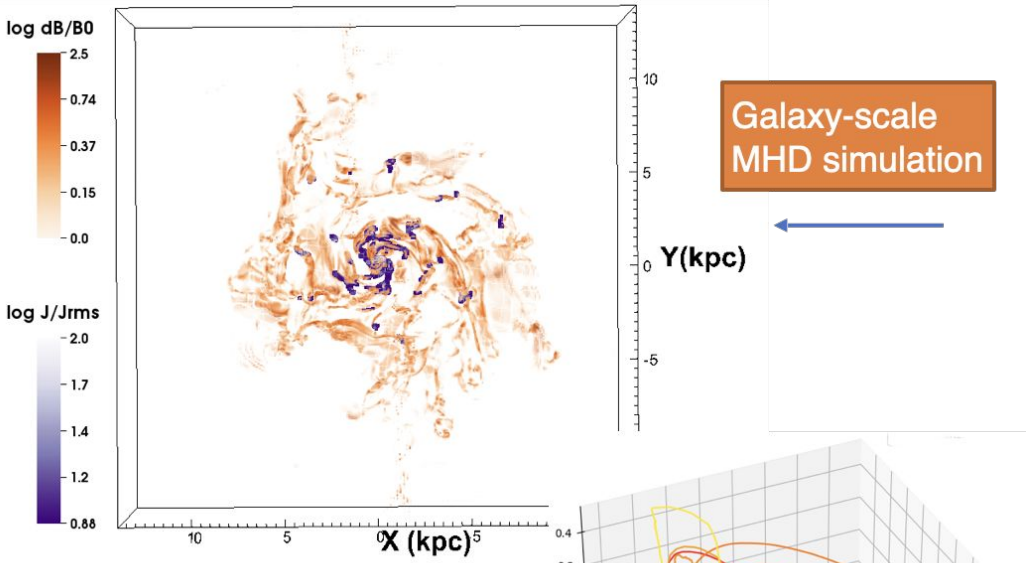
Evangelia (Eva) Ntormousi, Scuola Normale Superiore di Pisa, Italy evangelia.ntormousi@sns.it

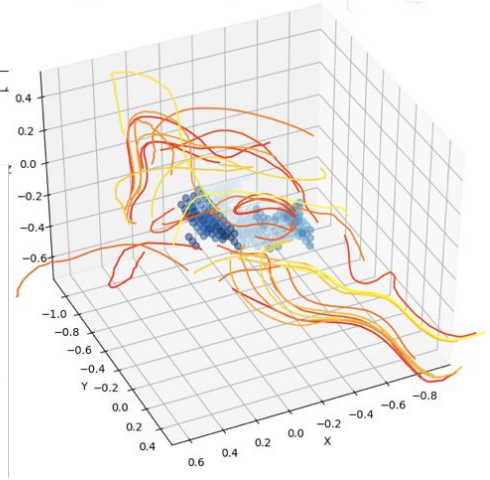
Scientific Interests:

- MHD numerical simulations
- Interstellar turbulence
- Star formation and feedback
- Galactic dynamos

Brief CV:

PhD: 2012 from LMU Munich
2012-2017 CEA (Saclay)
2017-2020 FORTH (Heraklion) Marie Curie fellow
2020-2023 SNS (Pisa)
2023-onwards Assistant Professor at SNS (Pisa)





Recent favorite plot:
Magnetic coherent structures in the ISM (EN et al. 2024)

Aurélien Piluso (Phd Student Observatoire de Paris (Meudon site))

aurelien.piluso@obspm.fr

Scientific interest :

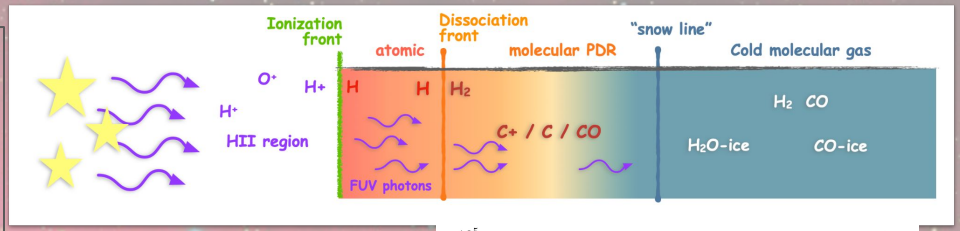
- ❑ Stellar formation and feedback
- ❑ Radiative transfer (emission, absorption lines,...)
- ❑ Thermal processes
- ❑ Advanced modeling (Photon Dominated Regions)
- ❑ Quantum excitation and chemistry of molecules
- ❑ Neural networks & Deep learning

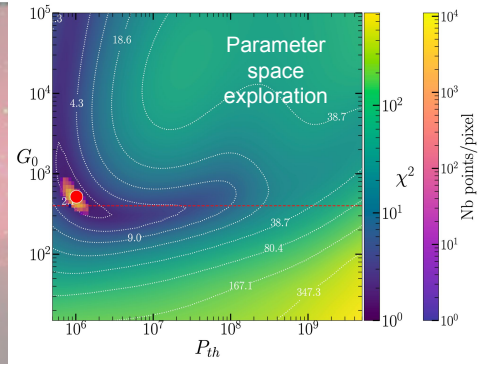
Brief CV

- Currently : 1st year of PhD
- M2 Astronomy & Astrophysics (Paris)
- Engineering school of Mines Nancy

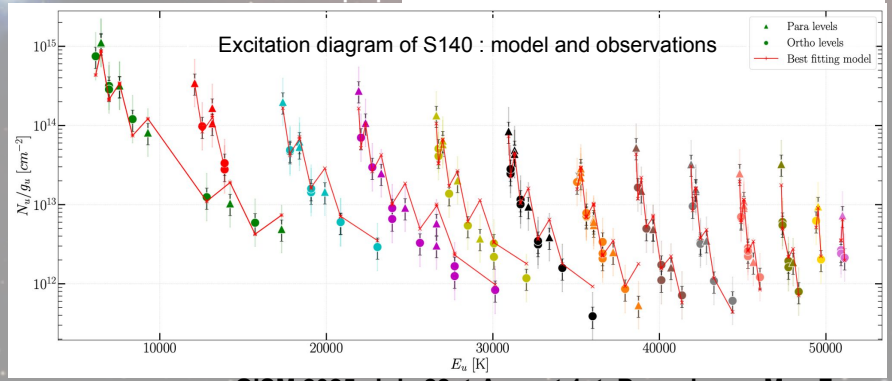
Fields of work :

- ★ Interstellar physics :
  - Modeling of PDRs
  - Observations at IRAM 30m
- ★ Plasma physics :
  - EMHD solar plasma simulations





Piluso et. al. in prep



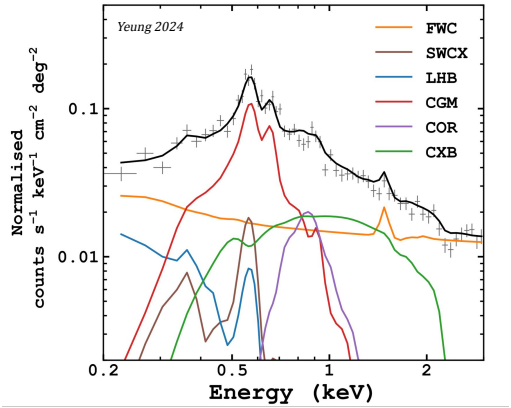
Elisa Lentini,I NAF-Osservatorio astronomico di Brera , Italy

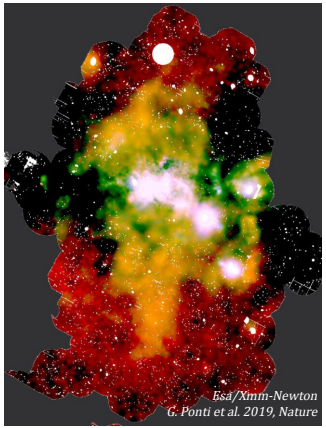
elisa.lentini@inaf.it

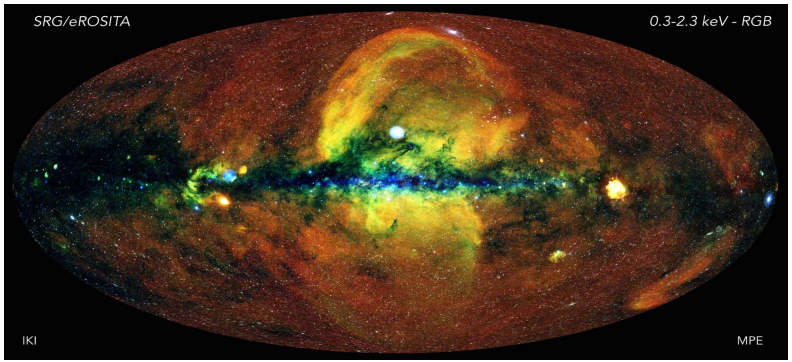
Scientific Interests:

Diffuse emission of the Galactic Center and Galactic Disc in the X-ray band:

- thermal structure, the composition and evolution of the **ISM**;
- galactic **outflows** ;
- the relationship between the hot ISM, the galactic corona and the Circum Galactic Medium.







Brief CV:

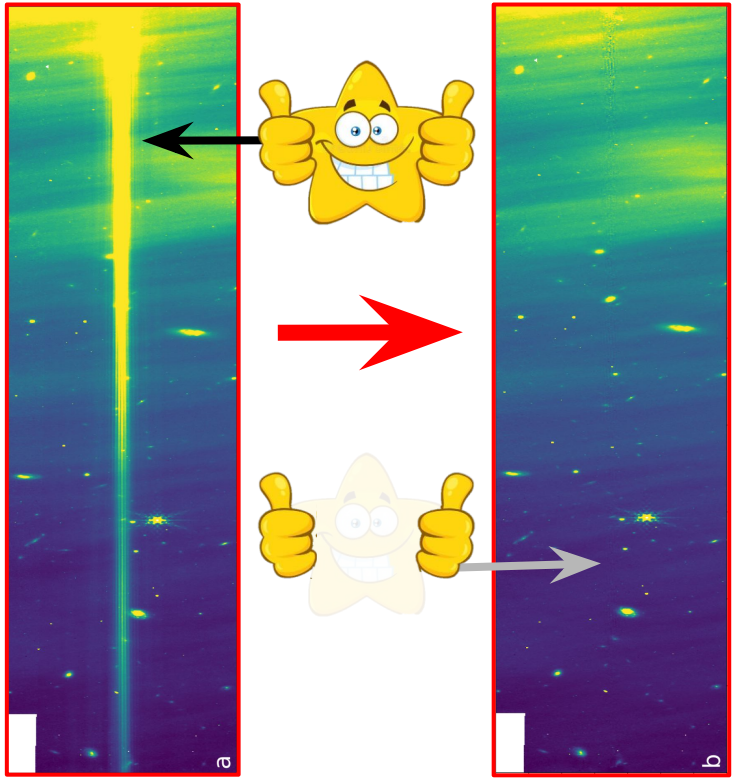
- currently: 1st of PhD, Insubria University & INAF Institute
- master's degree at the University of Genova (Italy)
- bachelor's degree at the University of Genova (Italy)

Guillaume Vigoureux

1st yr PhD student, with B. Godard @ LPENS (Paris)

guillaume.vigoureux@phys.ens.fr

Can help with : **PSF spike removal**



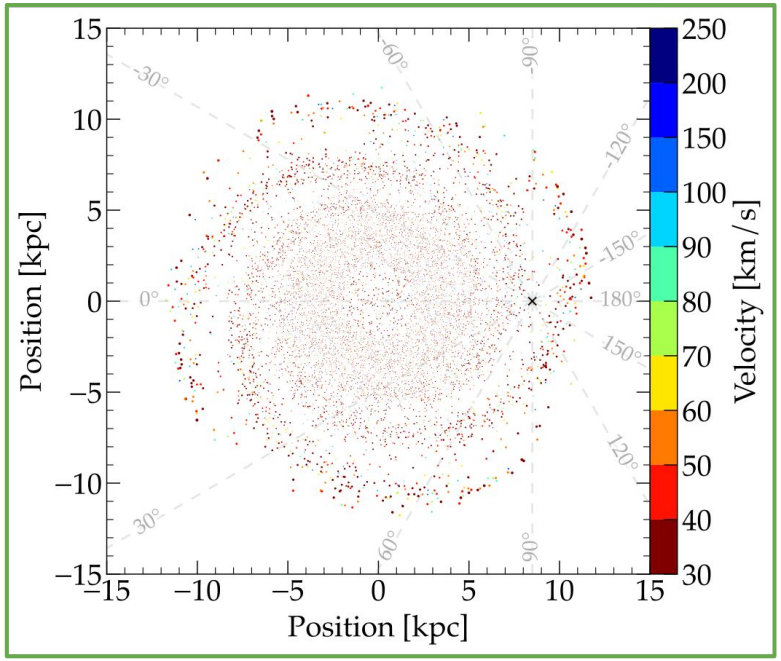
Interested in : **Supernova remnants :**

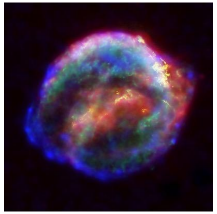
-> galactic distribution

-> modeling

LPENS

LABORATOIRE DE PHYSIQUE DE L'ÉCOLE NORMALE SUPÉRIEURE





soeding@physik.rwth-aachen.de
laurinsoeding.de

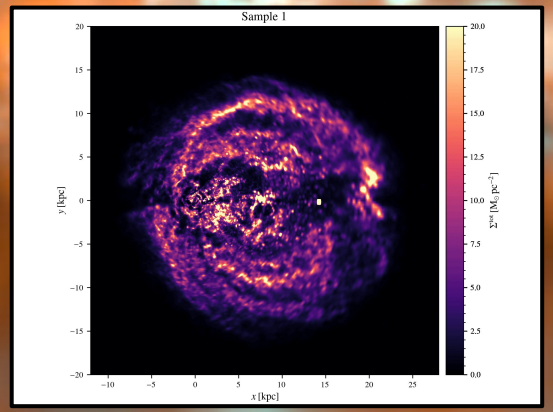
Laurin Söding

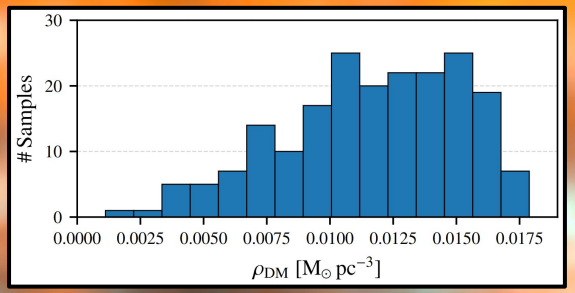
Final-year PhD student

Institute for Theoretical Particle Physics and Cosmology
RWTH AACHEN UNIVERSITY

I work on:

- The 3D Milky Way
  - Gas clouds
  - Dark matter
  - Velocity field
  - …
- Statistical Methods
  - Bayesian (Variational) Inference





Antoine Roueff, université de Toulon, France
antoine.roueff@univ-tln.fr

My job is to build statistical models → nice fits + interpretable values.

Below: radiative transfer model + chemical assumptions → $T_{\rm kin}$, $n_{\rm H2}$

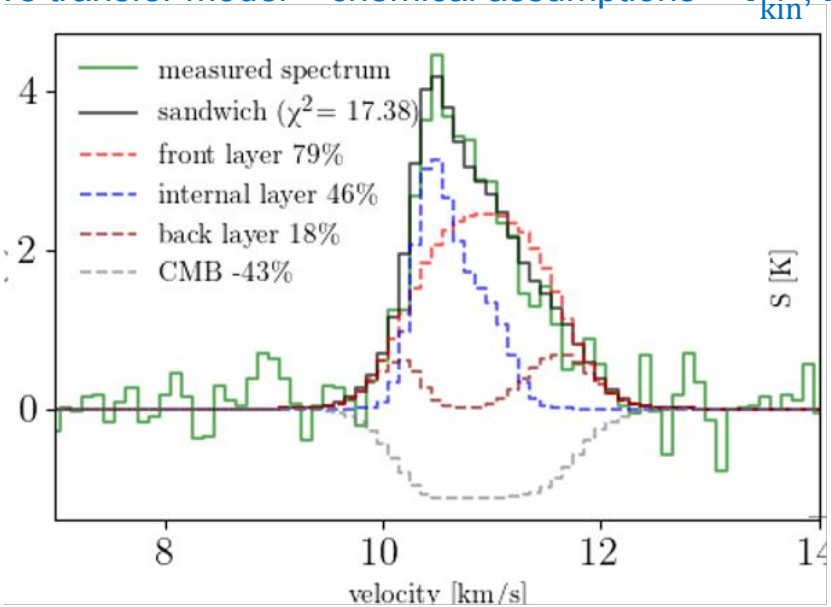
Scientific Interests:

Data science applied to different fields:

- Astrophysics (Orion B consortium)
- Acoustic (Total, CEA, Naval Group)
- RADAR (vegetation height estimation with ONERA)
- Optics (coherence of partially polarized light)

Brief CV:

PhD: 2003 from Gipsa-lab (Grenoble)
2003-2005 CEA (Bruyères-le-chatel)
2005-2022 Centrale Marseille & Fresnel Institute
2022-onwards Professor at université de Toulon in charge of a Master in signal processing



Decomposition of a spectrum with contributions from both **internal** & **external** layers in a dense core of the Horsehead

Recent favorite plot: Fit of a sandwich model (SEGAL *et al*. 2025)

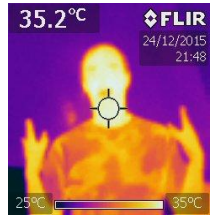
Emmanuel Dartois, Institut des Sciences Moléculaires d'Orsay, France emmanuel.dartois@universite-paris-saclay.fr

Scientific Interests:

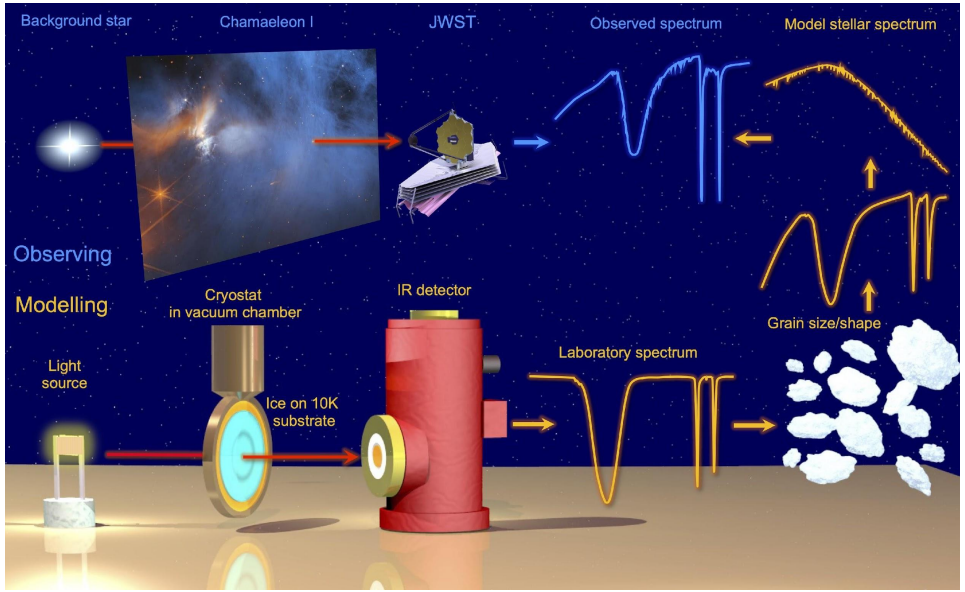
- Physico-chemistry of interstellar medium Galactic and extragalactic
- Circumstellar discs and protosolar nebula
- Laboratory experiments : Interstellar and interplanetary dust analogues energetic sources of evolution
- Astronomical observations
- Dust models

Brief CV:

PhD: 1998 Institut d'Astrophysique Spatiale / Univ. Pierre & Marie Curie
1999-2000 Post-doc @IRAM (Grenoble, Fr)
2001-2002 CNES Post-doc @IAS (Orsay, Fr)
2002-2017 CNRS researcher @ IAS (Orsay, Fr)
2018-Onward CNRS researcher @ ISMO (Orsay, Fr)



How I look like in the Visible/ in the IR



JWST and laboratory/models comparisons of ice grains growth
(«*Spectroscopic sizing of interstellar icy grains with JWST* », Nature Astronomy 2024)

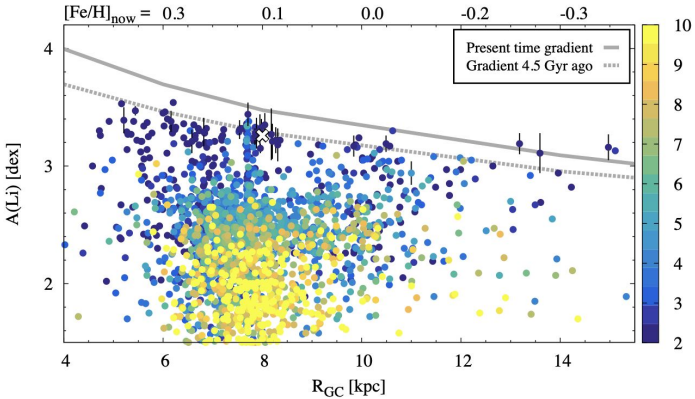
Donatella Romano, INAF–Osservatorio di Astrofisica e Scienza dello Spazio, Italy donatella.romano@inaf.it

Scientific Interests:

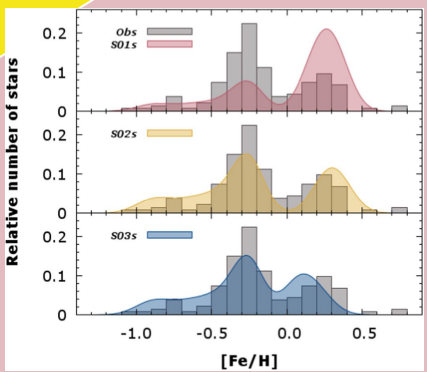
- Galaxy formation and evolution
- Chemical evolution of galaxies
- Stellar evolution and nucleosynthesis
- First stars
- Stellar feedback

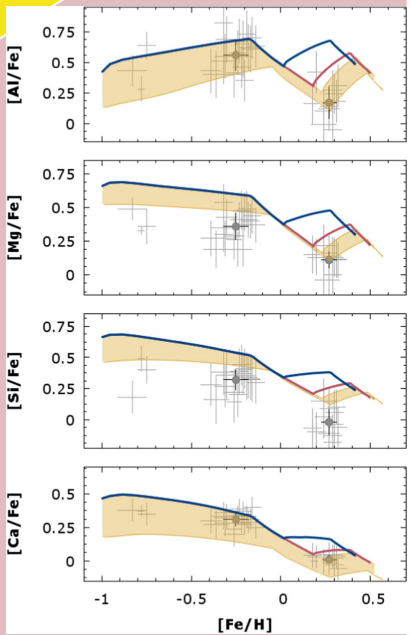
Brief CV:

