

Intergalactic Magnetic Field: a new probe of the Early Universe

IFPU Focus Week
10-14 February 2025



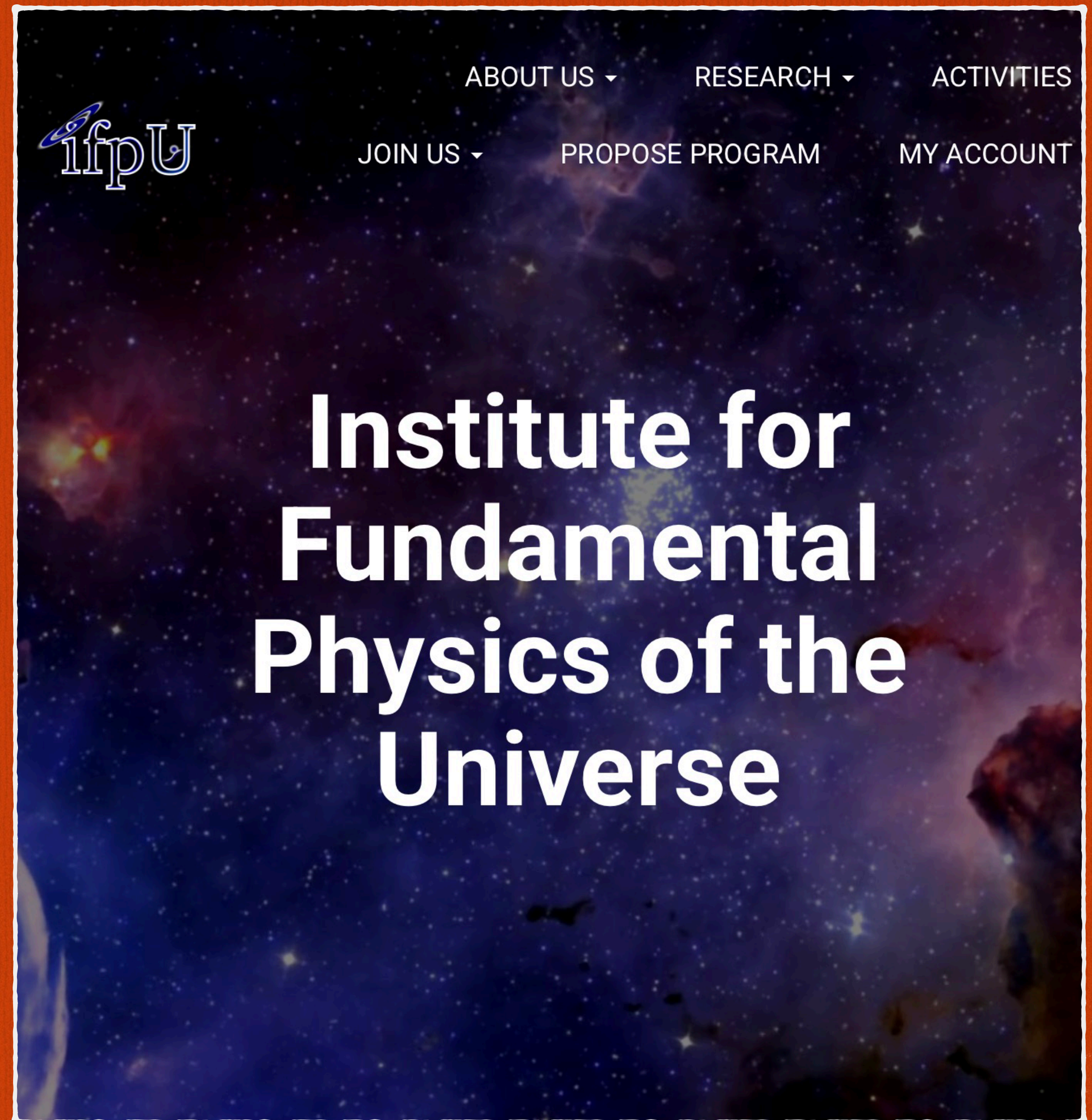
*With support by INAF mini-grant
"Measurement of the intergalactic magnetic
field with gamma-ray sources" PI: A. Stamerra*

IFPU: Institute for Fundamental Physics of the Universe

<https://www.ifpu.it/>



SISSA
40!



