

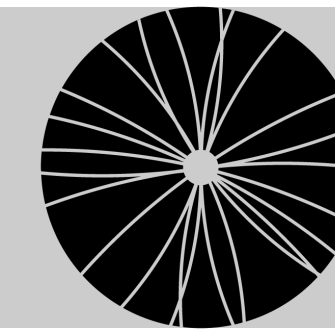
Report by the IGFAE director

Carlos A. Salgado

IGFAE Retreat 2021 — July 5 2022
+ LIP-IGFAE Meeting — July 4-5 2022



Foundation...



IGFAE

Instituto Galego de Física de Altas Enerxías

1999 - Joint research center - Xunta/Universidade de Santiago de Compostela
International vision and flexible structure

EXPOÑEN

PRIMEIRO

Que a Xunta de Galicia ten a vontade de fomentar o desenvolvemento da física de altas enerxías, especialmente na vertente experimental, e das tecnoloxías que se relacionan con este campo específico.

SEGUNDO

Que existen grupos de investigadores, tanto experimentais como teóricos, que traballan neste campo na USC, en relación co Laboratorio Europeo de Física de Partículas (CERN).

TERCEIRO

Que non se dispón nestes momentos de instrumentos axeitados para rendibilizar o retorno industrial que ofrece o CERN.

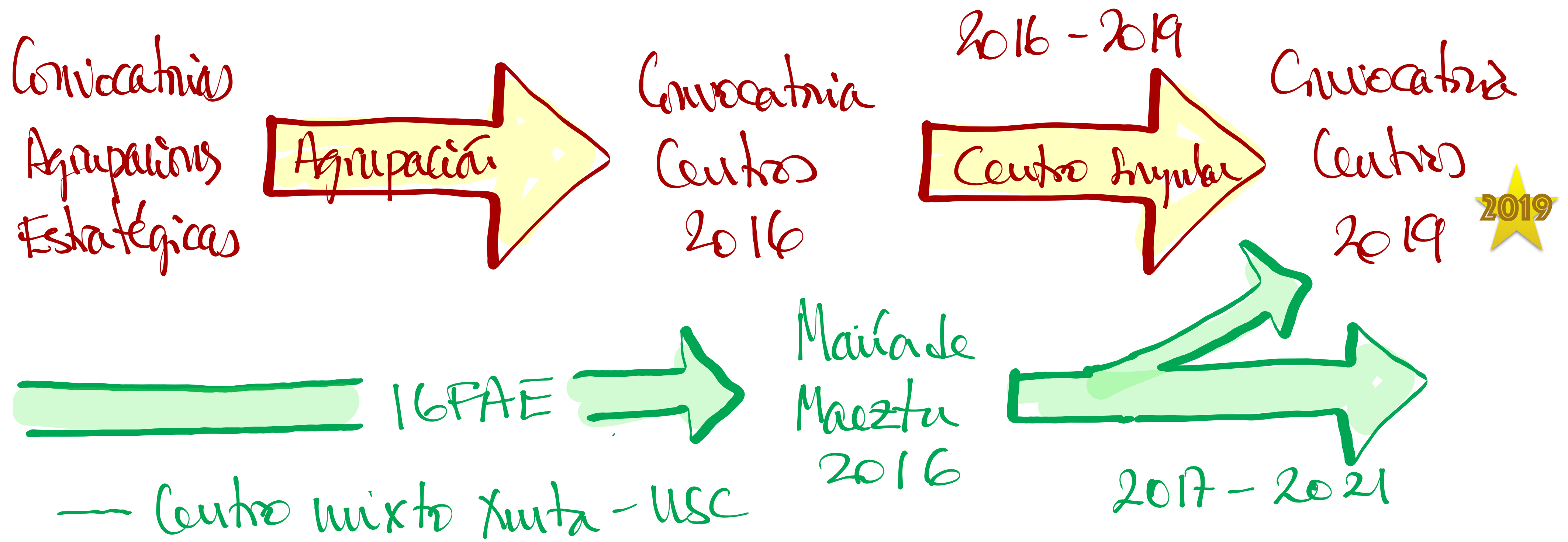
CUARTO

Que a Xunta de Galicia e a USC consideran necesario participar e colaborar no esforzo que se vén facendo neste campo desde a reincorporación de España ó CERN en 1983, que actualmente se reflicte no Plan Nacional de Física de Altas Enerxías, así como nos esforzos realizados por outras comunidades autónomas neste campo científico.

[Extracto del Convenio de Creación]

- ▶ Legally under the administrative structure of the university - own governance but constraints
- ▶ Joins the USC network of singular centers in 2018 and the Galician network CIGUS in 2019

Context: Galician network



IGFAE was not included in the networks of centers in Galicia or University until the MdM award. **Galician network provides long-term stability**

Context: Galician network

Convoc
Agrup
Estad



catra
ho
19 2019

IGFAE wa
the MdM award. **Galician network provides long-term stability**
versity until



- * María de Maeztu 2017-2021 accreditation
- * MdM *High-Impact Activities* en 2022



- * María de Maeztu 2017-2021 accreditation
- * MdM *High-Impact Activities* en 2022

Huge impact at IGFAE
Fast growth and consolidation
—joins **red CIGUS**



- * María de Maeztu 2017-2021 accreditation
- * MdM *High-Impact Activities* en 2022

Huge impact at IGFAE
Fast growth and consolidation
—joins **red CIGUS**

- * María de Maeztu accreditation (2021 call)
- evaluation on-going

Gobernanza



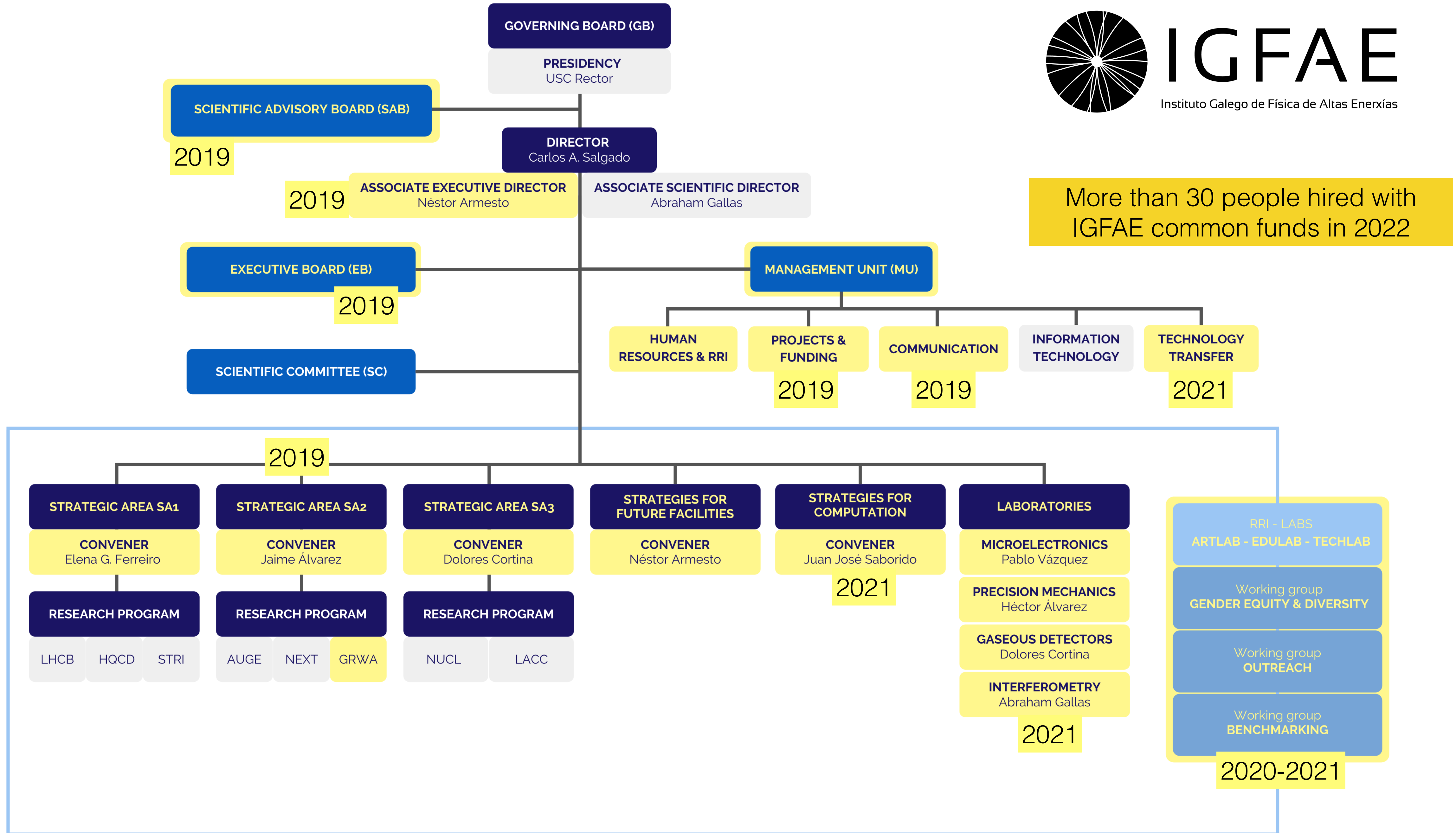
Internal procedures

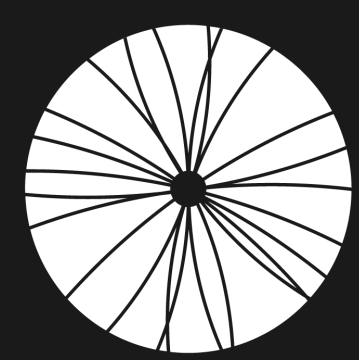


New (2018) IGFAE Regulations fixe a simple an versatile governing structure



IGFAE direction proposes any other internal structure to the Governing Board
The model is based in **Strategic Planning** and **Periodic Evaluation**





IGFAE
Instituto Galego de Física de Altas Enerxías

Scientific Advisory Board



Sergio Bertolucci

Università Bologna
CERN Scientific
Director
2009-2015



Barbara Erazmus

SUBATECH Nantes
President EPS-HEP
Board



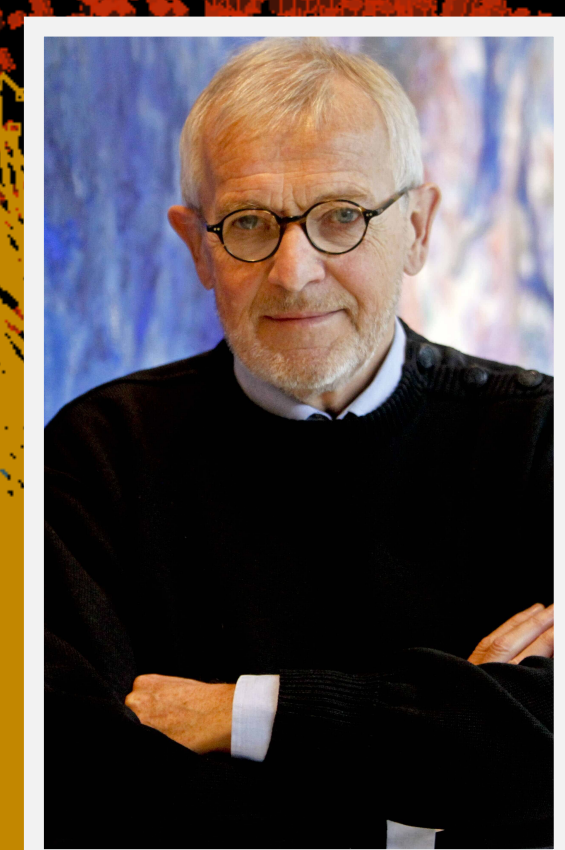
Paolo Giubelino

INFN Torino
Scientific Director
GSI/FAIR



Gabriela González

Louisiana State
University
Spokesperson
LIGO 2011-2017



Francis Halzen

Univers. Wisconsin
Spokesperson
IceCube



Larry McLerran

Director - Institute
for Nuclear Theory
Seattle



Giulia Zanderighi

CERN & Max
Planck München

Highest scientific level and research management experience

Structural docs



Code of conduct - Approved

- ▶ General coexistence rules that all IGFAE members should follow. They concern use of spaces and relations between IGFAE members and outside

Communication plan - Approved

- ▶ Plan developed by the communication unit to improve internal and external communication

Equity and diversity plan - Approved

- ▶ Plan developed by the Gender WP to ensure equity and improve diversity at IGFAE

Mentoring plan - Approved

- ▶ One of the goals of MdM to improve training of PhD students and postdocs.

Welcome manual - IGFAE Intranet

- ▶ Manual for newcomers with useful information about internal (IGFAE and University) and external procedures and rules as well as tips for local life in Santiago de Compostela

Structural documents provide managerial “infrastructure”

Structural

- ❑ **Code of conduct - Approved**
 - ▶ General coexistence rules that govern the relationship between IGFAE members and the community
- ❑ **Communication plan - Approved**
 - ▶ Plan developed by the communication committee
- ❑ **Equity and diversity plan - Approved**
 - ▶ Plan developed by the Gender Equality Commission
- ❑ **Mentoring plan - Approved**
 - ▶ One of the goals of MdM to promote the professional development of researchers
- ❑ **Welcome manual - IGFAE Intranet**
 - ▶ Manual for newcomers with information on procedures and rules as well as on the facilities

The screenshot shows the IGFAE Research Centre SharePoint site. The top navigation bar includes the USC logo, the SharePoint logo, and a search bar. The main content area features a large 'WELCOME' banner with an illustration of four people holding a banner. Below the banner is a 'Welcome pack' section with a link 'New at IGFAE? Read this!'. To the right of the banner are three smaller images: 'Communication guideline', 'Travel/conferences', and 'Useful USC procedures'. Below these images are three columns of text: 'ACCES TO PREMISES', 'AVAILABLE PRINTERS', and 'REXISTRO HORARIO'. The 'ACCES TO PREMISES' column lists opening working hours for June and July, and August, and notes that facilities will be closed from August 8 to 19. The 'AVAILABLE PRINTERS' column lists the distribution of printers in Block III and Block IV. The 'REXISTRO HORARIO' column lists the start of the registration process for researchers and support staff on April 4, 2022.

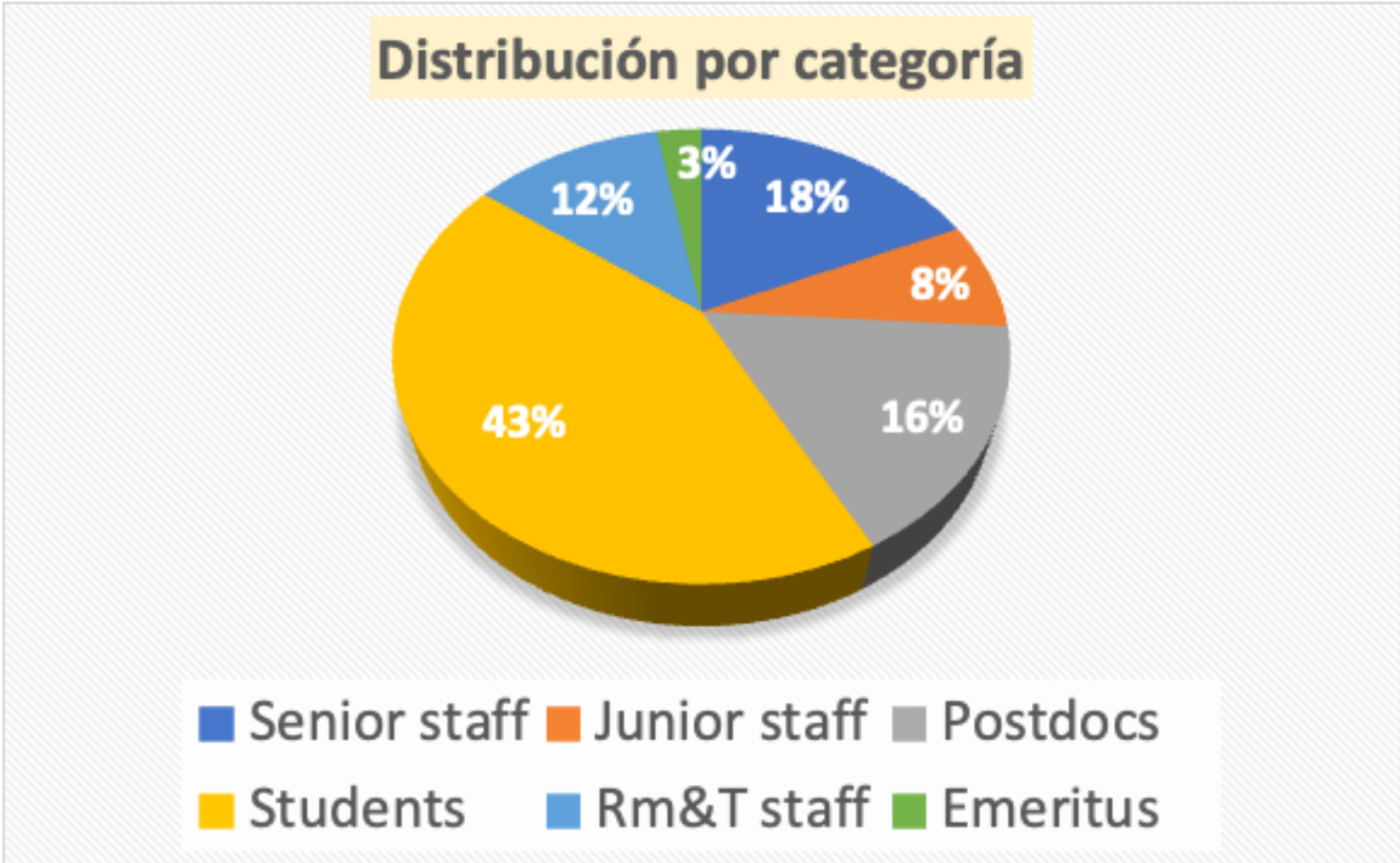
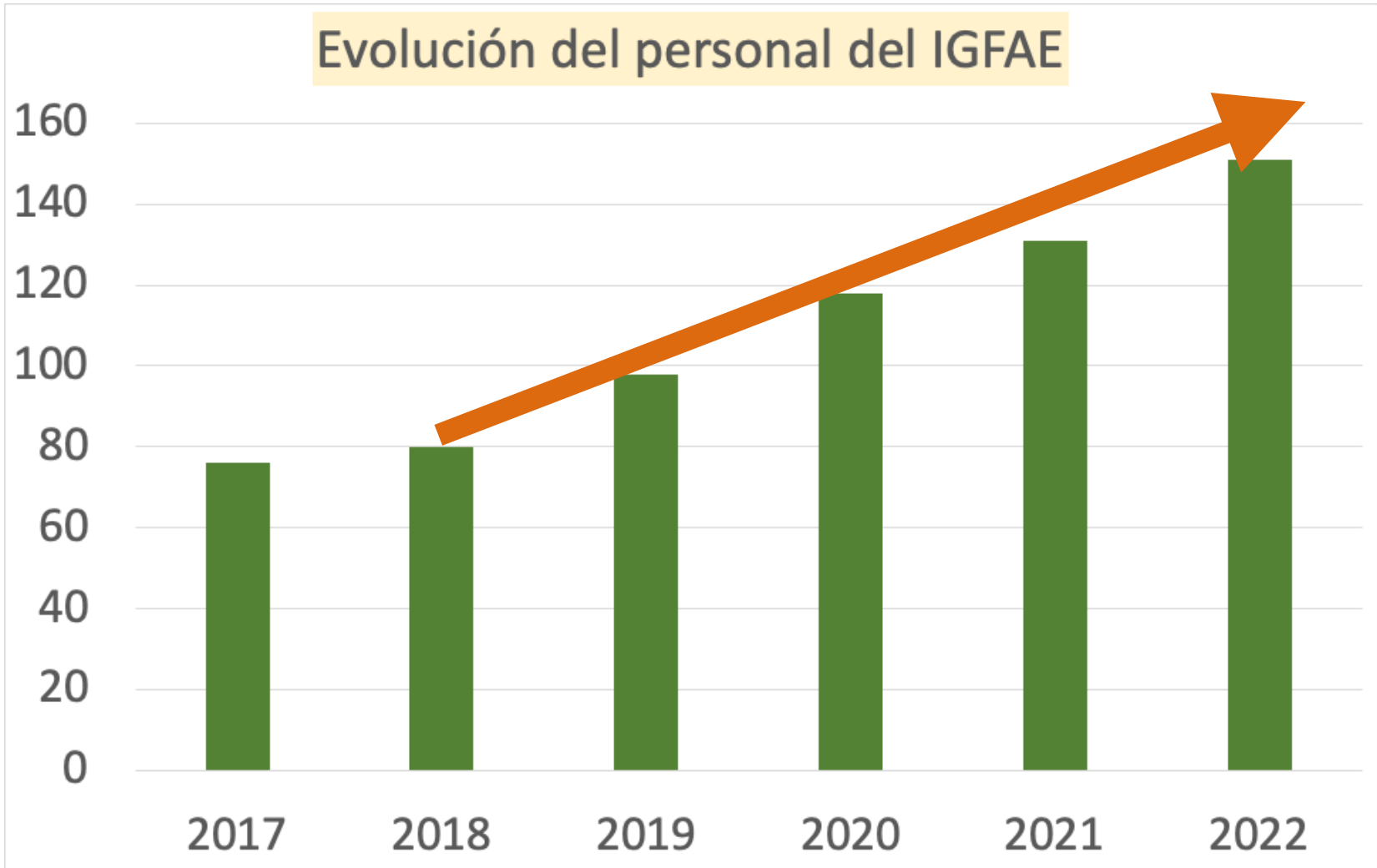
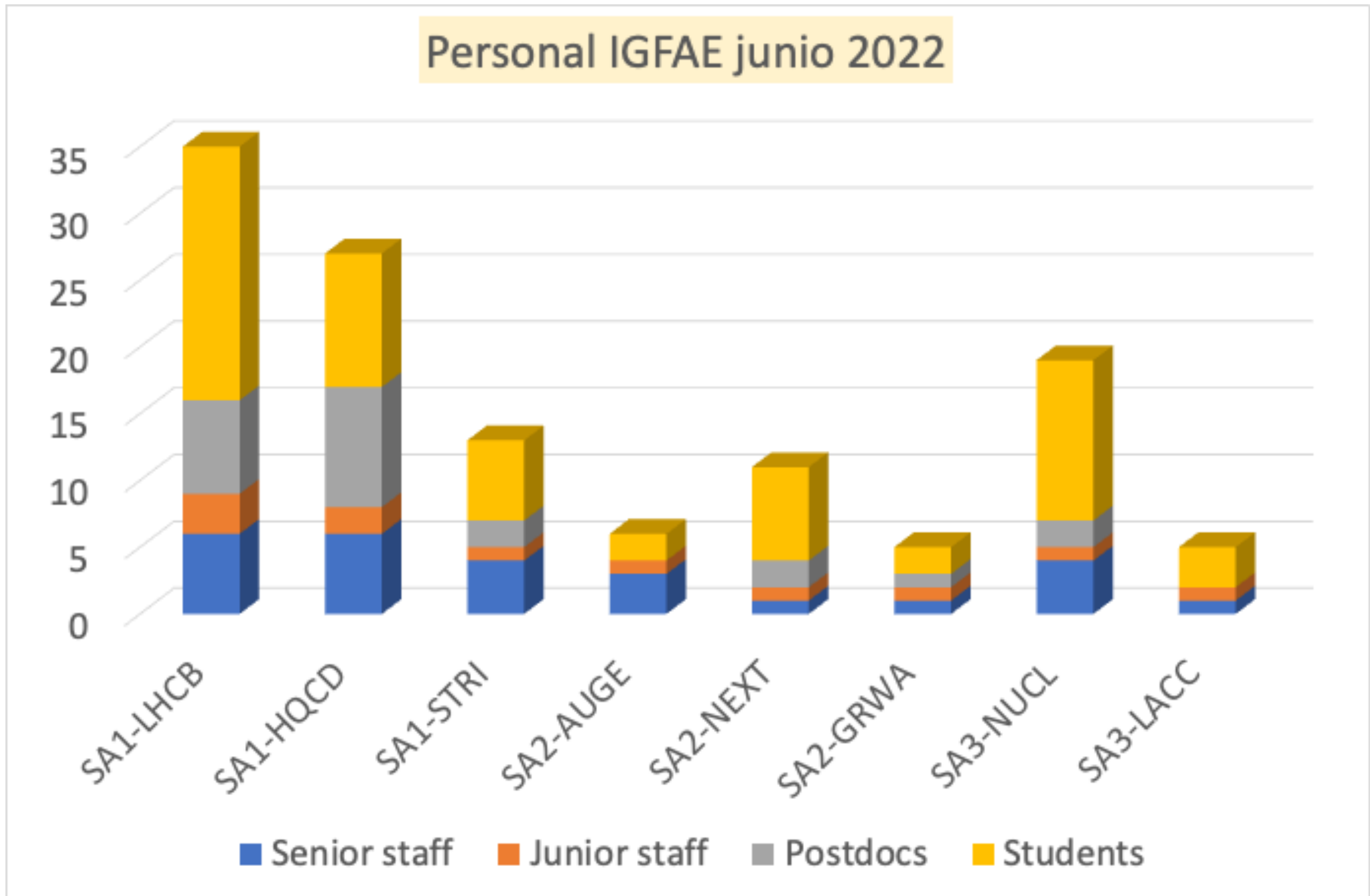
Structural documents provide managerial infrastructure