PhD: 2002 from SISSA Trieste
2003-2010: post doc @ Osservatorio Astronomico di Bologna
2011-now: Research staff at INAF-OAS Bologna



TOP: Galactic ^{7}Li gradient. GCE model predictions vs abundance measurements in field stars and open clusters (Gaia-ESO Survey iDR6; Romano et al. 2021 [A&A, 653, A72])



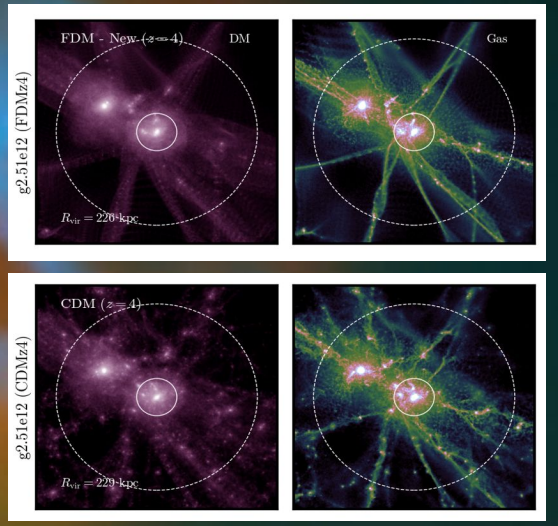


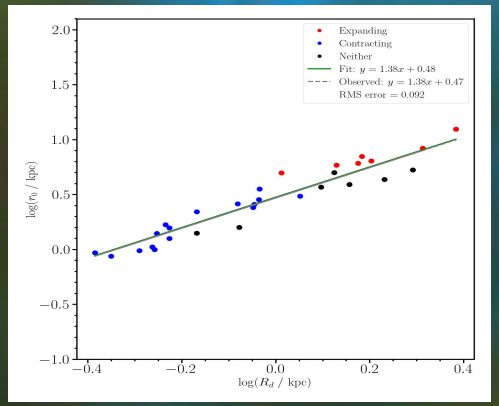
RIGHT: Modeling the chemical enrichment history of the "Bulge fossil fragment" Terzan 5 (Romano et al. 2023 [ApJ, 951, 85])

Leen Alrawas, New York University - Abu Dhabi, United Arab Emirates

Scientific Interests:

- Galaxy formation and evolution
- Dark matter models (e.g., CDM, FDM)
- Stellar and AGN feedback mechanisms
- High-resolution hydrodynamical simulations
- Numerical methods in computational astrophysics





Brief CV:

3rd year PhD student at NYU - Abu Dhabi

Member of CASS (Center of Astrophysics and Space Science) at NYUAD

2023 - 1st year of PhD courses at NYU - New York

2023 - Bachelor's of Science in Physics at UAEU

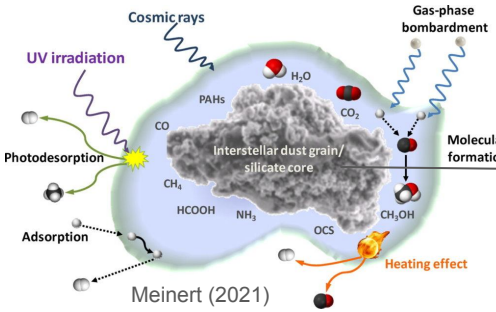
Eddy Abdo, Institut des Sciences Moléculaires d'Orsay, France eddy.abdo@universite-paris-saclay.fr

Scientific Interests:

- Cosmic Rays in ISM
  - Interaction with dust grains & ices
  - Sputtering efficiency and radiolysis of species
- Laboratory astrophysics
  - Dust grain analogs
  - UHV setups + irradiation of interstellar analogs
- ISM chemistry
- Observational astronomy

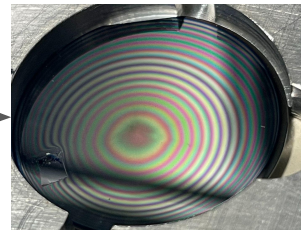
Brief CV:

- Currently: 1st year PhD student
- Masters in Astrophysics at Aix-Marseille Université



Meinert (2021)

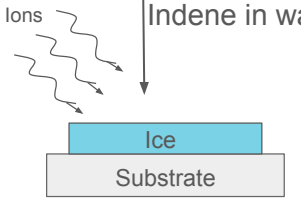
Dust analog produced in lab

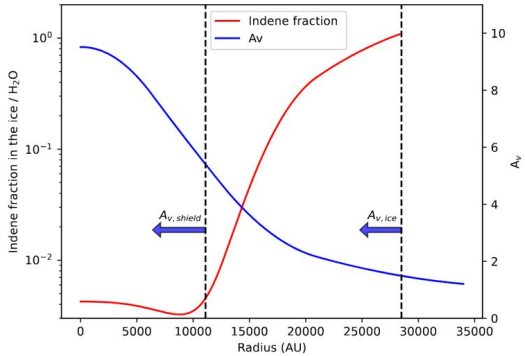


Irradiation with heavy ions to simulate CR

Ice irradiation in lab with ions to simulate CR sputtering & radiolysis

Studied ice mixture:
Indene in water matrix





Expected indene fraction in the ice phase wrt water in TMC-1

Anna McLeod

Associate Prof @ Durham Uni (UK)

My path

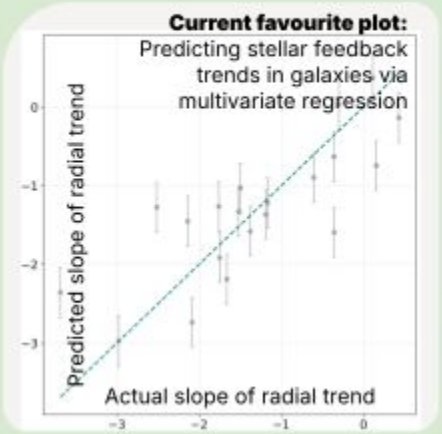
BSc @ LMU Munich	2011
MSc @ Radboud Uni	2013
PhD @ ESO Garching	2016
RSNZ Marsden Fellow @ UC Canterbury	2017-18
NASA Hubble Fellow @ UC Berkeley	2018-2020
Prof @ Durham Uni	2020 -

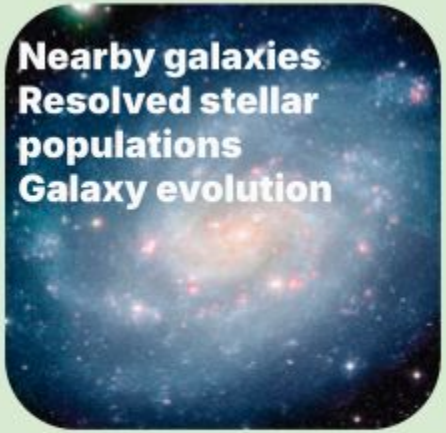
Other stuff I like

- Endurance sports
- Physics of endurance sports
- Really long endurance events

(you get the gist)

Current favourite plot:





I also work on...

- astrophysical jets
- ISM shocks
- star formation-driven galaxy outflows
- decentralizing research
- outreach & public engagement

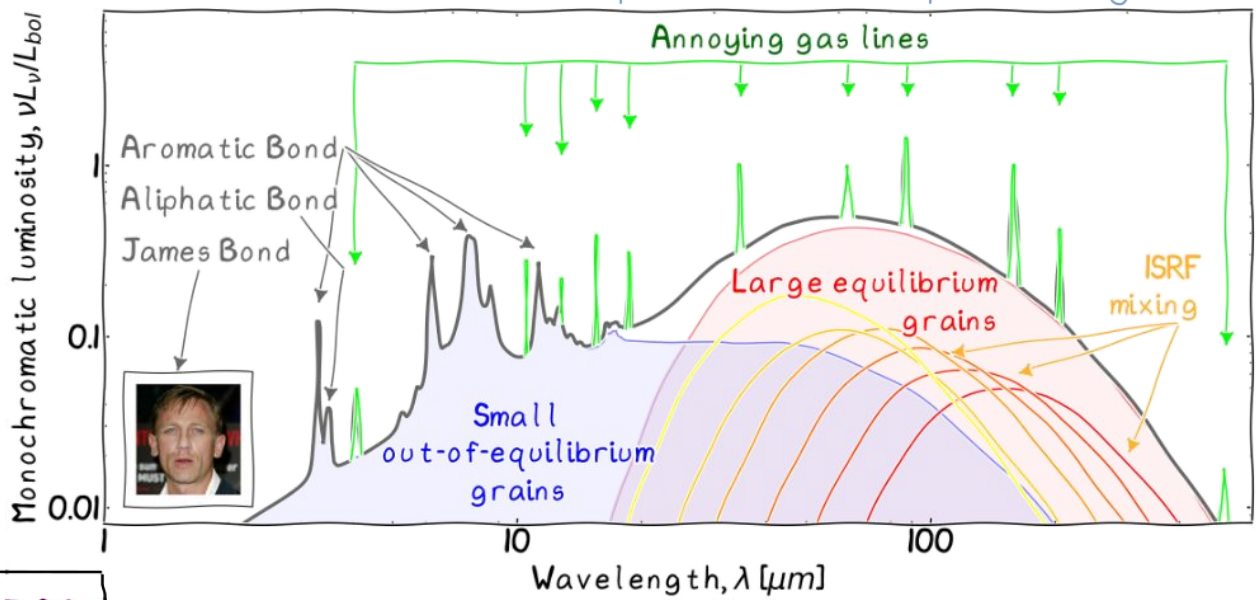
anna.mcleod@durham.ac.uk

Frédéric GALLIANO, ISMologist

(CEA Paris-Saclay, France)
frederic.galliano@cea.fr
https://irfu.cea.fr/Pisp/frederic.galliano/

SCIENTIFIC INTERESTS:

- ISMism. IR-to-mm observations.
- Cosmic nanoparticles (fancy way to say "dust") & their evolution.
- Love dwarf galaxies. Afraid of AGNs.
- Bayesian methods. Minimal computing (xterm, emacs, e basta).

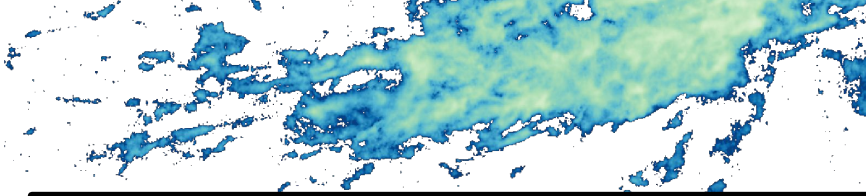


BRIEF CV:

- 2000-2004: PhD student @ CEA Saclay
- 2004-2008: Postdoc @ NASA/GSFC & UMd
- 2008-present: CNRS researcher @ CEA Paris-Saclay
- 2015-present: recovering IDLholic (5 years without starting a .pro file)
- 2022-present: director of the Grad. School of Physics / Astro @ UPSaclay
- 2025: GISM3 accountant, travel agent, freelance embassy attache, etc.

Lori Porter
Columbia University, NYC

astrolori.com lep2176@columbia.edu



GALFA-HI observations of the Smith Cloud

Interested in:

- Galaxy formation and evolution
- Star formation, quenching, feedback
- Simulations and theory
- Baryon cycle

2023-present: PhD at Columbia University
Advisor: Greg Bryan

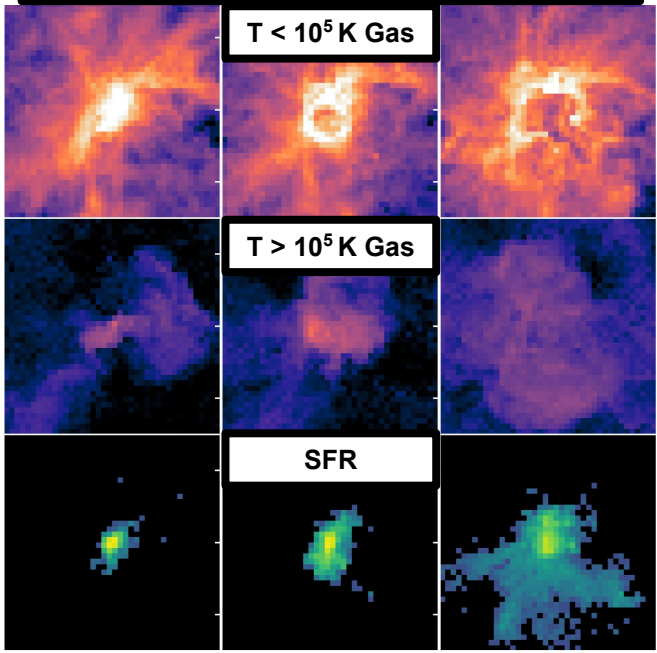
2021-2024: Guest Researcher/Intern at the Flatiron Institute's Center for Computational Astrophysics

2023: B.S. in Physics from University of Louisville

Also interested in science policy and outreach!

Advocating for astronomy funding, April 2025, Washington, D.C.

Superbubble in FIRE-2 Simulations



Ziming Peng 4th year PhD candidate @CUHK (Hong Kong) working w/ Renbin Yan

I work on:

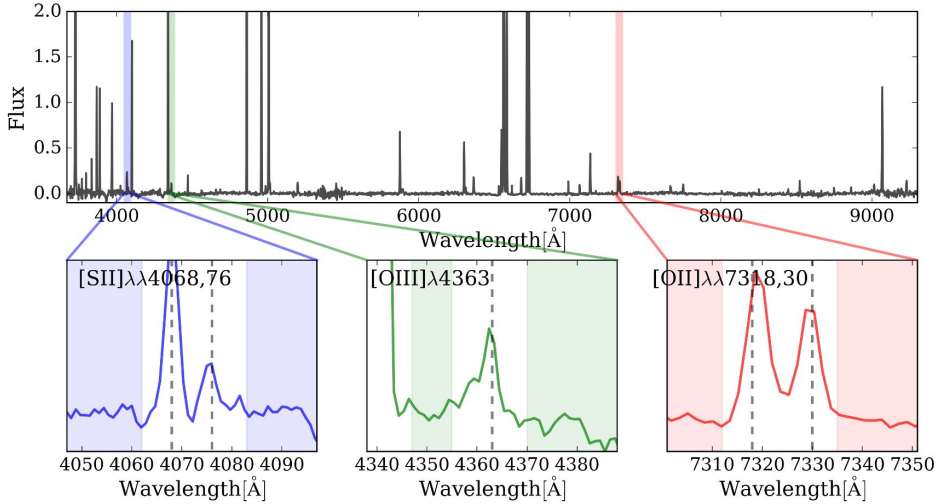
- Metallicity calibrations in H II regions
- Scaling relations of nearby galaxies

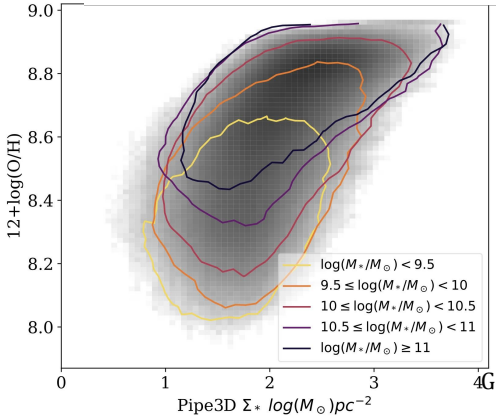
Also interested in:

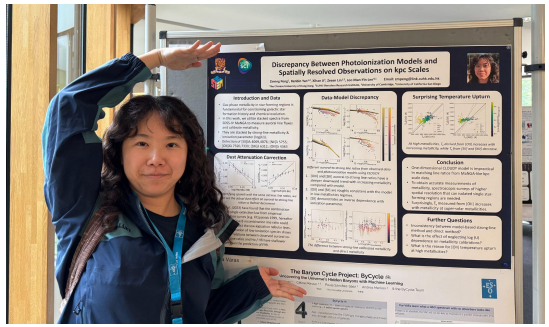
- Quenching mechanism
- Gas properties in galaxies
- Statistical methods applications

(((Also interested in hiking and watersports)))

My path:
2022-now PhD @CUHK
2018-2022 BSc @USTC (China)







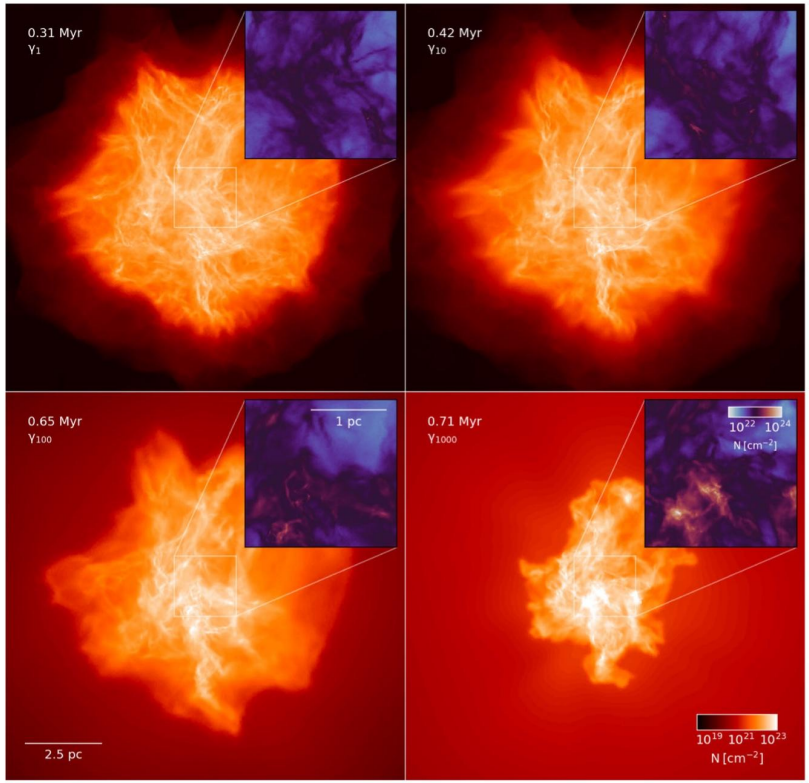
Simon Glover, University of Heidelberg, Germany glover@uni-heidelberg.de

Scientific Interests:

- Molecular cloud formation
- Star formation
- Stellar feedback
- Astrochemistry
- Pop. III star formation

Brief CV:

PhD: 2002 from University of Edinburgh
2002-2005 Postdoc, AMNH, New York
2005-2008 Postdoc, AIP Potsdam
2023-onwards Staff scientist (Heidelberg)



Recent favorite plot:
Structure of star-forming clouds in different galactic environments (Cusack et al. 2025)

Alejandra Z. Lugo Aranda, UNAM-Ensenada

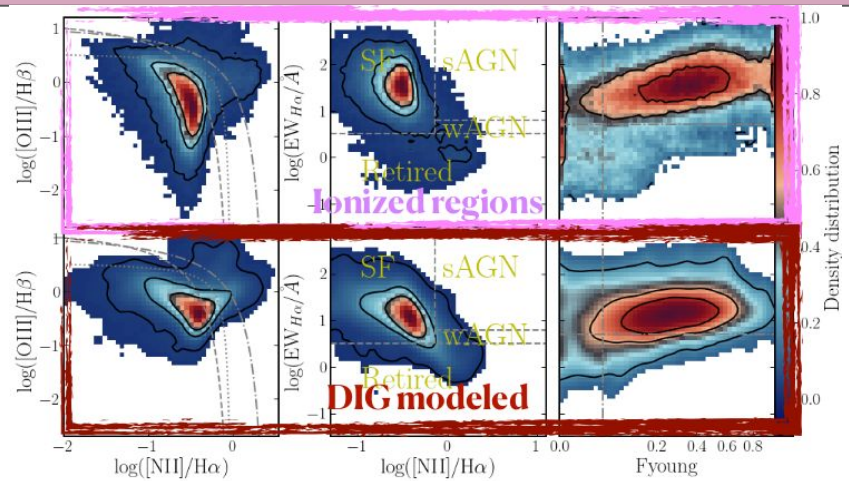
alugo@astro.unam.mx

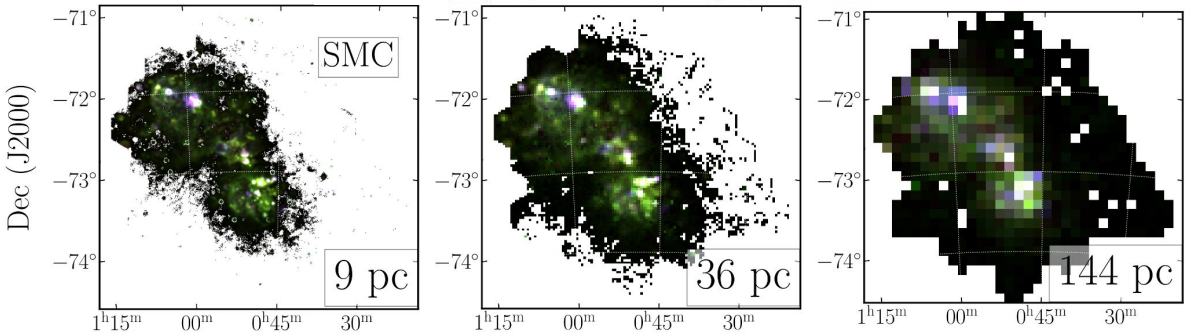
My scientific interests:

- HII regions and DIG
- Chemical composition of the ISM
- Star formation (different environments)

Background:

- PhD (2020-2024 at UNAM) Extragalactic HII regions with MUSE
- Postdoc (2025 March-Today) Magellanic system with LVM





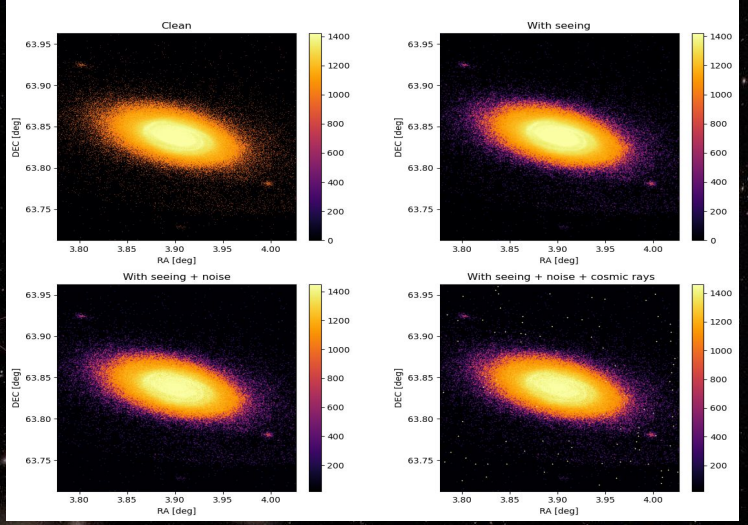
Maddalena Barile, University of Genoa (Italy)

