GISM3 Summer School – Introduction

Frédéric GALLIANO
on behalf of the organizing committee

Banyuls-sur-mer, France

July 22, 2025

Importance of the *InterStellar Medium* (ISM)

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- ISM $\simeq$ Milky Way
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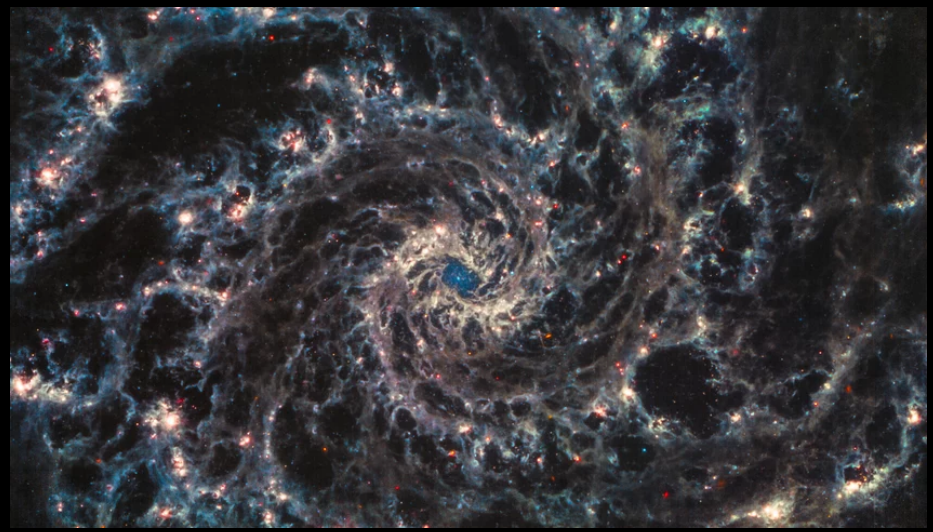

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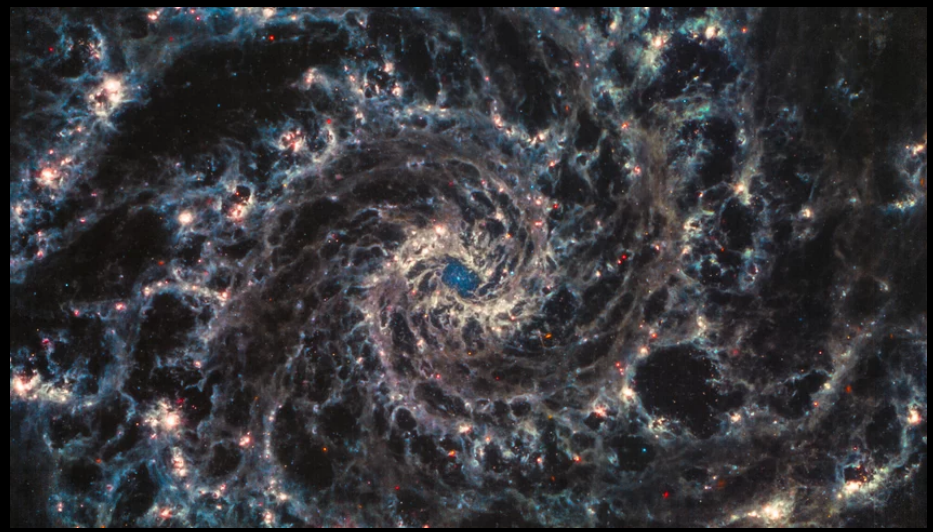

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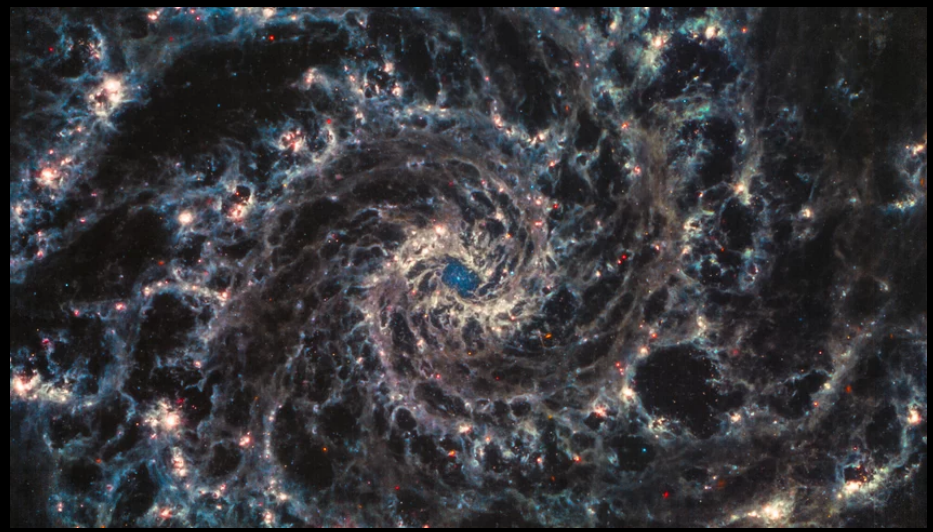

Contemporary open questions

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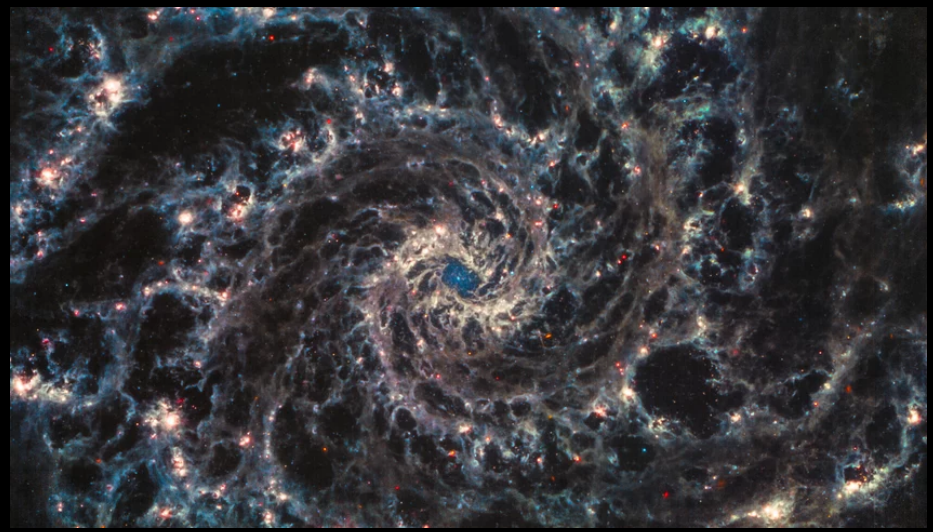