Talent

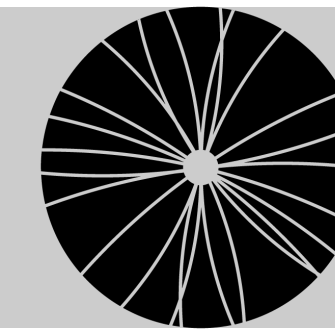


Personnel

Total number of people working at IGFAE: 151

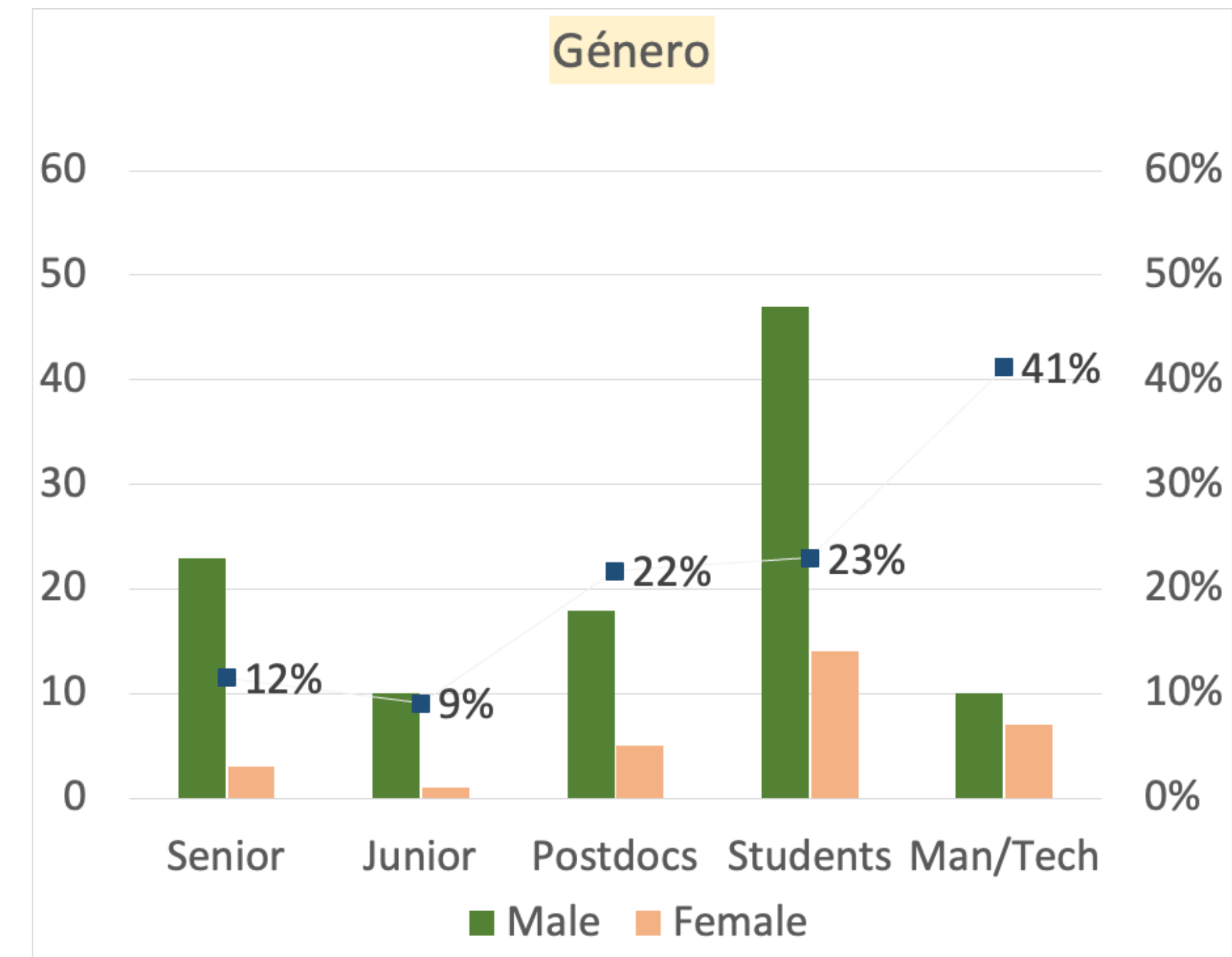
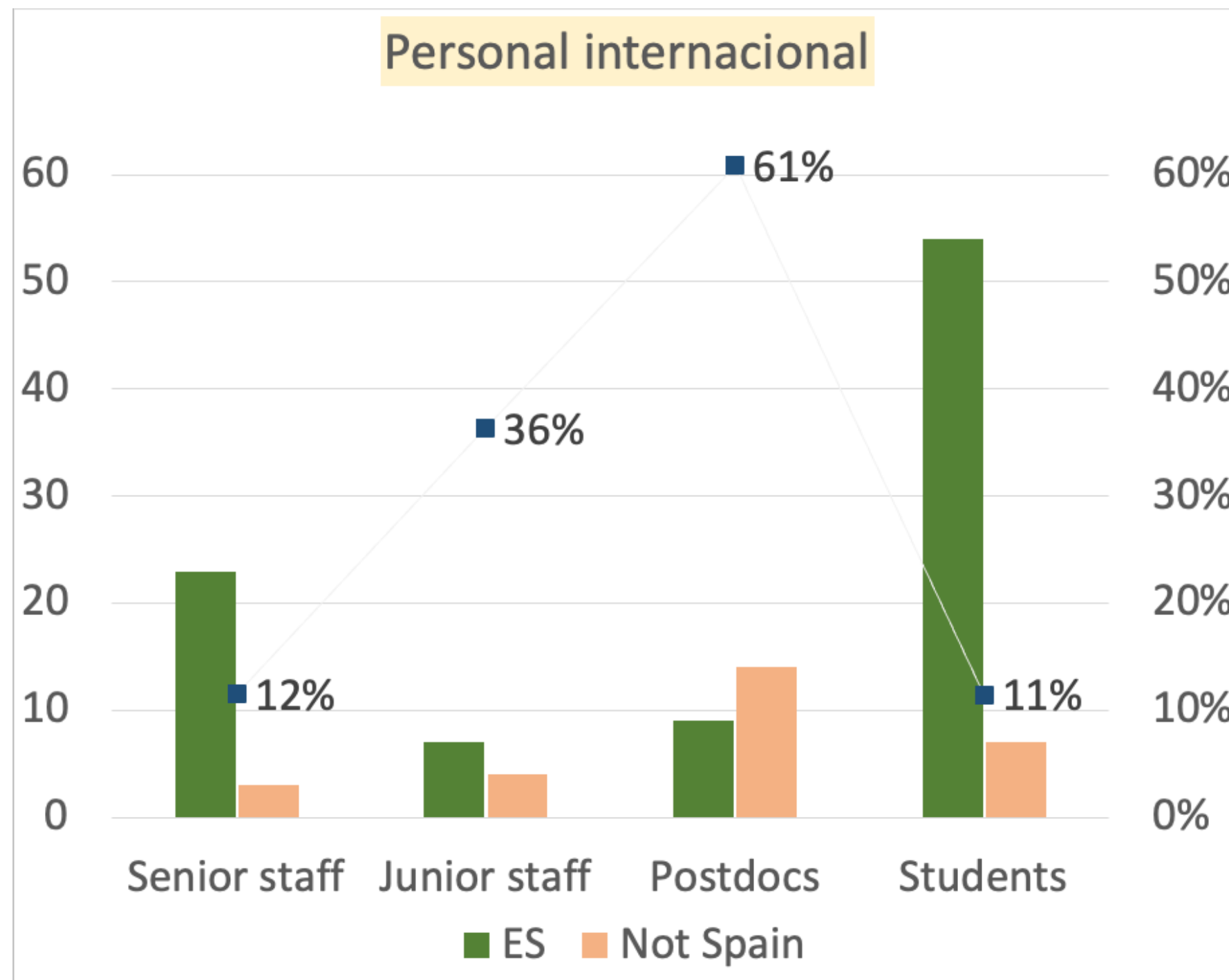


Diversity



IGFAE

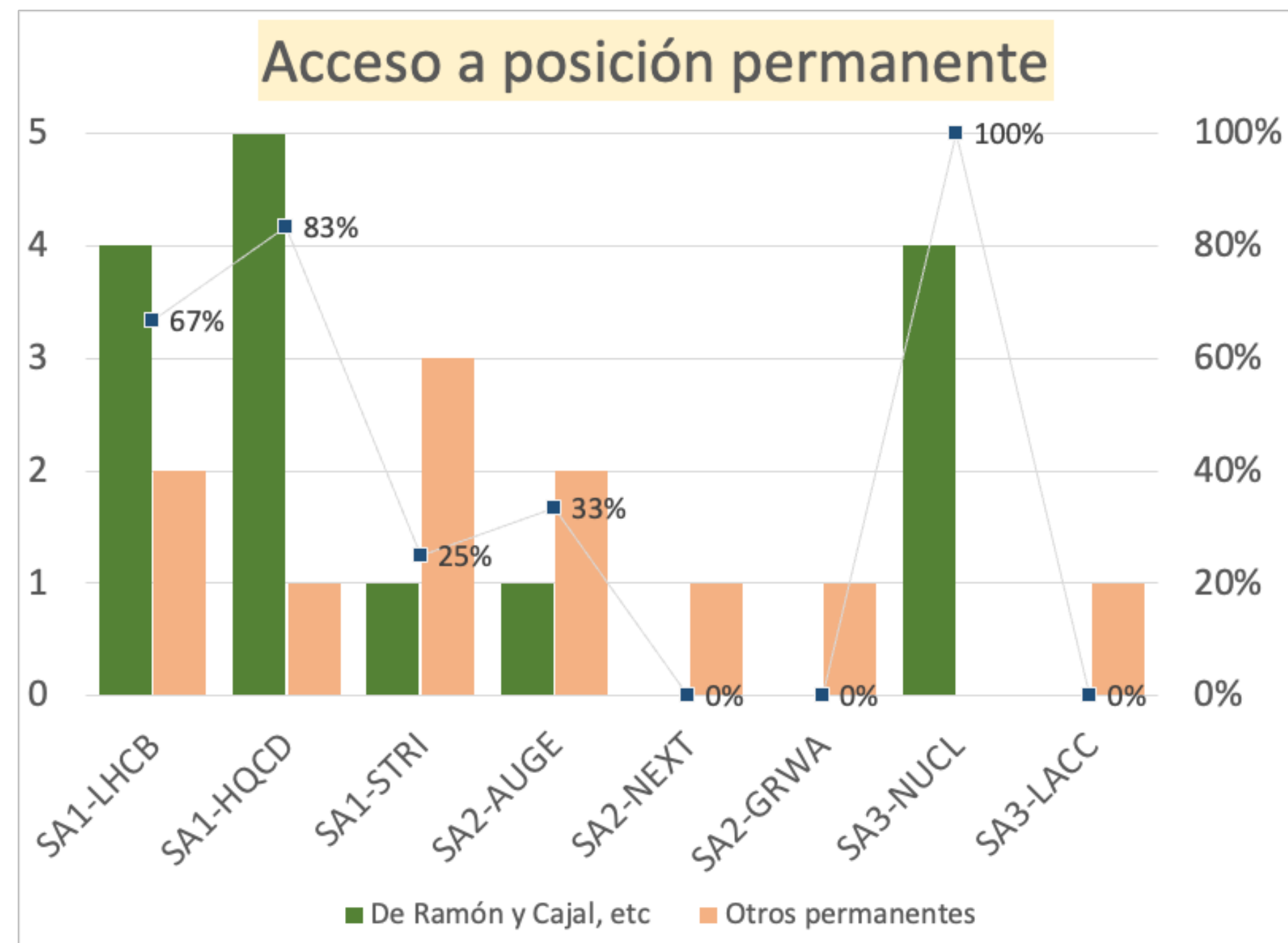
Instituto Galego de Física de Altas Enerxías



International scientific staff

Gender (im)balance

Relevance of RyC



60% of all permanent positions at IGFAE from RyC or similar programs

At present, only two ways for tenure

- University professor** associated to IGFAE
 - ▶ Only from RyC in the last 20 years
- Oportunius** - external program (GAIN-Xunta) only for ERC grantees

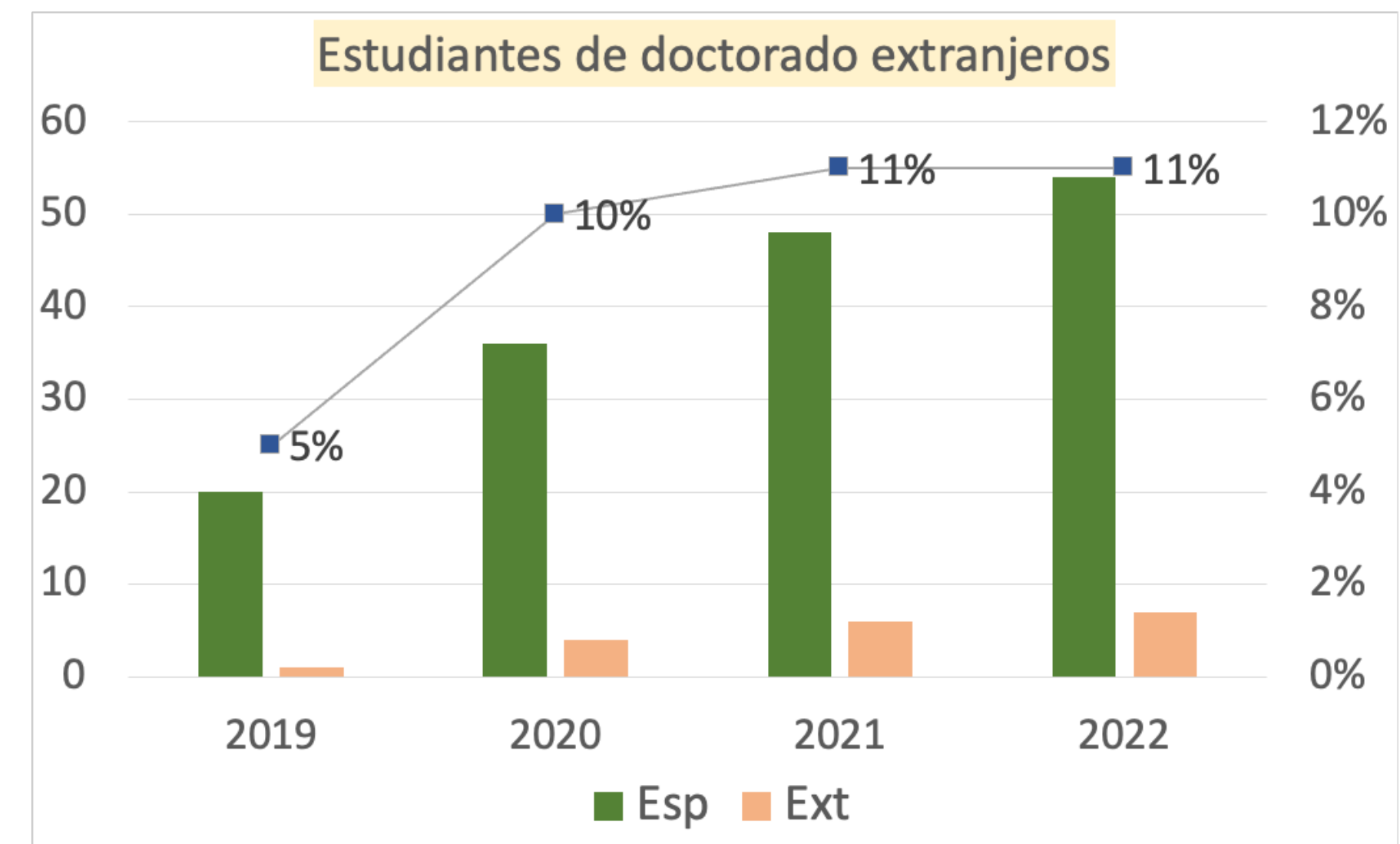
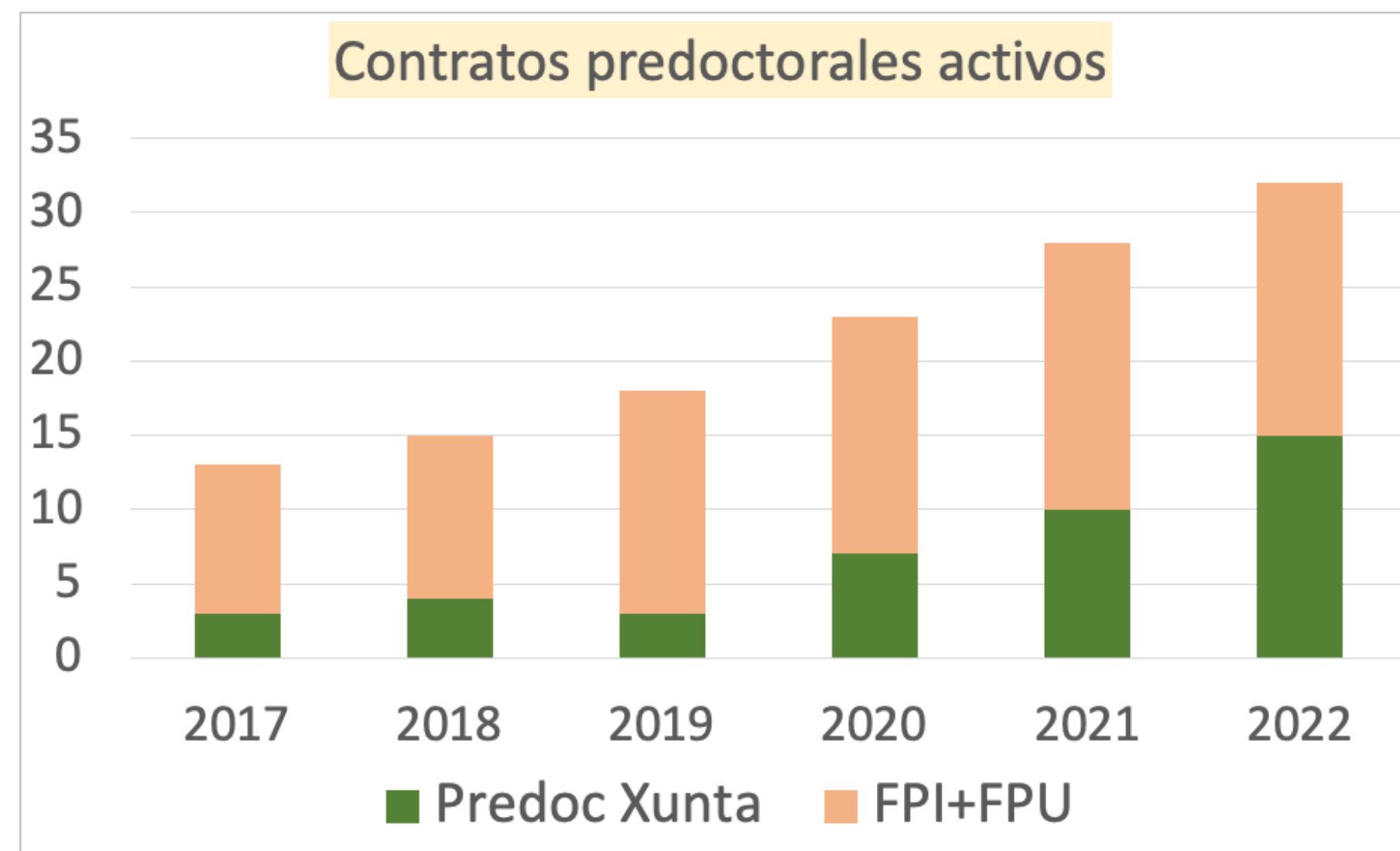
(Distinguished Researchers subject to external funds from IGFAE)