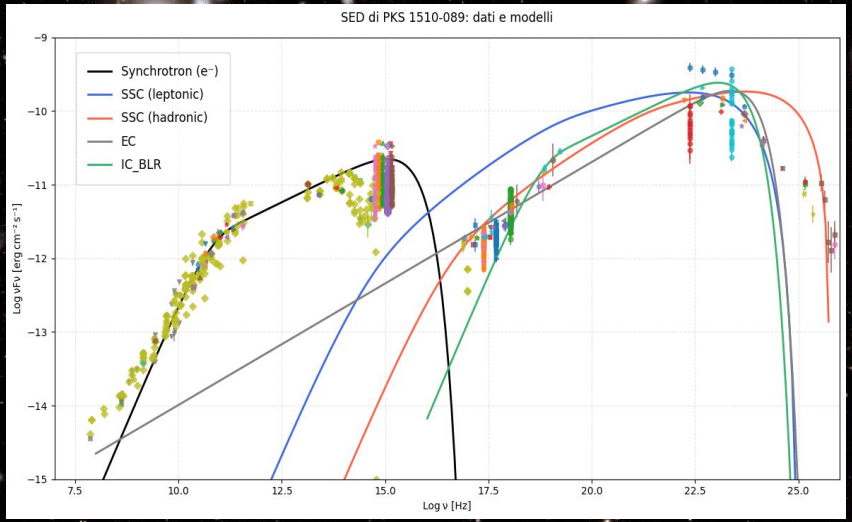
Scientific Interests

- generation of realistic galaxy images from data of simulations as Illustris TNG
- modelling of blazar emission through the study of their SEDs
- fascinated by the the co-evolution of AGNs and their host galaxy

Brief CV

- currently: just completed 1st year of Master' program in Astrophysics and Cosmology at the University of Genoa
- Bachelor's degree in Physics from the University of Genoa, thesis on "Atmospheric Optics"





Devismita Panda, 2nd Year PhD @Laboratoire d'Astrophysique De Bordeaux (LAB), France
devismita.panda@u-bordeaux.fr
Supervised by: Dr. Timea Csengeri

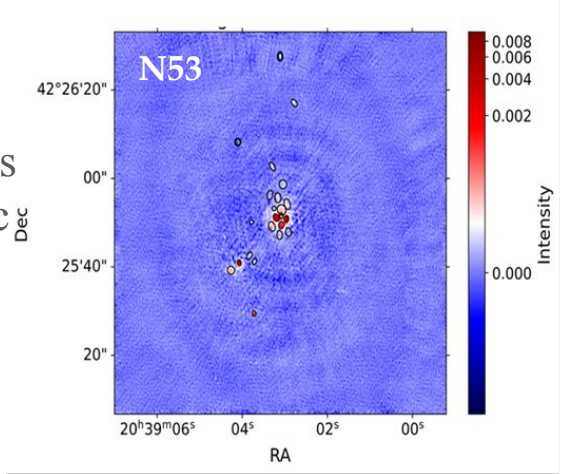
Thesis Focus

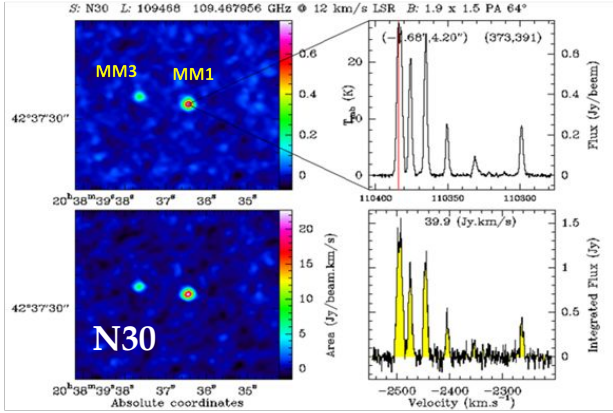
- Chemical and physical conditions for formation of complex organic molecules (COMs)
- Spatial segregation of O- and N-bearing COMs

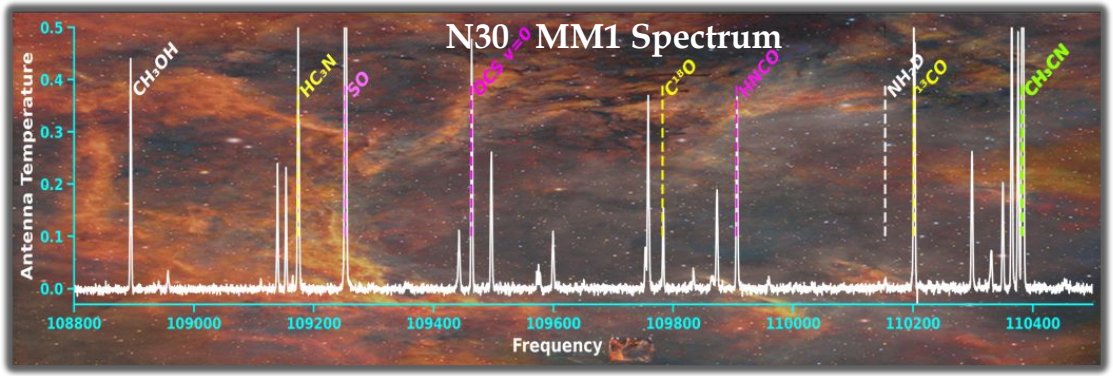
*We use data from **NASCENT-stars** large program*

Scientific Interests

- Massive star formation processes
- Chemical complexity in protostellar environments
- Influence of physical conditions on molecular evolution







Taavishi Jindel, McMaster University, Canada

Supervisor: Christine Wilson

jindelt@mcmaster.ca

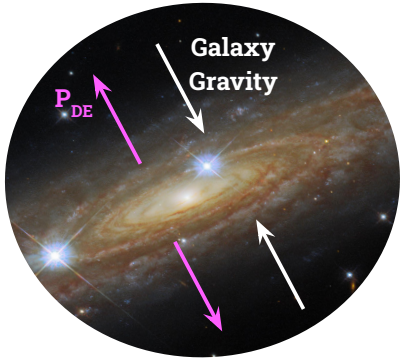
McMaster University

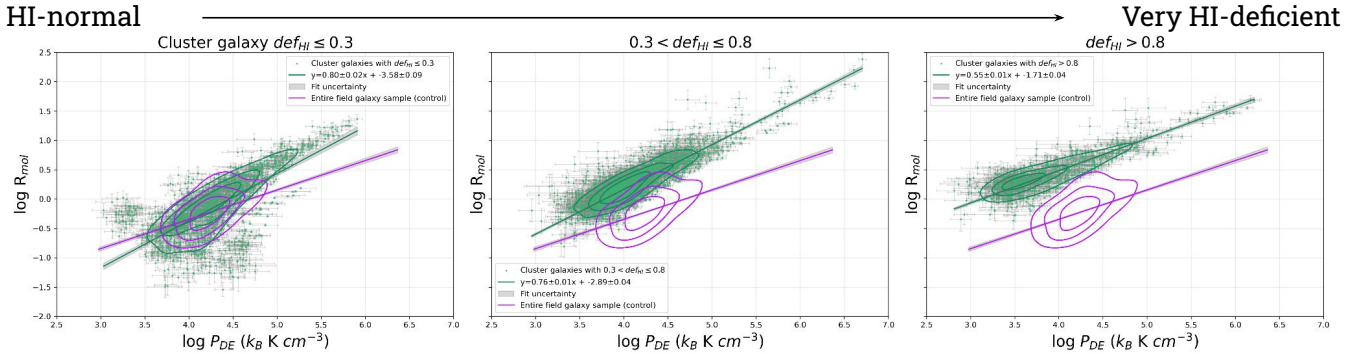
SCIENCE

Department of Physics & Astronomy

Research Interests: Connecting **large-scale galaxy environment** to **small-scale star formation physics**

- Molecular and atomic gas
- Star formation regulation
- Galaxy clusters and environment
- Dynamical equilibrium pressure (P_{DE})
- Multiwavelength ISM observations





CV: First-year PhD student at McMaster University (Canada); MSc (McMaster); BSc (Hons) in Physics (Yale-NUS College, Singapore)

Ivan Gerasimov, Université Côte d'Azur, France

E-mail: ivan.gerasimov@oca.eu

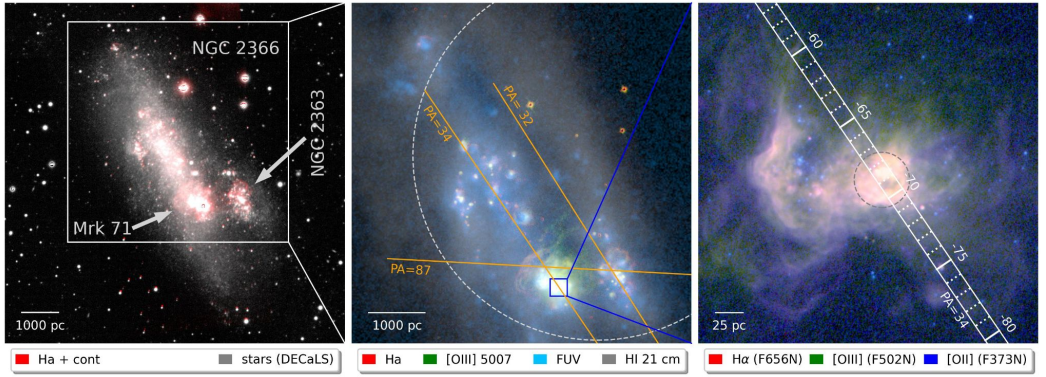
Scientific interests:

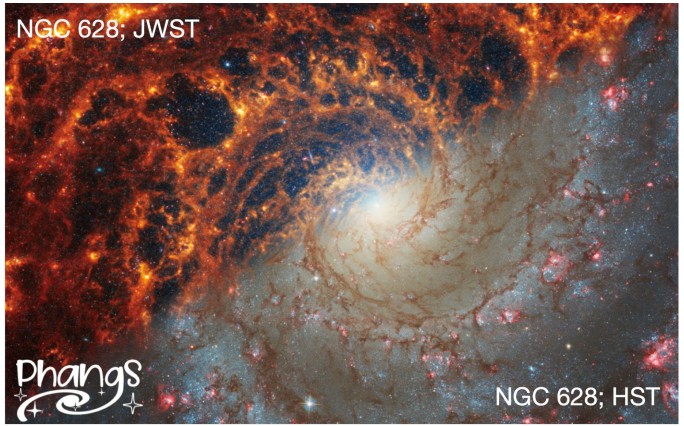
- Stellar feedback at small scales
- Extreme environments and objects
- Chemical evolution of galaxies

Brief CV:

2024-2027: PhD @ UCA
2018-2024: BSc+MSc, LMSU, Russia,

NGC 2366 is a dwarf galaxy with SSC and ~kpc-scale outflow





PHANGS: A large multi-wavelength survey of nearby galaxies to study small scale physics

Léo Belloir

(leo.belloir@cea.fr)

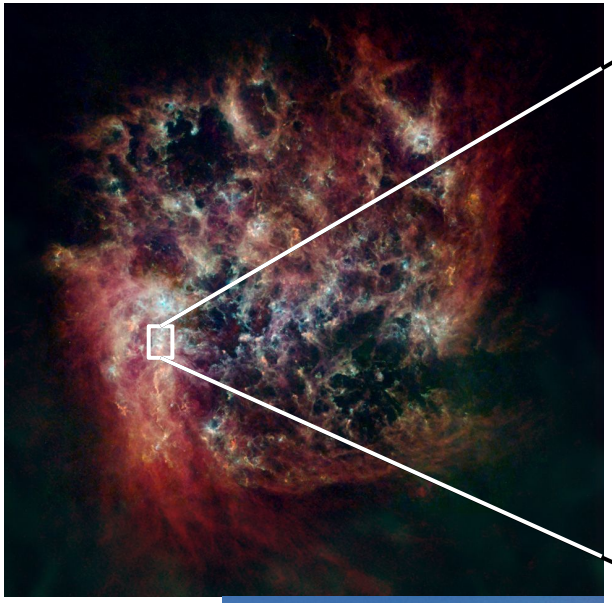
1st year PhD student, CEA Paris-Saclay

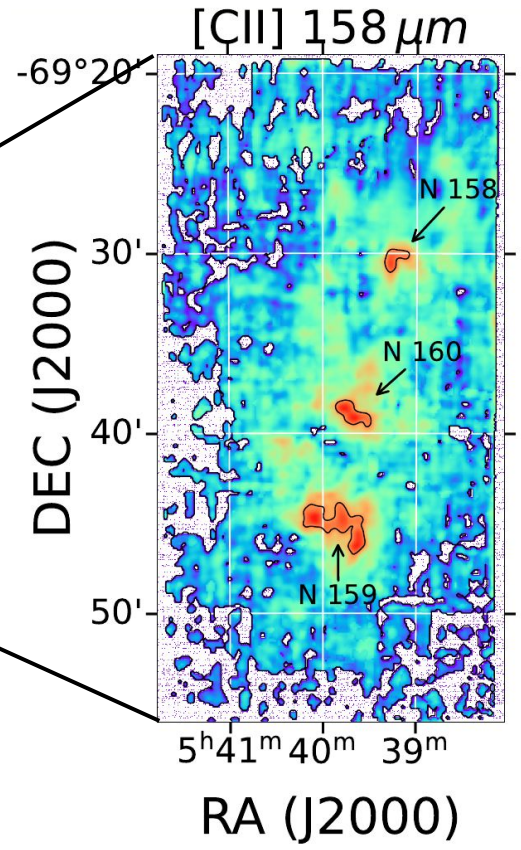
Scientific interests :

- Interstellar dust
- Bayesian statistics
- Multi-wavelength observations
- Nearby galaxies

Brief CV :

- 2024-2027 : PhD @ CEA Paris-Saclay
- 2023-2024 : Master 2 @ Paris Observatory
- 2021-2023 : Bachelor + Master 1 @ Sorbonne University





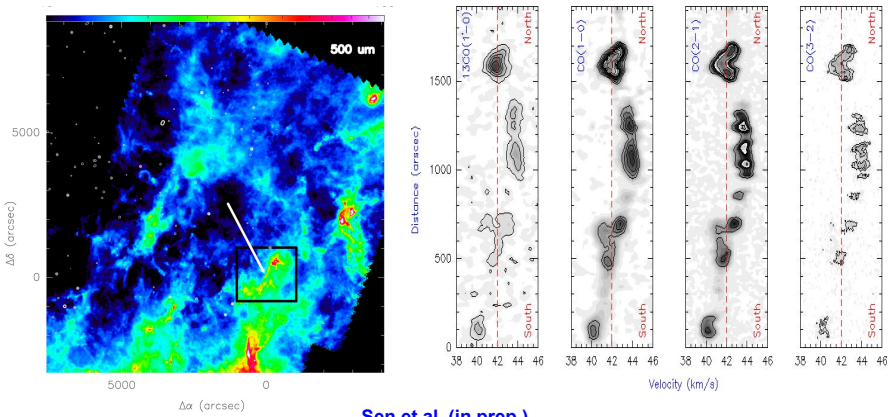
Saurav Sen, PhD, Tata Institute of Fundamental Research Mumbai India
Supervisor: Prof. Bhaswati Mookerjea

savsen1394@gmail.com
saurav.sen@tifr.res.in

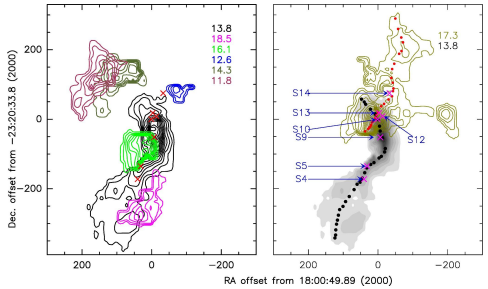
Scientific Interests:

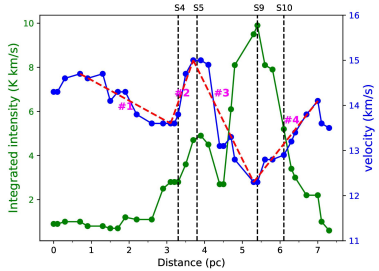
Studying high mass star formation in Hub-Filament Systems.

- Study filamentary structures, kinematics of the natal gas and embedded protostellar cores using multiple line tracers like CO (& isotopes), HCO^+, N_2H^+, SO, CH_3CN etc.
- Modelling of spectra to deduce physical structures and parameters.
- Exploring effect of environment on kinematics and star formation in HFSs. Eg: Inner and Outer Galaxy.
- Deriving physical properties of these regions such as $N(H_2)$ and T_{dust} using above mentioned lines and far-infrared continuum data.
- Using radio continuum data to explore the H II regions formed by the massive star forming sites.

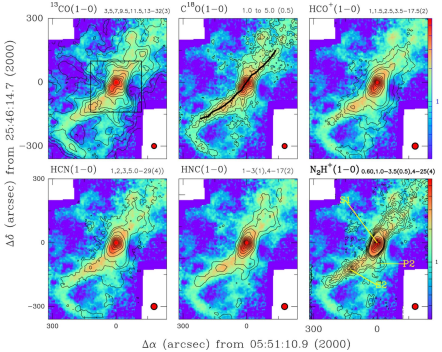


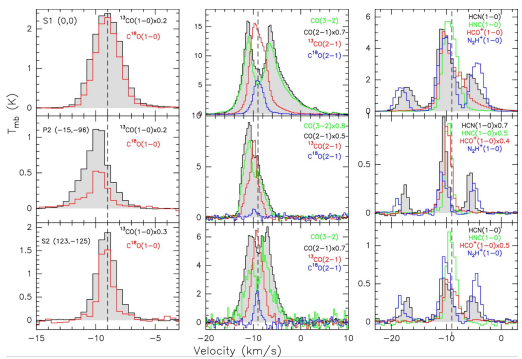
Sen et al. (in prep.)





Sen et al. 2024





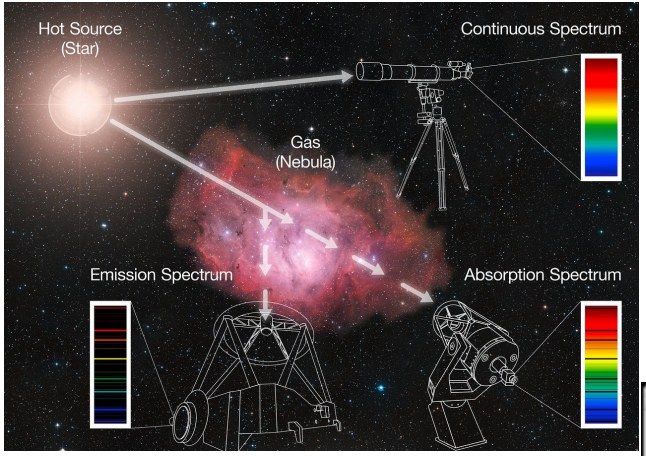
Mookerjea et al. (in prep.)

Brief CV

- PhD at TIFR Mumbai, India.
- Masters in Science, Physics, Pondicherry University, India.
- Bachelors in Science & Education, Bhubaneswar, India.

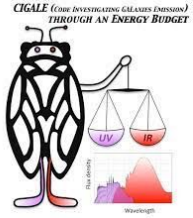
Patrice Theulé

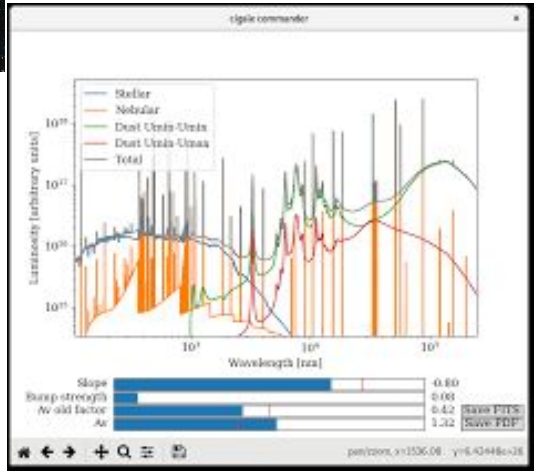
associate professor, Aix-Marseille University
patrice.theule@univ-amu.fr



Scientific interests :

- extragalactic ISM
- galaxy evolution
- multi-wavelength spectroscopy
- laboratory astrophysics





Brief CV :

- PhD, Ecole Polytechnique Fédérale de Lausanne
- post-doctorat, Havard-Smithonian Center for Astrophysics
- research habilitation, Aix-Marseille University
- presently, Laboratoire d'Astrophysique de Marseille

Zorayda Martinez, University of Texas at Austin (US)

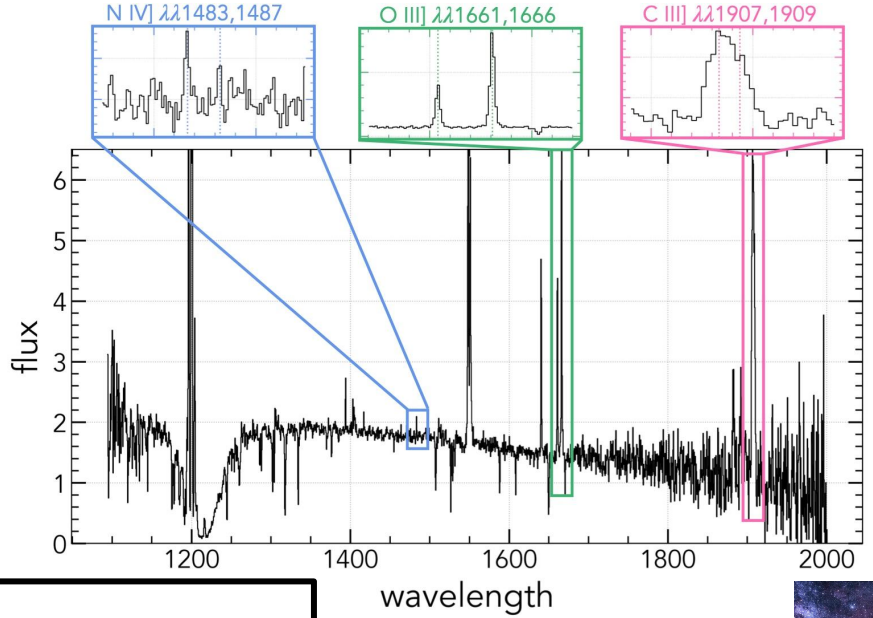
2nd year graduate student
Advisor: Danielle Berg
zorayda@utexas.edu

Scientific Interests:

- UV+optical spectroscopy
- chemical abundances in galaxies
- ionized gas properties across across cosmic time

Current Projects:

- impacts of extreme densities on observed gas properties
- C/O abundances in CLASSY



Brief CV:

- 2023 – present: PhD in Astronomy at University of Texas at Austin
- 2019 – 2023: BS in Physics at East Texas A&M University

Eric Emsellem Astronomer / Head of ESO Project Science

Scientific Interests : *constrain physical processes that drive the formation and evolution of galaxies, scale-coupling, galactic dynamics*

Tools and Methods

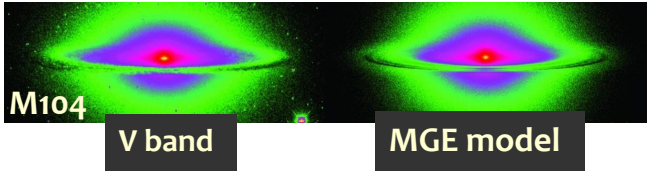
- **Instrumentation** ⇒ Integral-field spectroscopy
- **Observations** ⇒ Nearby galaxies, dynamics, stellar populations
- **Modeling** ⇒ Dynamics / morphology
- **Simulations** ⇒ Hydro-dynamical runs (mostly RAMSES)
- **Codes** ⇒ e.g., MGE, pymusepipe, pPXF, pipelines

Projects, e.g. :

Sauron, Atlas^{3D} Phangs
Condor, Geckos, MAUVE
MUSE, WST

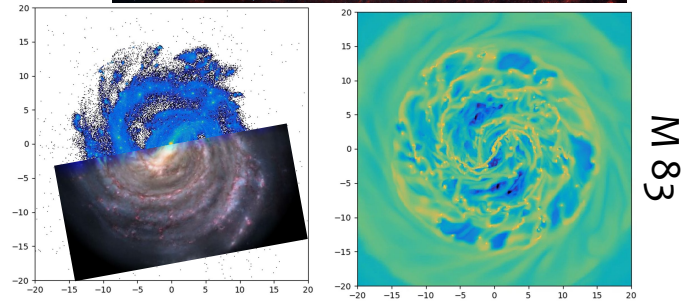
Hobbies

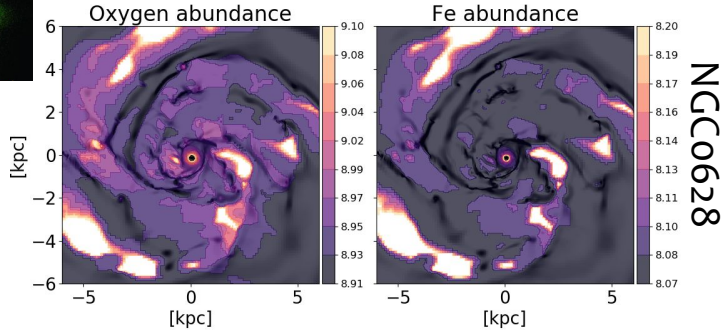
Scuba diving, Photography
Music, Science-fiction lit.



