
IPARCOS 2024

I. Scimemi, III Congreso y Taller de IPARCOS 2024

INSTITUTO DE FÍSICA DE
PARTÍCULAS Y DEL COSMOS



IPARCOS

UNIVERSIDAD COMPLUTENSE
DE MADRID

2024

- After the celebration of II Congress in 2023 we received the news that our application of MdM had not gone through: The selection of garantes did not pass MdM committee evaluation.
 - One cannot apply to MdM for 2 consecutive years, so no application in 2024. We are preparing the background for 2025
 - Discussion in CEC started immediately after and a series of measures has been undertaken. This fact has motivated most of our actions in 2024: more presence in international national organization; more involvement of PhD, more ..
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2024

- At beginning of 2024 we expected a continuation in the budget of IPARCOS given our performance in research, activities, new personnel and we approved a preliminary budget for the first part of the year
 - In March/April (after SAB visit) we received the news that our annual budget had been cut by 30%, which had visible effects in the second part of the year
 - In June/July there was an informal warning of another cut, which finally did not take place. No news for the future.
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2024

- Scientific Advisory Board (march 5-6)
- Report on IPARCOS: several indications that we try to accomplish



2024

- PhD students are formally part of IPARCOS since fall 2023.
- Currently about 40 PhD
- Recommendation from SAB: involve students in activities (journal club, schools, exchanges among areas,..)

Journal club works at department/group level (not everywhere yet..new ideas are welcome especially from students)


Joint meetings inter-areas (retreat)

Colloquia

COLLOQUIA (THANKS TO L. GARAY)

IPARCOS COLLOQUIUM

Black holes in the sky and in the laboratory
Jorma Louko
(University of Nottingham)



Thursday, 25th of January, 2024, 13:30 CET
Aula Magna, Facultad de Física, UCM

COLOQUIO IPARCOS

El cielo visto en rayos gamma de muy alta energía: nueve años de operación del observatorio HAWC
Alberto Carramiñana Alonso
(IMAOE, Mexico)



Martes, 12 de marzo de 2024, 13:30
Aula M2, Facultad de Física, UCM

COLOQUIO IPARCOS

Los tres primeros segundos: de la inflación cósmica al Modelo Estándar
Javier Rubio
(IPARCOS, Depto. de Física Teórica, UCM)



Jueves, 22 de febrero de 2024, 13:30
Aula M1, Facultad de Física, UCM

COLOQUIO IPARCOS

Explorando el universo de rayos gamma con el telescopio espacial Fermi LAT: una historia de asombrosos descubrimientos y de búsquedas de materia oscura




Miguel Ángel Sánchez Conde
IFT UAM-CSIC

Jueves, 25 de abril de 2024, 13:30
Aula M2, Facultad de Física, UCM

COLOQUIO IPARCOS

The Science, Prospects and Possibilities at the Electron Ion Collider



Abhay Deshpande
Stony Brook University & Brookhaven National Laboratory

Lunes, 13 de mayo de 2024, 13:30
Aula Magna, Facultad de Física, UCM

COLOQUIO IPARCOS

Escuchando el Universo con LISA



Carlos F. Sopena
ICE (CSIC) e IEEC

Jueves, 23 de mayo de 2024, 13:30
Aula Magna, Facultad de Física, UCM

COLOQUIO IPARCOS

¿Cómo puede un físico ayudar a diagnosticar mejor enfermedades?




Joaquín López Herráiz
Departamento de Estructura de la Materia, Física Térmica y Electrónica e IPARCOS (UCM)

Jueves, 13 de junio de 2024, 13:30
Aula M2, Facultad de Física, UCM

COLOQUIO IPARCOS

Illuminating the primordial to present-day Universe with cosmic magnetic fields




Shane P. O'Sullivan
Departamento de Física de la Tierra y Astrofísica & IPARCOS

Jueves, 24 de octubre de 2024, 13:30
Aula Magna, Facultad de Física, UCM

COLOQUIO IPARCOS

The Light from the Darkness: Half a Century of Black Hole Radiance



Roberto Emparan
ICREA + ICCUB

Jueves, 28 de noviembre de 2024, 13:30
Aula M1, Facultad de Física, UCM

Colloquia are an interdisciplinary activity

That allow us to be informed of latests

advances in Physics:

All very beautiful and fun!

