

GISM2 Summer School – Introduction

Frédéric GALLIANO & Karine DEMYK
on behalf of the organizing committee

Banyuls-sur-mer, France

July 25, 2023



Scientific Motivations – Why Are We Here?

Importance of the *InterStellar Medium* (ISM)

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- Galaxy evolution

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- ISM \simeq Milky Way
- Extragalactic ISM < Intragalactic ISM



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Contemporary open questions

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- How to apply knowledge of Galactic ISM to other galaxies?

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- Peculiarity of the ISM of the Milky Way?

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Contemporary open questions

- How to apply knowledge of Galactic ISM to other galaxies?
- Peculiarity of the ISM of the Milky Way?
- Concepts to bridge the gap in angular resolution b/w the Milky Way & external galaxies?

Training the next generation of ISMologists

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- 1 Acquire a holistic knowledge of the field:
 - Observations, models and simulations;
 - Elementary physical processes and how to combine them;
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- ③ Create personal links b/w participants & with speakers:
 - Networking & collaborations;
 - Kick-starting projects;
 - Potential job perspectives.

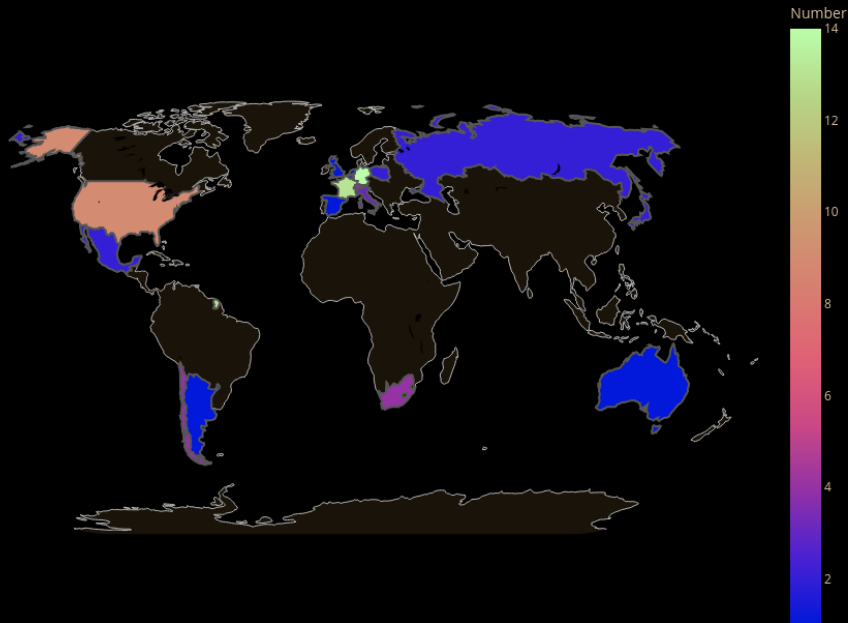
Scientific Motivations – Training Objectives

Training the next generation of ISMologists

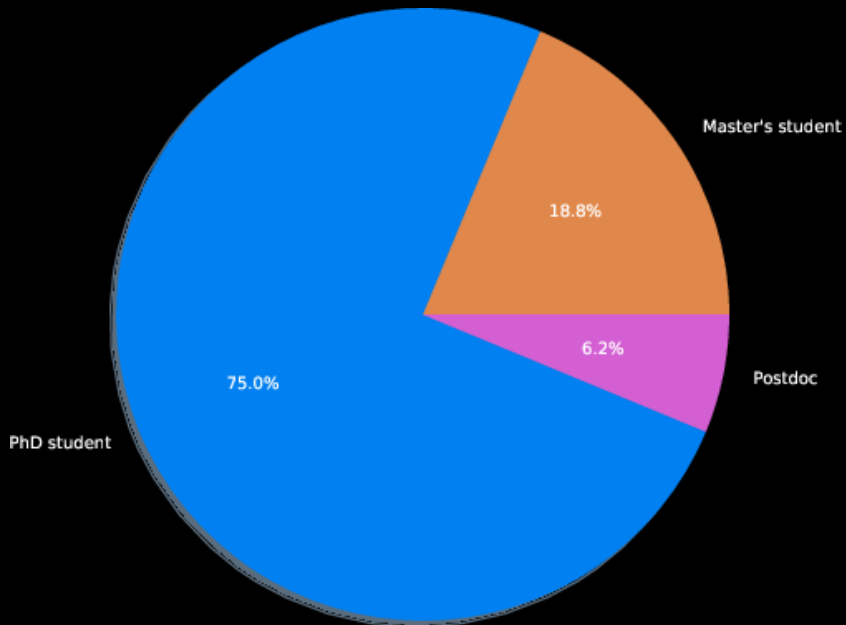
- 1 Acquire a holistic knowledge of the field:
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- 2 Acquire some technical skills.
- 3 Create personal links b/w participants & with speakers:
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- 4 Do not forget to have fun...