Attraction and training

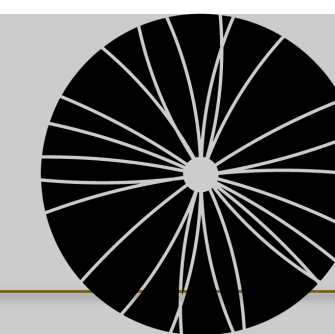
The cornerstone of 2017-2021 Strategy was attraction and training of international talent

- ▶ **Global Talent** - focus on junior staff
- ▶ **Postdoctoral program**
- ▶ **Predoc program**

With an accompanying program to support new lines —**IGNITE program**



Junior staff since 2017



IGFAE

Instituto Galego de Física de Altas Enerxías



2017
SA2_NEXT



2018
SA1_LHCB



2020
SA1_LHCB



2021
SA3_NUCL



2021
SA2_AUGE

Ramón y Cajal

Distinguished Researcher



2018
SA2_GRWA



2020
SA1



2021
SA1_LHCB



2021
SA1_HQCD



2018
SA1_STRI



2020
SA2_GRWA

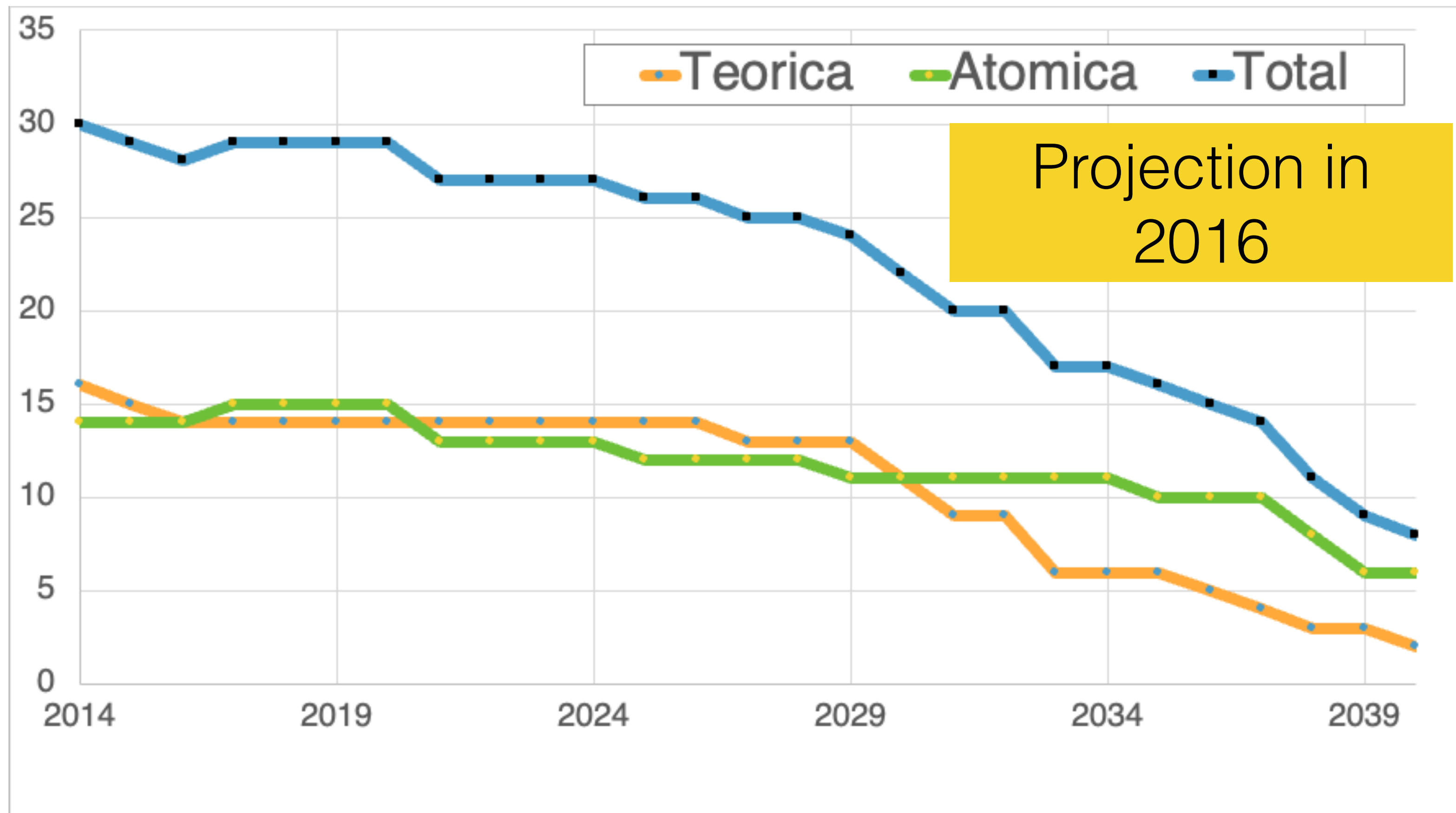


2020
SA3_LACC

La Caixa "Junior leader"

Projection of personnel

Staff permanente IGFAE (university professors)



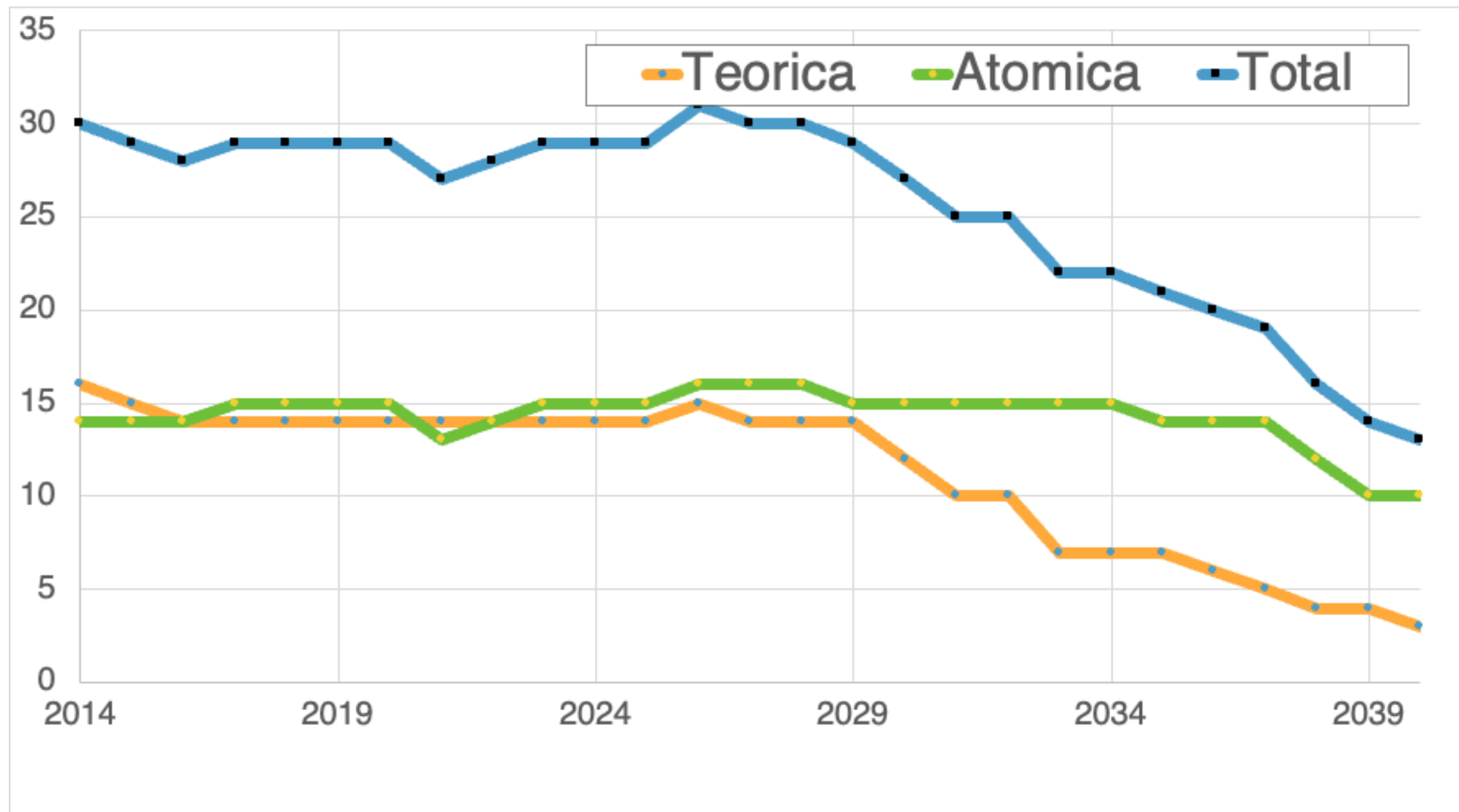
“Teórica”
[HQCD, STRI, AUGÉ, GRWA]

“Atómica”
[LHCB, NEXT, NUCL, LACC]

[Each kink up is a RyC that gets tenured and each kink down a retirement]

Projection of personnel

Staff permanente IGFAE (university professors)

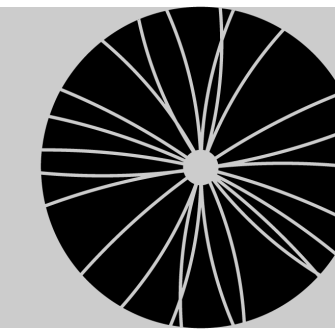


“Teórica”
[HQCD, STRI, AUGÉ, GRWA]

“Atómica”
[LHCB, NEXT, NUCL, LACC]

[Each kink up is a RyC that gets tenured and each kink down a retirement]

Marie Curie Actions



IGFAE

Instituto Galego de Física de Altas Enerxías

Postdoc



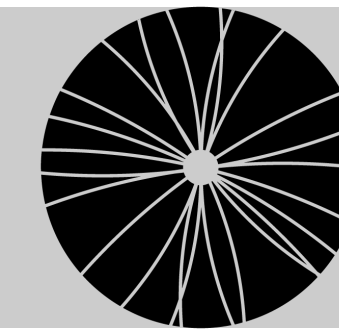
INPhINIT - La Caixa



Support to Marie Curie Actions

- Strong increase of applications
- Two MSCA IF Fellows in the last two calls (same as the whole previous IGFAE history)
- Training and correction of applications (5-6 per year in 2020 y 2021)

Marie Curie Actions



IGFAE

Instituto Galego de Física de Altas Enerxías

Postdoc



MARIE CURIE ACTIONS



MARIE CURIE ACTIONS

INPhINIT - La Caixa



YOU ARE SUPPOSED TO **ACTIVELY** LOOK FOR CANDIDATES
(IGFAE POSTDOCS WELCOME TO APPLY IF ELIGIBLE)

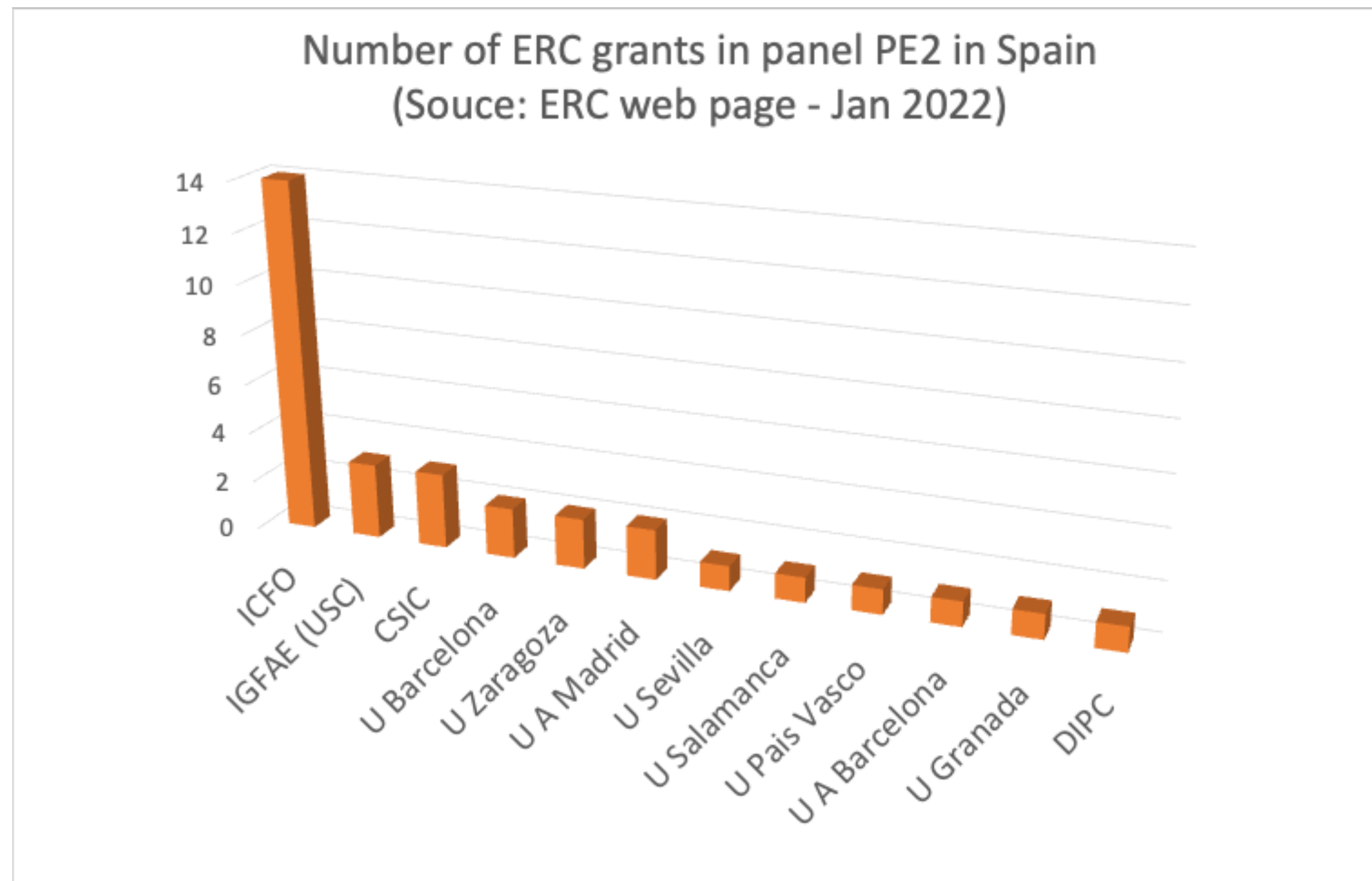
**NEXT TRAINING SESSION THIS FRIDAY 8TH
PLEASE, CONTACT RICARDO!**

Support to Marie Curie Actions

- Strong increase of applications
- Two MSCA IF Fellows in the last two calls (same as the whole previous IGFAE history)
- Training and correction of applications (5-6 per year in 2020 y 2021)

ERC Grants in panel PE2

IGFAE second in Spain in PE2



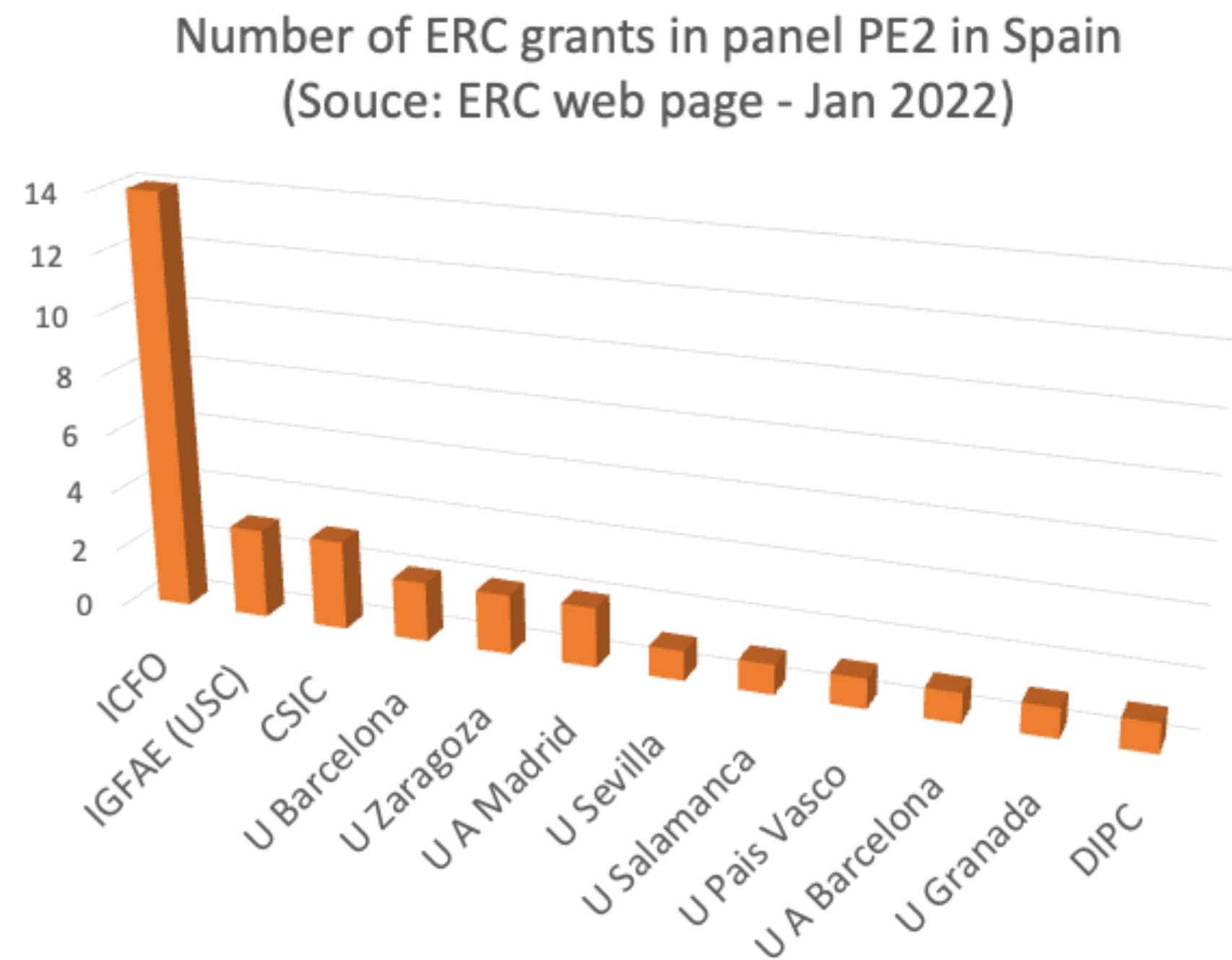
Growing number of applications

- 3 applications StG in 2021
 - 4 applications in 2022 (StG & CoG)
- 1 StG in Step 2**

[ERC projects are strategic for IGFAE visibility and positioning]