SCHOOLS FOR PHD

TAE 2024 - International Workshop on High Energy Physics

(Benasque Science Center, Sep 01 -
Sep 14, 2024)

IPARCOS@IDPASC SCHOOL

We are now (since September 2024) part of *International Doctorate Network in Particle Physics, Astrophysics and Cosmology*

(IDPASC, <https://idpasc.lip.pt>):

an interdisciplinary network whose aim is to train a new generation of high-level experts in the fields of Particle Physics, Astrophysics and Cosmology.

 IDPASC





EIC summer school in Benicàssim 22/6-02/07/2025,

Web page: <https://indico.fis.ucm.es/event/30/>



CONGRESSES



Please insist in IPARCOS LOGO!!

XVI CPAN DAYS

Centro Nacional de Física de Partículas, Astropartículas y Nuclear



19 - 21 noviembre 2024
IPARCOS-Facultad de Ciencias Físicas
Universidad Complutense de Madrid
contact: mjgracia@ific.uv.es



Biggest congress of the series
(more than 260 inscriptions,
8 parallel sessions, ..)



PERSONNEL

PERSONNEL

- Currently IPARCOS has 110 members (32 women)
 - ~40 PhD students
 - 58 Senior researchers, 17 junior researchers
 - We have new very talented researchers (ATRAE), Talento program from CAM is still problematic for UCM (not for us).
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PERSONNEL CHANGES IN 2023

	2022	31/10/2023
Total number of	67	74
Postdocs	15	18
PhD Students*	40	37
Technical staff	4	4+TAU (7, non-
Administrative staff	4	4-1

PHD THESES EVOLUTION

Table 9: TOTAL PRE DOCTORAL TRAINEES (*)(**)									
All Areas	UNDERGOING TRAINING						TOTAL TRAINEES	DOCTORAL THESIS DEFENDED (NUMBER) UNDER THE SUPERVISION OF THE UNIT' RESEARCHERS	
	Sex		Nationality						
	M	F	ES	EU	Latin America	Rest world			
2018	21,00	9,00	26,00	2,00	0,00	2,00	30,00	5,00	
2019	25,00	12,00	31,00	2,00	1,00	2,00	36,00	5,00	
2020	27,00	12,00	33,00	3,00	1,00	2,00	39,00	7,00	
2021	26,00	14,00	34,00	3,00	1,00	2,00	40,00	8,00	
2022	23,00	14,00	35,00	3,00	0,00	2,00	40,00	7,00	
Average 2018-2022	24,40	12,20	31,80	2,60	0,60	2,00	37,00	6,40	

In 2023 ~ 15 defended PhD theses.

In 2024~9 defended PhD thesis (to be checked)

IPARCOS SECRETARY

A permanent secretary position is slowly in progress...
(latest news September 2024)

FUNDING

GRANTS FROM PREVIOUS YEARS

Airtip2023 (2.5M shared with other institutions)

AI grant; only part of IPARCOS participated (IP: D. Nieto):
surprising call at end of July, admission/exclusion process in
progress. Ministry does not know how to assign it (news from EL
PAIS, 6/12/2024 “ “Estamos supermaltratados”. El Gobierno deja en
el aire ...)

TAU project in the afternoon.

Other projects: HEI (F. Aprile), Europa Excelencia (A. Vladimirov) in the
afternoon

ACTIVITIES

PUBLICATIONS IN 2024

The preprint number has started working in January 2023.

Now it is almost automatic: <https://www.ucm.es/iparcos/publications>

Please ask a preprint number, it helps us to give visibility to our work and accounting in UCM report even if you do not put in your publications.

