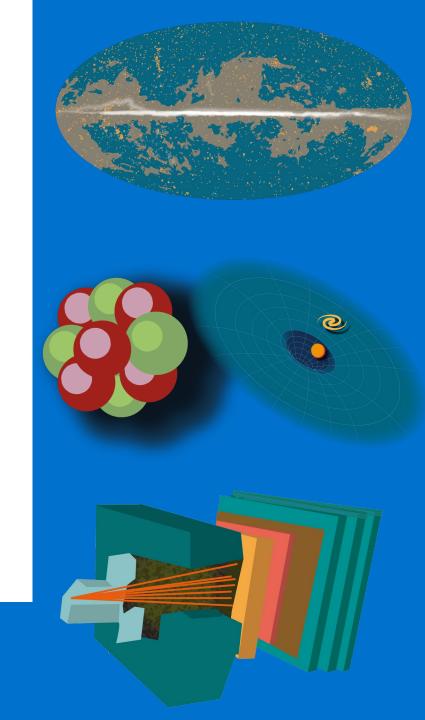
# How can we help?

# Esther Pallares Guimera Institute of Cosmos Sciences



Institut de Ciències del Cosmos UNIVERSITAT DE BARCELONA

ICCUR



# First of all, who are we?







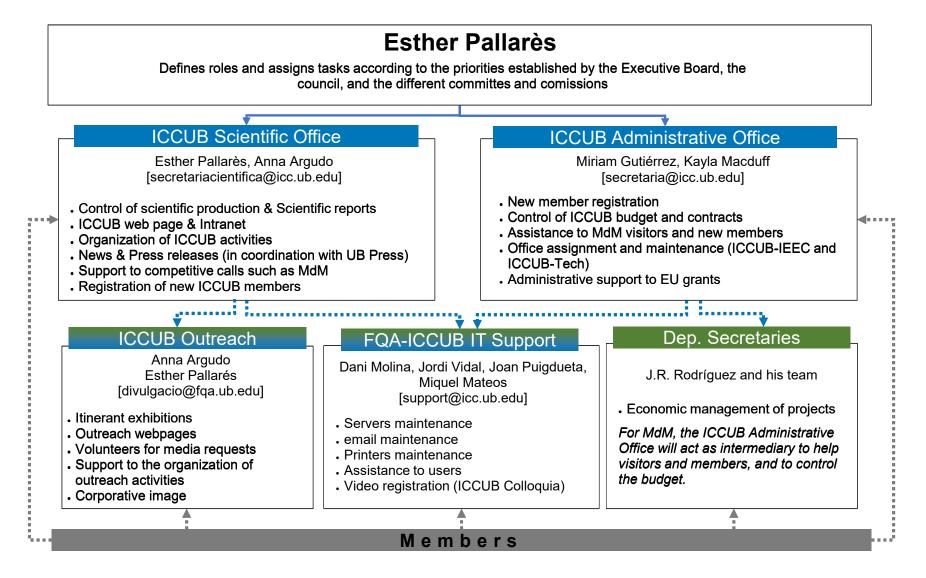


# Anna ArgudoMíriam GutiérrezKayla MacDuffEsther PallarésScientific office - V504Administrative office - V504Scientific office - V504





## **Administrative support**



3



RESEARCH - JOIN US -

## **Research Areas**

The ICCUB is one of the few centres around the world devoted to cosmology from the viewpoint of both particle physics and astrophysics. Our research is largely driven by the following fundamental questions What are the origin and fate of the Universe?

Which are the ultimate constituents of the Universe?

· Why does the Universe have its present appearance?

These questions reveal the intimate connection between particle physics and astrophysics and therefore demand a multidisciplinary approach. Research a

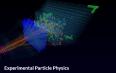
nstitut de Ciències del Cosmos

UNIVERSITAT OF BARCELONA

ICCUB intends to tackle them from a theoretical, observational and experimental viewpoint

Images credits: Eduard Masana / CERN / ESA Gaia DPAC, A. Khalatyan (AIP) & StarHorse team / NASA /MAGIC Collaboration









The ICCUB outreach team manages two websites devoted to Cosmology, Astrophysics and Particle physics. You can find all of our researcher's talks and outreach events, ongoing and past projects, dissemination news and several outreach materials. Do you want to know, for instance, what The Christian or Western calendar is? Take a look into our outreach websites!



Find Astronomy and Cosmology news, activities and events. You can also find several outreach resources and materials such as travelling exhibitions and videos. We'll also keep you updated on the astronomical agenda, live webcast of astronomical events as eclipses and planetary transits!