ERC Grants in panel PE2

IGFAE second in Spain in PE2



Growing number of applications

- 3 applications StG in 2021
 - 4 applications in 2022 (StG & CoG)
- 1 StG in Step 2**

[ERC projects are strategic for IGFAE visibility and positioning]

Support for ERC applications

[All juniors are supposed to apply]

Please, contact me if interested

IGNITE program



Top priority to new ideas with potential to attract external funds in the future

2019 call

Diego González [RyC] *Gas TPCs with fast timing capability (T0) for the DUNE Near Detector*

Xabier Cid [RyC] *Codex-b, an experiment to unveil BSM physics searching for Long Lived Particles*

Pablo Cabanelas [postdoc] *PHARMI: Phoswich scintillator assembly for medical imaging*

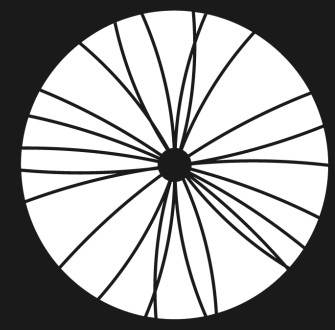
2021 call

Antonio Fdez Prieto, Edgar Lemos [Engineers] *Coaxial Prompt Gamma-ray Monitoring for proton therapy*

Proof-of-concept project to transfer detector technology to the medical sector

Juan Calderon [Junior La Caixa] *Gravitational Wave Patterns for Compact Star*

Explore synergies between the HQCD (neutron stars) and GRWA programs



IGFAE

Instituto Galego de Física de Altas Enerxías

Strategic Research Areas

SA1: The Standard Model to the limits

LHCb
QCD

Teoría de Cuerdas
Fenomenología

SA2: Particles from the Cosmos and fundamental Physics

Pierre Auger
LIGO
NEXT
Fenomenología
DUNE [New]

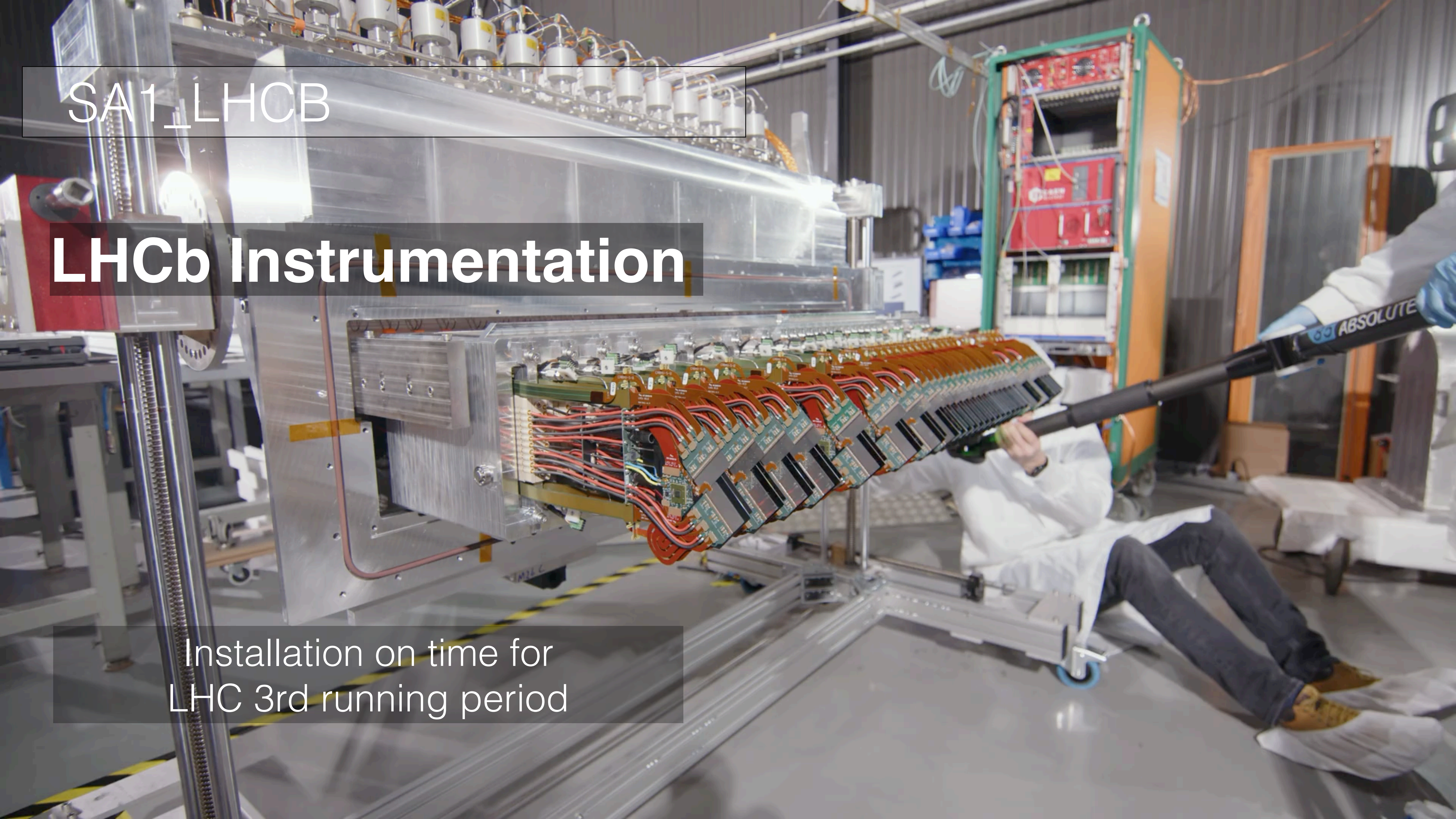
SA3: Nuclear Physics from the lab to improve people's health

GSF-FAIR
ACTAR
Laserpet

SA1_LHCB

LHCb Instrumentation

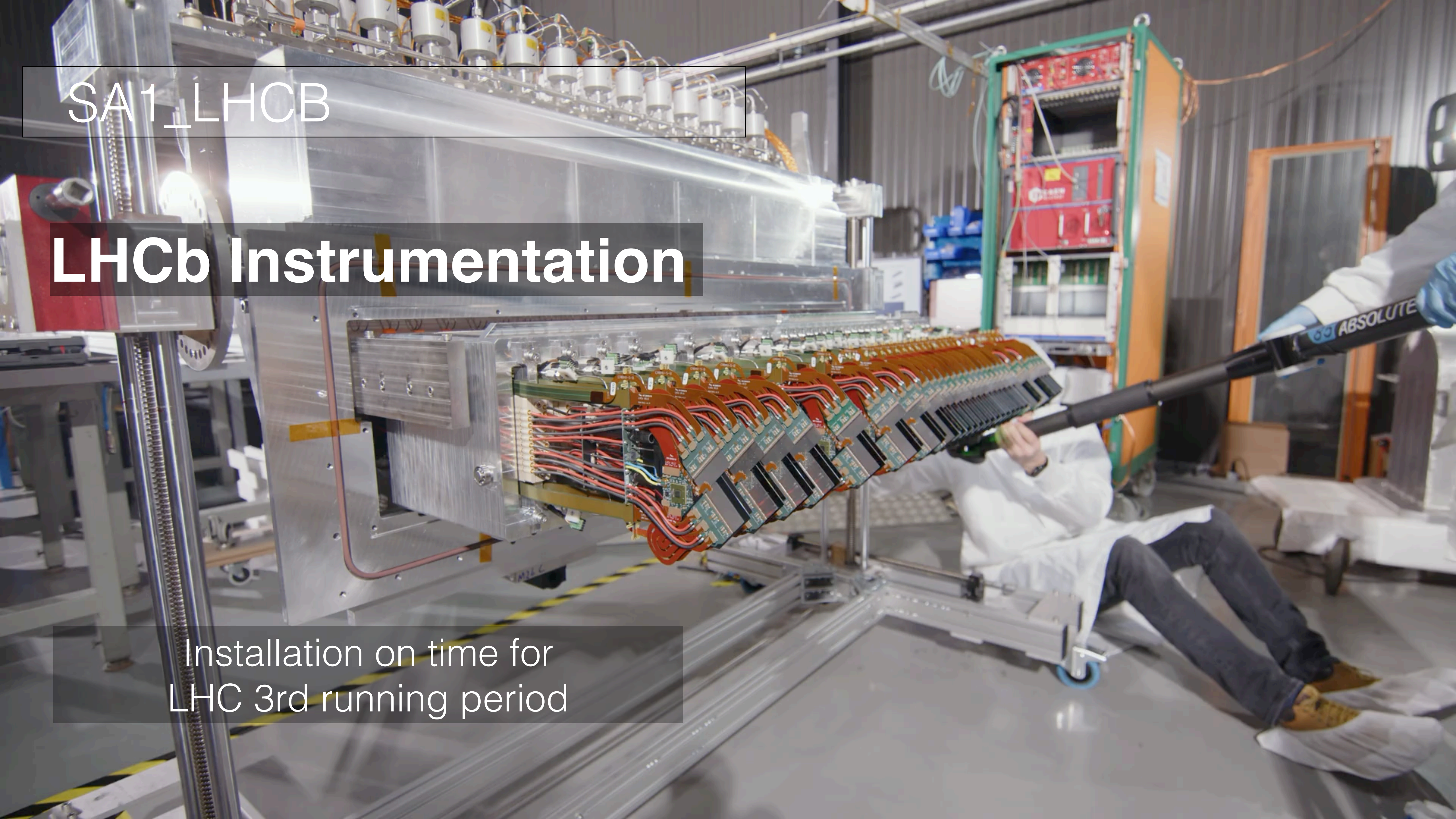
Installation on time for
LHC 3rd running period



SA1_LHCB

LHCb Instrumentation

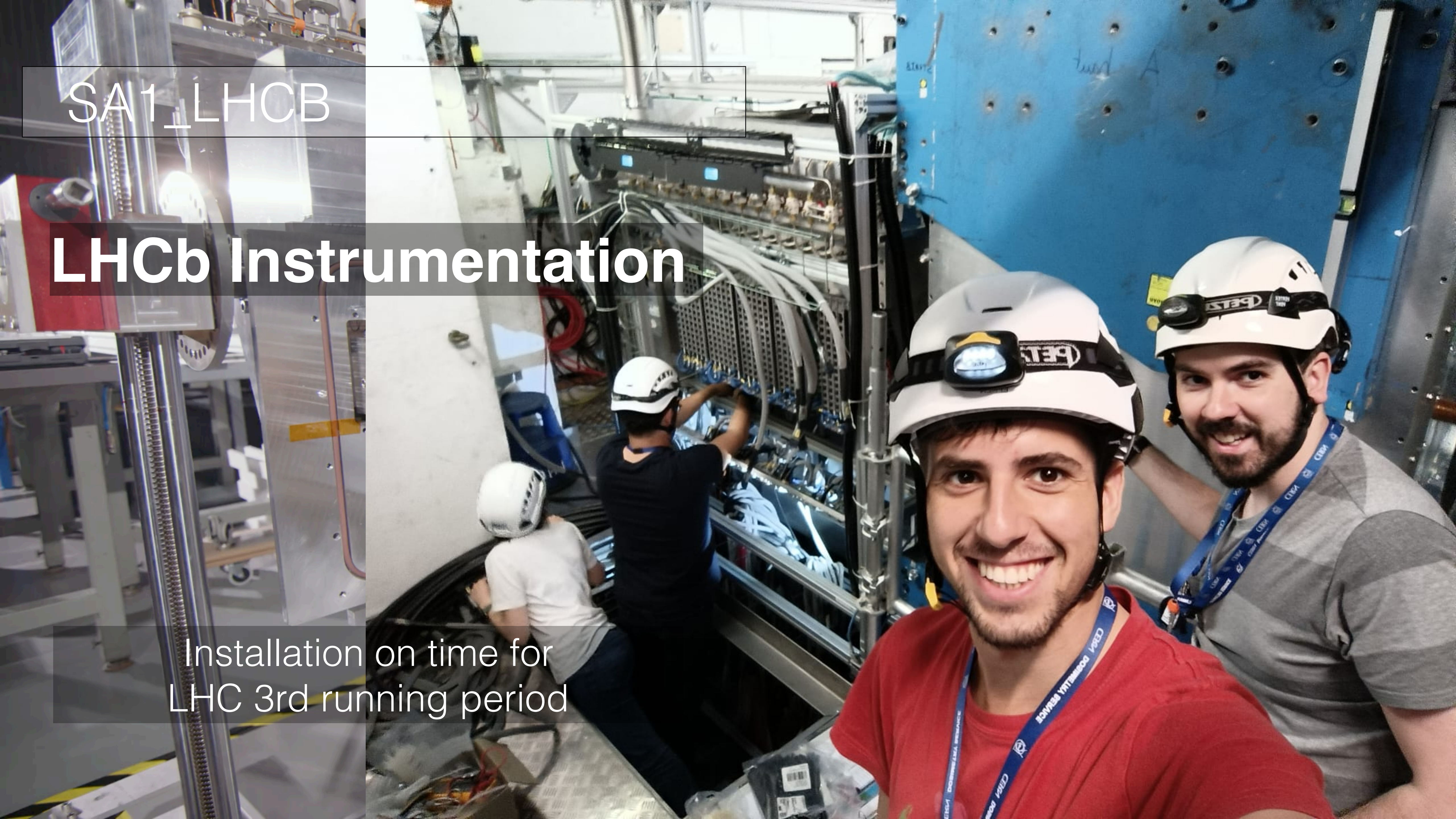
Installation on time for
LHC 3rd running period



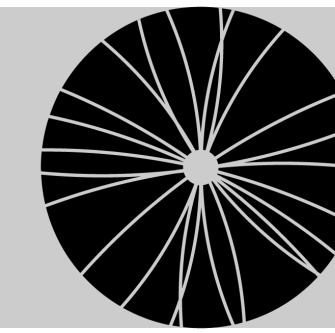
SA1_LHCB

LHCb Instrumentation

Installation on time for
LHC 3rd running period



SA1_LHCB - análisis

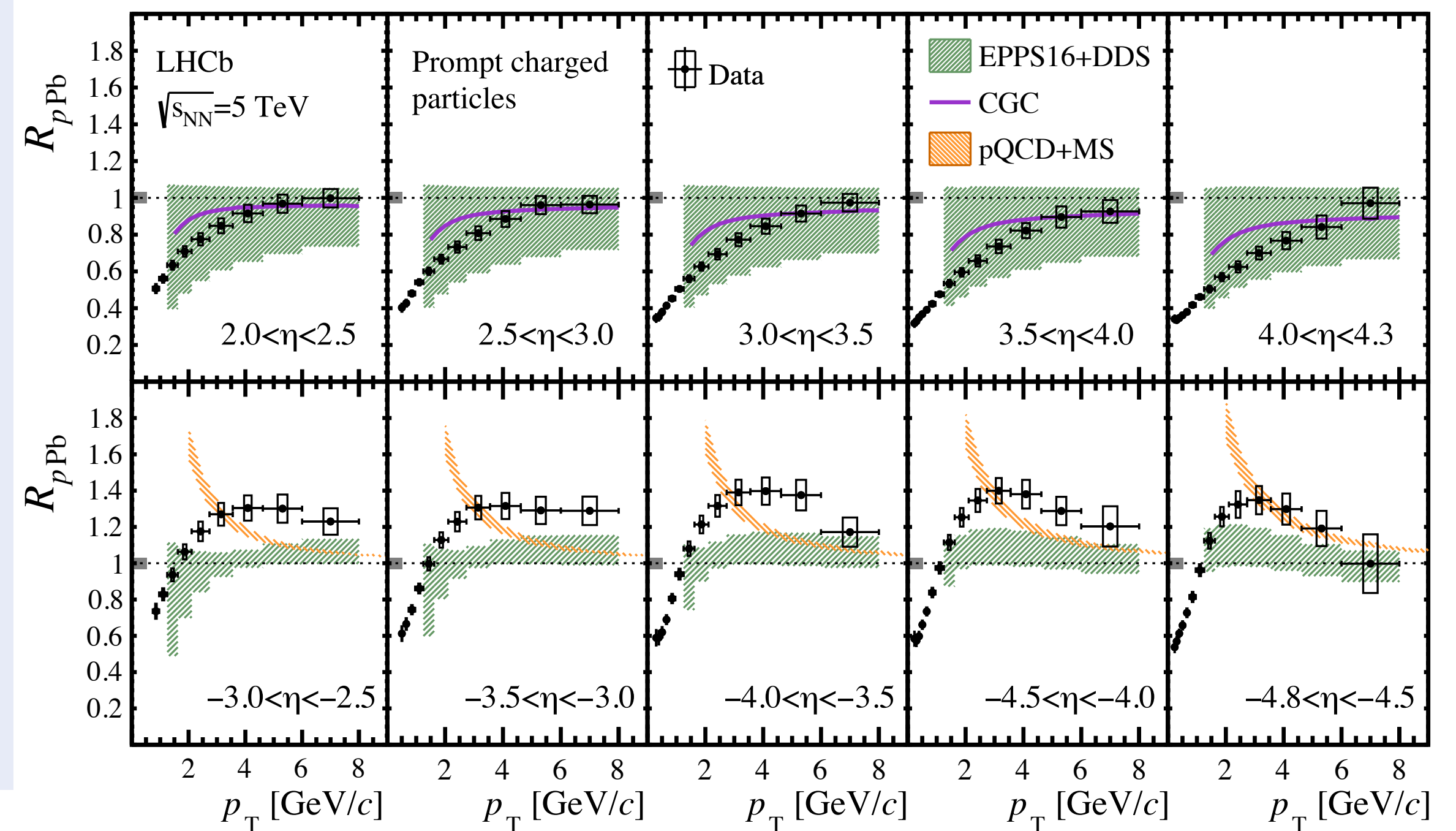
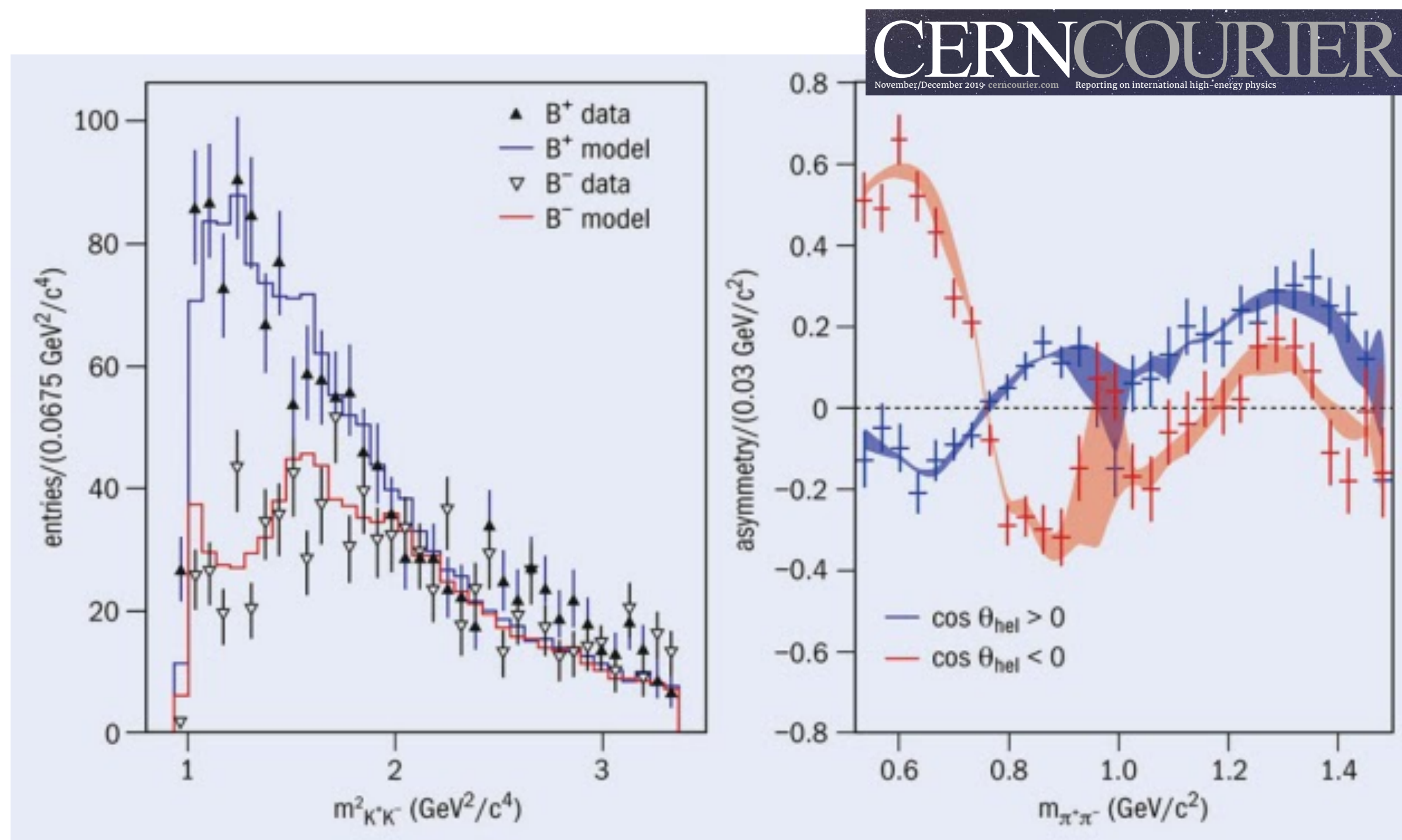