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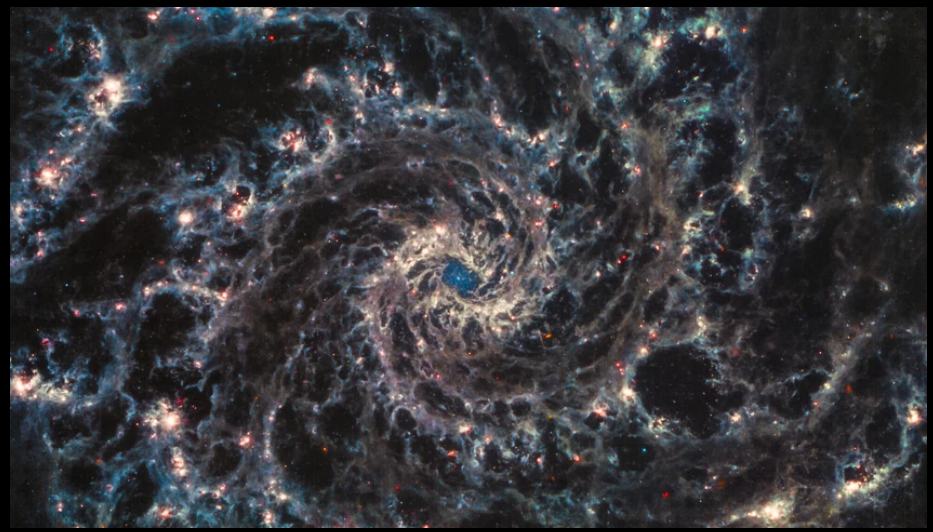

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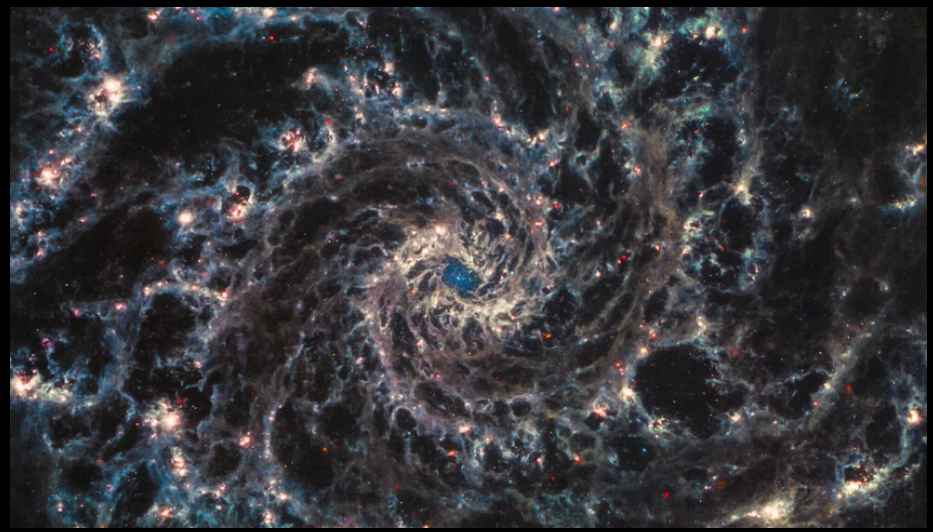