Our Meeting on IGMF: who we are and what we do

Focus Week

Intergalactic Magnetic Field: a new probe of the Early Universe

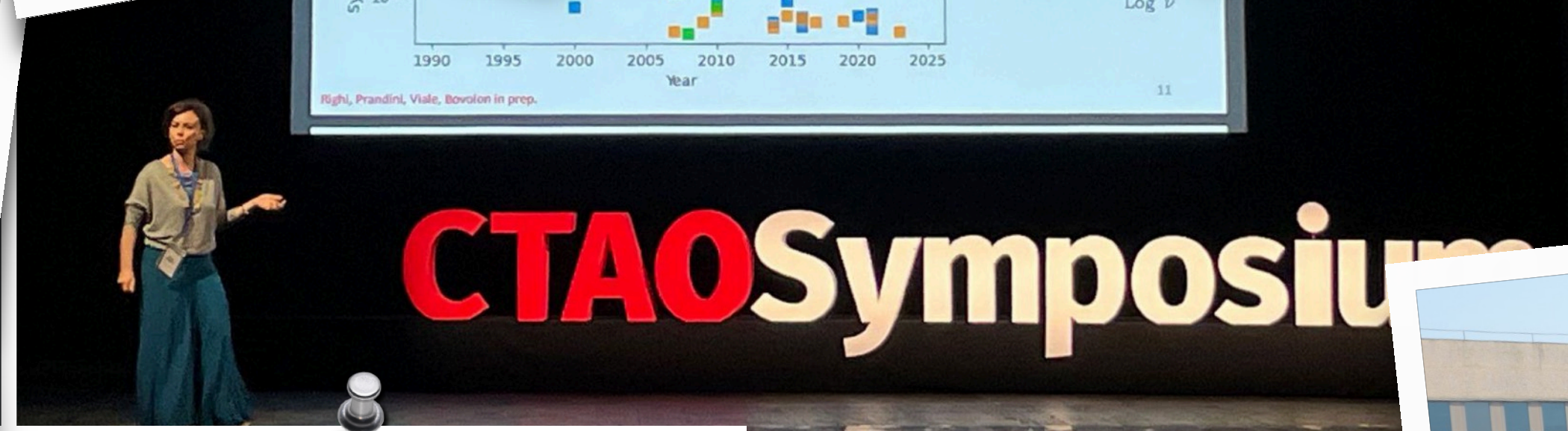
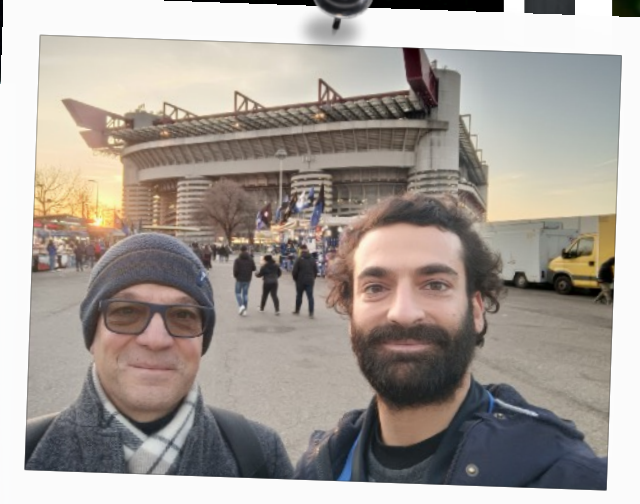
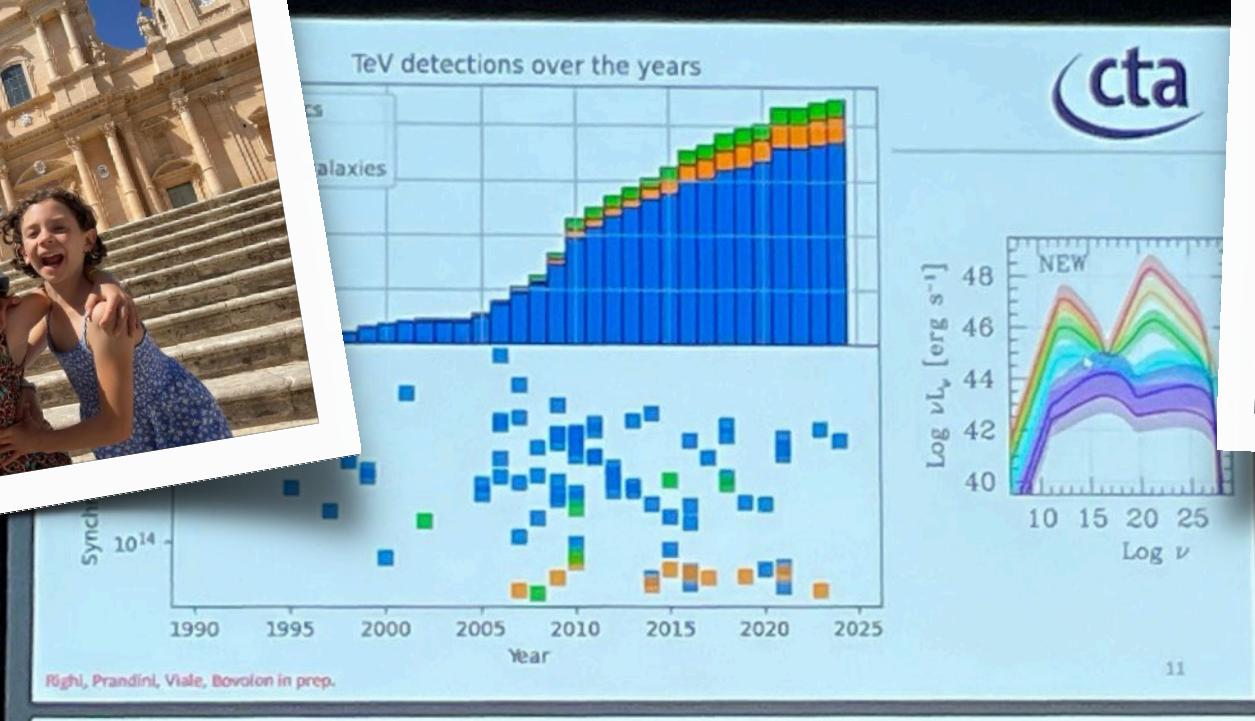
IFPU
10-14 February 2025