IGFAE

Instituto Galego de Física de Altas Enerxías

E.g. Violación CP en $B \rightarrow 3\text{Pions}$

First pPb at IGFAE LHCb



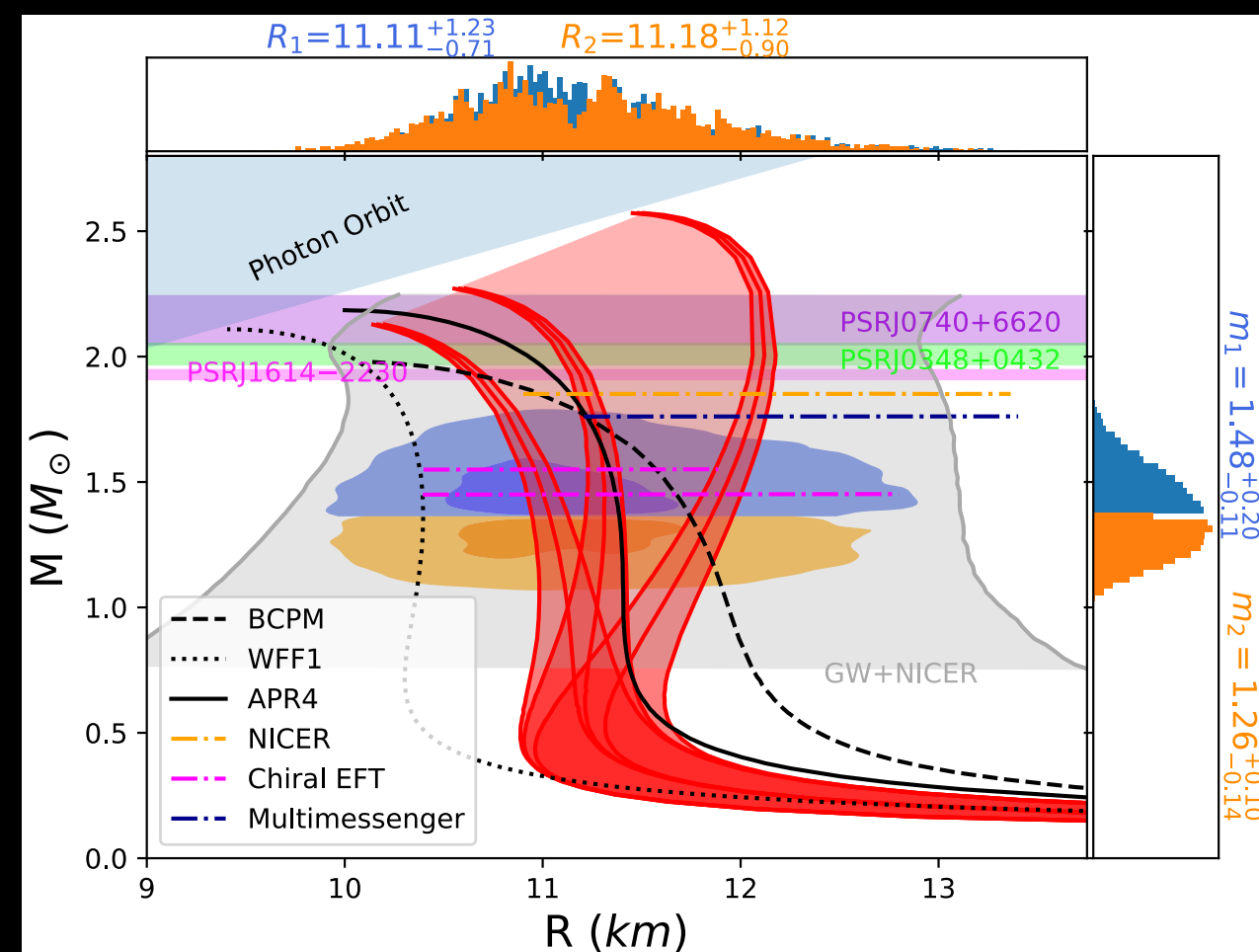
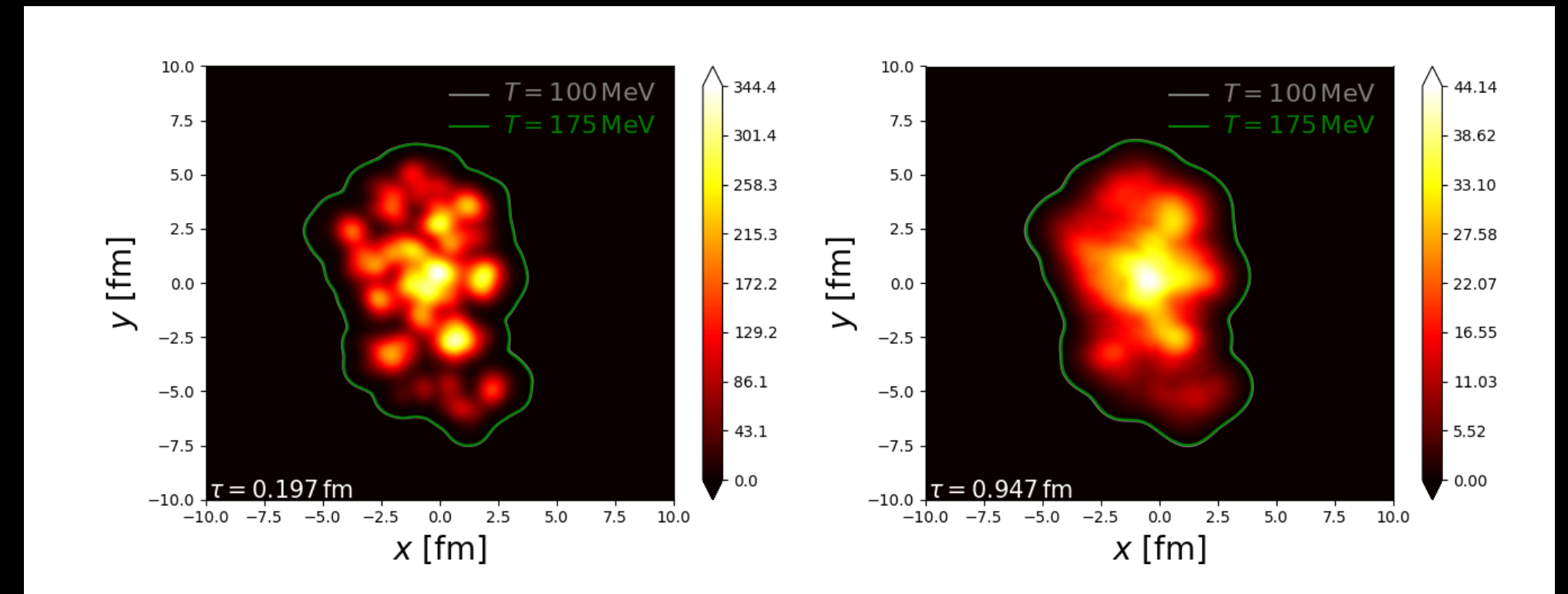
Challenging the Standard Model of Particle Physics
— still not clear signal of departure... but some of the most interesting results from LHC

SA1_QCD

Hot and dense QCD

To study the first levels of complexity at the level of fundamental particles

Thermalization in yoctoseconds in LHC experiments



Neutron star EoS

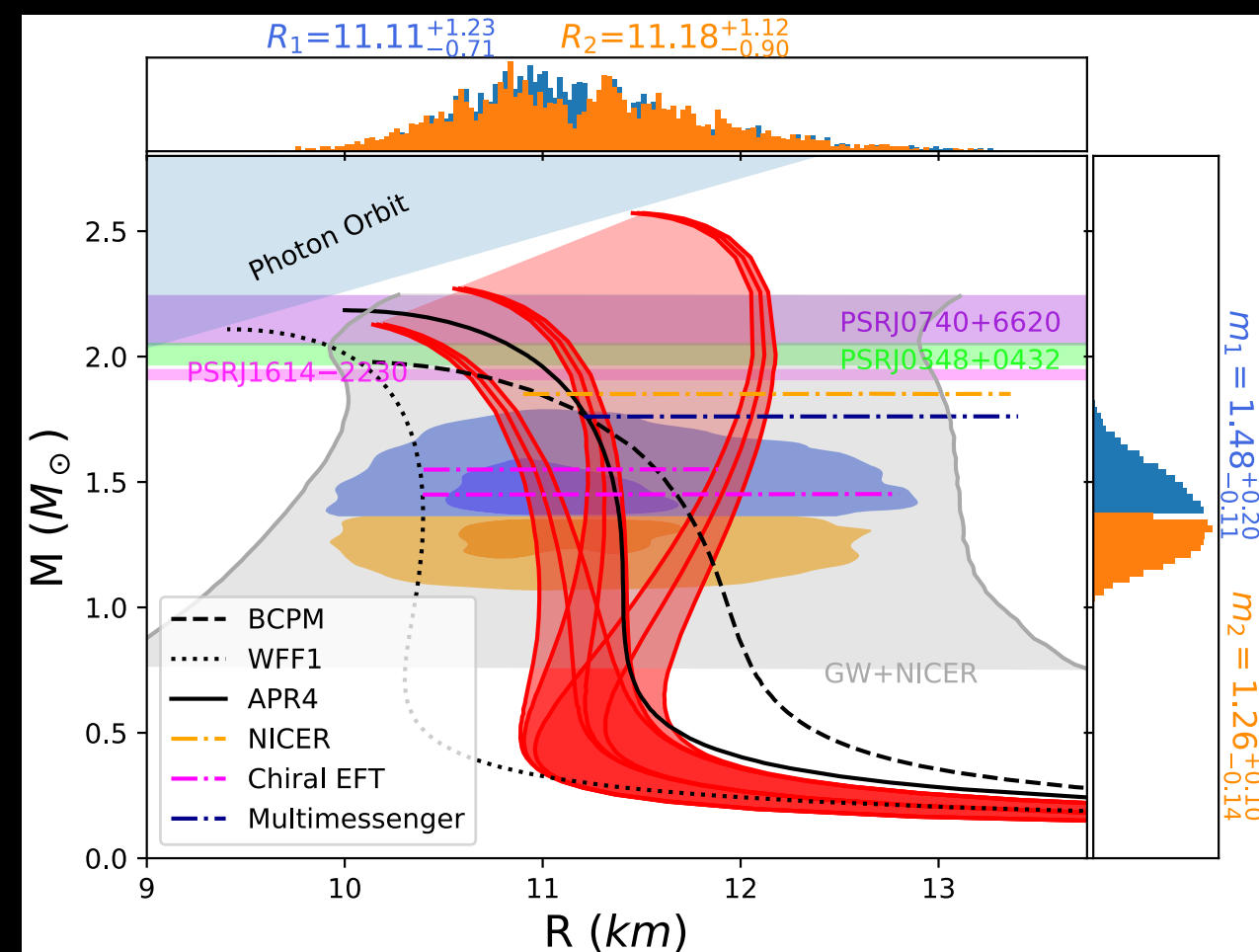
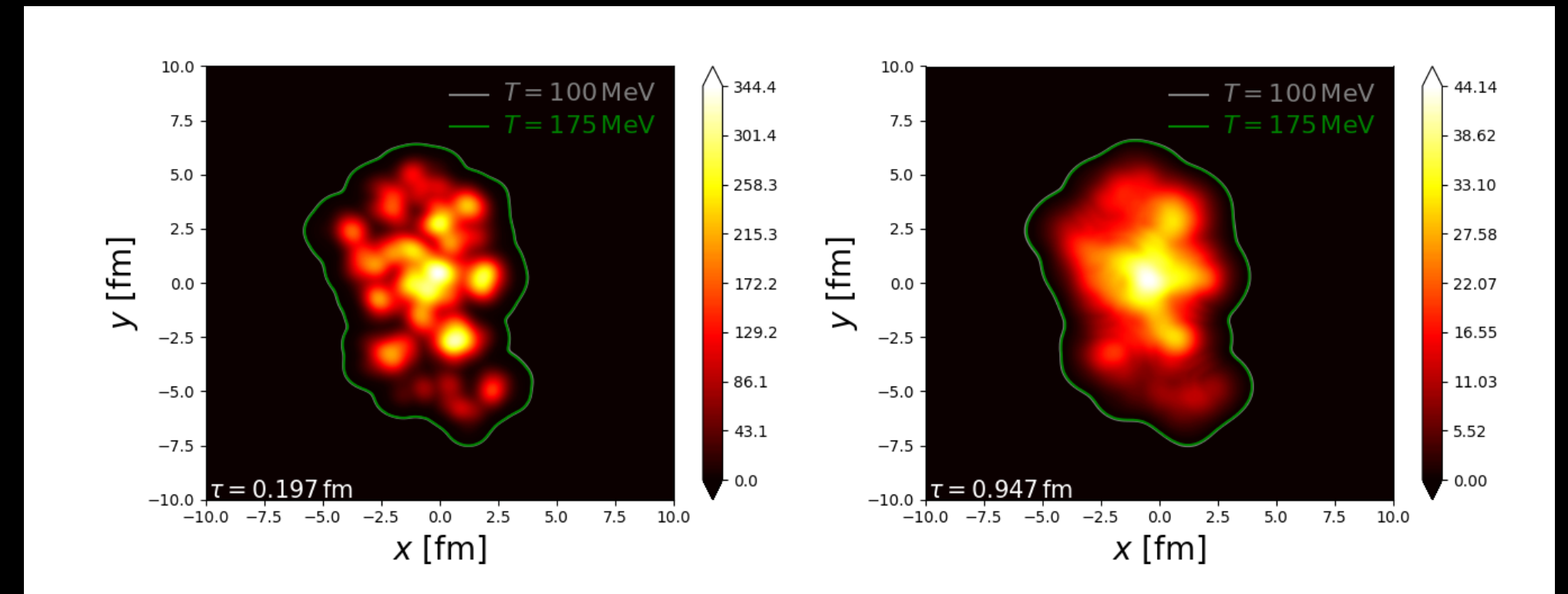


SA1_QCD

Hot and dense QCD

To study the first levels of complexity at the level of fundamental particles

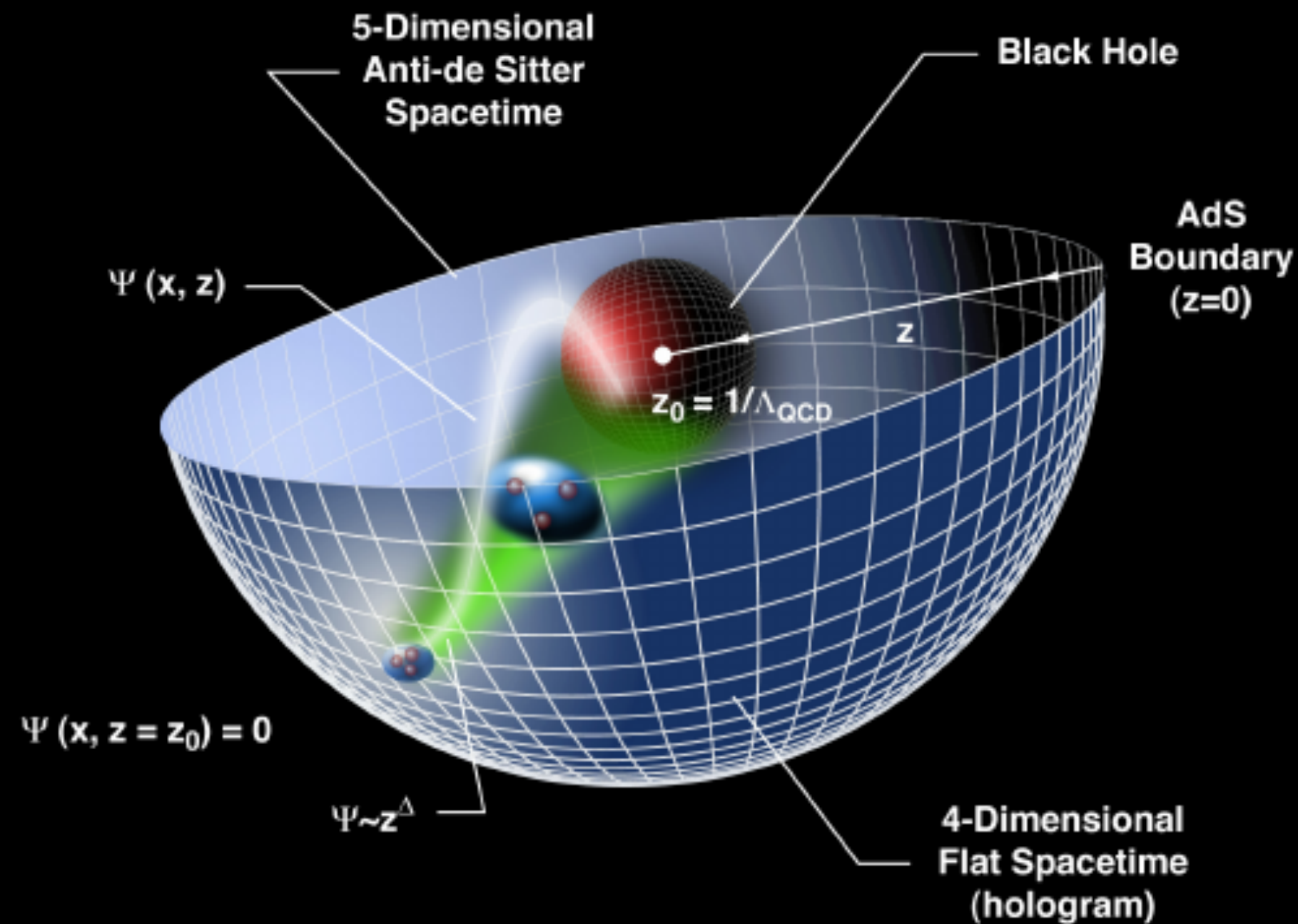
Thermalization in yoctoseconds in LHC experiments



Neutron star EoS



SA1_STRI



Strongly coupled quantum systems with holography

Anisotropic holographic fluids
Flow of information in ABJM theory
Multilayer systems
Numerical holography