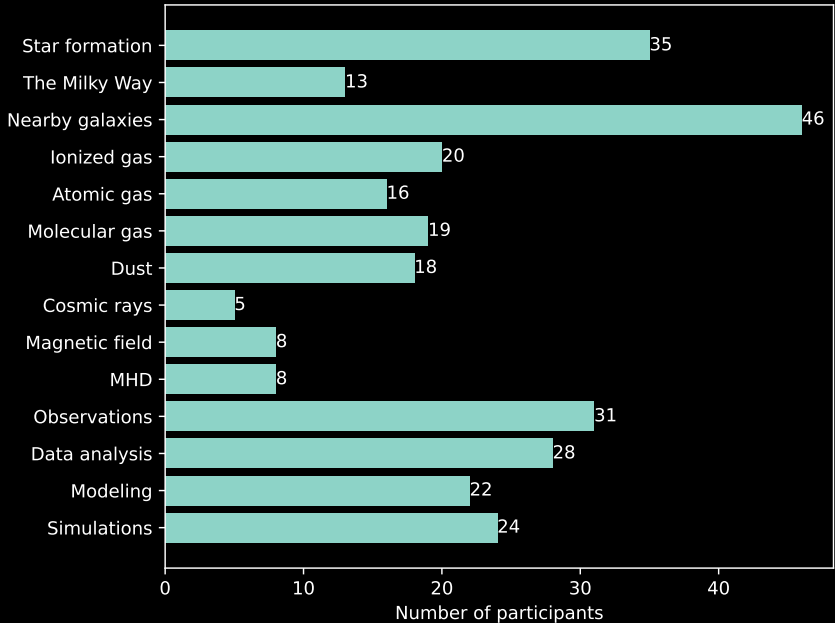
The Audience – Country of Institution of Everyone Here



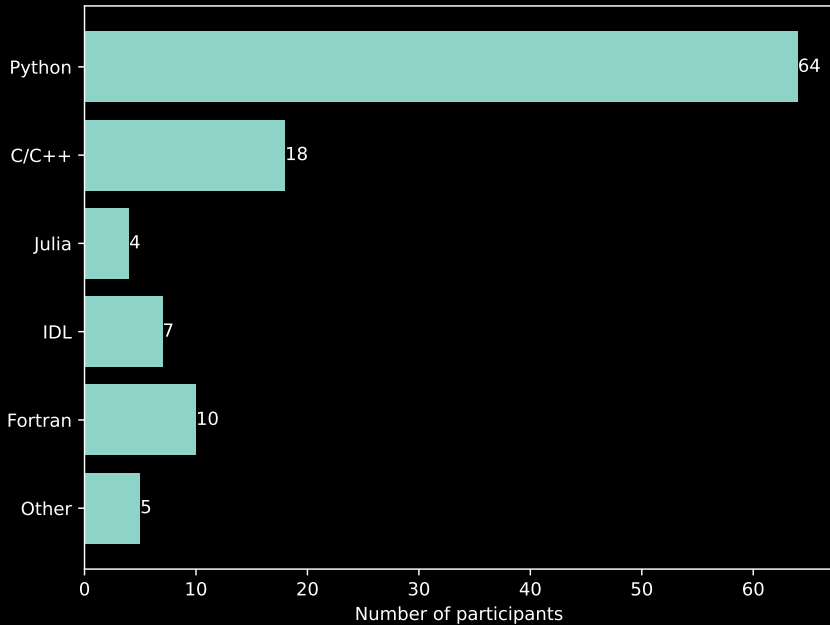
The Audience – Participant's Current Academic Level