Contemporary open questions

- 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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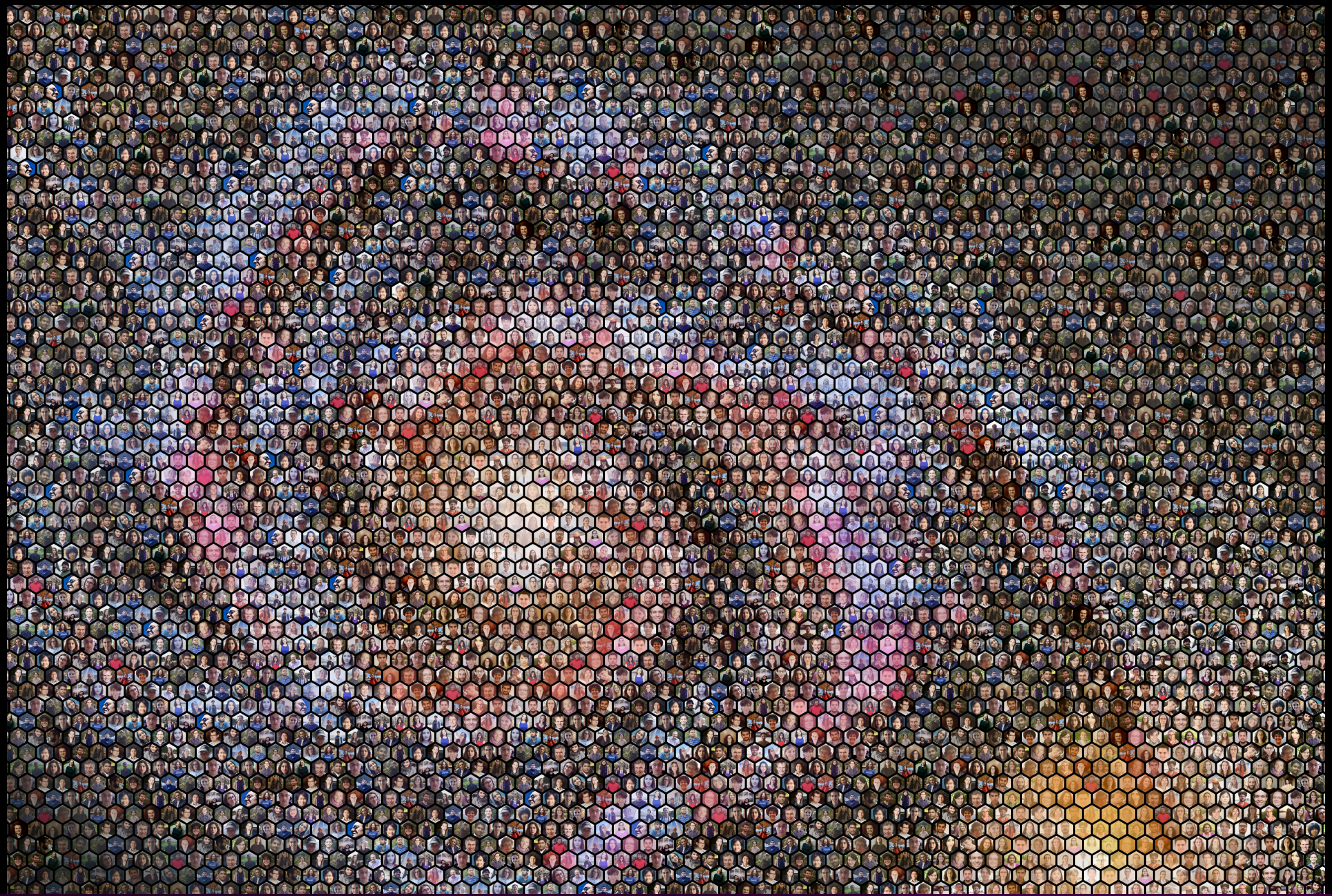
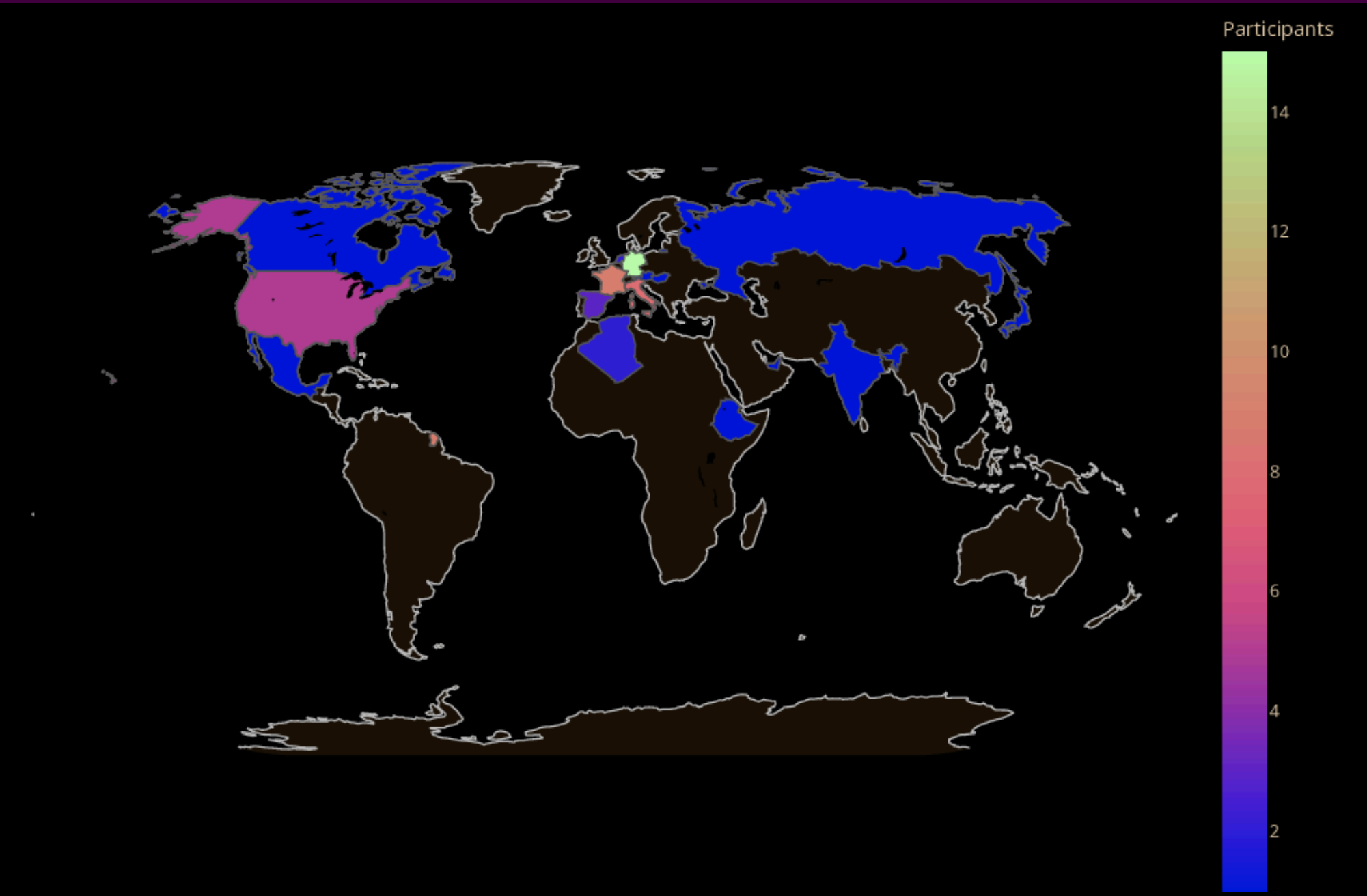
4. Do not forget to have fun...

A Series of Summer Schools | GISM (2021)