My Path

- **1990** ⇒ Engineering degree
- **1990** ⇒ PhD in Lyon
- **1994** ⇒ Post-Docs in Leiden (NL) + Munich (DE)
- **1997 + 2006** ⇒ Assoc. + full Astronomer at CRAL – Lyon
- **2009** ⇒ Head of the ESO Office for Science (Garching, Germany)
- **2020** ⇒ Head of ESO Project Science





Adeline Paiement, université de Toulon, France adeline.paiement@univ-tln.fr

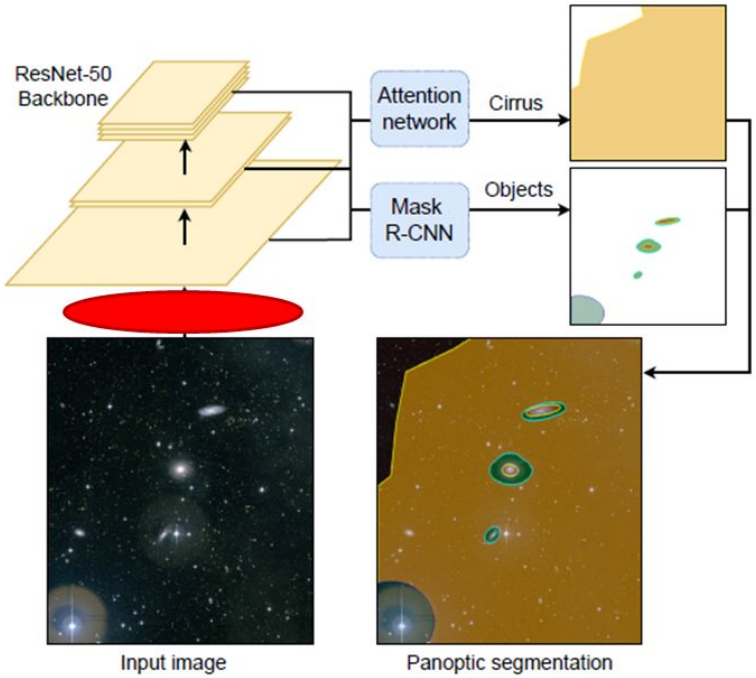
Scientific Interests:

Data science applied to different fields, mostly physics:

- Astrophysics (Matlas and Euclid consortium)
- Solar physics
- Planetology
- Oceanography

Brief CV:

PhD: 2013 from University of Bristol (UK)
2013-2016 postdoc, University of Bristol
2016-2018 Research lecturer, Swansea University (UK)
2018-onwards Associate professor at université de Toulon



Panoptic Segmentation of Galactic Structures in LSB Images (Richards et al. 2023)

Hao Zhang 1st year PhD student, Laboratoire d'Astrophysique de Marseille hao.zhang@lam.fr
Supervisor: Dr. Patrice Theulé

I'm working on:

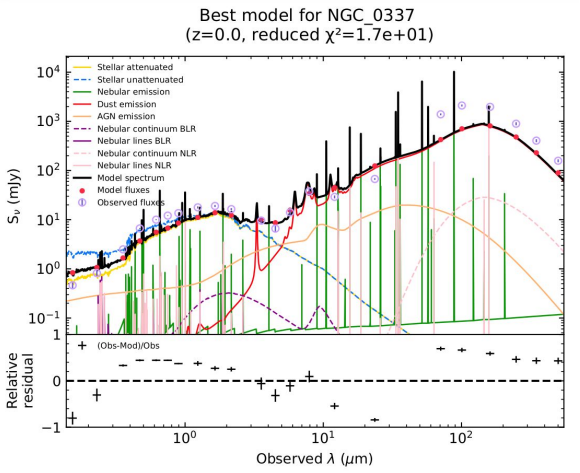
· Adding AGN contribution module in Spectral fitting code CIGALE
· Effects of the X-ray and UV spectrum of AGN accretion disk and corona on emission lines

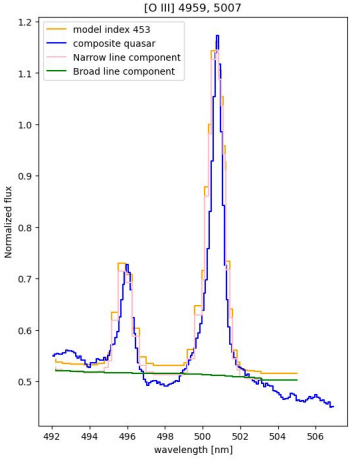
Interested in:

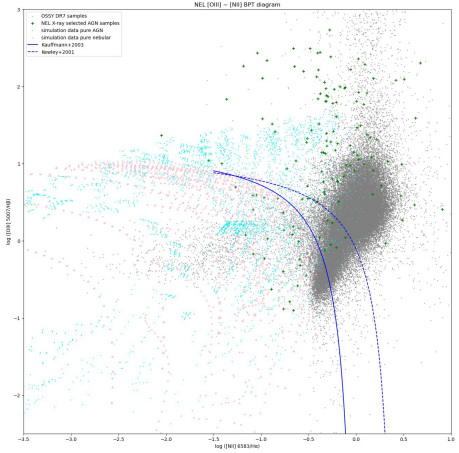
· high-z galaxy evolution
· Multi-wavelength galaxy spectrum simulation and analysis
· Data Analysis and Machine Learning

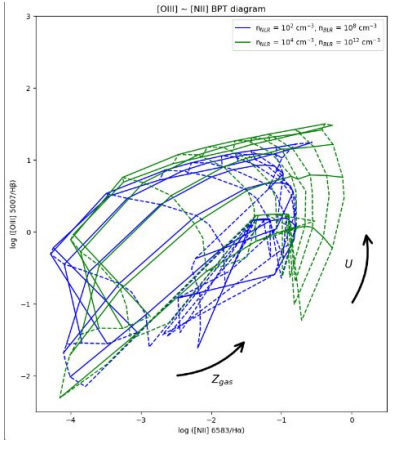
Brief CV:

2017 - 2021, Bsc, Nankai University, China
2021 - 2023, Msc, University of Copenhagen, Denmark
2024 - current, PhD student, LAM, France







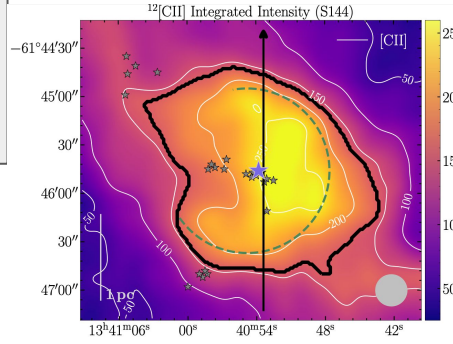


Simon Dannhauer (University of Cologne / MPIfR)

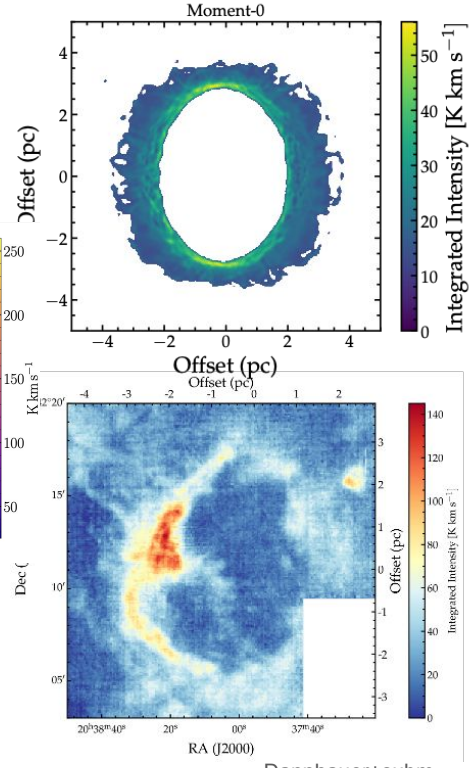
dannhauer@ph1.uni-koeln.de

Research Interest

- Stellar Feedback in the MilkyWay and Nearby Galaxies
- Proplyds, Protostellar Cores
- [CII] as a tracer of Star formation, PDRs (SOFIA FEEDBACK)
- CI for carbon budget, cloud formation (CCAT/FYST GECO)
- HI to H2 transition



Keilmann,Dannhauer+25



Dannhauer+subm.

Brief CV

BSc/MSc: Argelander Institute for Astronomy, University of Bonn
eROSITA-DE AGN Feedback in Galaxy Clusters (Xray+ Radio)
PhD: I. Physics Institute, University of Cologne/ MPIfR
Star Formation and Stellar Feedback, 2nd year (sub-mm)

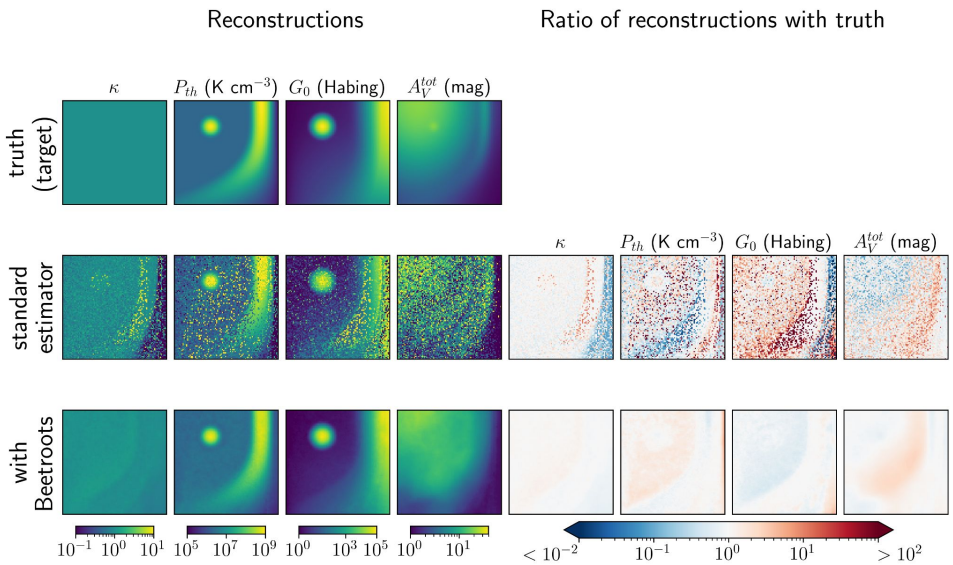
Pierre Palud, laboratory AstroParticles and Cosmology, Paris, France, paludpierre@hotmail.fr

Scientific Interests:
Statistics and Bayesian inference applied to

- molecular clouds (Orion B consortium)
- Gravitational Waves

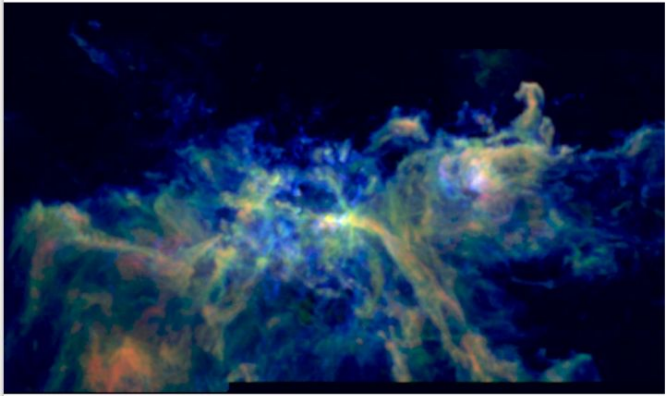
My main contribution: publication of Beetroots

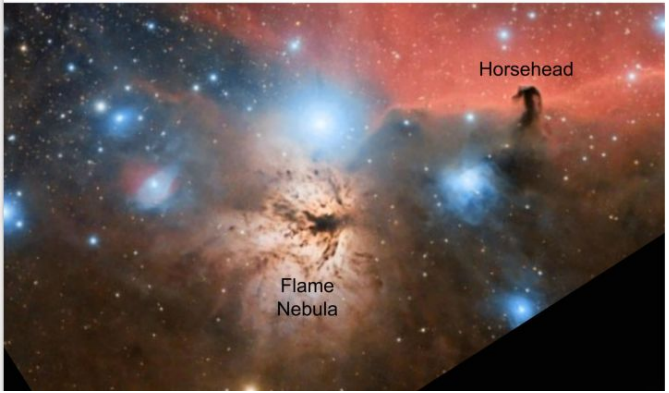
Brief CV:
2019: Master degree with a major in statistics / ML
2019-2020: Data Scientist in Brazil
PhD: 2023 from Observatory of Paris & Cristal (Lille)
2024-now: PostDoc researcher at APC (Paris)

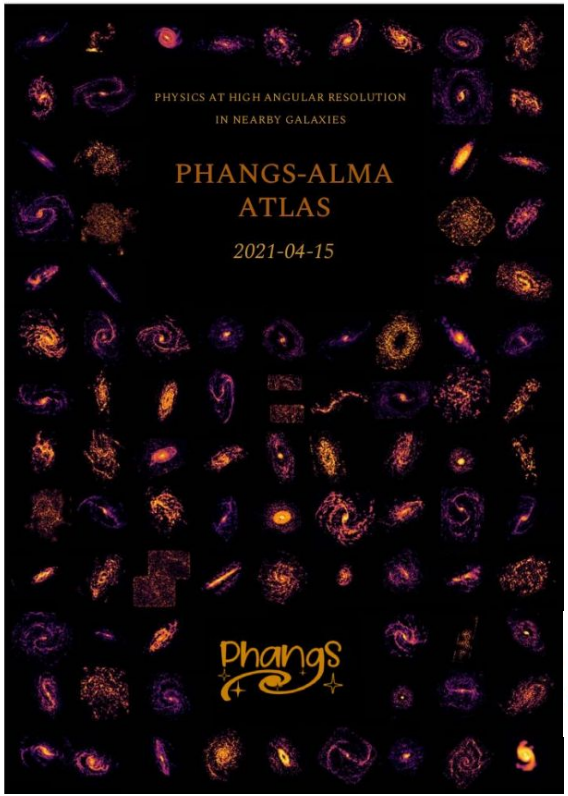


Recent favorite plot: Example of estimation with Beetroots, from Palud et al (2025)

This week, I'm here to give the class on Bayesian inference







Jérôme Pety (pety@iram.fr)

29th year PhD student
IRAM & Obs de Paris, France

Scientific Interests

- ISM from high redshift galaxies to star and planet formation
- The Horsehead nebula & Orion B
- Nearby galaxies
- (sub-)mm single-dish and interferometry
- Data reduction, statistics, and machine learning

Brief CV

- 1997-1999: PhD at Sorbonne University
- 2000-2002: Post-doc IRAM
- 2003-Present: Astronomer at Obs. de Paris, detached to IRAM

anr DAOISM

Videos about DAOISM science

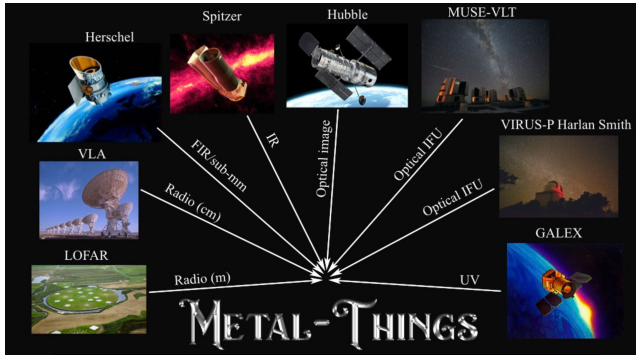
Guillermo Valé Arteaga { guivale@ucm.es }

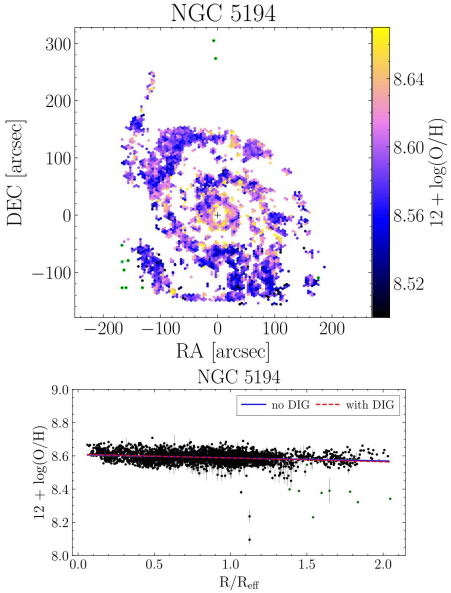
Universidad Complutense de Madrid (UCM)

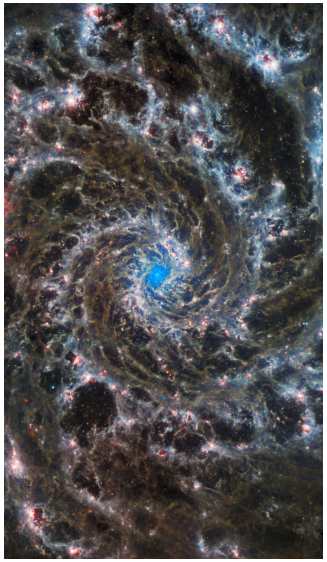
Spain

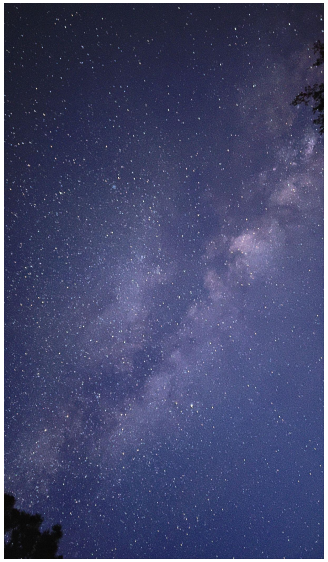
Scientific interests:

- Galaxy evolution
- Interstellar Medium
- Chemical abundances
- Metallicity and metallicity gradients
- Atomic and molecular gas distribution
- Machine Learning techniques









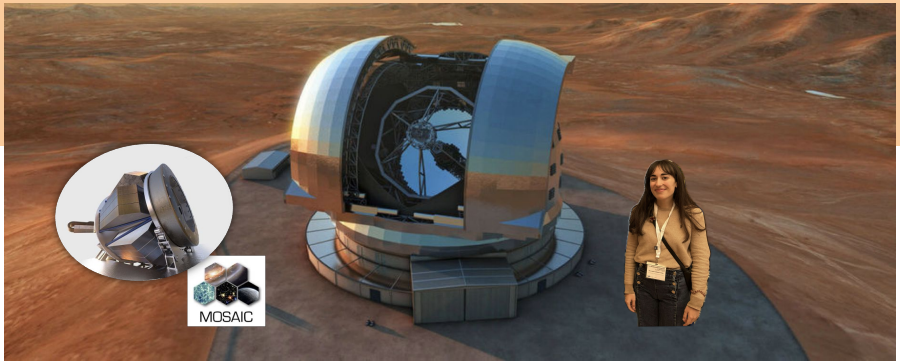
Brief CV:

- 2024 - today: 1st year PhD student
- 2023 - 2024: Master's Degree in Astrophysics (UCM)
- 2019 - 2023: Bachelor's Degree in Physics (UCM)

María Chillarón

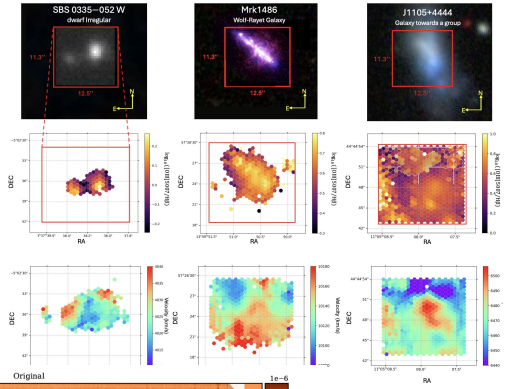
Universidad Complutense de Madrid (UCM) Spain

mchill01@ucm.es



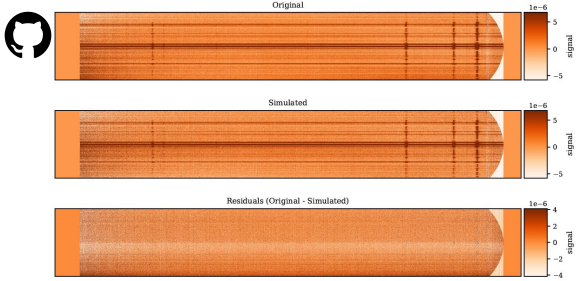
Scientific interests:

- **Dwarf galaxies** analogs to those at Epoch of Reionization
- **Nearby, low-mass, high-star-forming** galaxies
- Emission lines analysis
- **Instruments**: pipelines/software development
- Upcoming: metallicity gradients of dwarf galaxies