Outreach resources and materials on Cosmology, Particle Physics, Gravitation and Atomic & Nuclear Physics. Find past and upcoming activities, workshops and talks, dissemination news and articles. You will also find a Project section, that includes the Workshop on Particle Physics

## **JOB OFFERS**

The ICCUB is an interdisciplinary centre with more than 70 long term scientists, 20 engineers and 80 postdoctoral researchers (55% international) and PhD students (30% international) offering an international and multicultural environment. The ICCUB also hosts a vibrant fundamental research program in cosmology, astrophysics and particle physics, with a strong technology unit supporting our participation in international collaborations in observational astronomy and experimental particle physics

As part of the University of Barcelona, it is a recipient of the European Commission's HR Excellence in Research (HRS4R) Award, which recognises among other achievements, respect for equal opportunities and the capacity to attract talent in a positive working environment that promotes the pursuit of successful research careers. The ICCUB respects the principles of open, transparent, merit-based selection

The ICCUB is located in Barcelona, considered the 8th World's Best Cities 2021; one with near-perfect weather year-round, miles and miles of beaches iconic parks, striking architecture and colourful neighbourhoods that march to their own beat—artistic, sophisticated, bohemian. Moreover, it is a pole of attraction for the technology sector, a top choice to establish a company in this sector, and it hosts some of the world's major technological events, such as the Mobile World Congress and the Smart City Expo. In addition, Barcelona and its metropolitan area is a leading destination on the map of global chnological ecosystems and has infrastructures such as science parks, universities and the 22@ district.

## What is the origin of the Universe!

## Quantum computing: present and future of a technological revolution



Quantum computing: present and future of a technological revolution

DATE | 16/02

PLACE | Aula Magna Enric Casassas, Physics Faculty

Alba Cervera Lierta, a Senior Researcher at the Barcelona Super Computing Center (BSC-CNS) and Quantum Information doctor by the University of Barcelona, will offer a talk on Quantum Computing at the Physics aculty of the UB next Wednesday, February 16

Dr Cervera is the coordinator of the national project Ouantum Spain, a 22M€ project that will install a antum computer at the BSC and give access to the community through the Red Española de Supercomputación. In this talk, she will review the principles of quantum computing, its potential applications and present the Quantum Spain project whic will help promote Spain's quantum computing ecosystem and position the Spanish quantum community at the front of this technological revolution



#### Academic staff 🔗 🔟 🛛 🕅

FIELD OF RESEARCH | Galaxy Structure and Evolution EMAIL | xluri@icc.ub.edu PHONE | 934039834 OFFICE | 7.13

A tenured lecturer in the Department of Quantum Physics and Astrophysics at the University of Barcelona (UB), he teach supervised PhD theses. He is also director of the University of Barcelona Institute of Cosmos Sciences (ICC-UB/IEEC). Hi field of space missions, especially the Gaia mission of the European Space Agency, which will produce a 3D map of our gal million stars, a project for which he was one of the proponents. He is a member of the executive committee of the Gaia Da Consortium (DPAC) and is joint head researcher in the Barcelona Gaia group. He enjoys popularising sci also as a member of the Big Van Science group. Since 2013 be has been a founder-member of the data services company F the Polytechnic University of Catalonia (UPC), in which he is a scientific consultant and business adviser

NES OF RESEARCH

e

- Structure and dynamics of the Milky Way
- Luminosity calibrations
- Scientific High Performance Computing
- Big Data and Data mining

### Doctoral studies - PhD program

The Institute of Cosmos Sciences offers the opportunity to work on two lines of research, Astronomy and Astrophysics, Cosmology, where you can develop your doctorate under the direction of leading researchers.

At the Institute you will find all the tools and support to carry out your project in an international working environment, in researchers and the dissemination of your work is encouraged

The doctoral program is managed by the University of Barcelona. However, we encourage you to directly contact the nterested in working with

The Institute of Cosmos Sciences of the University of Barcelona is a research centre accredited with the Spanish Seal of E which enables us to be a host institution for the doctoral fellowship programme INPhINIT "Ia Caixa"

DOCTORAL FELLOWSHIP PROGRAMME INPHINIT "LA CAIXA'