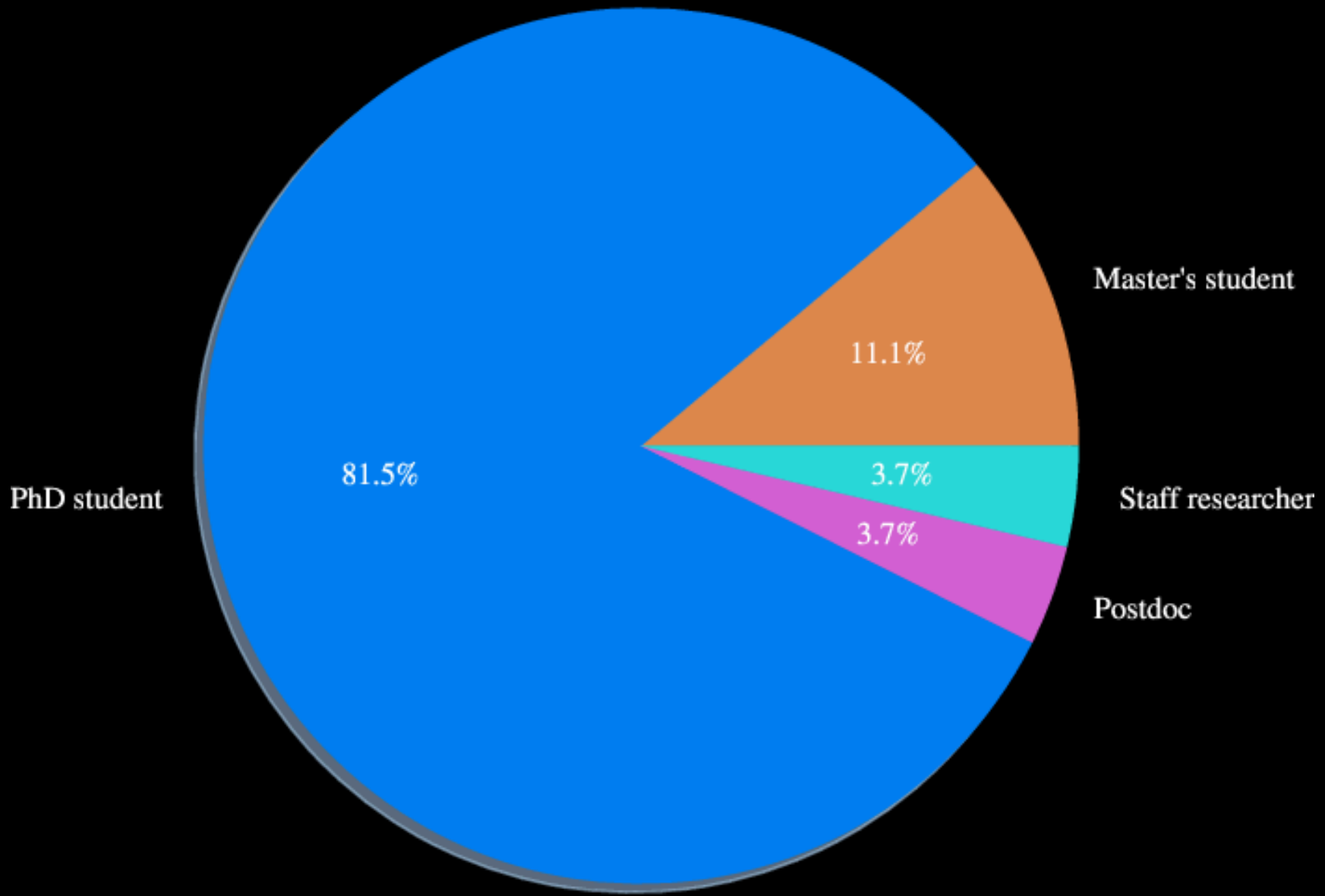


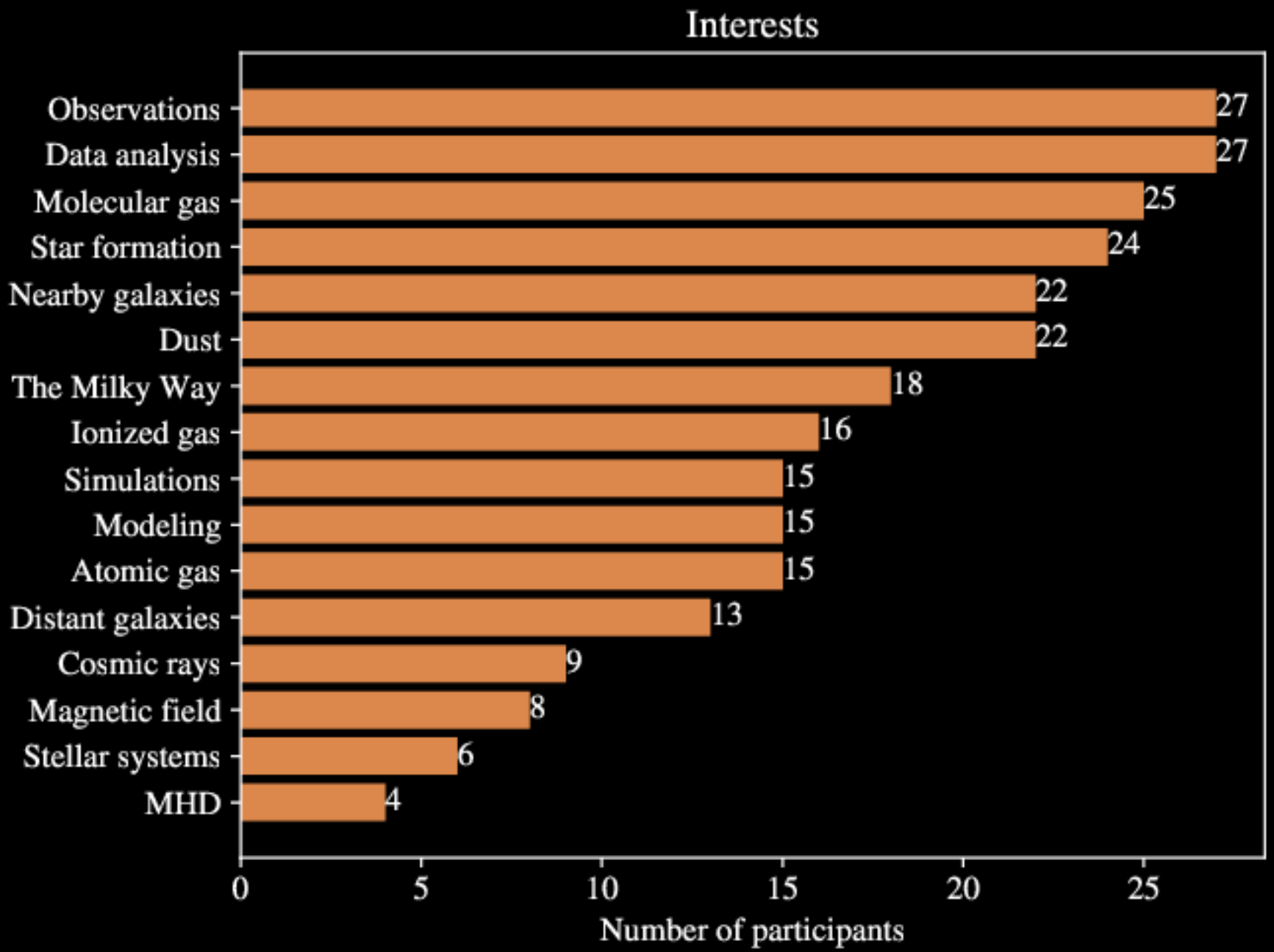
$\Rightarrow$ focus on the nearby Universe.