Integrability in String Theory and AdS/CFT

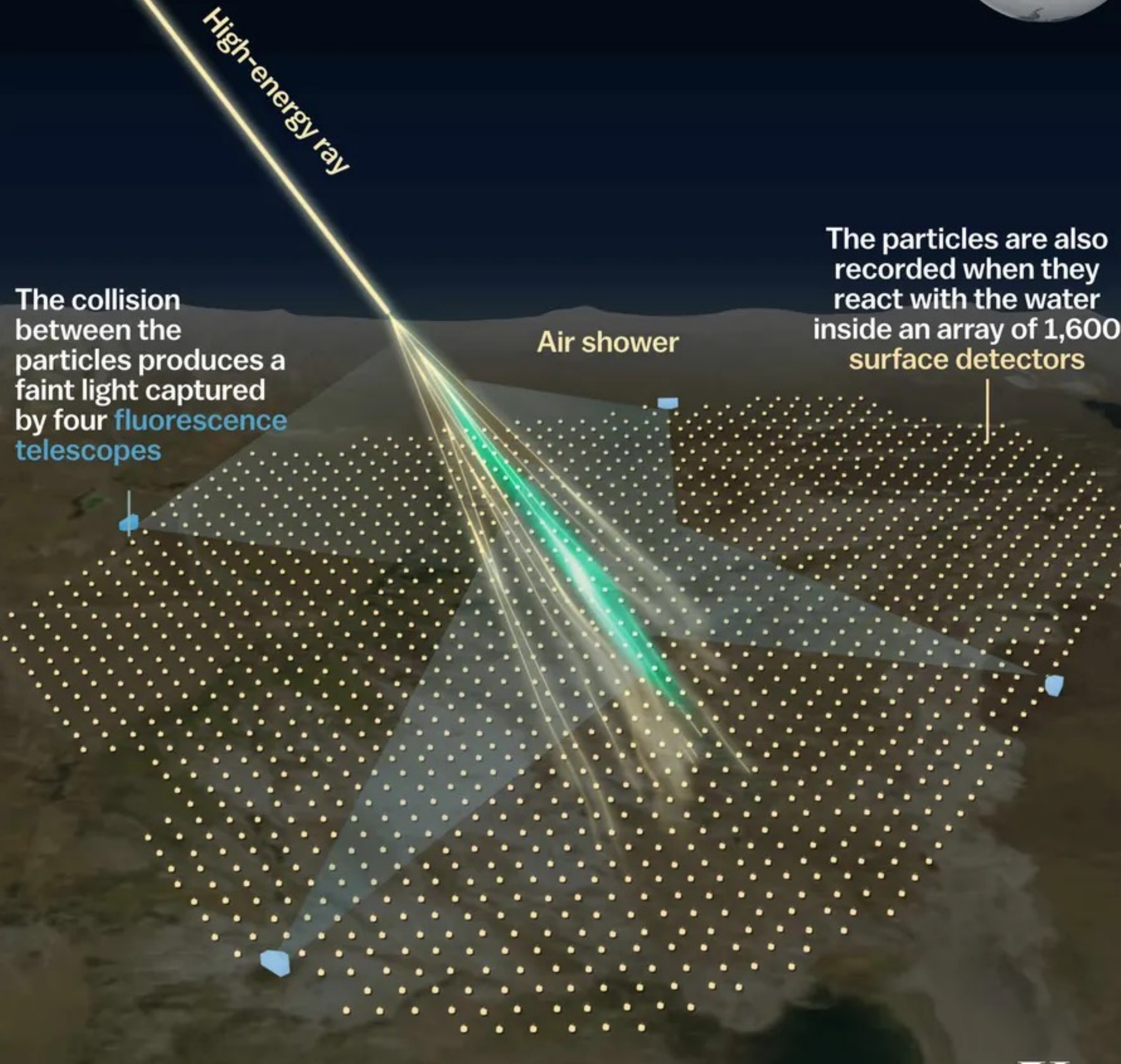
From GR to quantum gravity

Geometric inflation

Also very active in quantum information - quantum computing

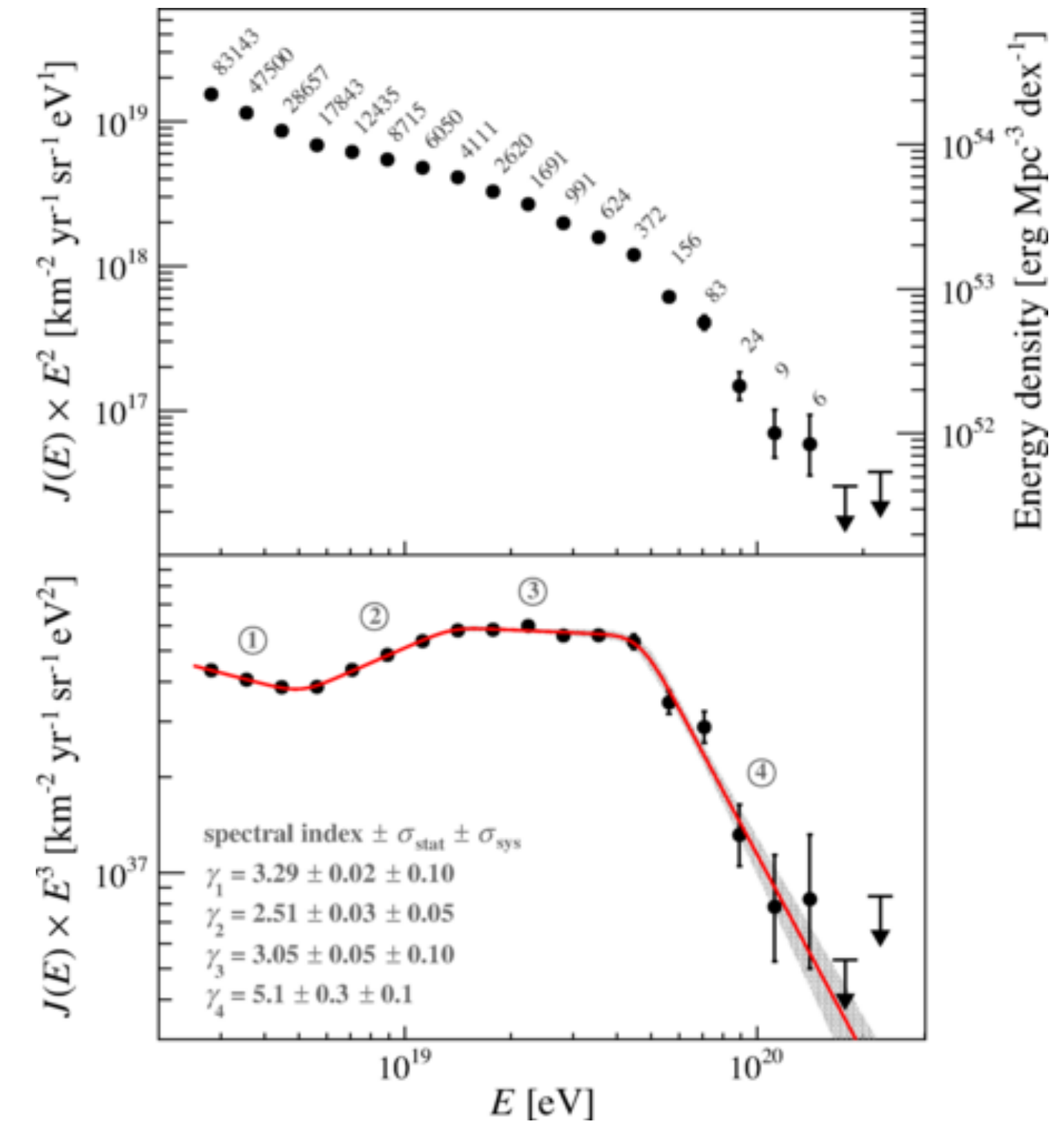
Pierre Auger Observatory

The observatory is a detector of high-energy cosmic rays that uses two different techniques



SA2_AUGE

Energy spectrum of UHECR



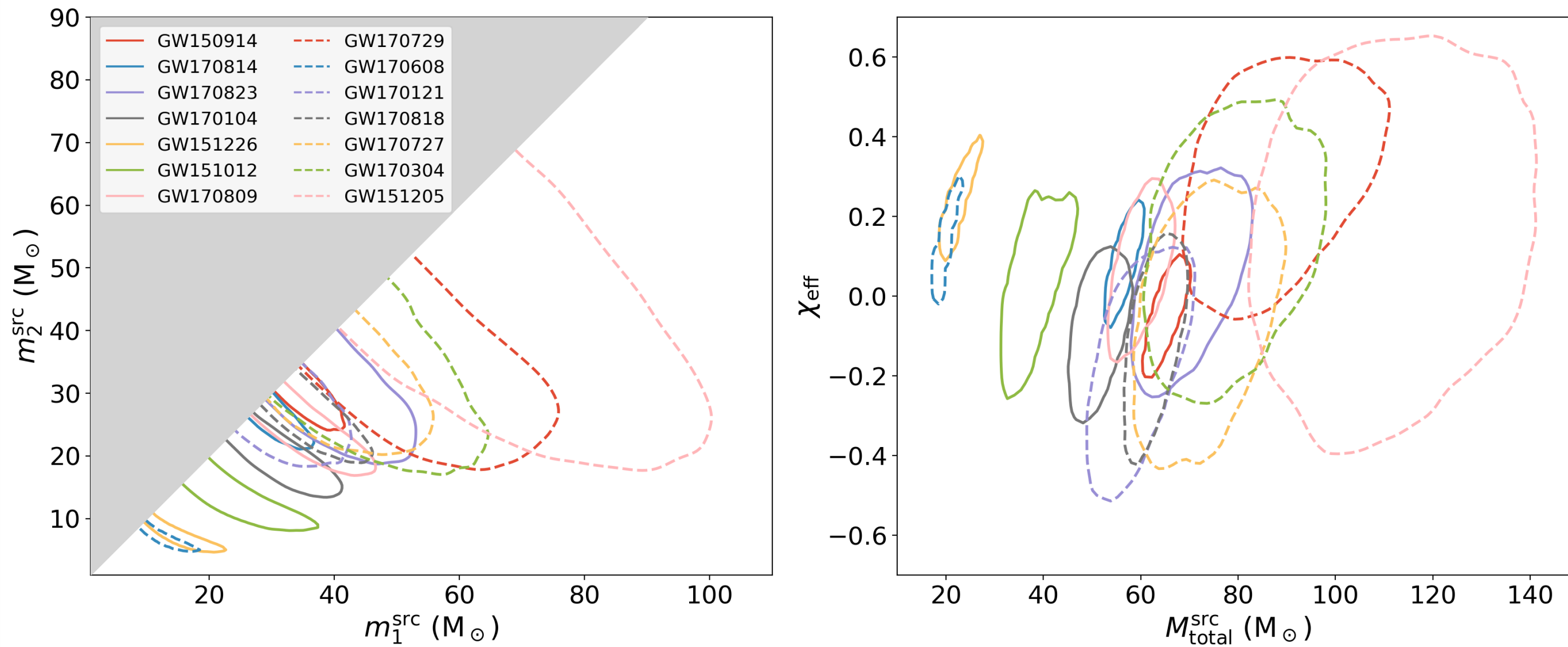
Change of slope at 13×10^{18} eV

Excludes UHECR from small number of nearby sources

Multimessenger Astronomy - with SA2_GRWA



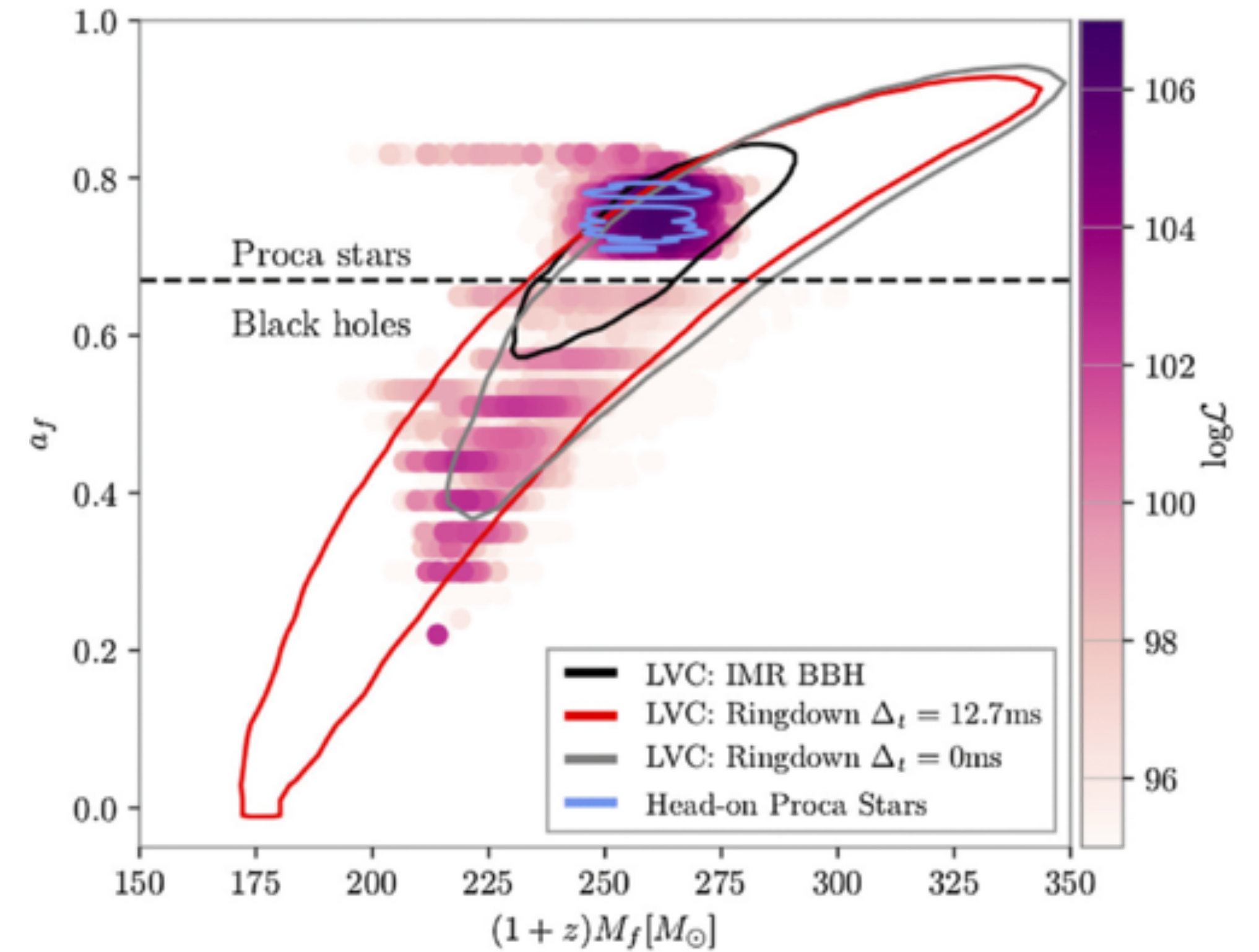
SA2_GRWA



2-OGC: Open GW catalog

Leading role in PyCBC pipeline

GW190521 as a Merger of new boson stars?



Science Focus

Why people think
THEY CAN HEAR THE DEAD

How to beat
COVID-19 BY 2022

How to teach
A MACHINE TO TELL A STORY

DARK

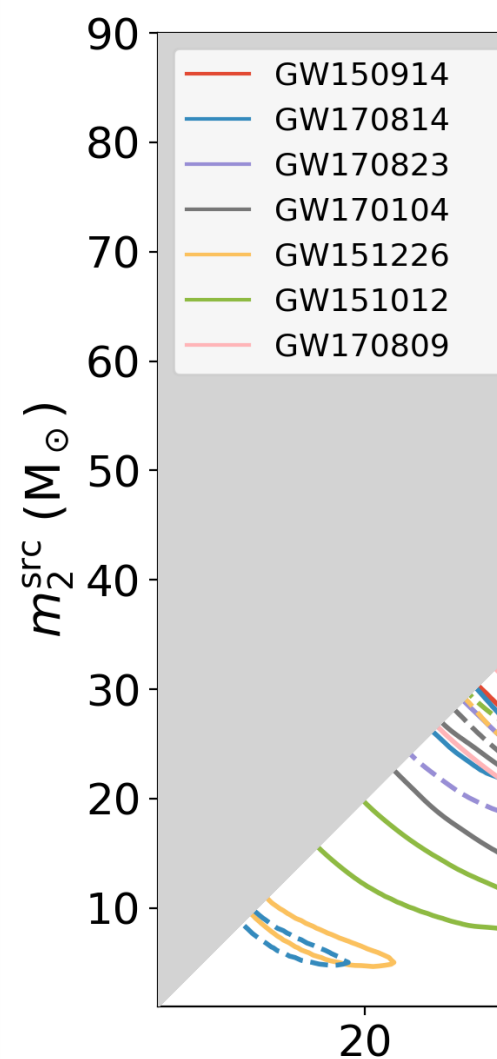
STARS

How a string of strange discoveries
could reveal a cosmos hidden just out of view

IN THIS ISSUE — **Health** — **Nature** — **Environment**

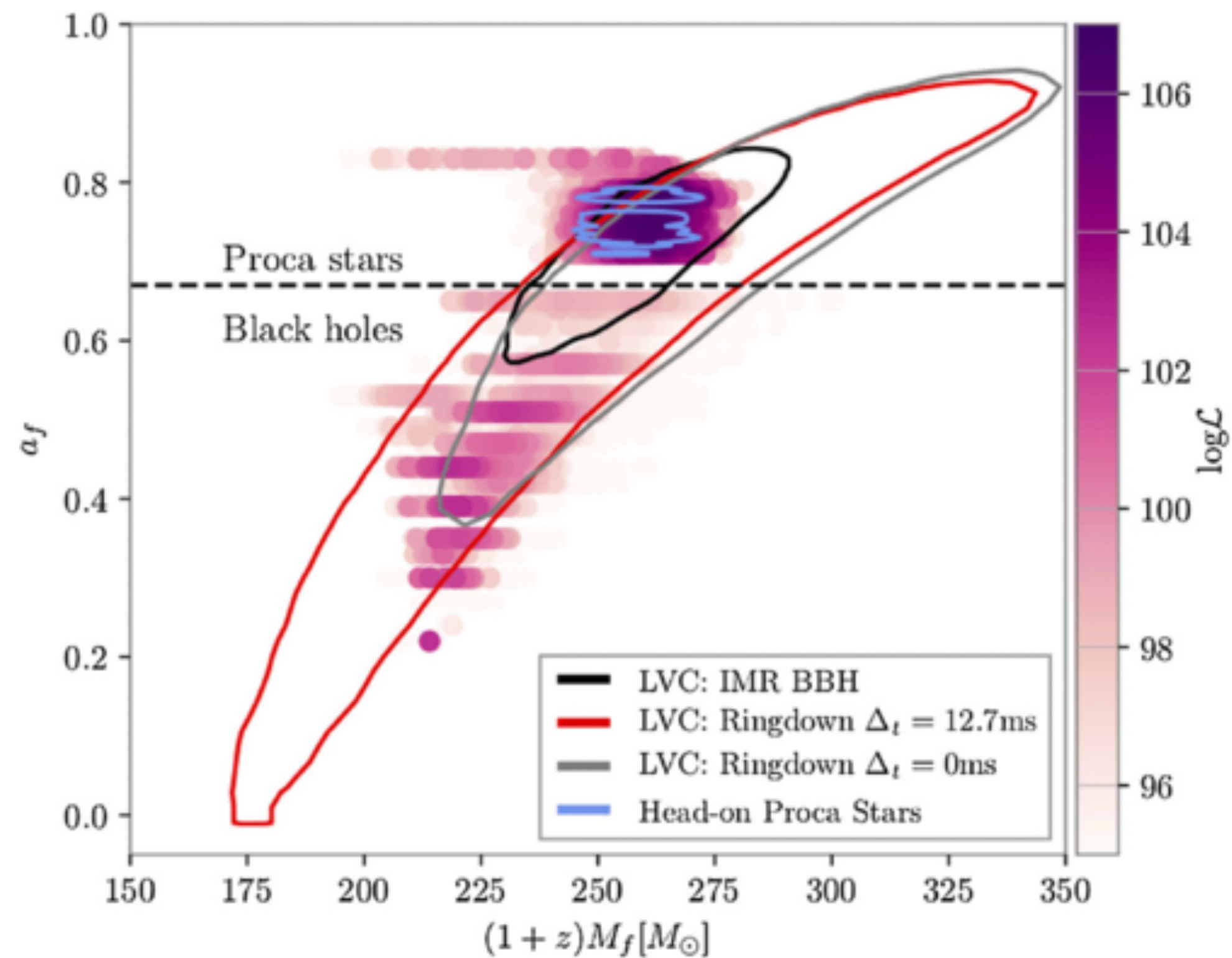
The truth about gene-edited food | Are climbing plants conscious? | Genius zero-waste inventions

SA2

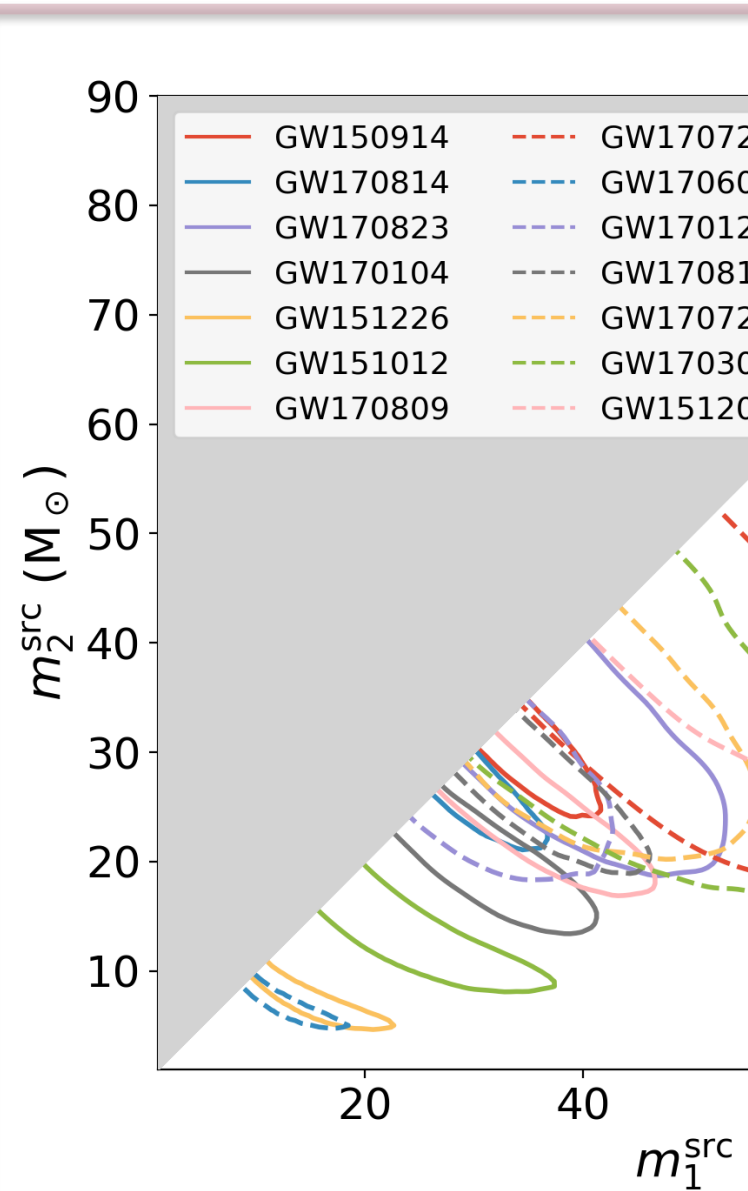


2-00

GW190521 as a Merger of new boson stars?