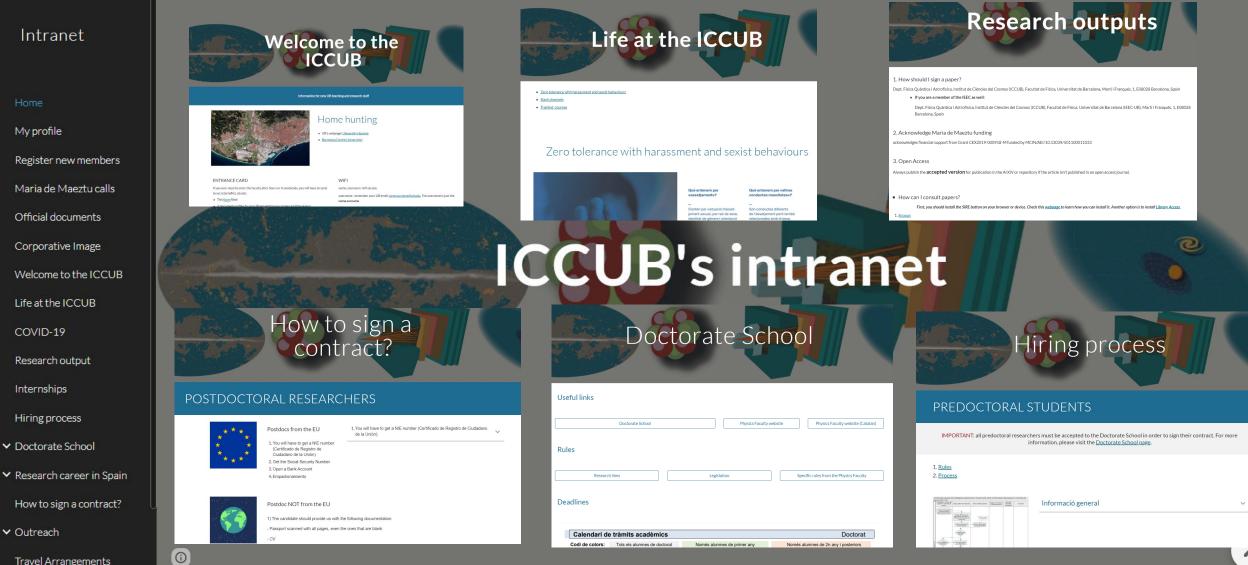
Admission

Fellowships









Travel Arrangements



Institut de Ciències del Cosmos UNIVERSITAT DE BARCELONA

# Maria de Maeztu calls

- Workshops Call
- <u>Visitors Call</u>

## WORKSHOPS

The ICCUB calls for proposals for grants on the organization of activities (conferences, meetings, courses) by ICCUB groups. The proposals can include a request for financial aid thanks to the Institut de Ciències del Cosmos project of the Unidad de Excelencia "María de Maeztu" call. Each year, two calls will open from 1 to 10 January and 1 to 10 June, at which time you will be able to submit your proposals using a form.

Please read the instructions and the call limitations carefully.

## 1st CALL | 1-10 June 2021

Next call: 1st until 10th of June

0

# Events and news

EVENTS:

- Organization of seminars, conferences, ICCUB Colloquia, etc.
- Indico webpage
- Data protection

NEWS:

- Press releases and coordination with other institutions (UB, IEEC)
- Media appearances





# Outreach





Project goal: This project aims to facilitate the synergy between the University of Barcelona and agents or institutions with an interest in the research carried out at the Institute. Aimed for: General Audience Language: CAT, ESP, ENG

## PROJECTE FOR CES

## FOMENT DE LA RECERCA EN CENTRES DE SECUNDÀRIA

## FORCES

Project goal: To facilitate the synergy between the University of Barcelona and High Schools and to encourage the pursue of STEAM careers by giving support with the final projects of High School students.

Aimed for: Baccaulareate Students who have an interest in doing their TFG with a researcher from the Institute



## UB's guide of Experts

The guide of experts of the UB is used as a bridge between **research groups** and **the press** in relation to their research and expertise fields. It is a great way to disseminate the research that is being carried out in the Institute and gain visibility and prestige.



#### Camins Infinits

Goal of the project: In this project PhD students volunteer to deliver outreach talks to schools and high-schools all around Catalonia. Aimed for: Primary Schools and High Schools of Catalonia. How can I sign up? Easy, just fill up the following <u>form</u>. Language: CAT, ESP, ENG

## and much more ... !





# Registration of new members and emails

- To registre a new membre, they have to fill the form you will find on the intranet or contact Secretaria, so we can contact them.
- Along with this form, secretaria will ask for an ICC and/or FQA email. ONLY secretaria can ask to create an ICC and/or FQA email.



If you would like to register a new member, please share this form with him or her and ask them to answer it.

Necessària	
NAME *	
Escriviu la vostra resposta.	



# Emails for visiting researchers

- If you have invited a fellow researcher to the ICCUB and they need to connect to the eduroam and/or print, you will just have to fill a form (link available at the intranet) (new procedure!)
- When the credentials are activated, they will have an UB email account, thus an ICC/FQA email account won't be provided.



# Finally, what can you do for us?

- Fill in your profile
- Inform us about posible news
- Report on errors and help us update the content
- You are welcome to make suggestions!