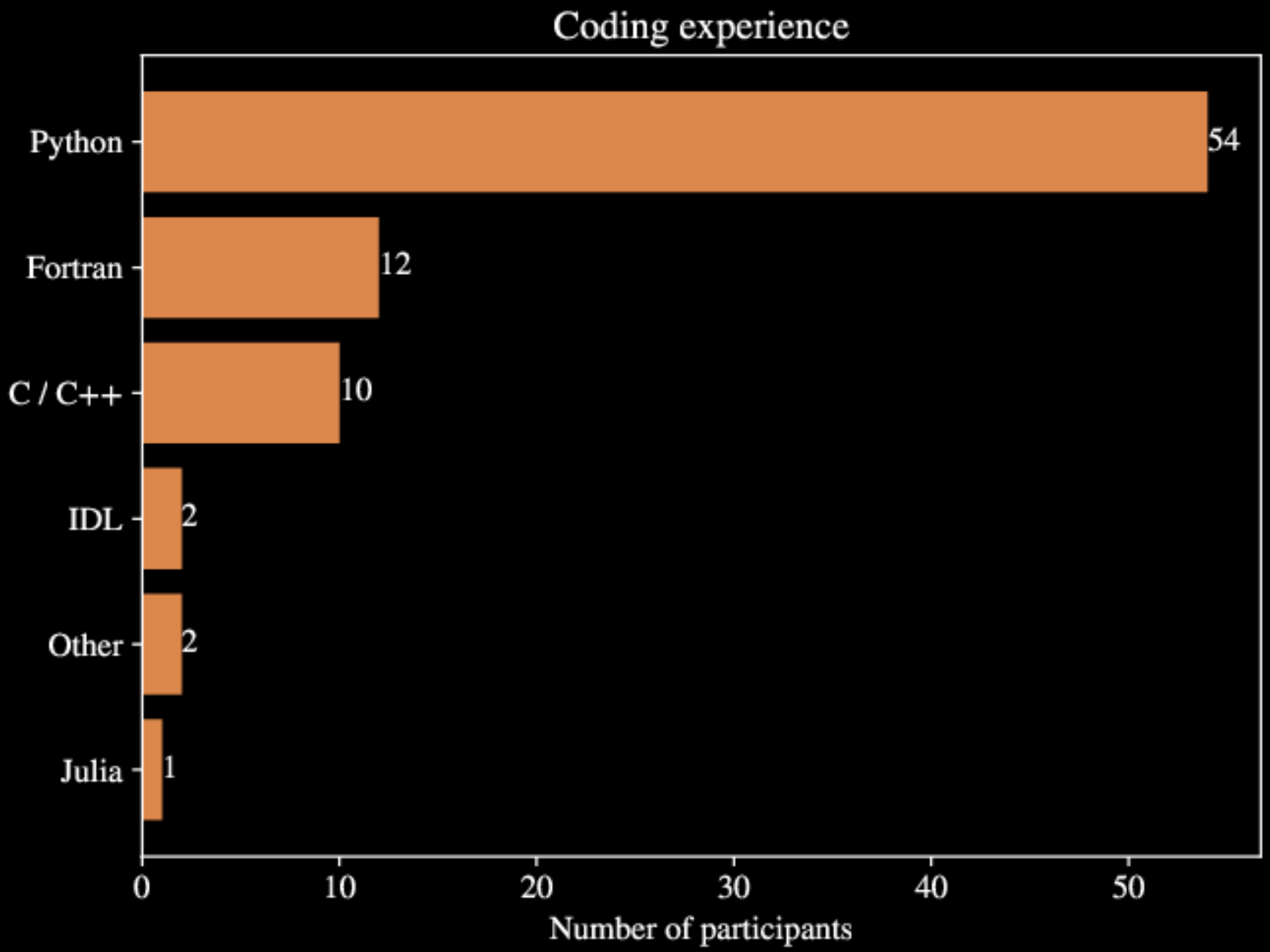
The GISM3 Audience | Country of Institution of Everyone Here