Year	2020	2021	2022	2023	2024
Scopus Publicat	168	168	219	197	215

ZENODO

We can now publish codes with IPARCOS brand through ZENODO

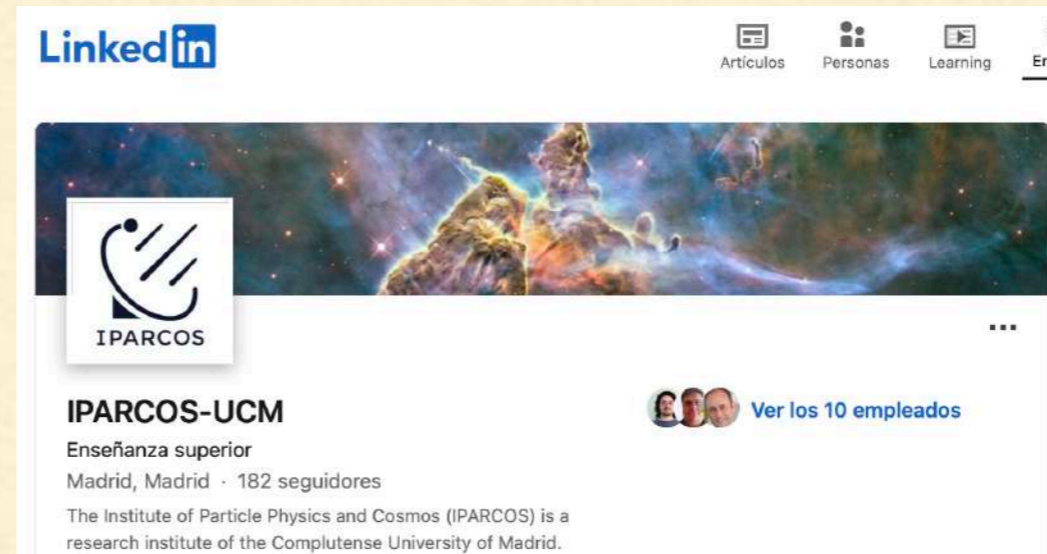
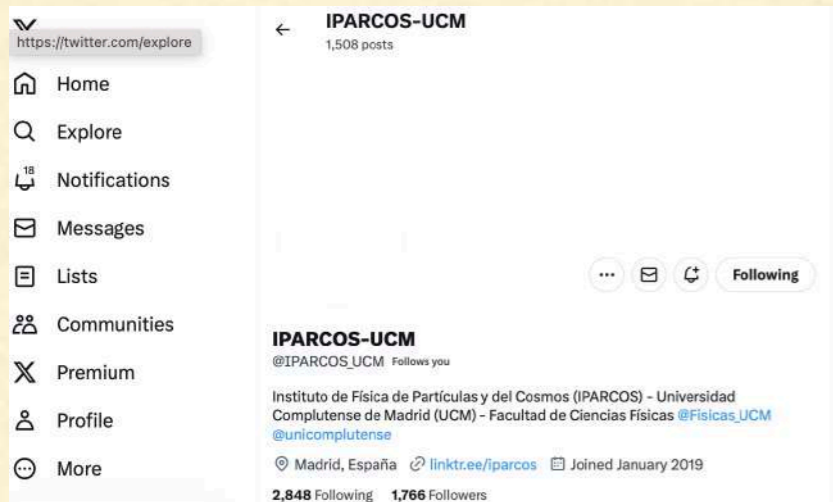
See our web page.

SEMINARS, COLLOQUIA, JOURNAL CLUB ..

We had a very rich season of seminars (I count 50 in IPARCOS web page: Thanks to all people that work for them (Enrica, Patricia, Armando, David, Andrea, Luis, Clara, Javier, Felipe, and Maria Cividanes)



SOCIAL MEDIA



Thanks to Javier, David and

*If you have not done it
yet, **Follow us!!!***

OUTREACH



Instituto de Física de Partículas y del Cosmos

Institutos Universitarios

Outreach

semana de la ciencia y la innovación 2023

Actividades en la Facultad de CC. Físicas con colaboración del

INSTITUTO DE FÍSICA DE PARTÍCULAS Y DEL COSMOS

IPARCOS
UNIVERSIDAD COMPLUTENSE DE MADRID

<https://www.ucm.es/iparcos/>

UCC+i
UNIDAD DE CULTURA CIENTÍFICA
madr+



Cocina espacial

(organizado con la embajada

del ITALIA en Madrid)

SCHOLARSHIPS, RESEARCH TOOLS, ...

IPARCOS has traditionally supported student in Master and PhD with “Ayudas para TFM” and “Ayudas para doctorado”.

The budget of these scholarships has passed **from 29.4K€ in 2023 to 15.4k€ in 2024**. The number of applications has stabilized but they are still a lot.

IPARCOS has supported the acquisition of software licenses like Overleaf licenses, Wolfram Mathematica licenses,..I hope more support next year

BALANCE

- Most of the activities promoted by this congress last year have been accomplished (congresses, seminars, outreach, codes acquisition, zenodo, ..)
 - International and national visibility has been boosted through big congresses..
 - SAB visit has been done, we are following suggestions
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BALANCE

- Many people that have worked for IPARCOS may need a turnover.. volunteers are always welcome (for instance for web page maintenance..)
 - We would like to organize a PhD retreat.. hopefully next year
 - The support from UCM is too poor ..
 - MdM2025 is our main effort now together with more grants
 - We should apply for Ayudas I+D Tecnologías | Comunidad de Madrid as IPARCOS
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THANKS FOR ALL AND TO ALL
OF YOU!