The purpose of the proposed focus meeting is to convene diverse and cross-cutting expertise related to the investigation of the cosmic magnetic fields.

Magnetic fields are ubiquitous in our universe and are well established in galaxies and cluster of galaxies, but not in the remaining 99% of the volume comprised of voids and filaments. Unlike the magnetic fields in galaxies and clusters of galaxies, the Inter Galactic Magnetic Field (IGMF)

- <https://www.ifpu.it/focus-week-2025-02-10/>
- “Shared Knowledge” preparatory work

External	Participants	Trieste People	Remote
Antonio Stamerra	Franco Vazza	Francesco Longo	Carmelo Evoli
Axel Bandenburg	Fabio Finelli	Matteo Viel	Chiara Caprini
Paolo Da Vela	Michele Doro	Takeshi Kobaiashi	Andrii Neronov
Manuel Meyer	Davide Miceli	Mak Pavicev	
Elisa Prandini	Cristina Nanci	Pranjal Ralegankar	
Evangelia Ntormousi	Dmitri Semikoz	Guillem Martí-Devesa	
Johnathan Biteau	Alex Ciabattoni		
Daniela Paoletti	Theo Boyer		
Klaus Dolag	Salome Mtchedlidze		



Here we are!

The plan is to have no fixed plan!

<https://indico.ict.inaf.it/e/IFPU-IGMF>

Monday 10 February 2025	Tuesday 11 February 2025	Wednesday 12 February 2025	Thursday 13 February 2025	Friday 14 February 2025
08:50 Induction and introdu...	09:00 Klaus Dolag - Klaus Dolag	09:00 Franco Vazza - Franco Vazza (Istituto Nazionale di Astrofisica (INAF))	09:00 Manuel Meyer - Manuel Meyer (University of Southern Denmark)	09:00 Matteo Viel
09:30 Axel Brandenburg	10:00 Davide Miceli - Davide Miceli (University & INFN Padova)	10:00 Elisa Prandini - Elisa Prandini (DFA Padova)	10:00 Daniela Paoletti - Daniela Paoletti (Istituto Nazionale di Astrofisica (INAF))	09:30 XXX
10:30	11:00 Break	11:00 Break and discussion	11:05 Break Discussion	10:00 Alex Ciabtoni
11:00 Jonathan Biteau	11:30 Michele Doro	11:30 Dmitry Semikoz - Dmitri Semikoz	11:35 Evangelia Ntormousi - Evangelia Ntormousi (SNS)	11:00 Break discussion
12:00 Paolo Da Vela - Paolo Da Vela (Istituto Nazionale di Astrofisica (INAF))				11:30 Public talk F. Vazza
13:00 Lunch	13:00 Lunch	13:00 Lunch	13:00 Lunch	13:00 Lunch
14:30 Small group work and discussion	14:30 Small group work and discussion	14:30 Small group work and discussion	14:30 Small group work and discussion	14:30 Small group work and discussion
	15:30 Additional talks (or small group meetings)[15:30 Additional talks (or small group meetings)[15:30 Additional talks (or small group meetings)[15:30 Break
16:00 Break and discussion	16:30 Break	16:30 Break	16:30 Break	15:50 Small group work and discussion
16:45 Small group work and discussion	17:00 Small group work and discussion	17:00 Connection livestream Km3Net	17:00 Small group work and discussion	
		19:00 Dinner together		



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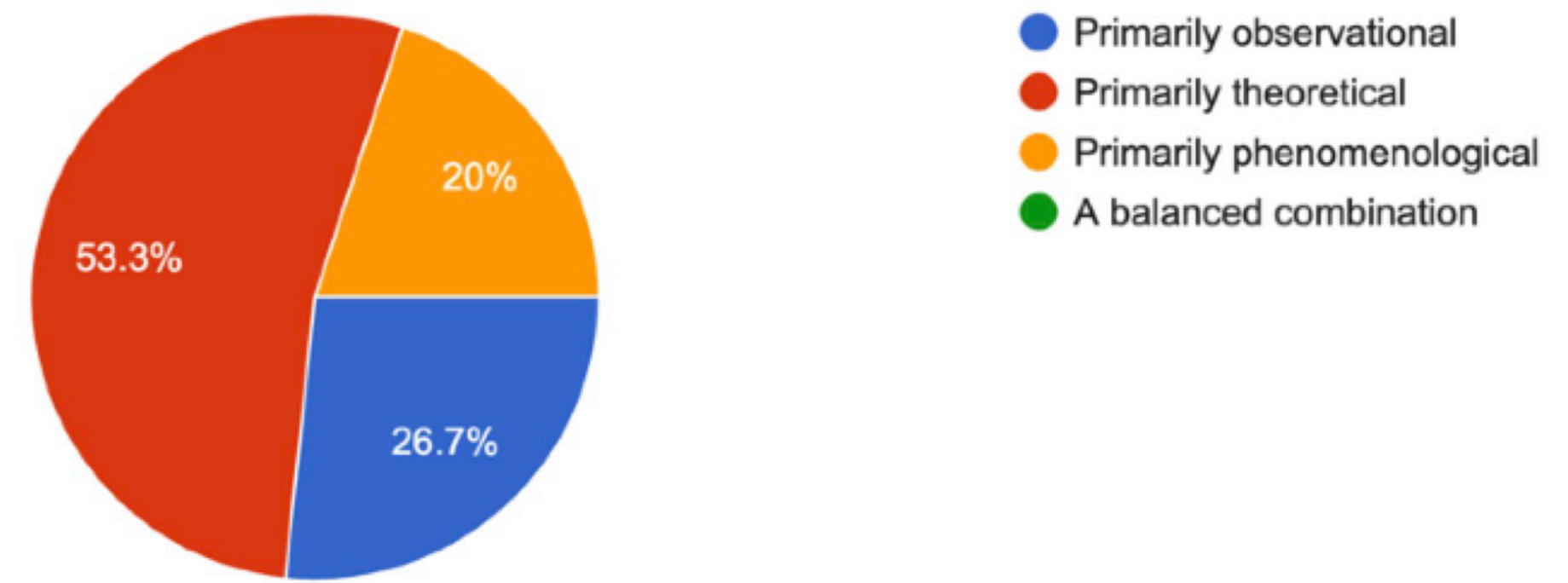
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Shared knowledge