Brief CV:

- 2019-2023 Bachelor's degree in Physics (UCM)
- 2023-2024 Master's in Astrophysics (UCM)
- 2024 Max Planck Institute for Astronomy (Heidelberg)
- Now: 1st year PhD student
- MEGARA@GTC (10.4m) Data curator (Dwarfs4MOSAIC ITP)



Vasanth Kashyap Ravikumar,
Scuola Normale Superiore di Pisa, Italy
vasanth.kashyap@sns.it

SCUOLA NORMALE SUPERIORE

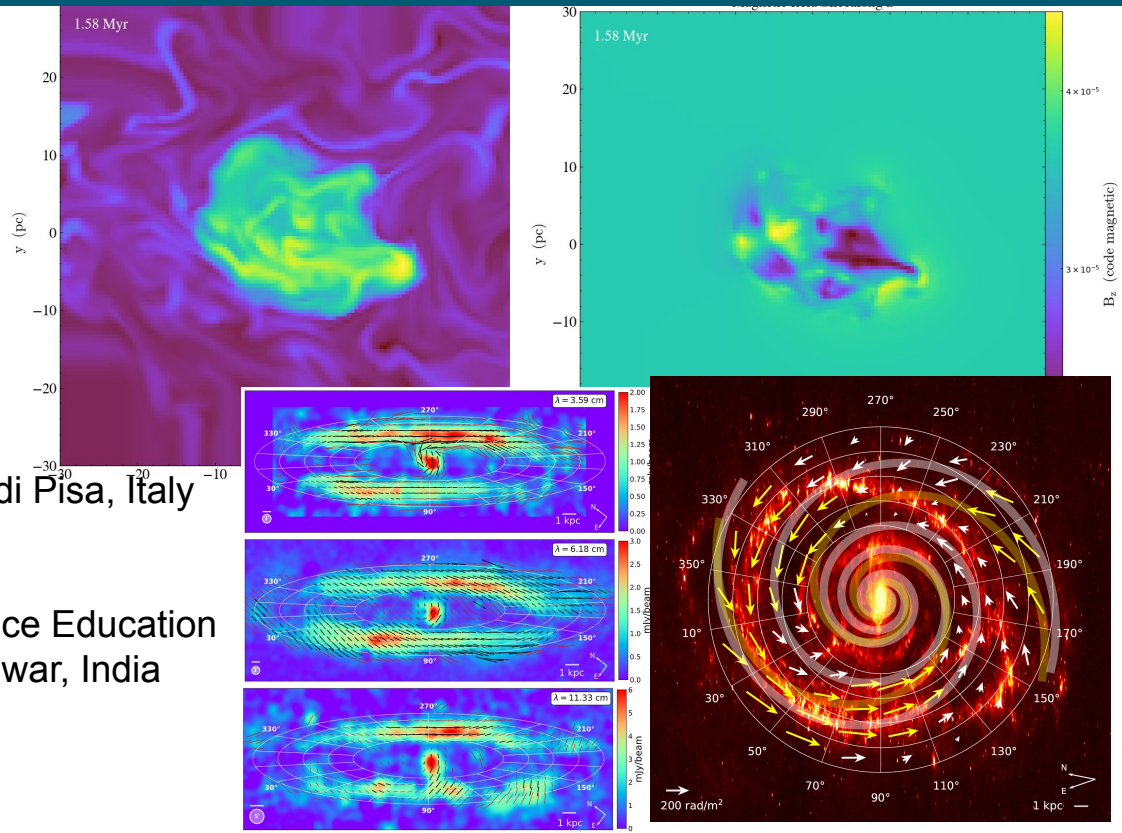
Scientific Interests:

- MHD numerical simulations
- Galactic dynamos
- Synchrotron Emission to probe Magnetic Fields

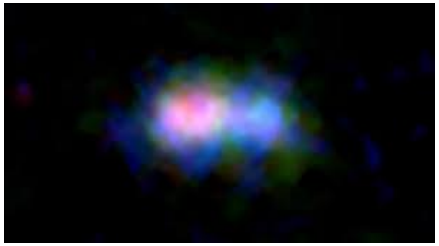
Brief CV:

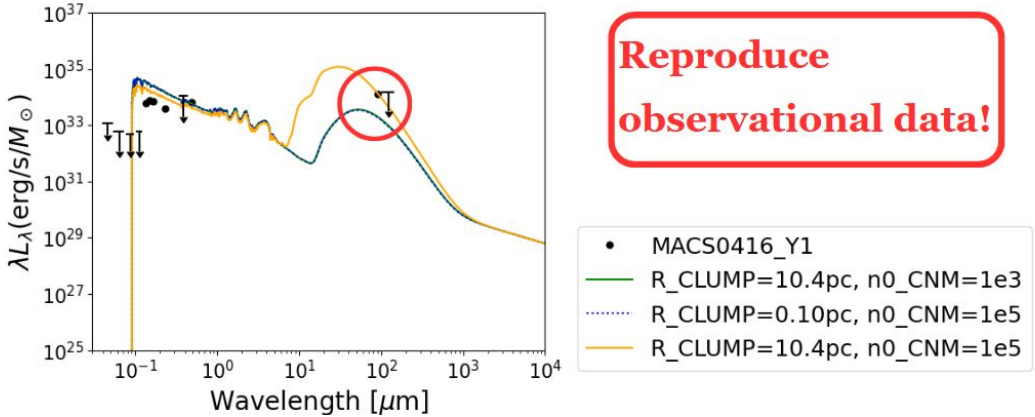
PhD Student at Scuola Normale Superiore di Pisa, Italy
2024

Integrated M.Sc - National Institute of Science Education
2019 - 2024 and Research, Bhubaneswar, India



Target Galaxy: MACS0416 Y1 (z=8.3)





Reproduce observational data!

Reproduce SED with detailed dust model

Hi I'am

RYUSEI KANO

Ngoya University in Japan

1 st year PhD student

Interests & Projects

- High-z (z=8) Galaxy Evolution
- Chemical Evolution
- Dust Evolution
- Machine Learning
- Cosmology

Comment

- I want to make 100 friends here!!!

MY CONTACT INFO	
ryusei172525@gmail.com	https://kano-ryusei.net/

Optical identification of carbonaceous nanoparticles modelling soot

Large carbonaceous compounds have been reported in interstellar medium, exoplanet's atmosphere and Earth's atmosphere
=> Improve **interstellar dust** models
=> Modelling **radiation forcing** of Earth's atmosphere and the impact of soot on **health**

Problematic:

Use **UV-visible measurements** as a non-invasive probe to characterize soot nanoparticles ***in situ***

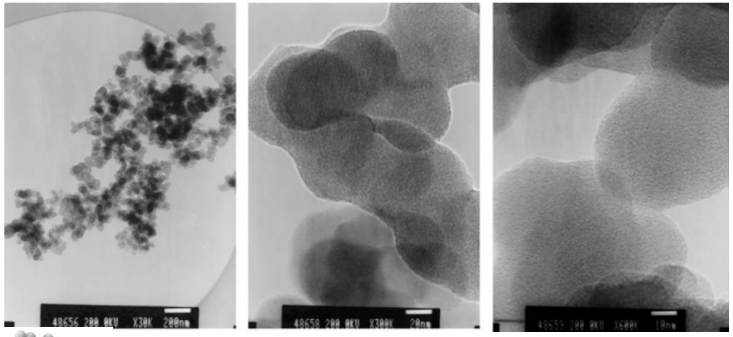
Approaches existing : T-Matrix, **DDA**, Lorenz-Mie theory, Rayleigh-Debye-Gans theory, etc.
=> Do not consider atomistic details of the particle

Specificity of the work:

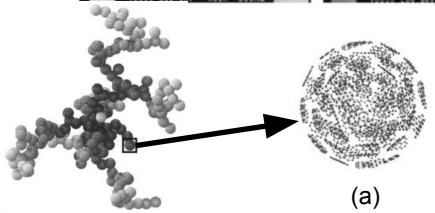
DADI model: Computation of optical properties of nanoparticles as a function of their atomic characteristics (morphology, chemical functions, defects, …)

=> Need to know frequency-dependent atomic polarizabilities and coordinates of every atoms forming the particule

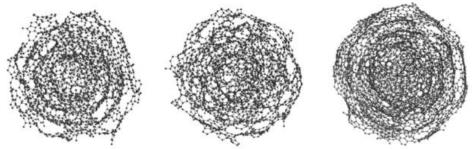
Contact: nicolas.brosseau-habert@univ-fcomte.fr



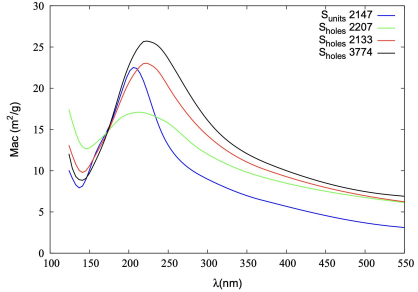
Above: TEM images at different scale of soot nanoparticles



On the left: Atomistic model of this grain



Below: absorption spectrum computed for the different soot model

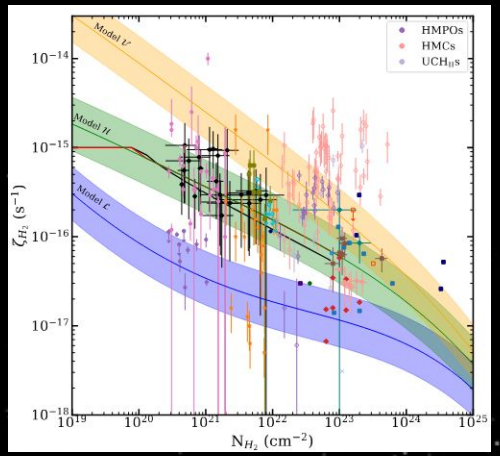


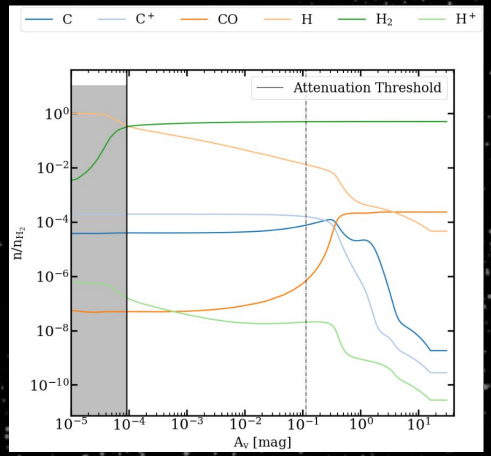
Theodoros Topkaras, University of Cologne, Germany

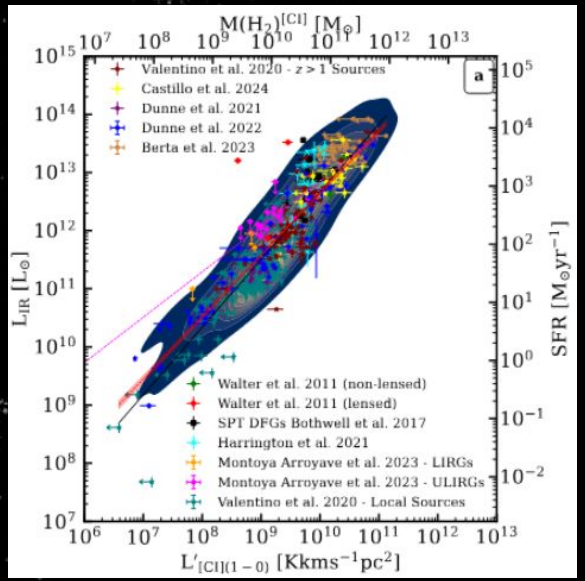
PhD working with Dr.Volker Ossenkopf-Okada and Dr. Markus Röllig

Scientific Interests

- SFR traced by [CI] and CO across redshift
- How cosmic rays alter the structure/chemistry of PDRs
- Implementation of the cosmic ray attenuation rate into KOSMA-τ







Background

- BSc: Aristotle University of Thessaloniki
- MSc: Leiden University, The Netherlands
- PhD: I. Physics Institute, University of Cologne

Taishi Ushirogi
University of Cologne, Germany

Contact: ushirogi@ph1.uni-koeln.de

Research Interests:

- Star / cluster formation
- Episodic accretion / outflows

  ➡ how the cavity is filled with gas
- Colliding / merging outflows ➡ fragmentation?
- He I absorption line (JWST)

Background:

2024 - present: 1st year PhD

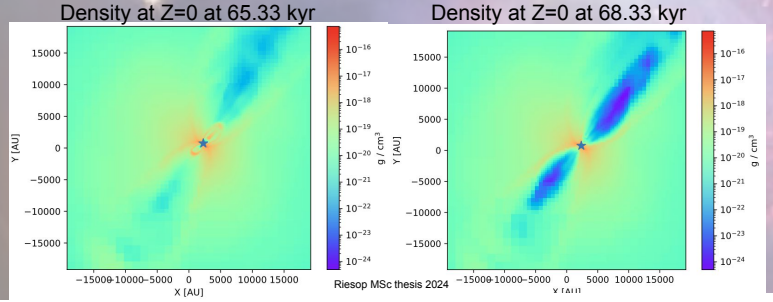
(Supervisor: Prof. Dr. Stefanie Walch-Gassner)

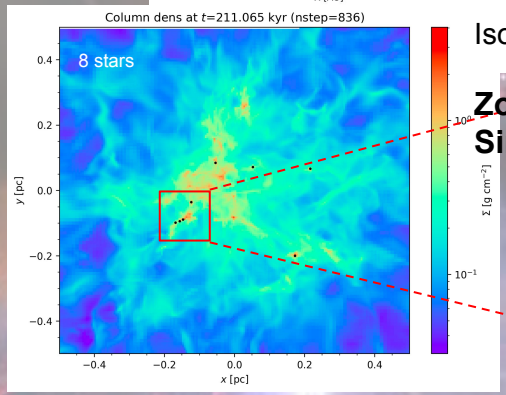
2018 - 2022: MPhys & BSc @ University of Leeds, UK

from JAPAN.

3D MHD AMR code **FLASH**

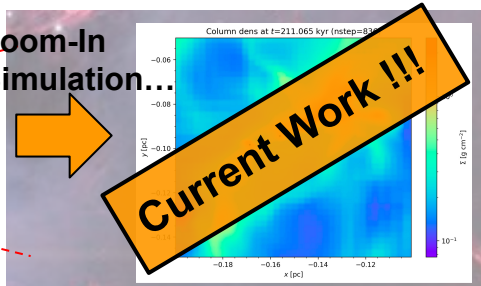
Module Test: Episodic accretion, outflow





Isolated turbulent core (1 pc, 10^3 Msun…)

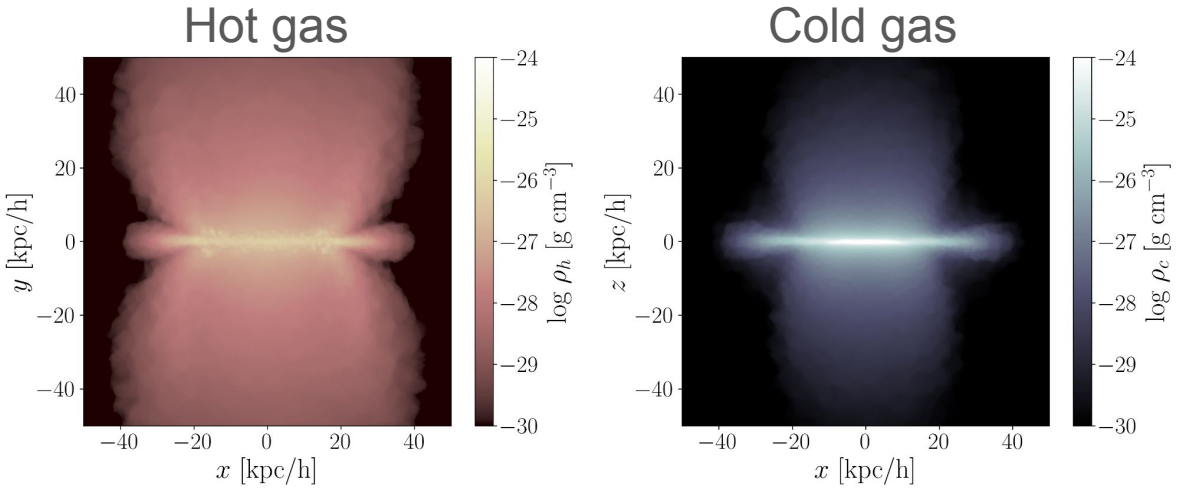
Zoom-In Simulation…



Nele Stachlys (Leibniz Institute for Astrophysics Potsdam AIP, Germany

Scientific Interests:

- Numerical simulations (AREPO)
- Galaxies in cosmological context
- Star formation and feedback
- ISM chemistry



Short CV:

- 2024 - present PhD Student at AIP, thesis: “A multi-fluid model for the interstellar medium in cosmological simulations”
- 2020 - 2024 MSc. Astrophysics at University of Potsdam
- 2017 - 2020 BSc. Physics at Jacobs University Bremen

Xinyue Liang, 1st PhD student, Heidelberg University

Supervisor: Mélanie Chevance
Collaborator: Lise Ramambason

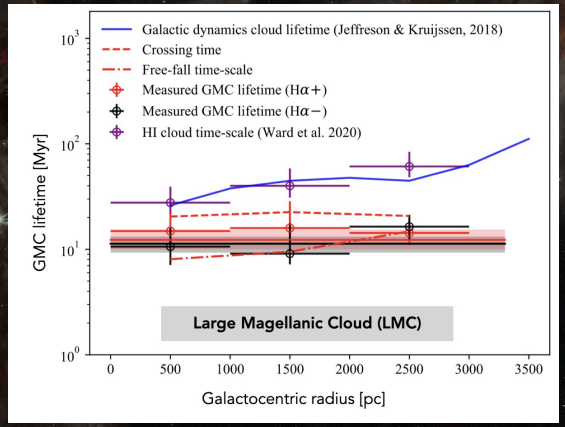
UNIVERSITÄT HEIDELBERG
ZUKUNFT SEIT 1386

Scientific Interests:

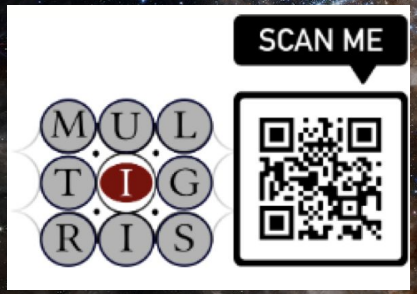
- Galaxy formation and evolution
- Interstellar medium
- Nearby galaxies
- Matter Cycle in galaxies

Brief CV:

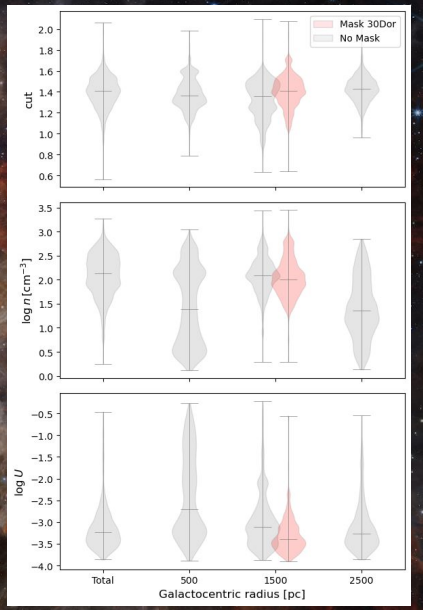
- 1st year PhD student at Heidelberg University, Germany
- 2021-2024 MSc at Xiamen University, China
- 2017-2021 BSc at Xiamen University, China



(Ward et al. 2022)



MULTIGRIS
(Lebouteiller & Ramambason 2022)



Esan Mouli Ghosh (eghosh@astro.rug.nl) 1st Year PhD
Kapteyn Astronomical Institute, Rijksuniversiteit Groningen

university of groningen

GUSTO

Supervisors : Floris van der Tak, Alexander Tielens, John Bally

Scientific Interests :

- [C II] and [N II] observations from far-infrared balloon-borne mission GUSTO
- PDRs and H II regions around massive stars
- Identify expanding bubbles and shells in velocity-resolved maps
- Compare effects of radiative vs mechanical feedback in the Milky Way
- Estimate properties (mass, KE, etc) of feedback structures

Current Project :

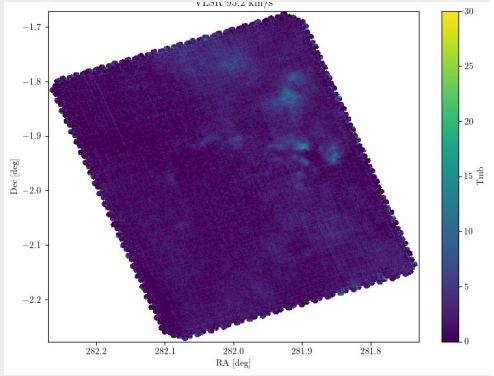
Study W43 ministarburst cluster using SOFIA data

Brief CV

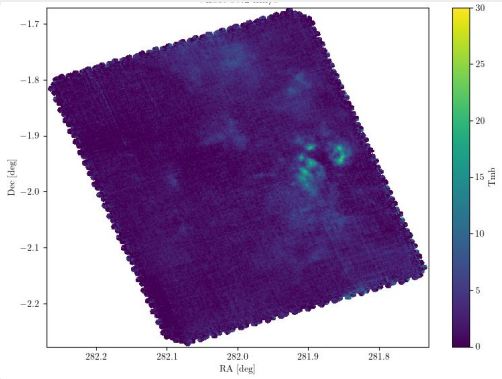
- Dec 2024 - today : PhD at RUG, The Netherlands
- 2019 - 2024 : Dual BS-MS in Physics at IISER Mohali, India
  Masters Thesis Project : Probing Galactic Halos using Fast Radio Bursts in Cosmological Simulations at Curtin University, Perth, Australia
- Internships at 1) Leiden Observatory, The Netherlands, 2) USM Munich, Germany 3) UC Santa Cruz, USA

W43

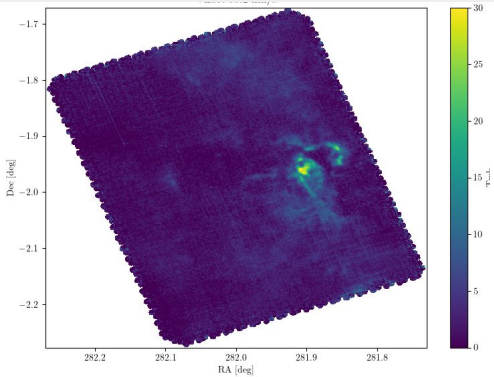
V_{LSR} : 95.2 km/s



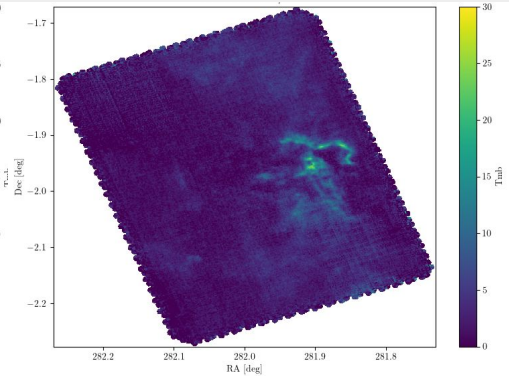
V_{LSR} : 97.2 km/s



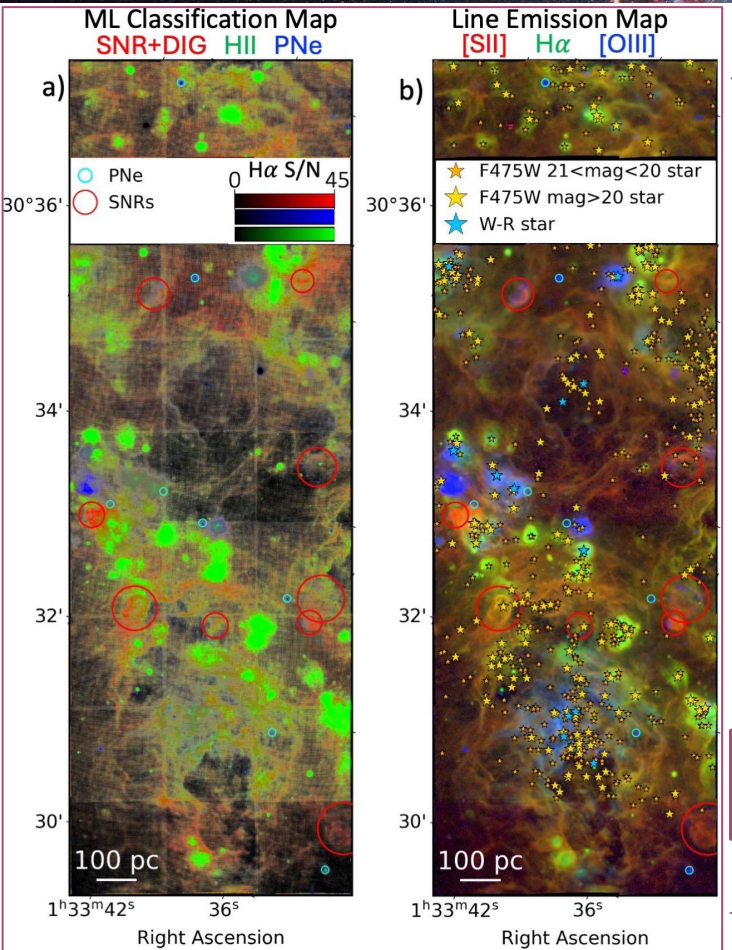
V_{LSR} : 99.2 km/s



V_{LSR} : 101.2 km/s



Caterina Bracci – University of Florence // INAF - OAA



Scientific background:

- BSc & MSc in Physics and Astrophysics @ UniFI.
- Focus on (observational) extragalctic astrophysics -> ISM.
- Thesis on classifying emission-line region spectra with Neural Networks.