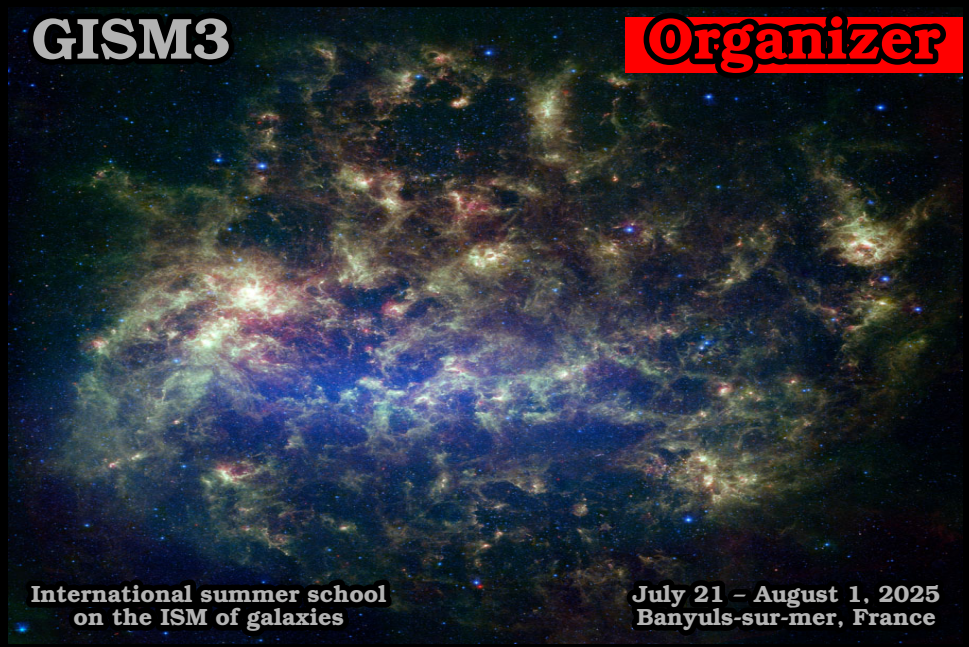


The GISM3 Audience | Participant's Current Academic Level



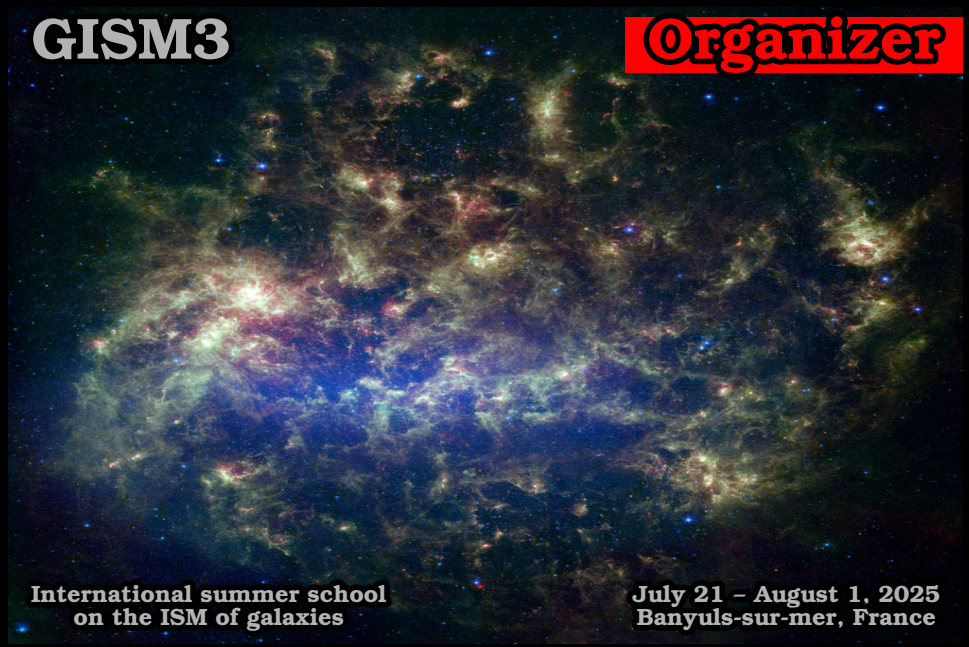

Interests
Observations
Data analysis
Molecular gas
Star formation
Nearby galaxies
Dust
The Milky Way
Ionized gas
Simulations
Modeling
Atomic gas
Distant galaxies
Cosmic rays
Magnetic field
Stellar systems
MHD
27
27
25
24
22
22
18
16
15
15
15
13
9
8
6
4
0
5
10
15
20
25
Number of participants


Coding experience
Python
Fortran
C / C++
IDL
Other
Julia
54
12
10
2
2
1
0
10
20
30
40
50
Number of participants


GISM3
Organizer
International summer school
on the ISM of galaxies
July 21 – August 1, 2025
Banyuls-sur-mer, France

Present members

- Frédéric GALLIANO



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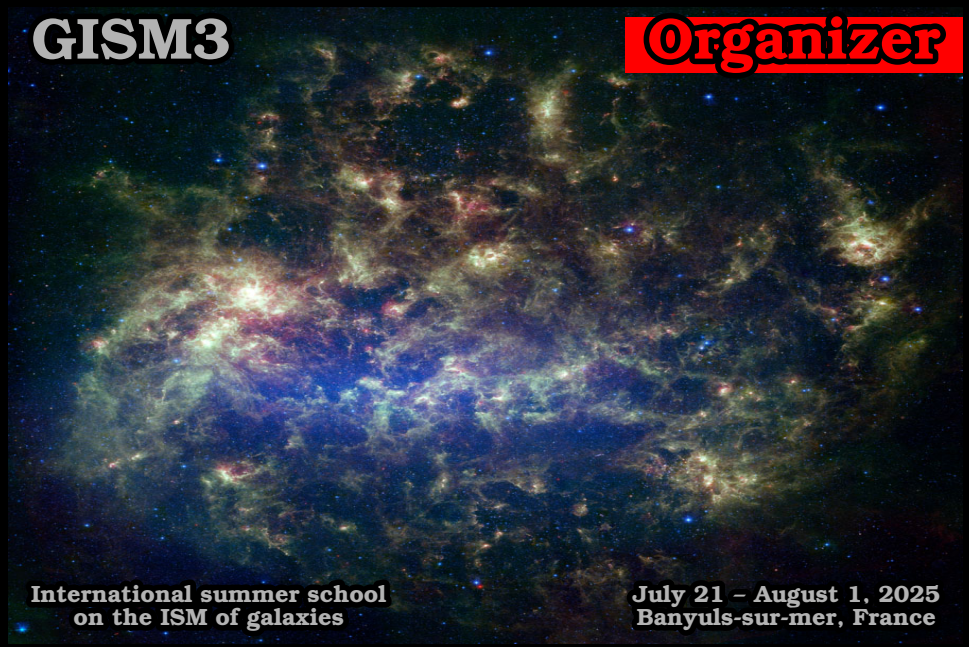

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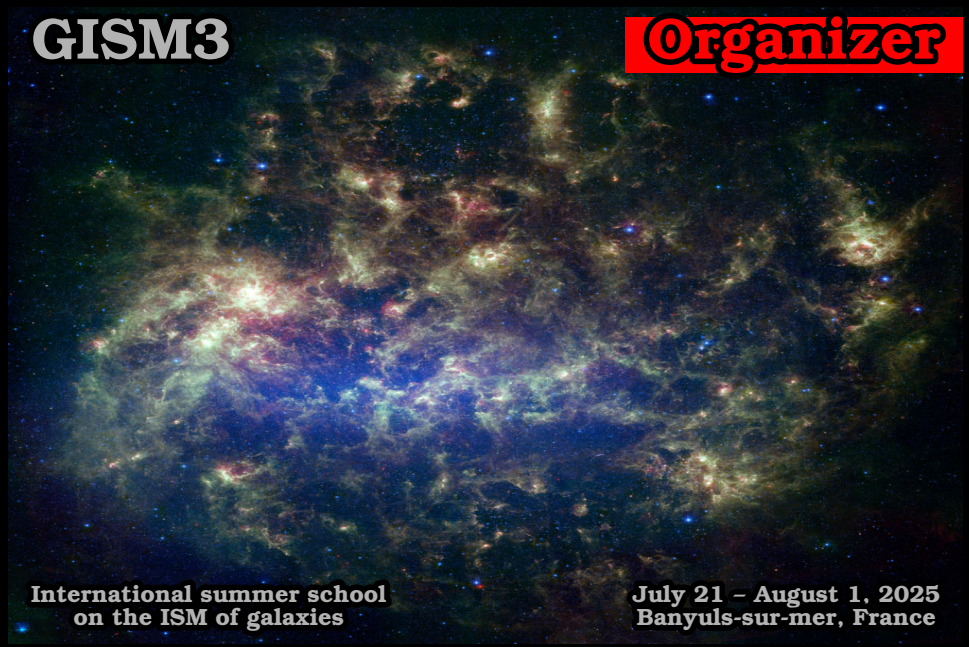