The Audience – Scientific Interests



The Audience – Coding Experience

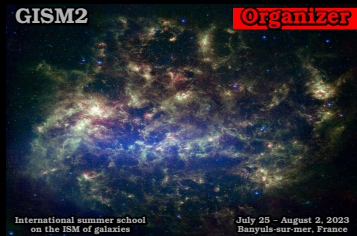


Logistics – The School Program

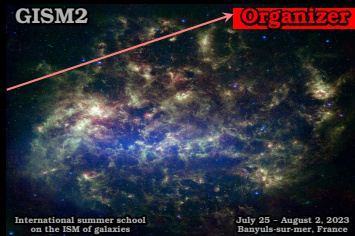
	7/25	7/26	7/27	7/28	W-E	7/31	8/1	8/2	
08:30			Round table 1	Lecture 7		Lecture 9	Lecture 12	Round table 3	
09:30	Lightning	Lightning							
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18:00	Cocktail	Break				Break			
19:30	Dinner					Dinner			

Logistics – The Organizing Committee

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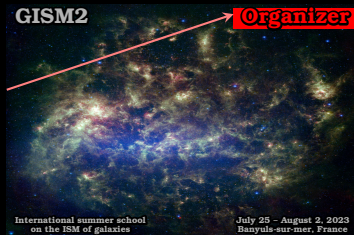


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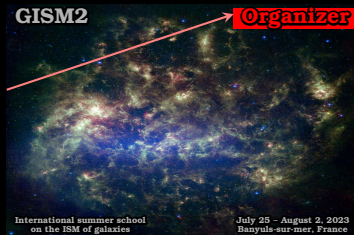
Present



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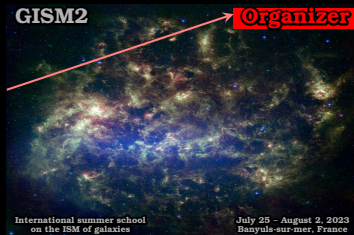
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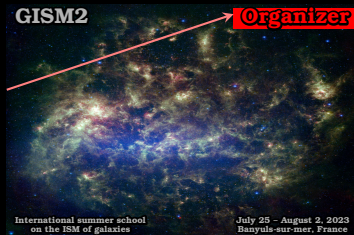
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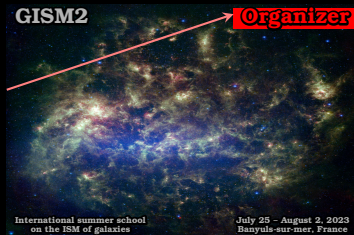
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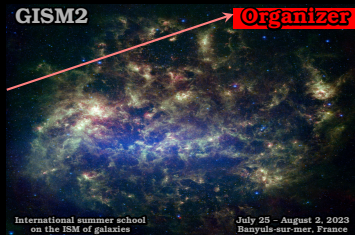
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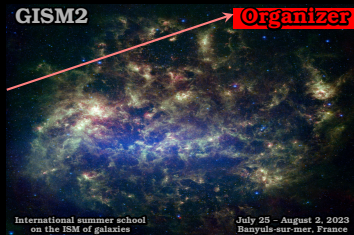
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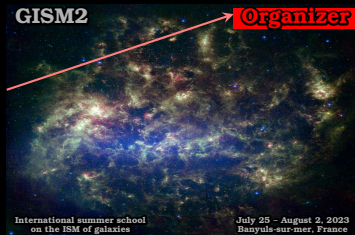