Current project (1st year PhD):

- Deep learning methods for spectral analysis.
- Simulation-based inference to infer ISM parameters from photoionisation models.

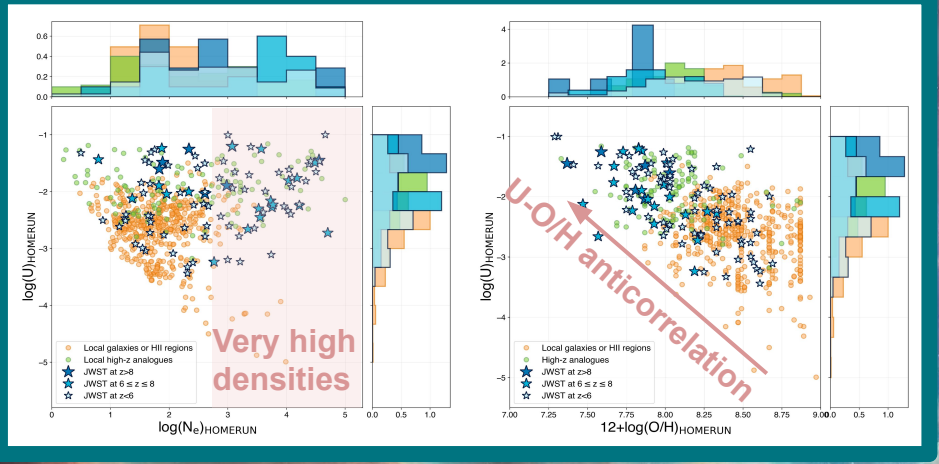
NN classification of ionised nebulae (CB+25)

Me @Paranal

caterina.bracci@unifi.it

GISM 2025, July 22st-August 1st, Banyuls-sur-Mer, France

Bianca Moreschini – bianca.moreschini@unifi.it

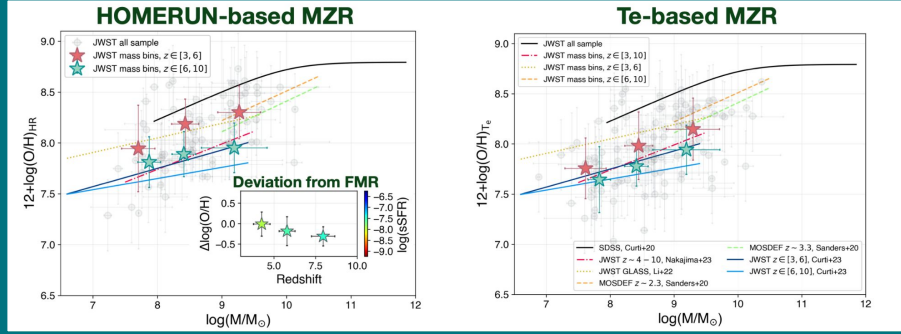


Scientific interests:

- **ISM** physical & chemical properties in **high-z galaxies**
- Photoionisation models
- Abundance measurements
- (Colourful plots!)

A very brief history of my (academic) life so far:

- currently a **PhD student at UniFI** & INAF-OAA
- previously a Master's and Bachelor's student at UniFI



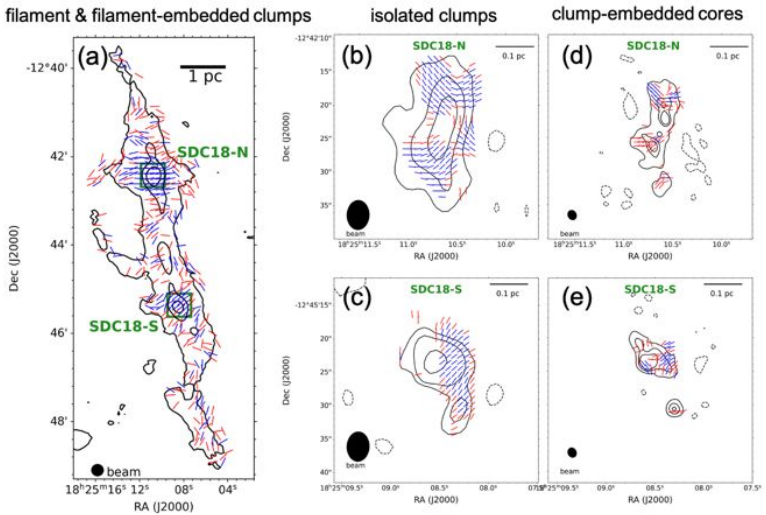
Han-Tsung Lee, University of Cologne, Germany htlee@ph1.uni-koeln.de

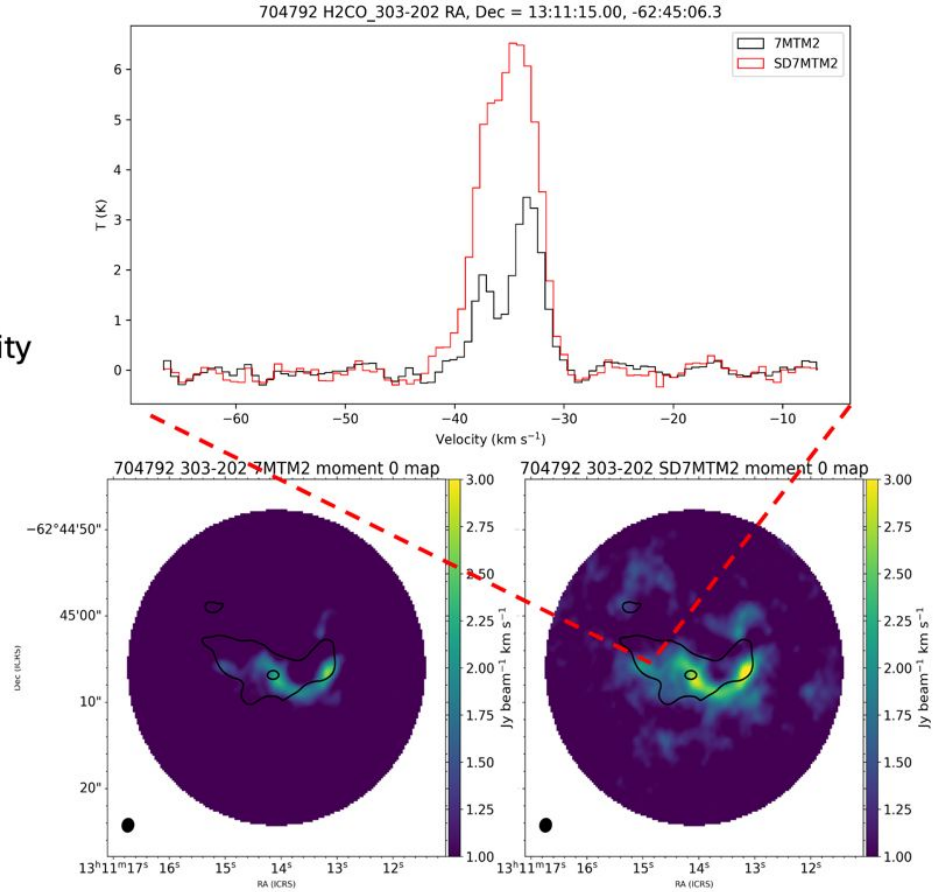
Scientific interests:

- ISM magnetic field
- Data combination of interferometric and single dish observations
- ISM chemistry

Brief CV

- 2021-2023: MSc. in Physics at National Taiwan University
- 2024-present: PhD at university of Cologne





Supervisor: Viviana Casasola

vidhi.tailor@studio.unibo.it

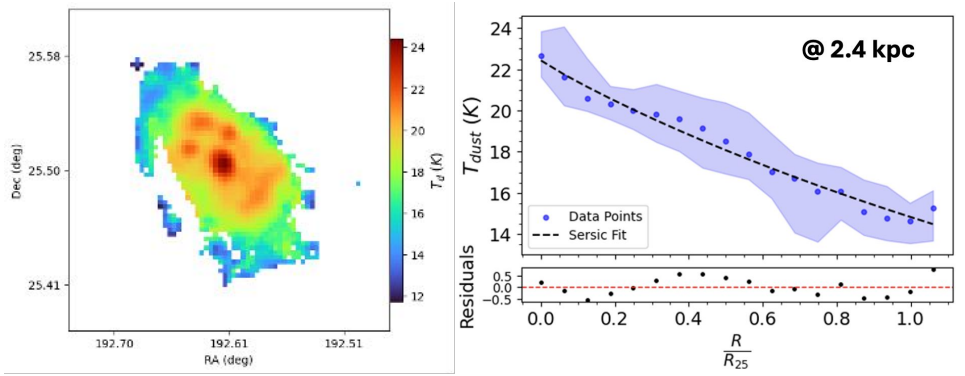
Vidhi Tailor

University of Bologna / INAF - IRA, Italy

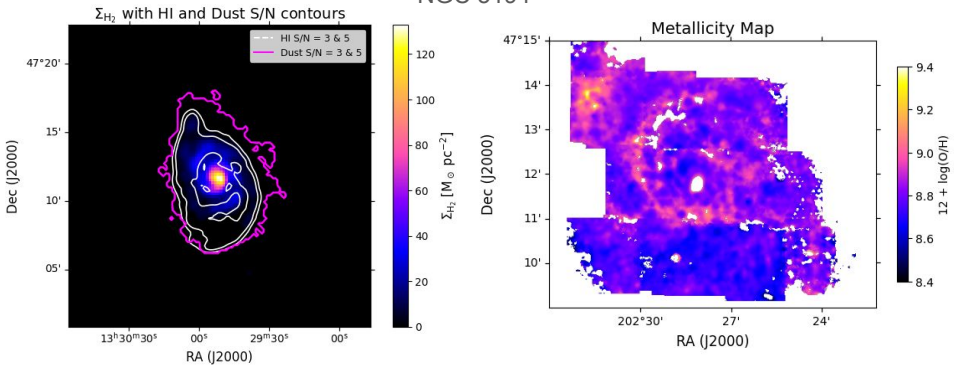
Scientific Interest:

- ISM physics
- Spatially resolved, multiwavelength studies of nearby galaxies
- Dust properties and heating
- Chemical enrichment and dust evolution

Dust temperature map and radial trend for NGC 4725



NGC 5194



Brief CV:

- 2nd year PhD student, *University of Bologna*
- Project Scientific Asst., *HBCSE - TIFR, Mumbai*
- MSc Physics, *St. Xavier's College, Mumbai*

UNIVERSITÀ degli STUDI di CATANIA
Dipartimento di Fisica e Astronomia "Ettore Majorana"
INAF ISTITUTO NAZIONALE DI ASTROFISICA OSSERVATORIO ASTROFISICO DI CATANIA

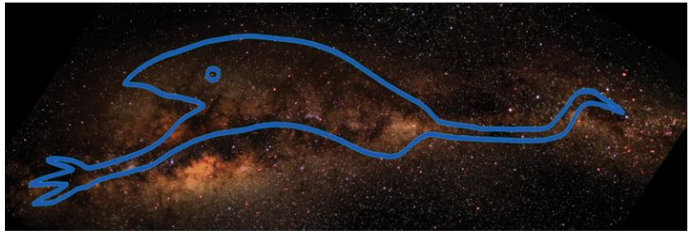
ANTONIO MARIA TROVATO, FIRST YEAR PhD STUDENT

RESEARCH PROJECT AND SCIENTIFIC INTERESTS:

- **FILAMENTARY STRUCTURES IN OUR GALAXY AT RADIO WAVELENGTHS**
- **FILAMENTS IN THE SCORPIO FIELD**
- **ANALYSIS MULTI-WAVELENGTHS**
- **DIFFERENT REGIONS IN EMU**

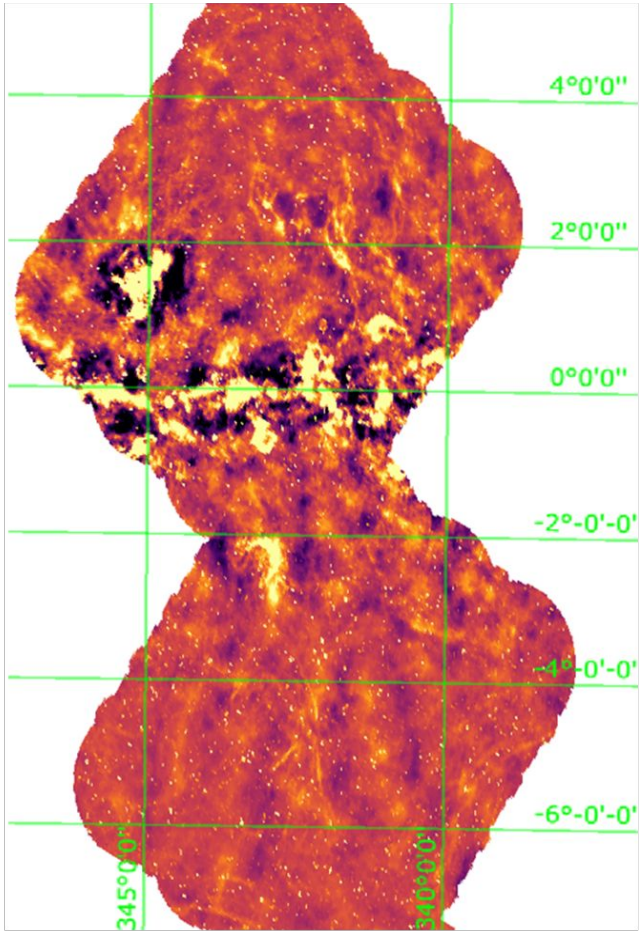
SUPERVISORS:
DR. CORRADO TRIGILIO
OACT-RADIOASTRONOMY GROUP
PROF. FRANCESCO LEONE

EVOLUTIONARY MAP OF THE UNIVERSE



ASKAP @ 944 MHz

SCORPIO FIELD



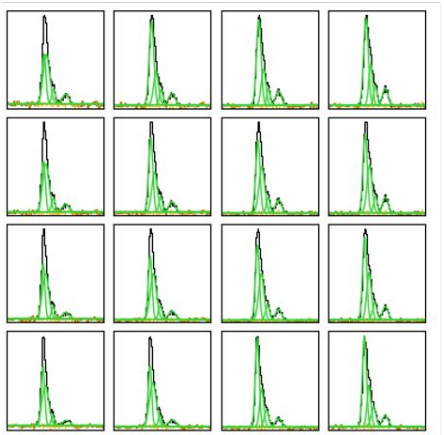
Siqi Zheng (zheng@ph1.uni-koeln.de)

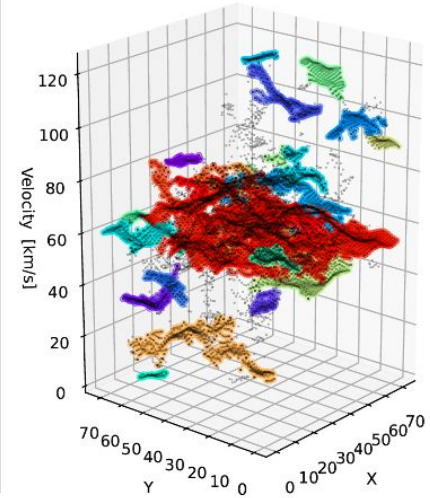
Shanghai Astronomical Observatory, China

Visiting student in University of Cologne, Germany

I am working on:

Analysing the dynamic properties of Sagittarius B2 (Sgr B2) with molecular emission lines





Scientific Interests:

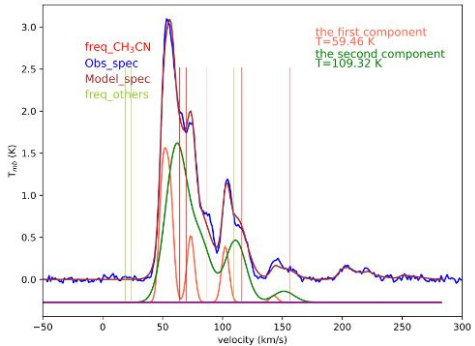
- high-mass star formation
- Astrochemistry
- Interstellar medium

Short CV:

2020-2022 MSc: Shanghai Astronomical Observatory

2022-present 3rd year PhD student: Shanghai Astronomical Observatory

2024-present visiting student in University of Cologne

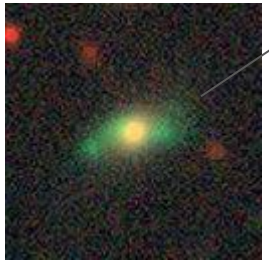


Arina Arshinova

The Special Astrophysical Observatory, Russia
Scientific supervisor: Moiseev A. V.