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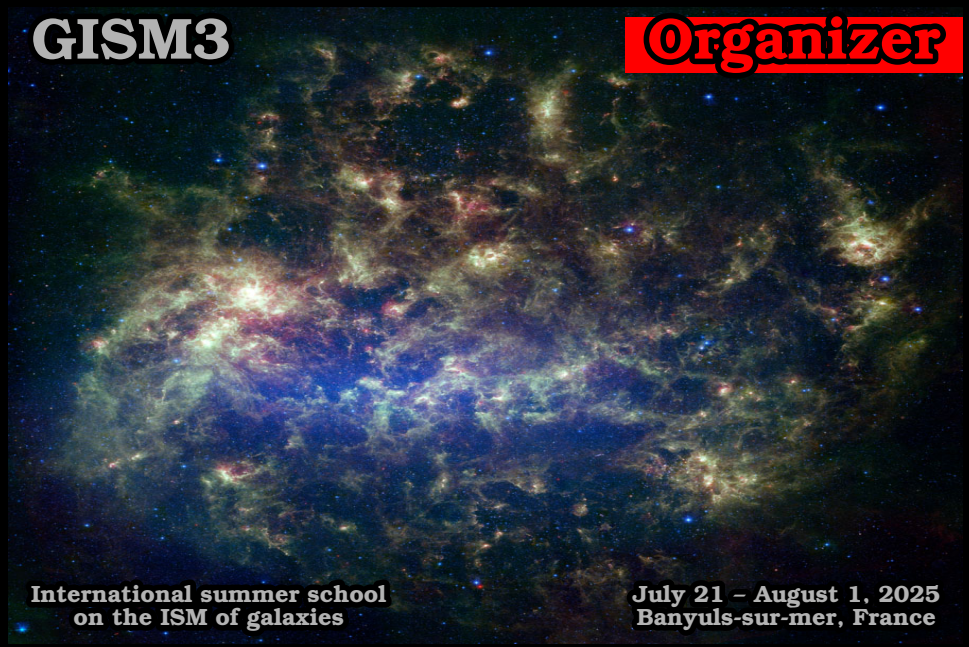

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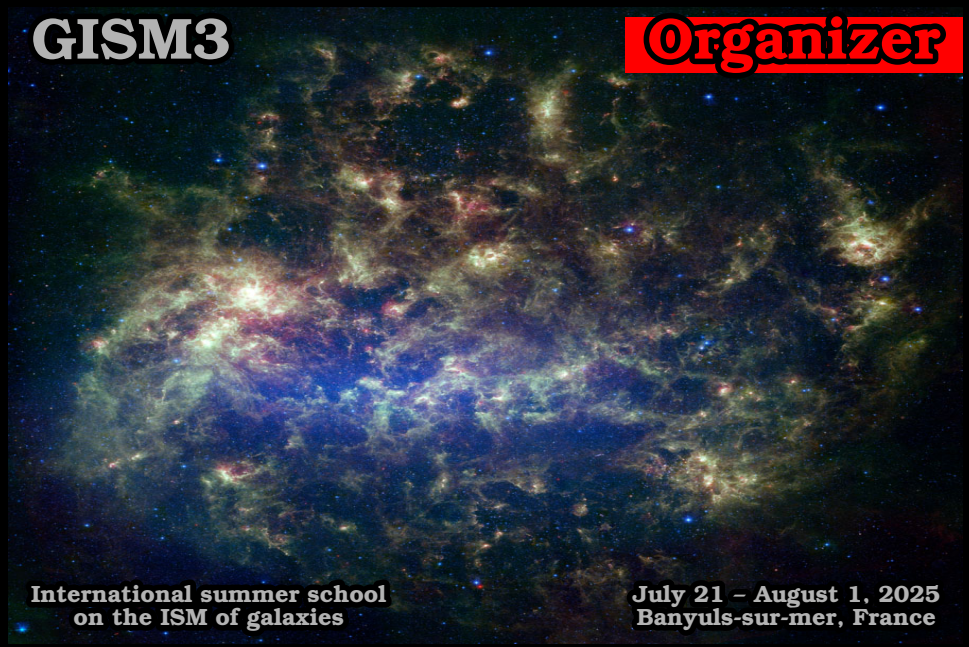

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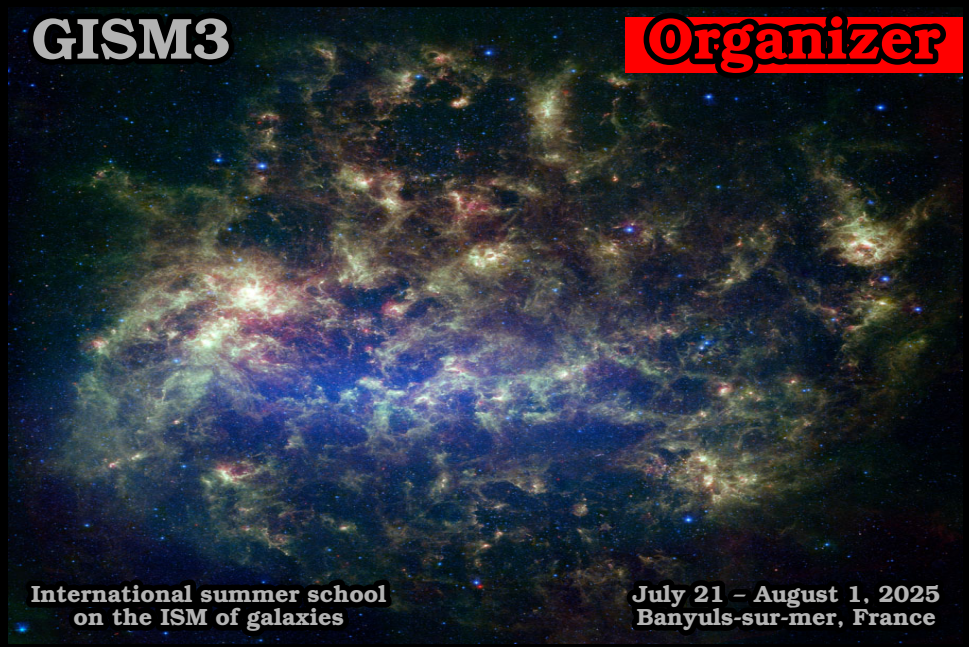