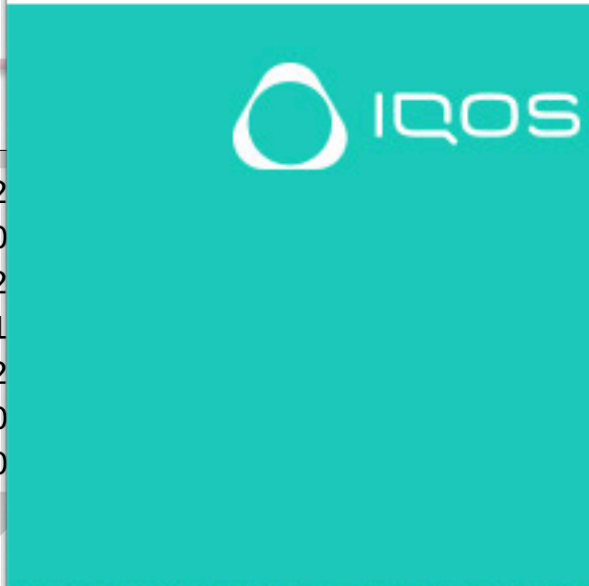


SA2_G



2-OGC: C

Lead



Este

Actualidad • Confirmaría la existencia de estos objetos y, con ellos, la de la materia oscura

El misterioso motivo que explicaría la mayor onda gravitacional: la fusión de dos estrellas bosones

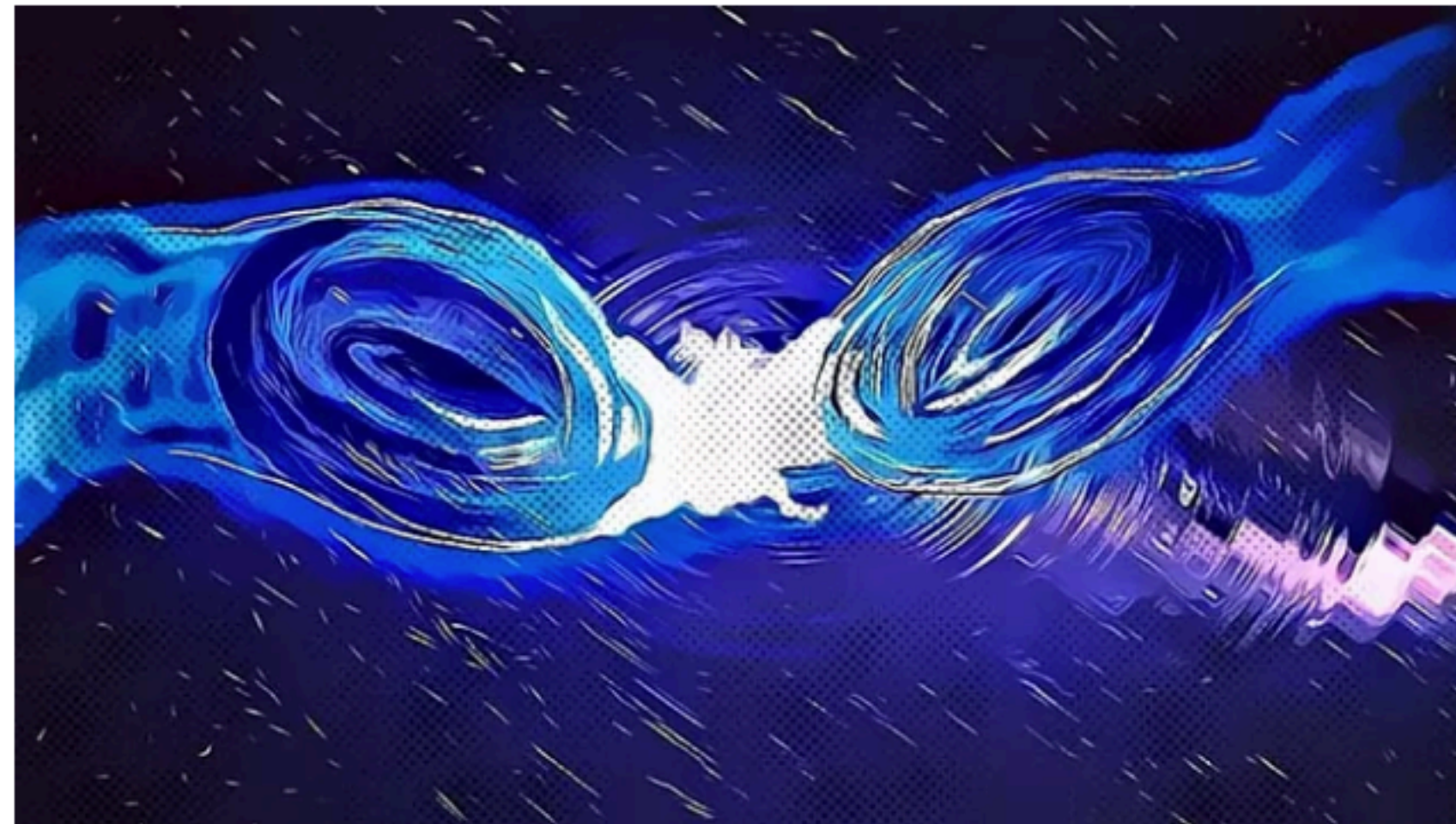


Ilustración de la fusión de dos estrellas de bosones EFE

EFE

Actualizado 25/02/2021 - 09:39



La mayor onda gravitacional captada hasta el momento puede no ser fruto de la colisión de dos agujeros negros, sino tener un motivo más misterioso, la fusión de dos estrellas de bosones, lo que confirmaría la

Relacionados

[Luna de nieve: qué significa y cómo ver la luna llena con la que se despide febrero](#)

[Descubren indicios de un mundo habitable en la vecina estrella de Alpha Centauri A](#)

PUBLICIDAD

MARCA Plus PARTIDO A PARTID
MAD CUP

DESCARGALA EN:

PUBLICIDAD

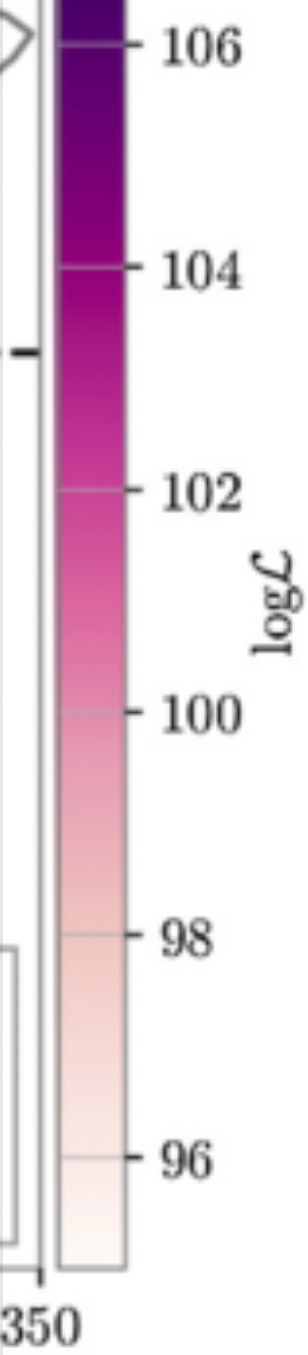
Rebajas en Camper
Camper

Powered by: SMARTCORE INDUCTION SYSTEM™

Descúbrelo

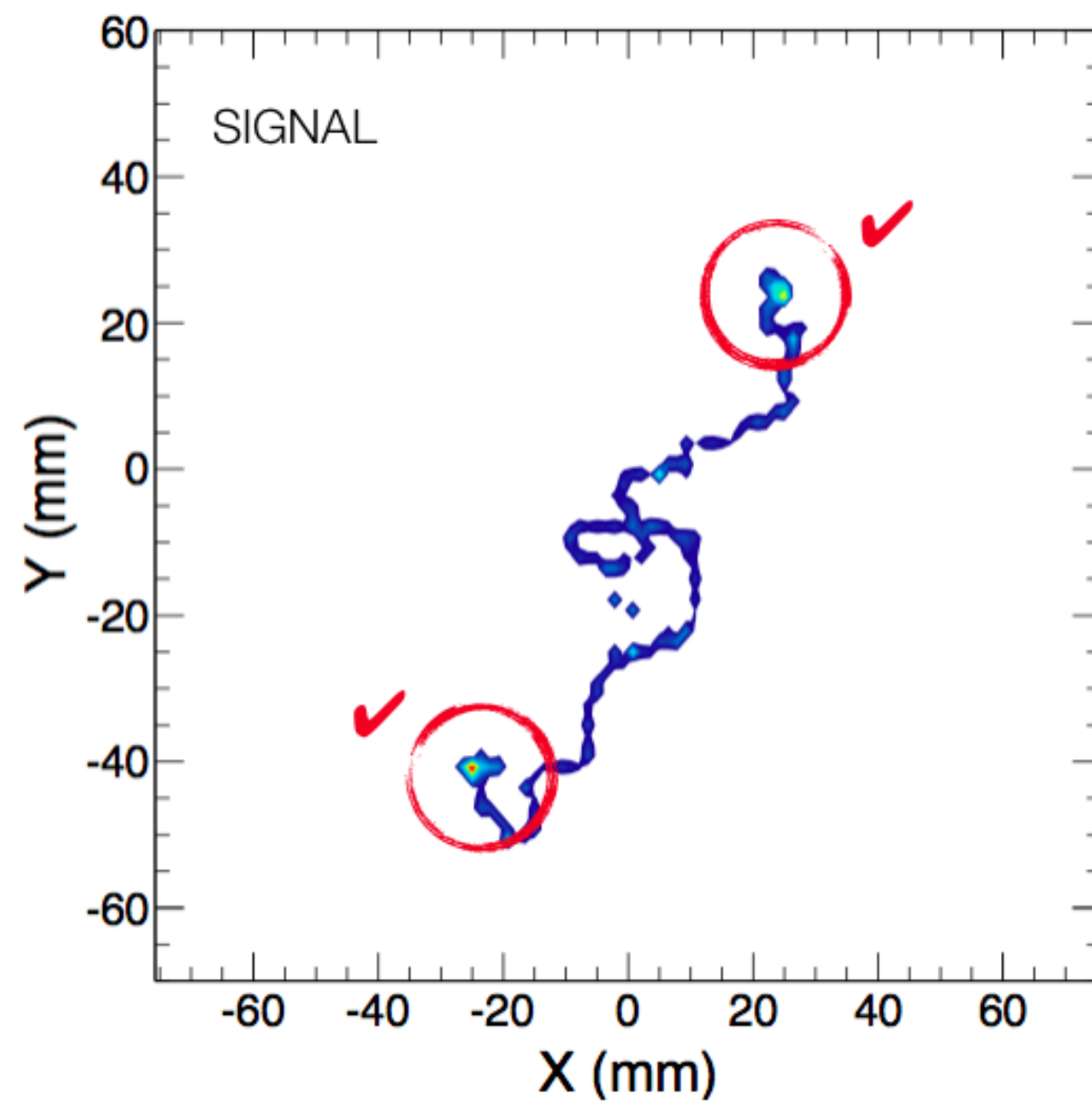
Este

rs?



SA2_NEXT

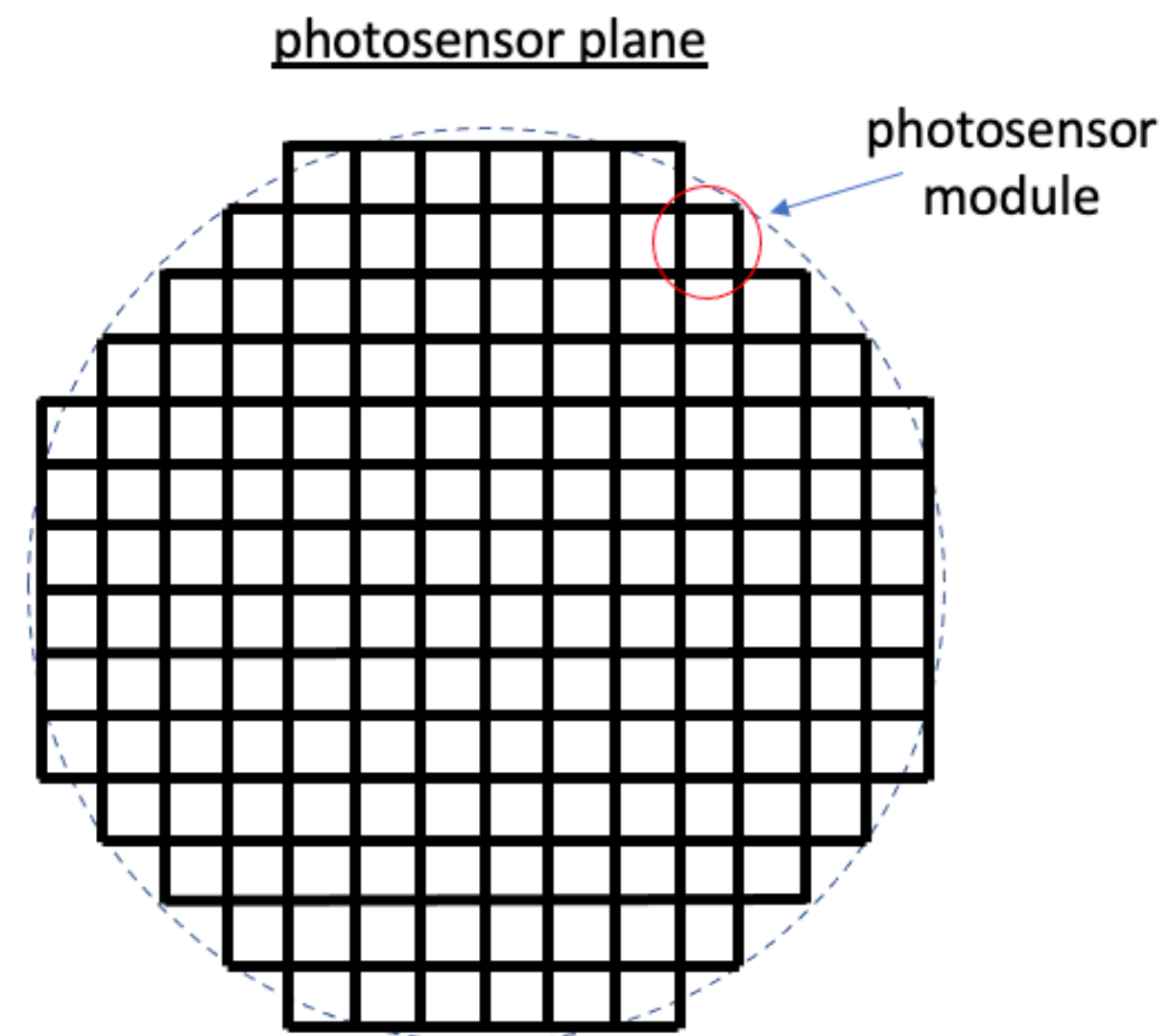
Neutrinos de Majorana?



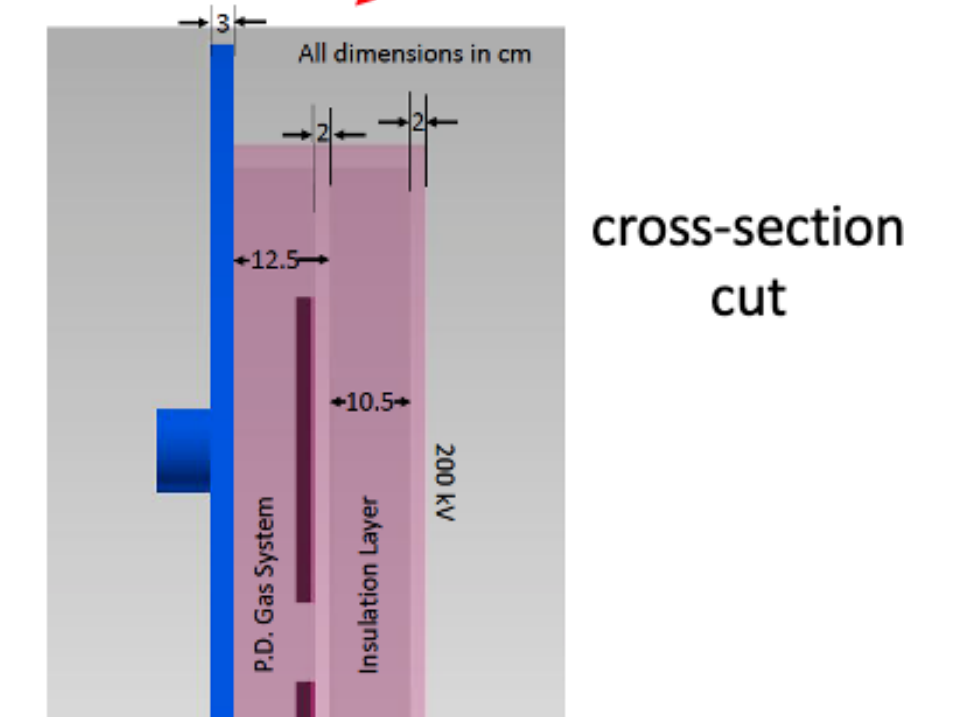
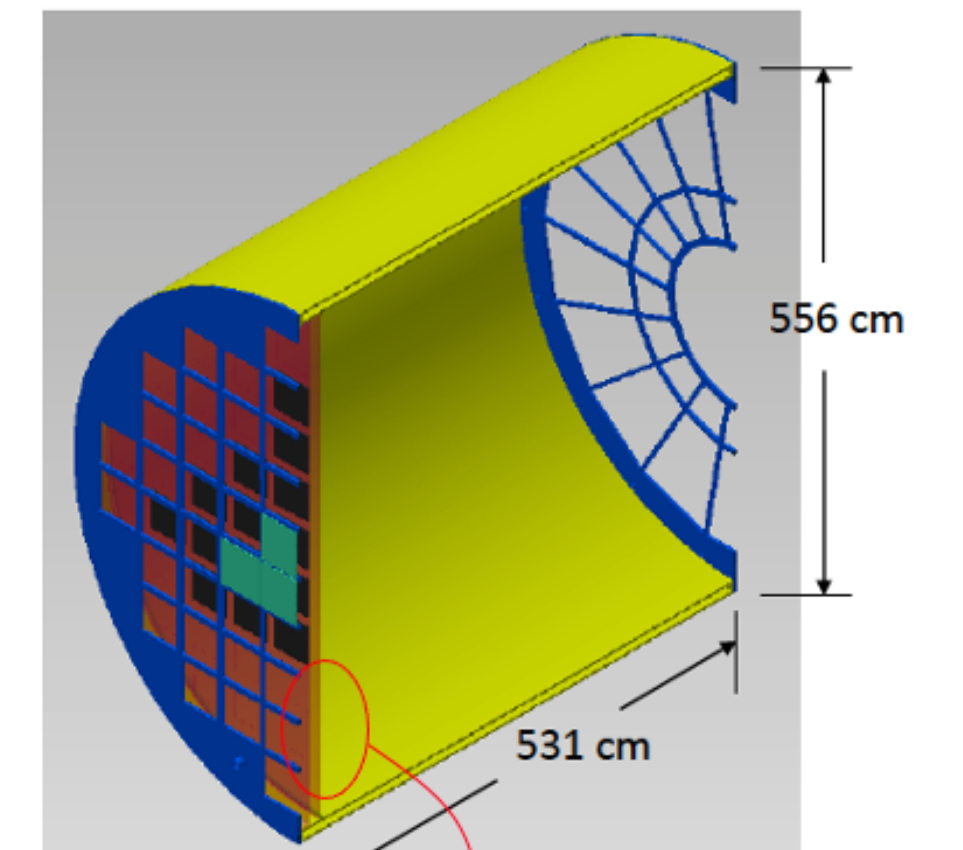
NEXT

Software development, e.g. convolutional neural networks for background rejection

approximate layout (ball-park numbers)



- 125-150 modules in cathode plane
- 256 tiles per module
- 16 SiPMs (6mm x 6mm) per tile (ganged)
- 32000 readout channels



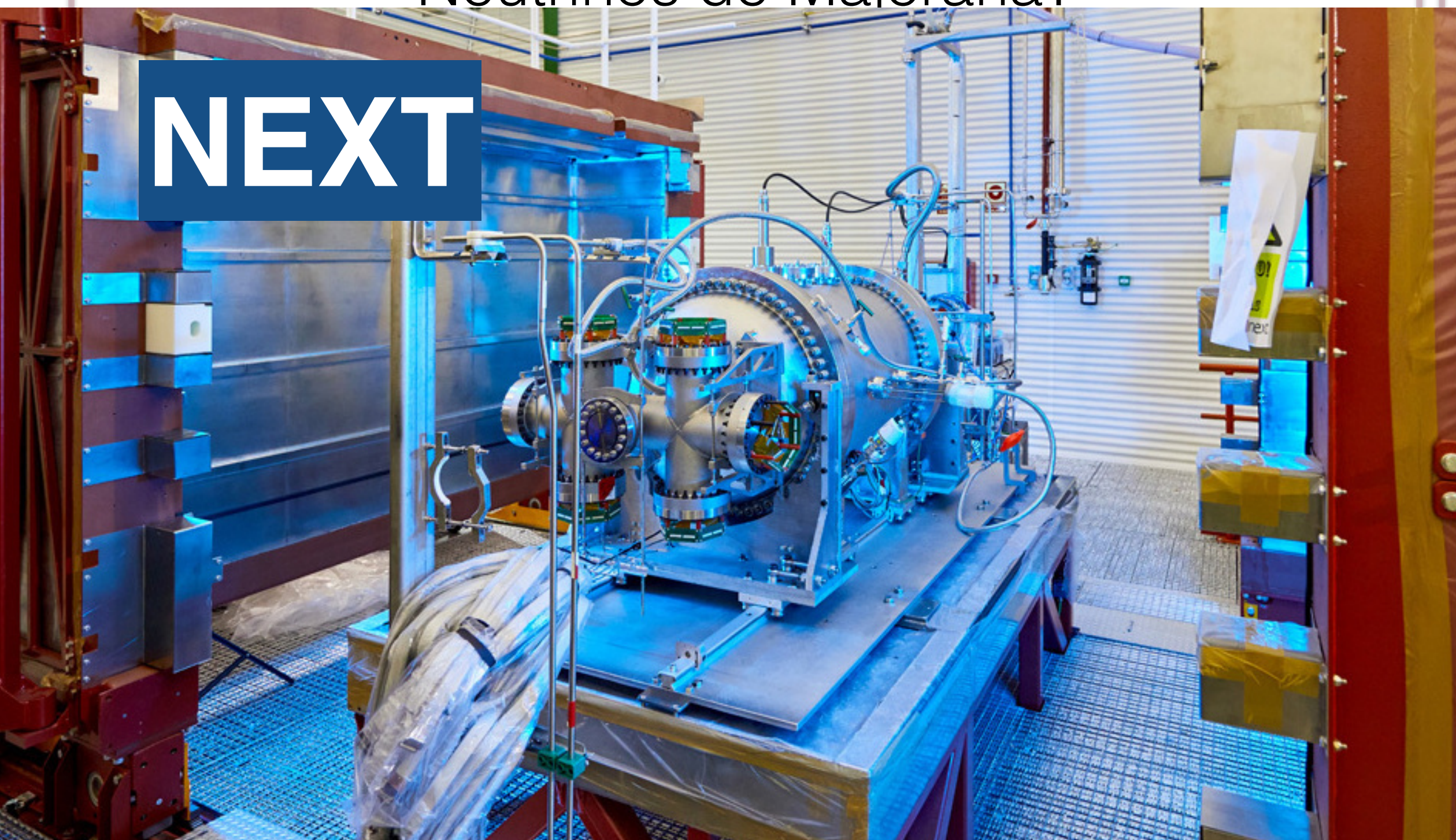
IGNITE

Contribution to DUNE near-side detector

SA2_NEXT

Neutrinos de Majorana?