Scientific Interests:

AGN
optical spectroscopy
high energy astrophysics
polarization
statistical methods applications

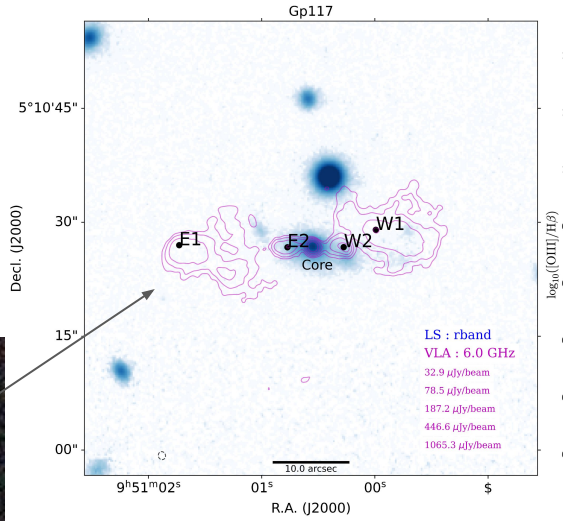


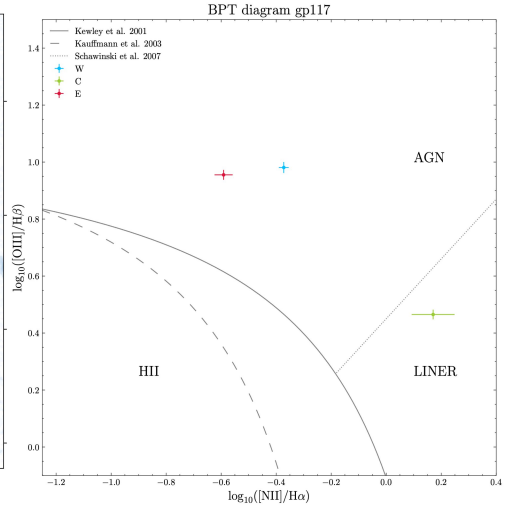
Brief CV:

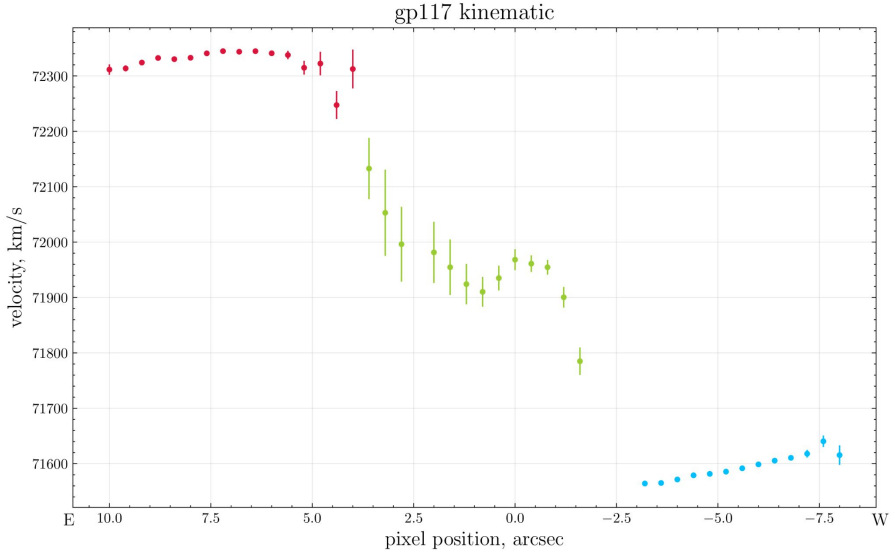
Specialist degree:
Mathematics & Mechanics Faculty,
Saint Petersburg State University

PhD:
1st year student
Laboratory of Spectroscopy and Photometry of Extragalactic Objects,
SAO RAS

arina.arshinova@gmail.com







Mehbuba Ahmed (Associate researcher, SSGI, Ethiopia) mehbubaahmad5@gmail.com

Current Project:

- Chemical abundances of type-2 AGN in different environments

Scientific Interests:

- Galaxy Formation & Evolution
- Active Galactic Nuclei (AGN)
- Intergalactic Medium
- Star Formation Rates & Feedback

Brief CV:

2023-present: Associate researcher, SSGI
2021-2023: Msc in Astrophysics from Addis Ababa University, Ethiopia
2020: Graduate Assistant Lecturer Dire Dawa University (DDU), Ethiopia
2017-2019: B.s. in physics from DDU,

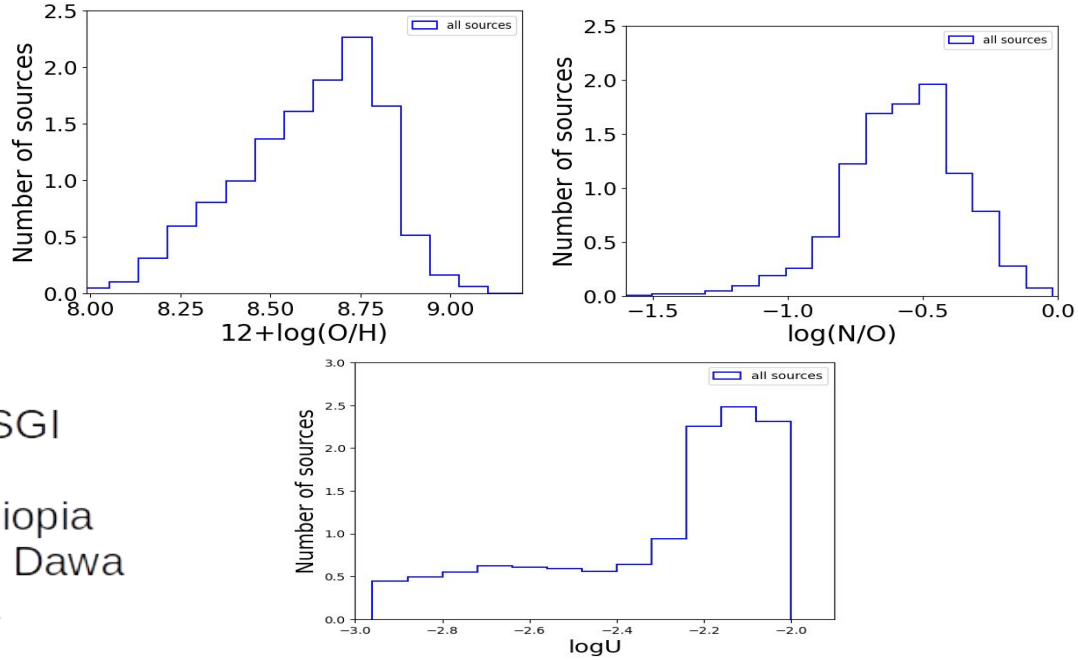
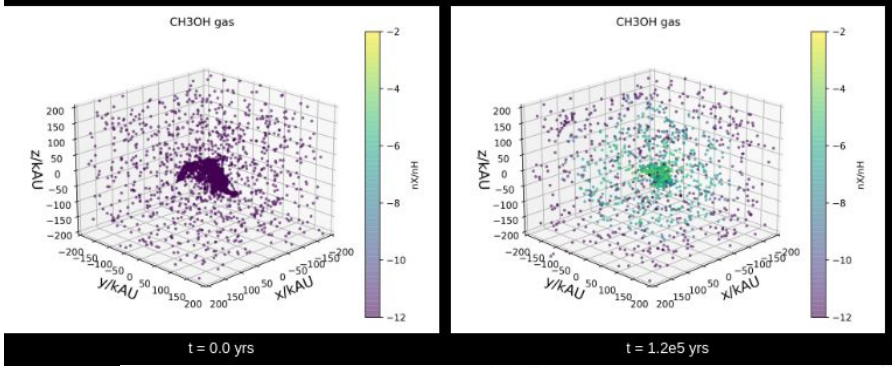
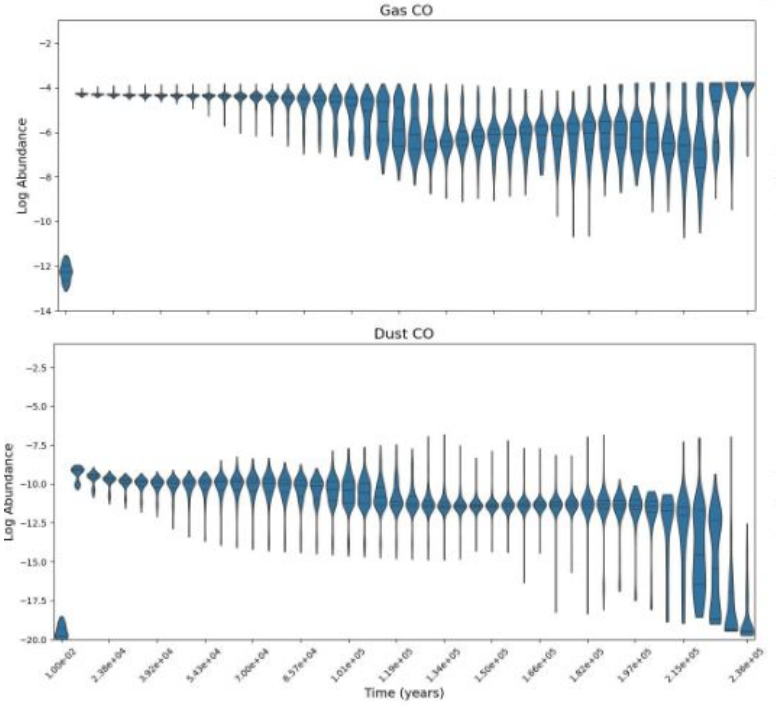


Fig. Derived parameters from SDSS DR8 using HCM-Code

Akash Gupta

- Main interests:
  - Post-processing MHD simulations of high-mass star formation: using tracer particles
  - Astrochemical modeling
- Side Interests:
  - IR astronomy
  - Star clusters





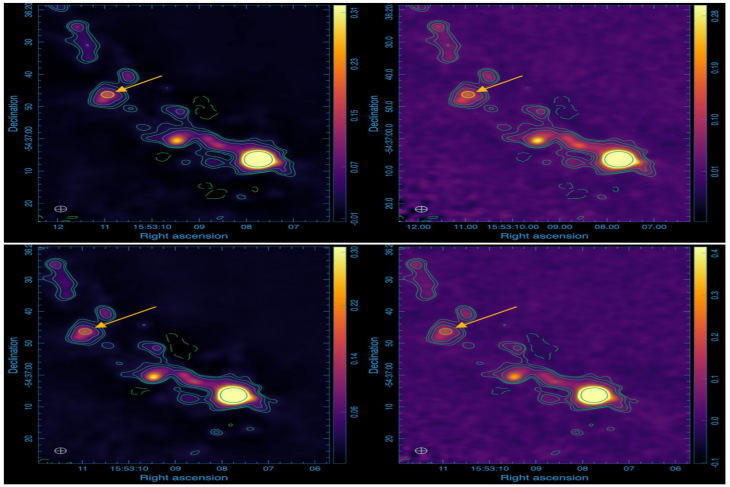
2024 - :PhD Student at 1. Institute of Physics, University of Cologne/MPIfR
Advisor: Prof. Dr. Peter Schilke

MSc Astrophysics: Ludwig Maximilians University Munich
Master thesis work at ESO, Garching
Advisors: Valentin Ivanov (ESO), Thomas Preibisch (LMU)

Vishalika Sharma, University of Cologne, Germany

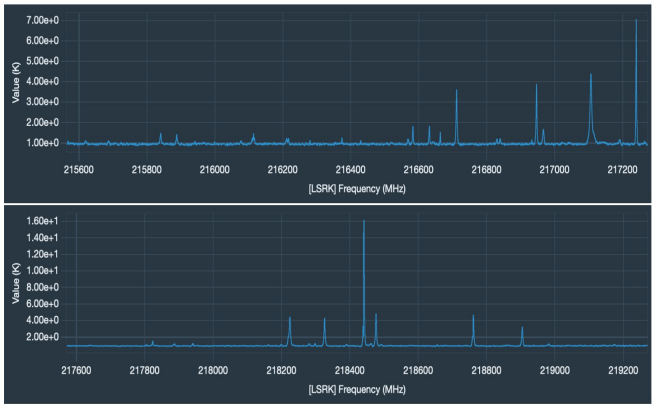
vsharma@smail.uni-koeln.de

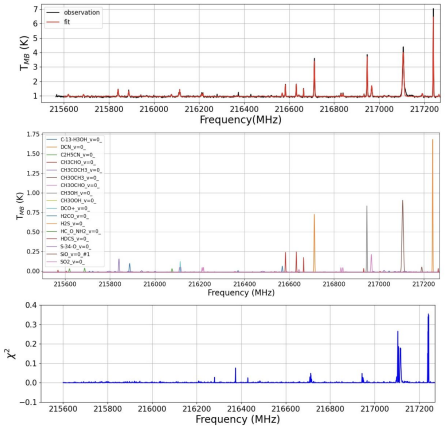
- Master's student at the *University of Cologne*
- Upcoming thesis at the *Max-Planck-Institut für Radioastronomie*, *Bonn*
  Supervisor : Prof. Dr. Amélie Saintonge



Research interests

- Galaxy Evolution in the Local Universe
- Multi-Wavelength Observations of the ISM
- Star Formation Efficiency & Quenching
- Molecular Gas in Galaxies





Brief CV

- Spectroscopic analysis of a star-forming core in G327.3-0.6
- Modelling binary stars
- IFU with MUSE data
- Studying open clusters with GAIA DR3 data

Eleonore Dann (University of Cologne, MPIfR)

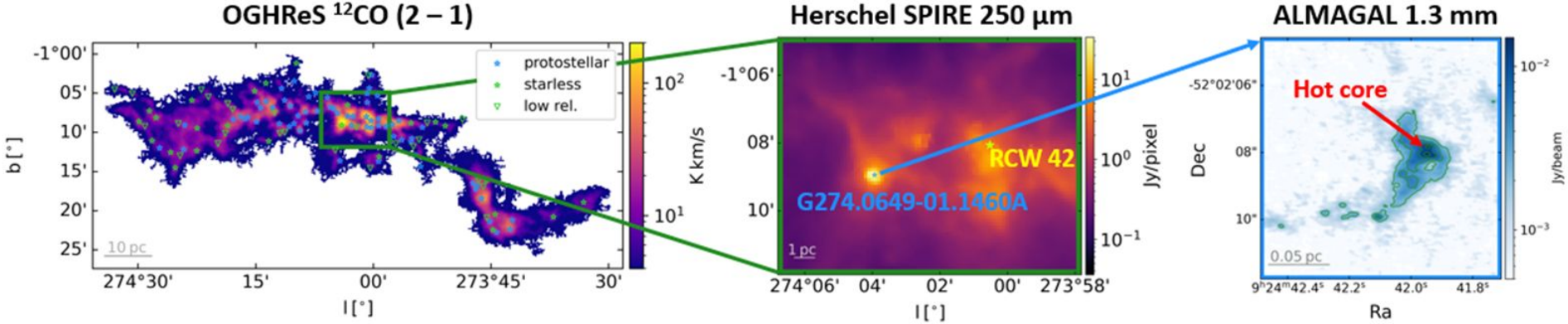
dann@ph1.uni-koeln.de

Research interests:

- Star formation in the outer Galaxy/low metallicity environments
- Stellar feedback
- Connecting core, clump and cloud scales

Brief CV:

- since 11.2023: PhD student, University of Cologne
- 09.2023: MSc Physics, University of Cologne
- 06.2022 – 09.2023: Master thesis research at the MPIfR, Bonn
- 09. 2019: BSc Physics, University of Potsdam



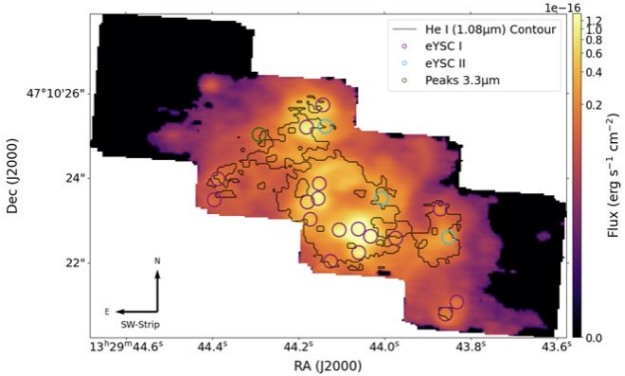
Linn Roos, MPIfR Bonn, Germany

Supervisor: Amélie Saintonge
linn_roos@outlook.com

Scientific Interests

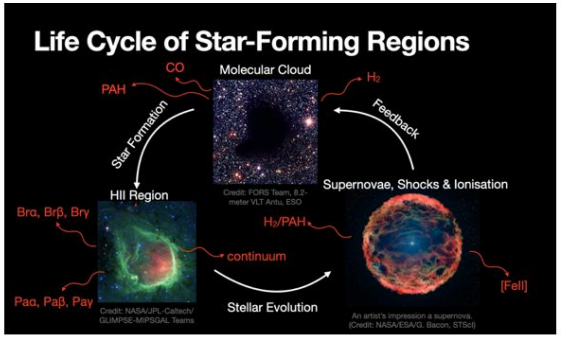
- Galaxy Formation & Evolution
- Star Formation
- Baryon Cycle

M51 (NASA/ESA)



Brief CV

- BSc in Astronomy: University of Vienna, Austria (2019-2023)
- MSc in Astronomy: Uppsala University, Sweden (2023-2025)
- Research intern at ESA, Netherlands (2024)
- PhD: MPIfR Bonn, Germany (starting September)



Hans-Christian Poosch, 2nd year PhD Student

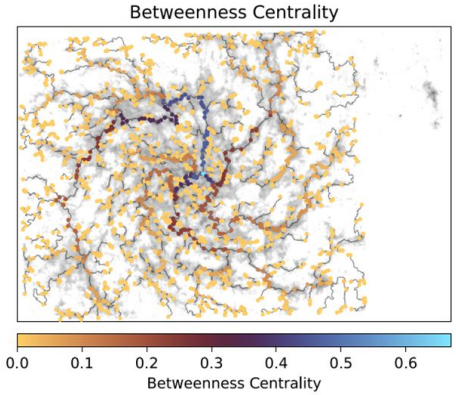
hcpoosch@mpe.mpg.de

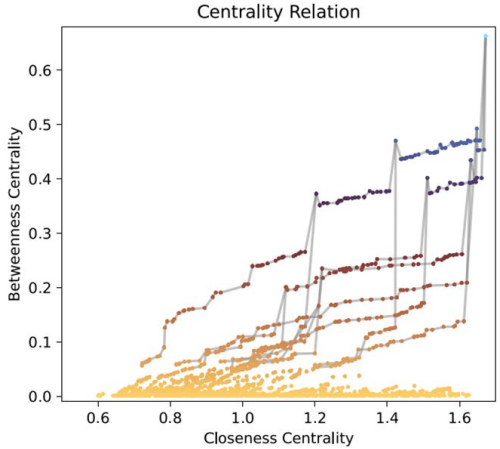
Scientific Interests:

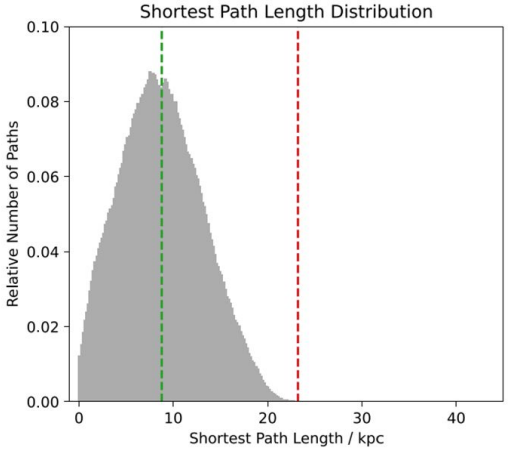
- ★ Molecular Gas Filaments
- ★ Galaxy Morphology
- ★ Galactic Structure Formation

Brief CV:

- ★ BSc Physics: University of Rostock
- ★ MSc Astrophysics: University of Munich
- ★ PhD: Max Planck Institute for Extraterrestrial Physics







MAX-PLANCK-INSTITUT
FÜR EXTRATERRESTRISCHE PHYSIK

LMU LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN

Tilman Oelgeschläger
(Max-Planck Institute for Astrophysics, Garching)

Scientific interests:

- Gas kinematics
- Environmental effects on galaxy evolution
- Statistical studies of galaxy populations
- Optical spectroscopy

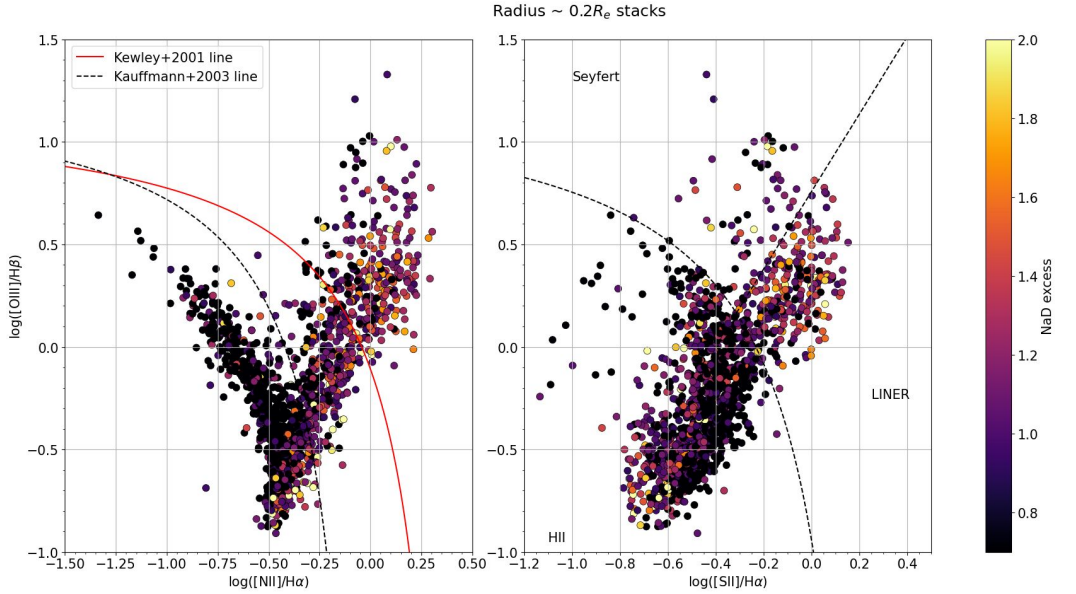
Working on:

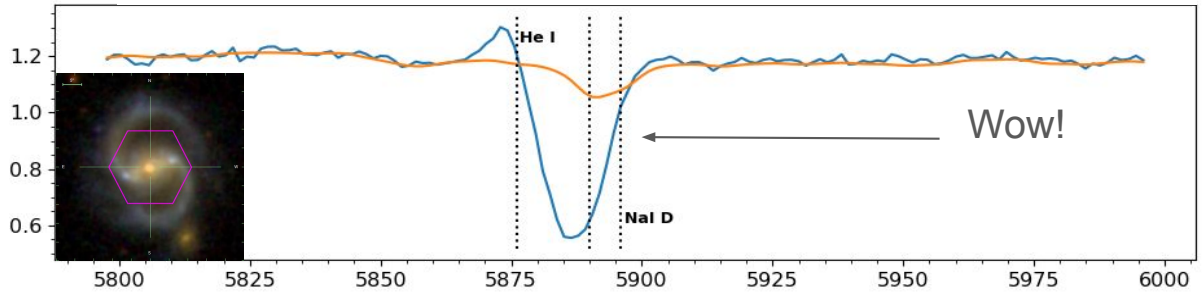
- Tracers of different gas phases in MANGA IFU data, looking for outflows (and inflows?)