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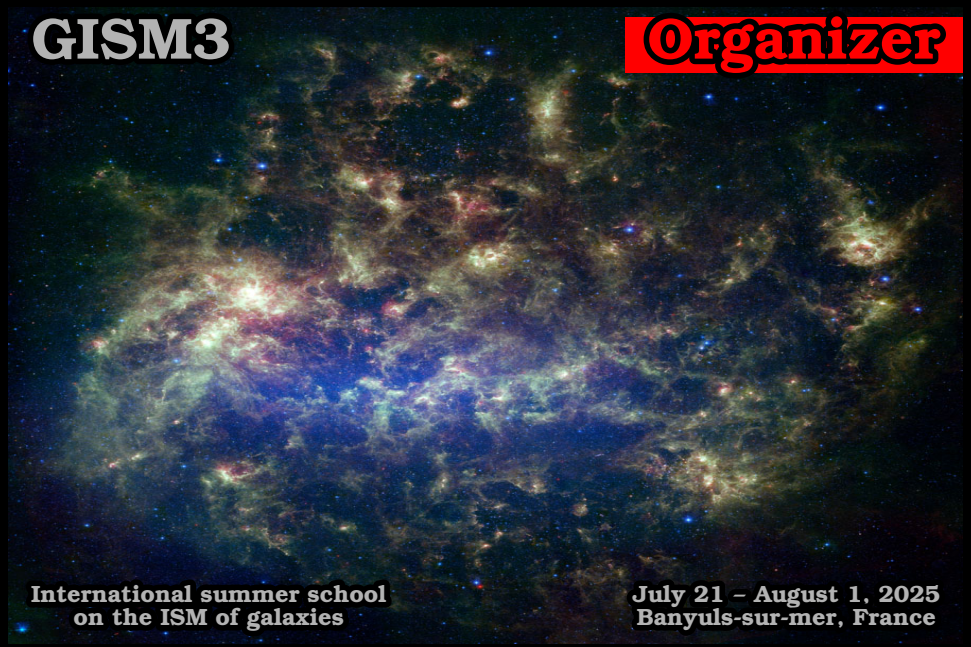

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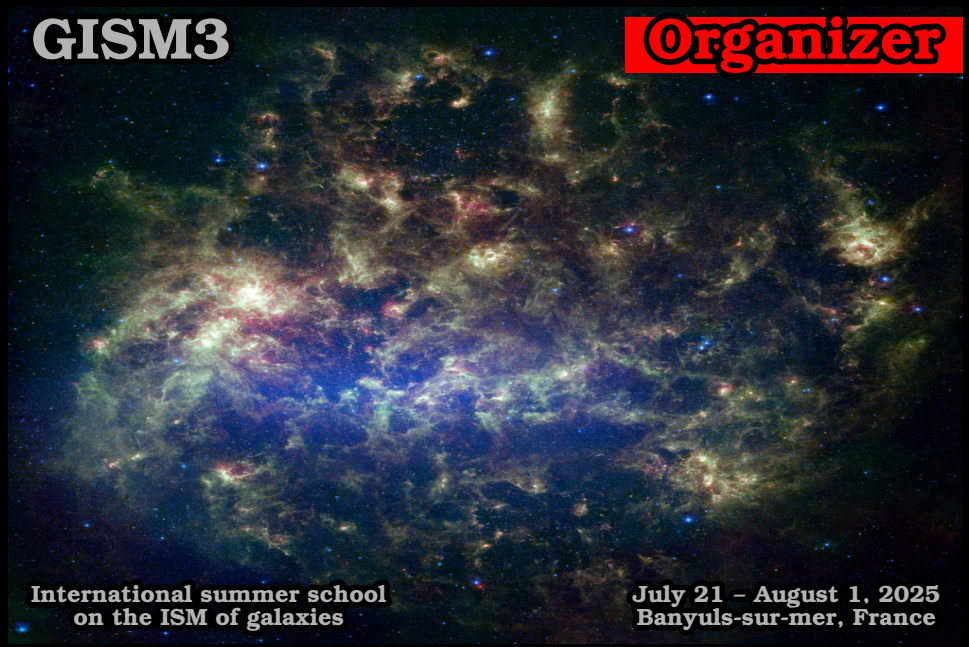

Francesco BELFIORE

Chiaki KOBAYASHI


AIM


Irfu
Institut de recherche
sur les lois fondamentales
de l'Univers


pcmi


ATCG
ACTION THÉMATIQUE DE COSMOLOGIE ET GALAXIES


SOCIÉTÉ FRANÇAISE D'ASTRONOMIE ET D'ASTROPHYSIQUE
SF2A


DAOISM

Logistics | The School Program

	7/22	7/23	7/24	7/25	W-E	7/28	7/29	7/30	7/31
08:30	Intro. Light-ning	Lecture	Hands on app.	Lecture		Lecture	Round table	Lecture	Hands on
10:15	Coffee					Coffee			
10:45	Lecture	Hands on	Lecture	Hands on app.		Hands on	Lecture	Hands on	Lecture
12:30	Lunch					Lunch			
14:00	Hands on	Lecture	Hands on app.	Lecture		Lecture	Hands on	Lecture	Round table
15:45	Coffee					Coffee			
16:15	Lecture	Hands on app.	Lecture	Hands on		Hands on	Lecture	Hands on	Hands on pres.
18:00	Break					Break			
19:30	Cocktail	Dinner				Dinner			

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