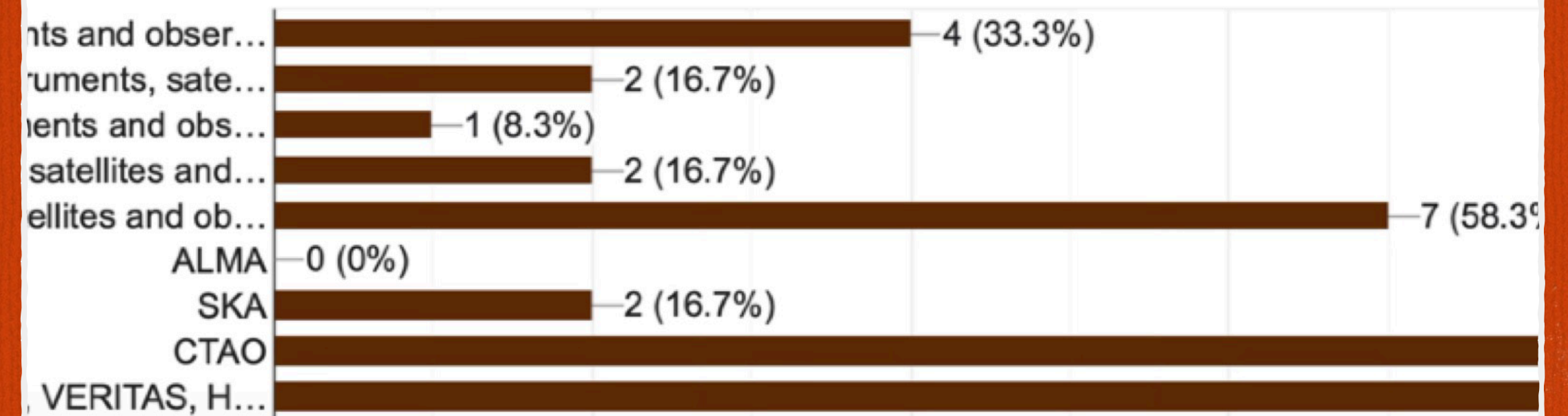
- Share our different approaches on studying the magnetic fields in voids, filaments and galaxies, and their impact in the cosmological evolution
- Break the ice! (and paradigms, too)
- Aggregated responses are available to everyone on the [agenda web page](#)
- Individual Responses (link is shared to the participants only)

Understanding your work.

How do you define your work in the context of IGMF studies?



What data or simulations from current or future instruments are you using?



Logistic info

- Silke provided information on the reimbursement of meals - ORIGINAL receipts are needed.



- We will handle you an envelope to collect them and handle them at your departure to Antonio
- To get to Trieste: bus number 6 from the harbour next to the guesthouse.
- At late time (>9pm) other busses passes from the main road (e.g. bus G51)

- Rooms and desk assigned according to the list at the entrance; take note

- Additional tips and instructions:

- IFPU offers the self-service coffee breaks at the third floor.
- clean up any cups and cutlery you use in the bathroom on the third floor, since the cleaning service will not take care of that.
- In every room you can turn on the heaters in addition to the heating system working by default.