Brief CV:

- Bachelors, Masters @ University of Cape Town, South Africa
- 1st year PhD @ MPA Garching, (2024-?)

e-mail: tilmano@mpa-garching.mpg.de





UC San Diego

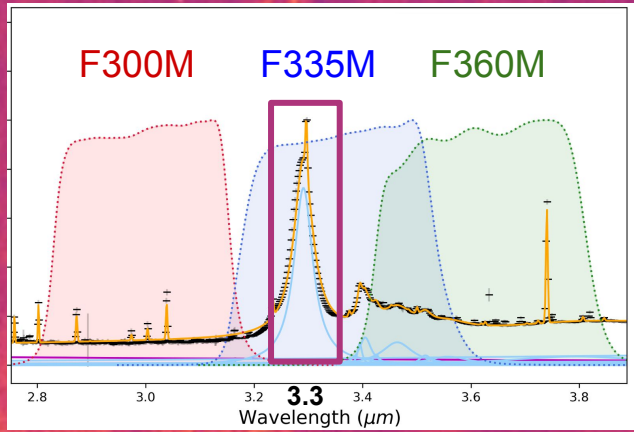
Hannah Koziol (she/her)

Advisor: Karin Sandstrom

PHANGS

Scientific Interests:

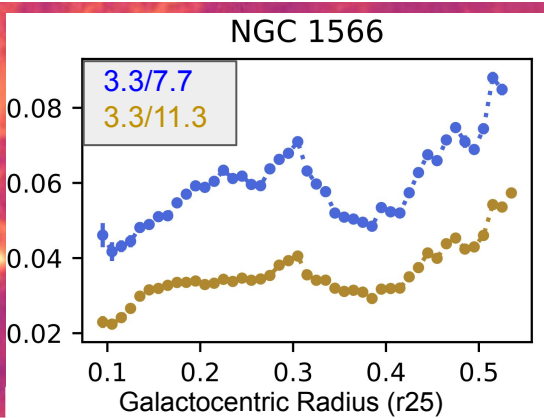
- Dust life-cycle in ISM
- Polycyclic aromatic hydrocarbons (PAHs)
- Photometrically mapping the 3.3 μm feature with JWST
- Comparing to dust models to measure charge and size distribution of PAH populations



Brief CV:

- 2022-present - PhD at UCSD
- 2018-2022 - BSc in physics at University of Connecticut

Email: hkoziol@ucsd.edu



Lindsey Hands (she/her)

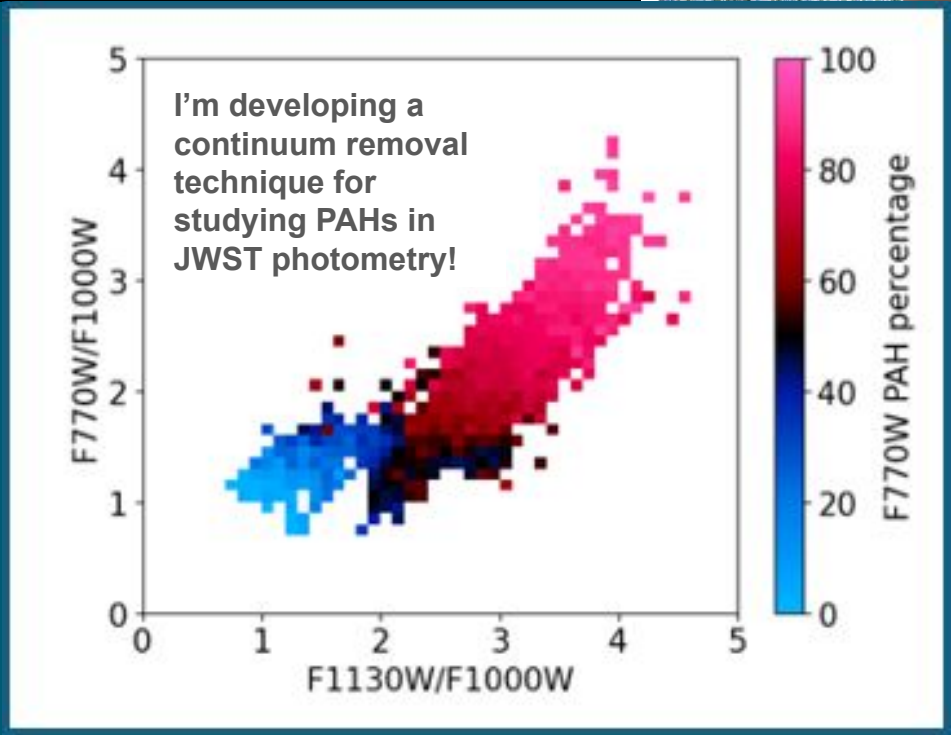
University of California, San Diego
PI: Karin Sandstrom

Scientific interests

- PAHs!
  - Polycyclic Aromatic Hydrocarbons
- JWST photometry
- Nearby Galaxies (PHANGS)

Brief CV

- Mount Holyoke College Bachelors
  - (2018 - 2022)
- UC San Diego PhD
  - (2022 - present)



Enikő Pichler, Masters student

Eötvös Loránd University, Hungary

Project supervisor: Professor L. Viktor Tóth

ELTE | TTK

Scientific interests:

- Irregular dwarf galaxies
- Stellar feedback
- Interstellar turbulence

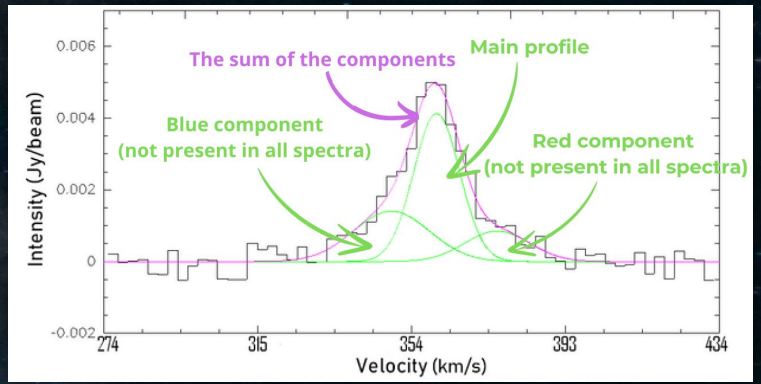
LITTLE THINGS (red)

Sloan Digital Sky Survey

My project:

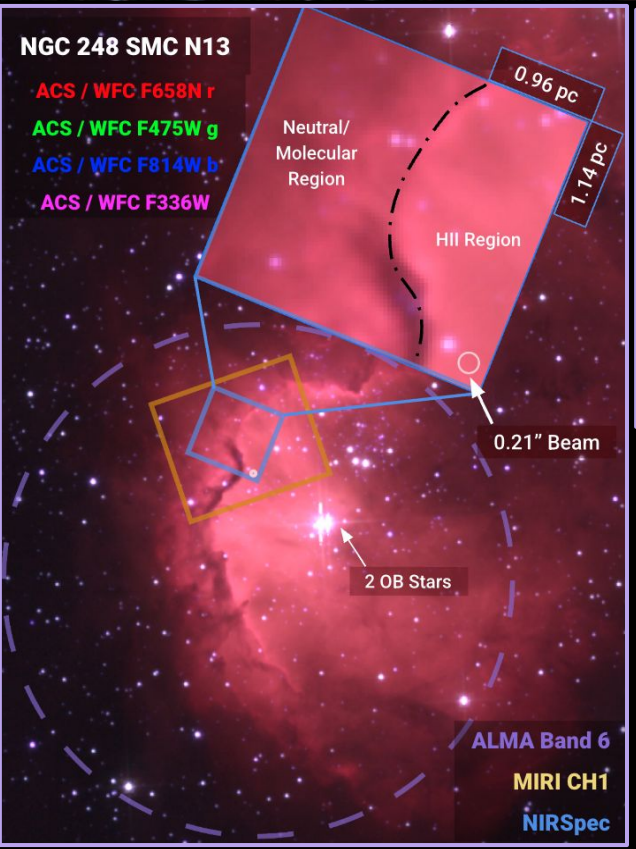
- HI line analysis of nearby dwarf galaxy DDO 43
- Connect line properties to turbulence and star formation tracers

Recent favourite plot:



Ilyse Clark (She/Her)

4th Year Graduate Student - University of California, San Diego



Scientific Interests:

- Photodissociation Regions (PDRs)
- Low Metallicity Environments
- Galaxy Evolution

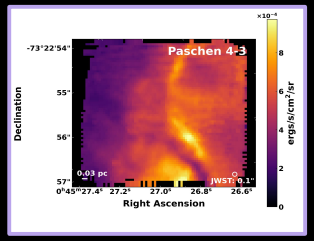
Brief CV:

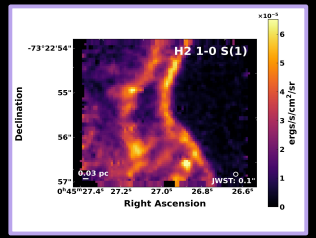
BS Astronomy, BS Physics - University of Texas at Austin (2018-2022)

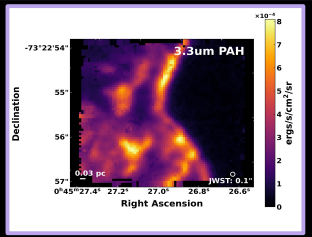
- Optical & UV Galaxy Properties with HST COS, PI: Danielle Berg

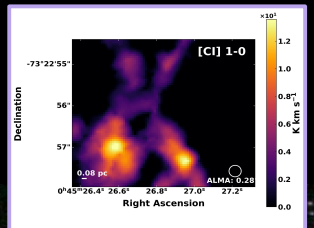
PhD in Astrophysics - University of California, San Diego (2022-Present)

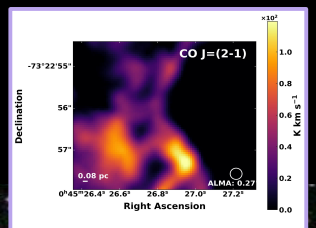
- SMC N13 PDR Analysis with JWST and ALMA, PI: Karin Sandstrom

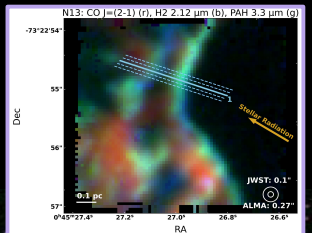












lyclark@ucsd.edu

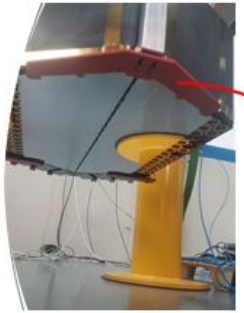
Pietro Ferraiuolo
Research Fellow (AdR) at
INAF - Arcetri Observatory (Florence)

Research interests

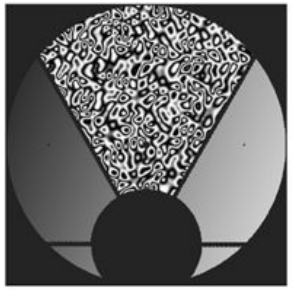
- Stellar system dynamics (GCs, Galaxies)
- Compact objects (BHs, SBHs, NS)
- Instrumentation and technologies for Astrophysics

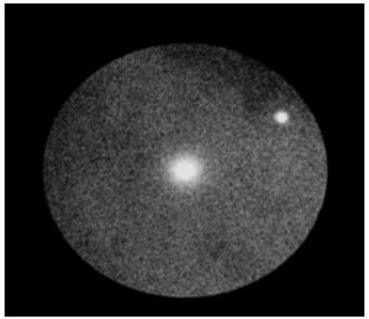
Main Projects

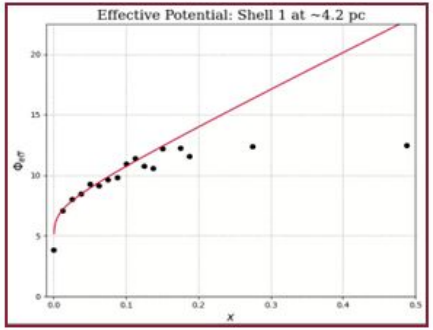
- E-ELT **M4** Deformable Mirror (2.6m Ø,1.5mm thickness)
- Globular Cluster's **internal dynamics** with GAIA
- ***BINCAT*** (PI): A catalogue of probable very close binary stars



Very soon...







pietro.ferraiuolo@inaf.it

Felix Wersig, 2nd Year PhD
TU Dortmund University

Scientific Interest:

- Dark Matter
- MAGIC Telescopes / Gamma Astronomy
- Cosmic Ray Propagation

Brief CV:

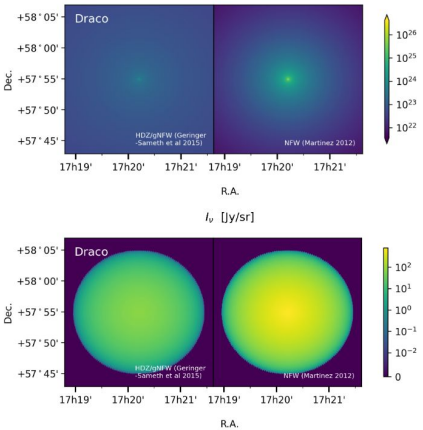
- 2023-Present PhD TU Dortmund
  - Dark Matter limits with LOFAR and MAGIC
- 2021 - 2023 M.Sc. Physics TU Dortmund
  - Variability of Crab Nebula at Very High Energies
- 2018 - 2021 B.Sc. Physics TU Dortmund

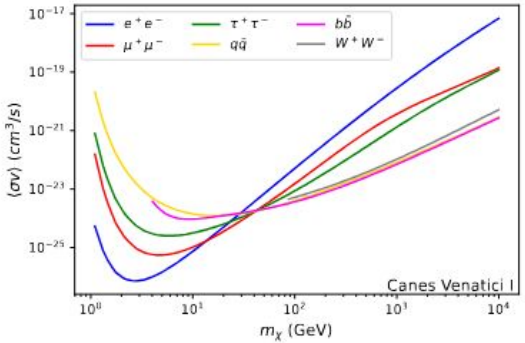
Current Project

- improve Particle DM limits with MAGIC and LOFAR
- dSph Galaxy data

MAGIC Telescopes (credit: Robert Wagner)

LOFAR Superterp (credit: astron)

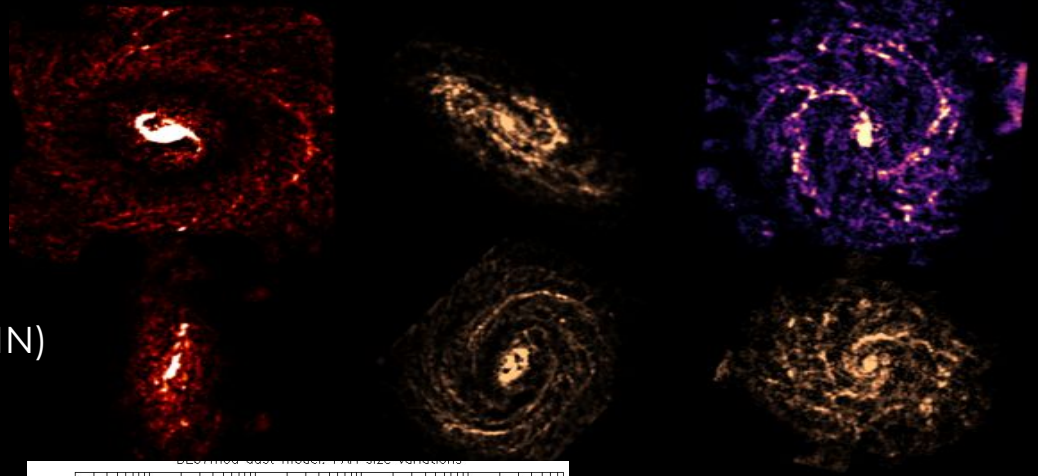




Figures taken from 2401.05255

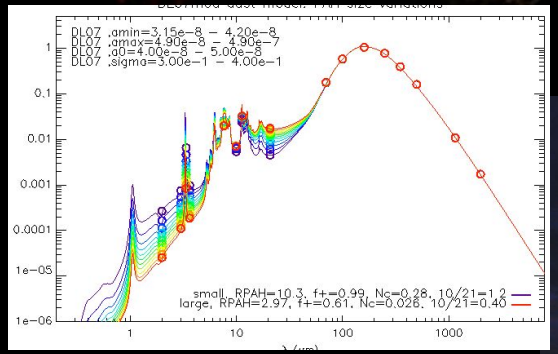
Annie Hughes, IRAP
(Toulouse, France)

annie.hughes@irap.omp.eu



Scientific Interests:

- Cold gas properties and organisation
- observations of ISM Nearby Galaxies (PHANGS, IMEGIN)
- Dust polarisation
- Magellanic Clouds
- Astronomy from balloons



Short CV:

PhD: 2011 from Swinburne Uni (Australia)
2011-2014 Postdoc MPIA (PAWS project)
2014-2016 Postdoc IRAP (PILOT project)
2016-present CNAP Junior Astronomer & DustEMWrap Scientist

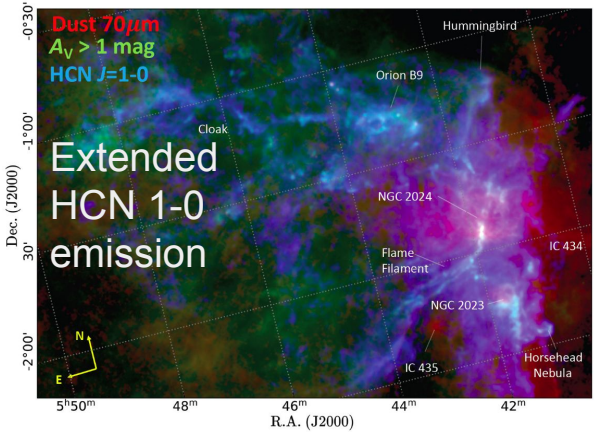
Miriam G. Santa-Maria

CO-ladder project:
contact person
(Javier arrives on Monday)

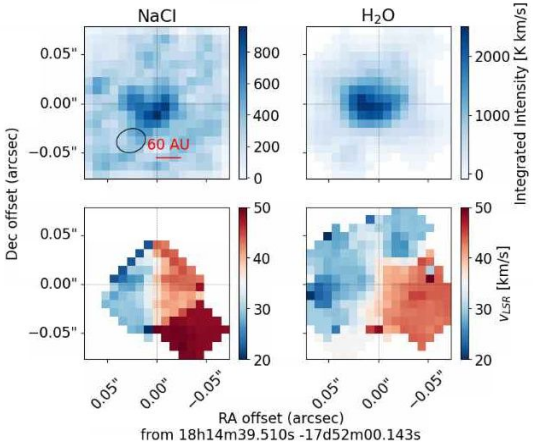
miriam.g.sm@csic.es

Scientific interests:

- Characterization molecular ISM gas:
  - Sgr B2, Brick & Sgr A* in the Galactic Center
  - Orion A & B in the Galactic disk
  - HMYSO disks: Salts & hot water.
- PDRs and Cosmic rays DRs.
- Microphysical processes:
  excitation and chemistry.



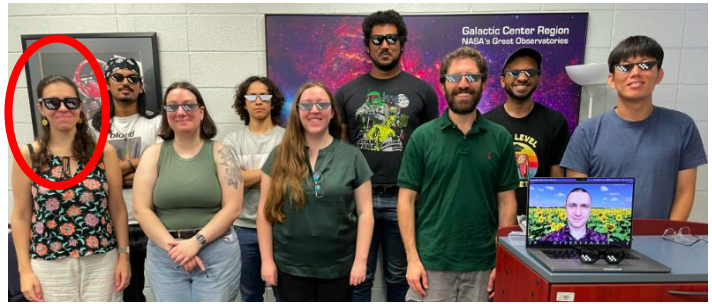
RGB image of a 5-square-degree area of Orion B GMC
(G. Santa-Maria, M., et al., 2023, A&A, 679, A4)



Confirmation NaCl and H_2O v=1 emission from W33A disk

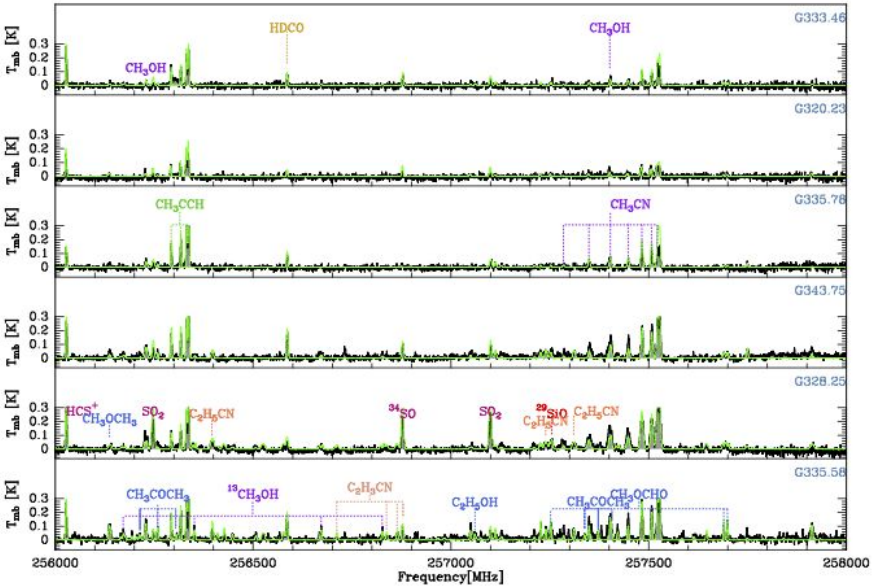
Brief CV

- 2018-2023: PhD in molecular astrophysics under Javier R. Goicoechea supervision (IFF-CSIC).
- Jan2024-May2025: Postdoc at U.Florida (Gators' land) in Adam Ginsburg's group.
- June2025-present: Postdoc at National observatory (OAN), Madrid.
- This fall (soon-ish): junior permanent position at IFF-CSIC.
- GISM2021: as student, online edition.



Laure Bouscasse (IRAM)

bouscasse@iram.fr

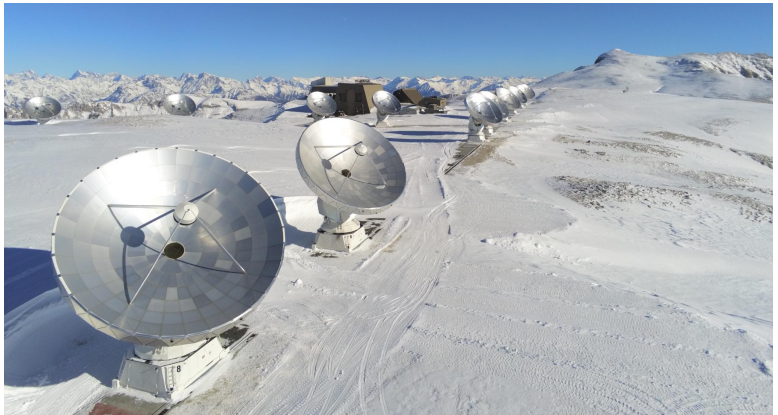


Scientific interests

- star formation
- observations
- data analysis

Brief CV

- 2017-2021: PhD in MPIfR (Bonn)
- 2021-2025: Postdoc at IRAM
- 2025-: Staff Astronomer at IRAM



COVER CREDIT X-ray: NASA/CXC/SAO; optical: Rolf Olsen; infrared: NASA/JPL-Caltech; radio: NRAO/AUI/NSF/Univ.Hertfordshire/M.Hardcastle

evangeli@iap.fr

Lorenzo Evangelista

Institut d'Astrophysique de Paris (France)

PhD (2nd year) - interstellar medium in active galactic nuclei

understanding the mechanisms of dissipation of the injected energy

JWST observations (MIRI - MRS) -> modeling of jet-driven shocks and radiative feedback

DANIELLE A BERG

ASSISTANT PROFESSOR

daberg@austin.utexas.edu

Mapping ionizing sources: Massive stars, HMXB, AGN, etc.

Extremely Metal-Poor Galaxies

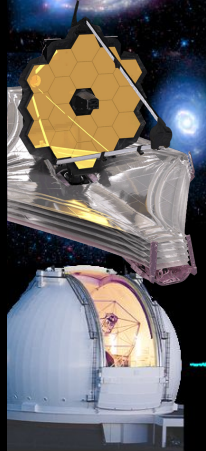
Dwarf Galaxies

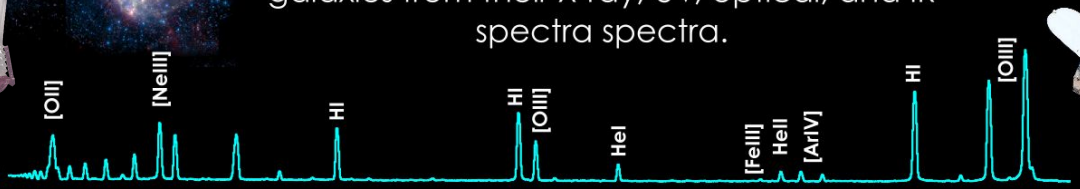
Distant Lensed Galaxies

Spiral Galaxies

Mapping extragalactic chemical evolution

My group bridges the understanding of local galaxies in our backyard with the first seeds of galaxies in the very distant and early universe. To accomplish this we use space- and large ground-based observatories to determine the chemical properties of galaxies from their X-ray, UV, optical, and IR spectra spectra.





Metals are created within stars and build up over time in galaxies with subsequent generations of star formation and can be identified by their spectra.