Yohan DUBOIS

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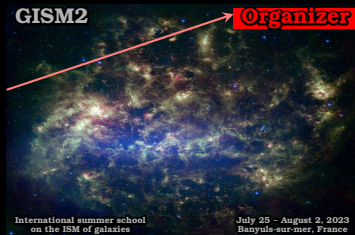


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Excused



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Eva SCHINNERER

Logistics – The Sponsors (1/2)

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Irfu

Institut de recherche
sur les lois fondamentales
de l'Univers

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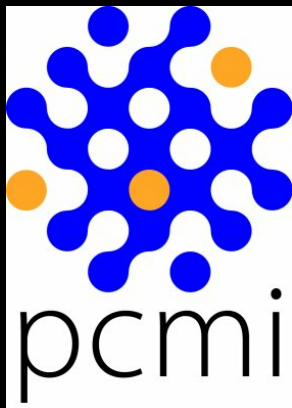


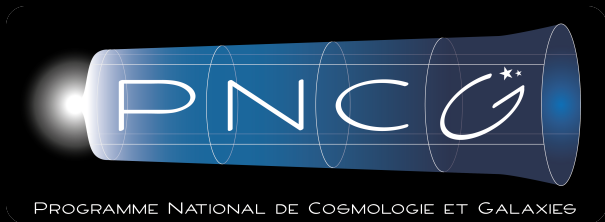
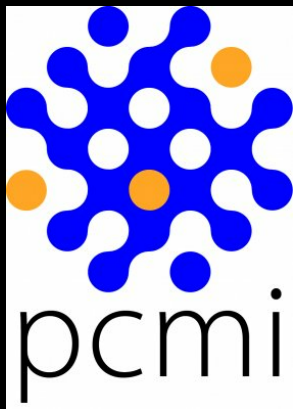
UNIVERSITÉ
TOULOUSE III
PAUL SABATIER



Université
de Toulouse

Logistics – The Sponsors (2/2)





DAOISM

Hands-on – Objectives

Goals:

- To teach you a particular set of skills related to the school science
- To create links between students and advisers
- To encourage discussions between participants that could lead to new projects and collaborations

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-
- Nine projects
 - Tutored by speakers, organisers and some school participants
 - 4 to 8 students per project

Hands-on – Break-Out Rooms

P1	Numerical simulations of Shocks and Instabilities Using the RAMSES Code	Eva Ntormousi Pierre Lesaffre	Bât. A room TP1
P2	Cloudy Hans-On : Emission lines	Patrice Theulé	Bât. B meeting room
P3	Cloudy Hans-On : Absorption lines	Hsiao-Wen Chen	Bât. A room TP1
P4	Spectrophotometric Modelling of Galaxies and AGNs	Yannick Roehly Patrice Theulé Daniel Dale	Bât. B meeting room
P5	The Spatially-Resolved Dust Properties of Nearby Galaxies	Frédéric Galliano Lara Pantoni	Bât. A room TP2
P6	Millimeter Rotational Lines as Powerful Diagnostics of the Physical Conditions Inside Giant Molecular Cloud - The Orion B case	Jérôme Pety Antoine Zakardjian	Bât. A room TP3
P7	Combining 1D Models with MULTIGRIS	Vianney Lebouteiller	Bât B. Amphi
P8	Star-Formation Efficiency & Timescales : Globally to 100 pc Scales	Brent Groves Mélanie Chevance	Bât. A room TP2
P9	Using JWST NIRCAM and MIRI Photometry to Probe the Physical State of PAHs in the ISM of Nearby Galaxies	Karin Sandstrom Jessica Sutter	Bât. A room TP3

Hands-on – Schedule

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Working on the projects:

- Meeting with advisors is only part of the session
- You are supposed to work by ourselves
- Find the best organisation to work : split tasks, work together...

Presentation of the work done:

- Wednesday, August 2, 2:15 - 4:15 pm
- 12 minutes in total , including questions, *i.e.* \simeq 10 minutes talk maximum
- The presentation may be made by several team members
- From P1 to P9
- Prepare a pdf file to send in advance