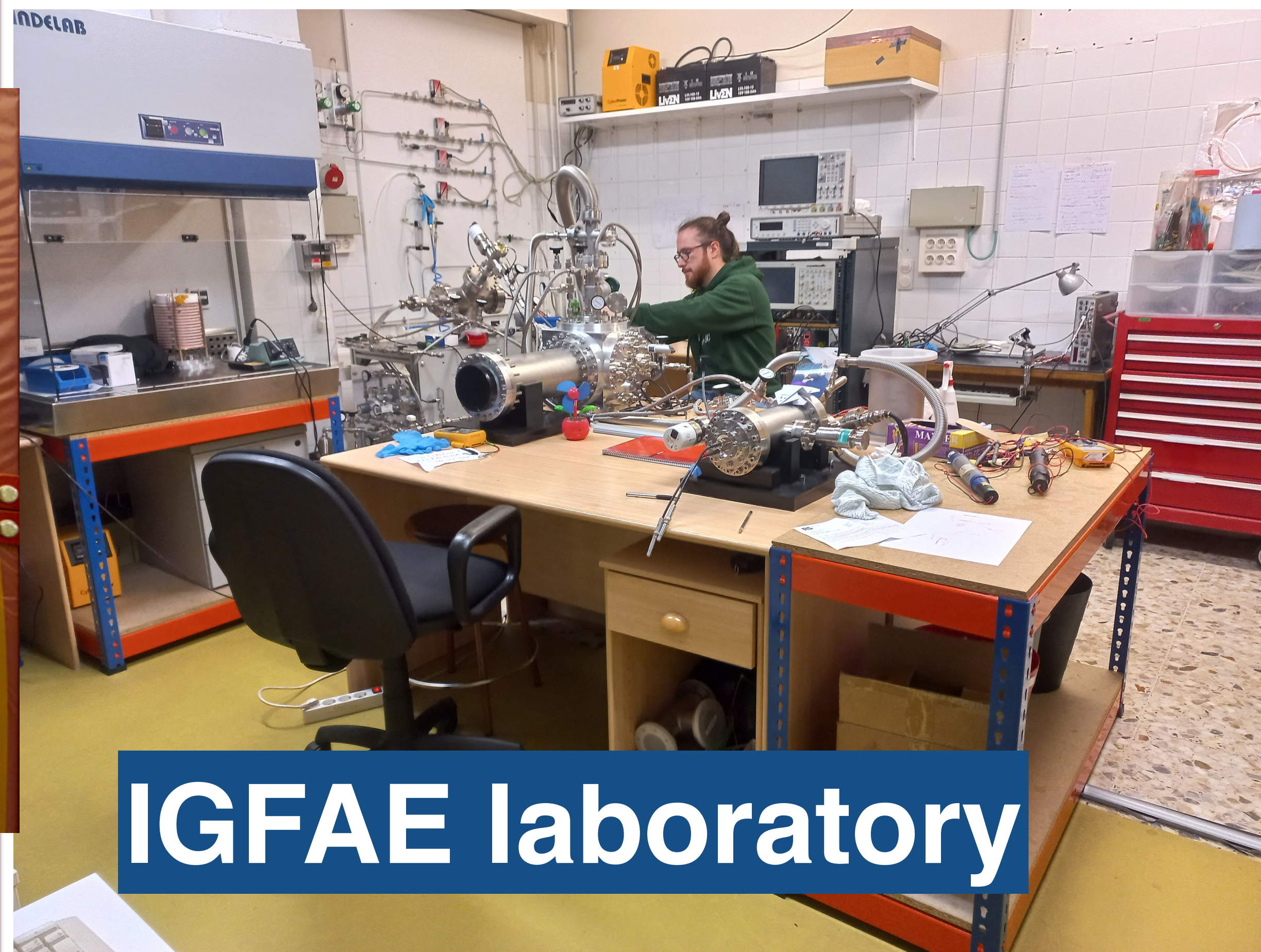
NEXT



λ (mm)

NEXT

Software development, e.g. convolutional neural networks for background rejection



IGFAE laboratory

IGNITE

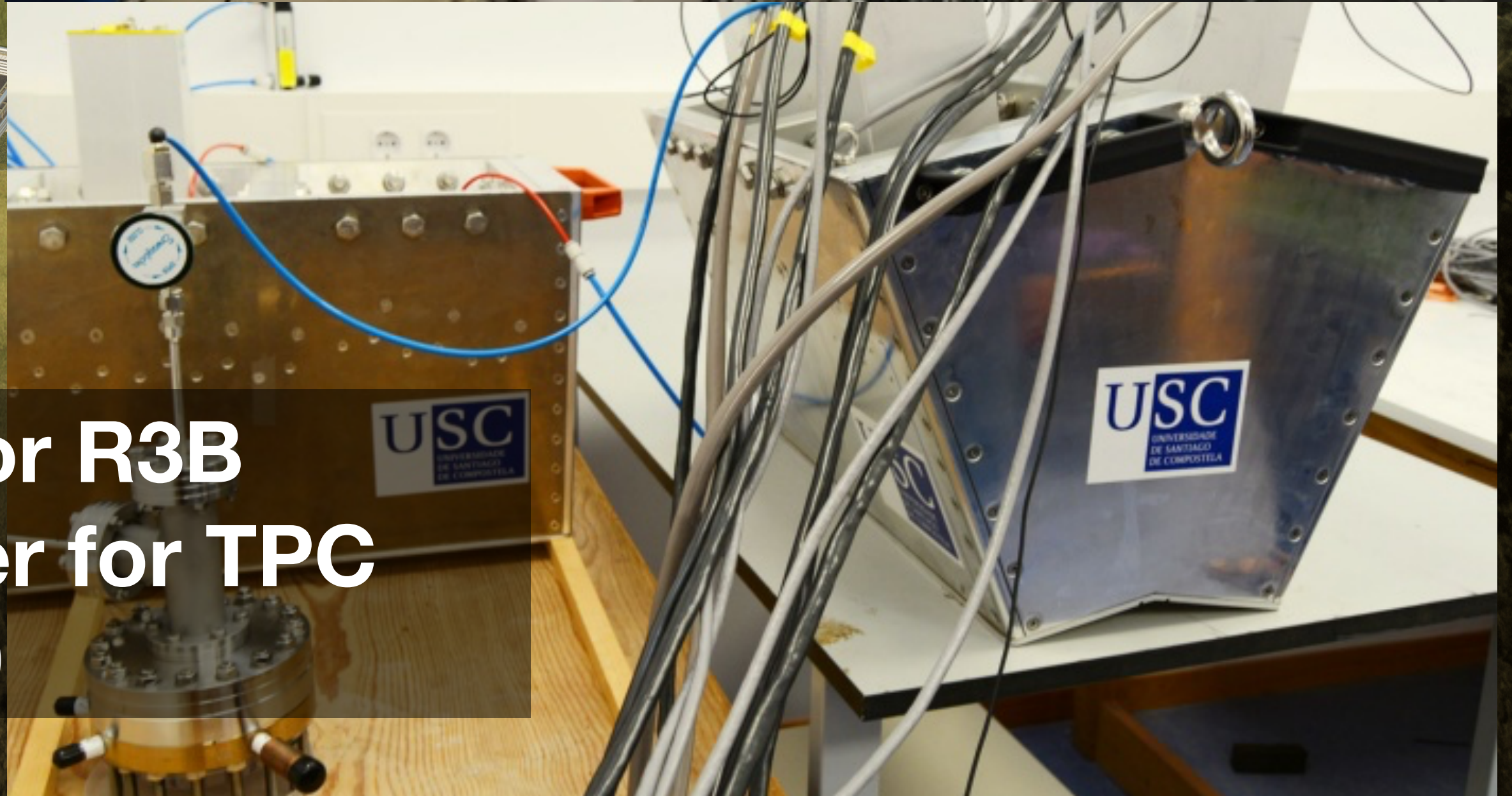
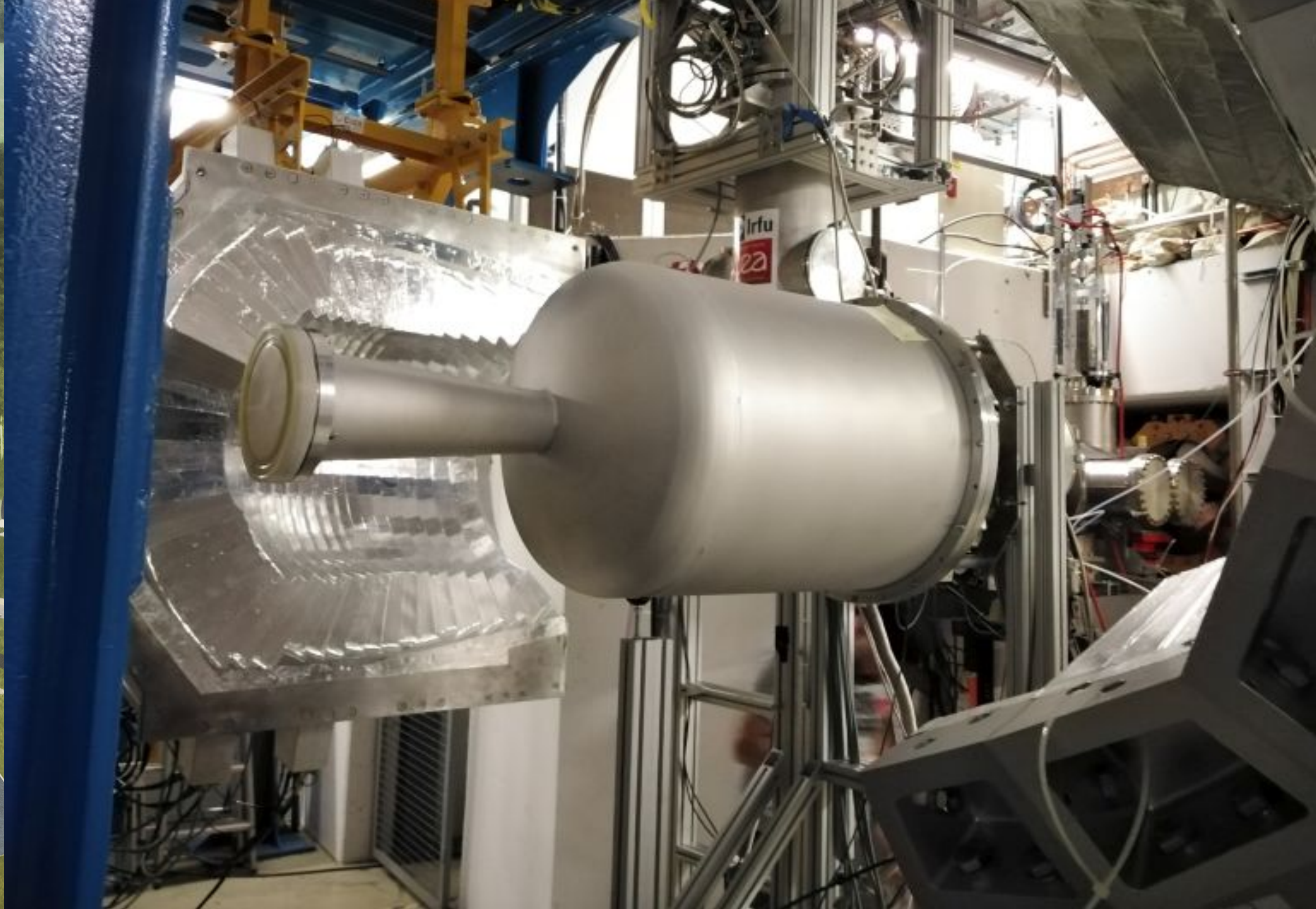
Contribution to DUNE near-side detector



SA3_NUCL

FAIR - Darmstadt - Germany

**Installation of the Califa detector for R3B
Participation in the design of Si-tracker for TPC
Experiments in FAIR-Phase 0**



SA3_NUCL

Optical TPC built at IGFAE



ACTAR TPC - European Collaboration



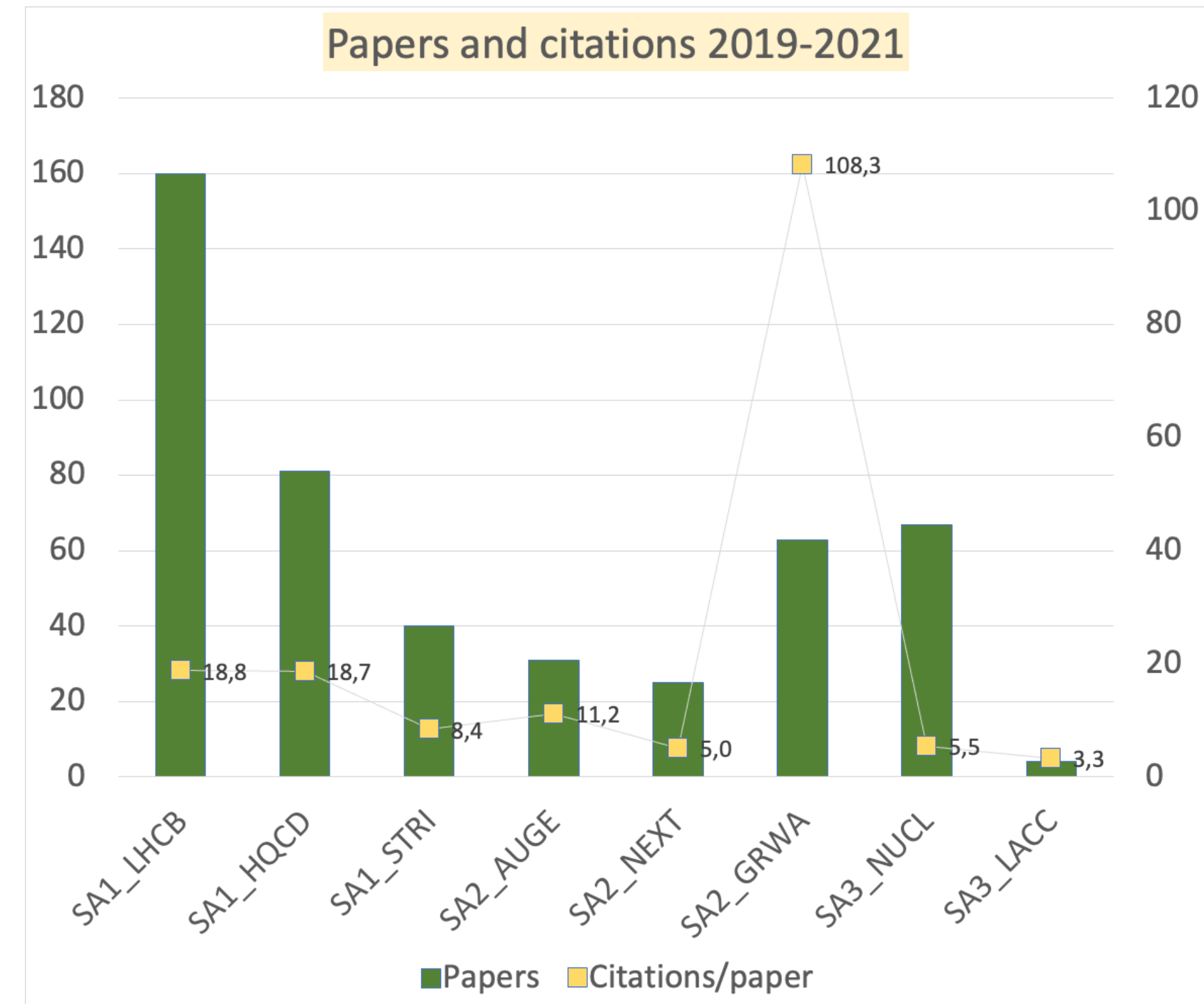
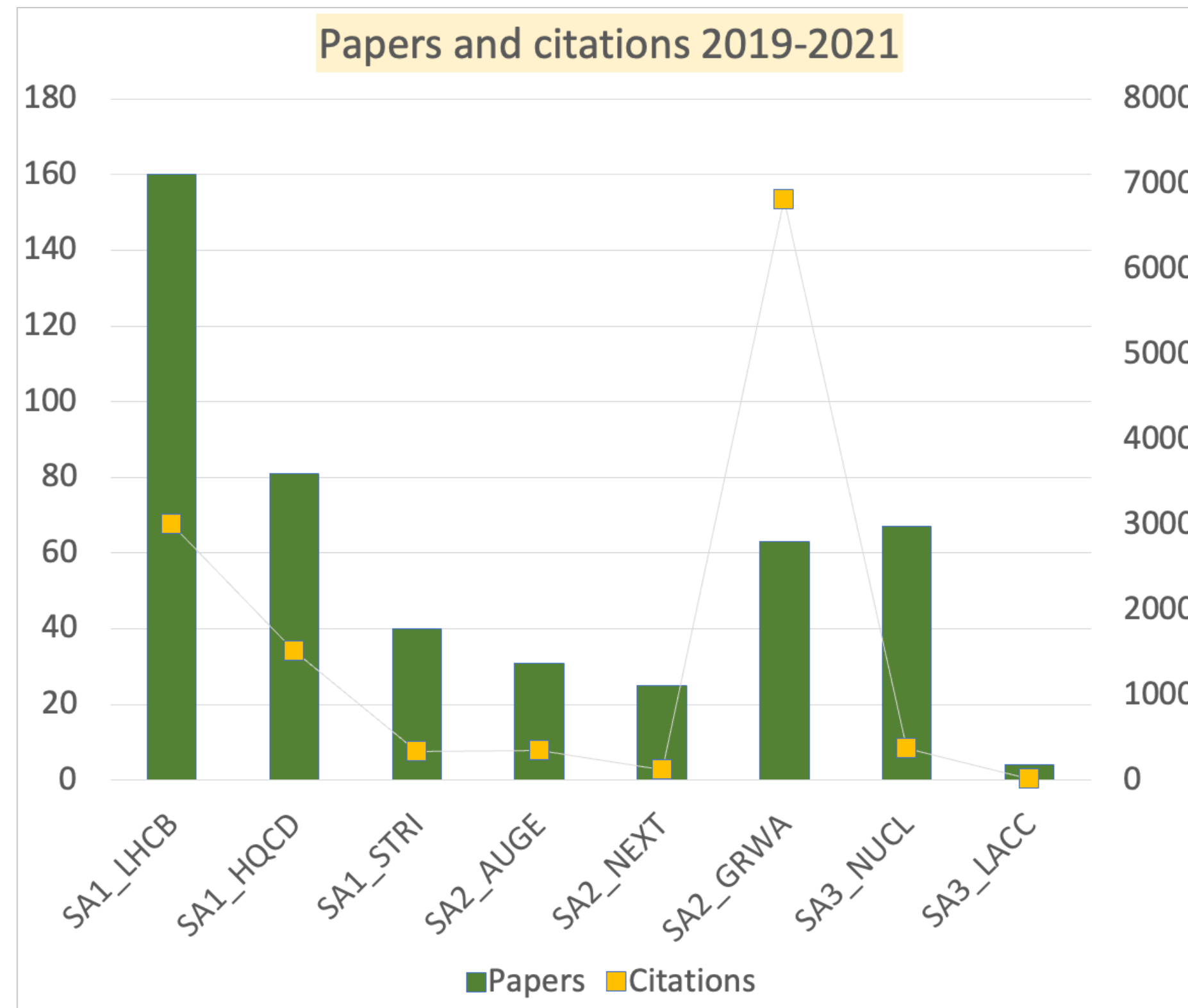
SA3_LACC



**Laser-induced plasma
acceleration**

New technology for X-ray for
medical applications

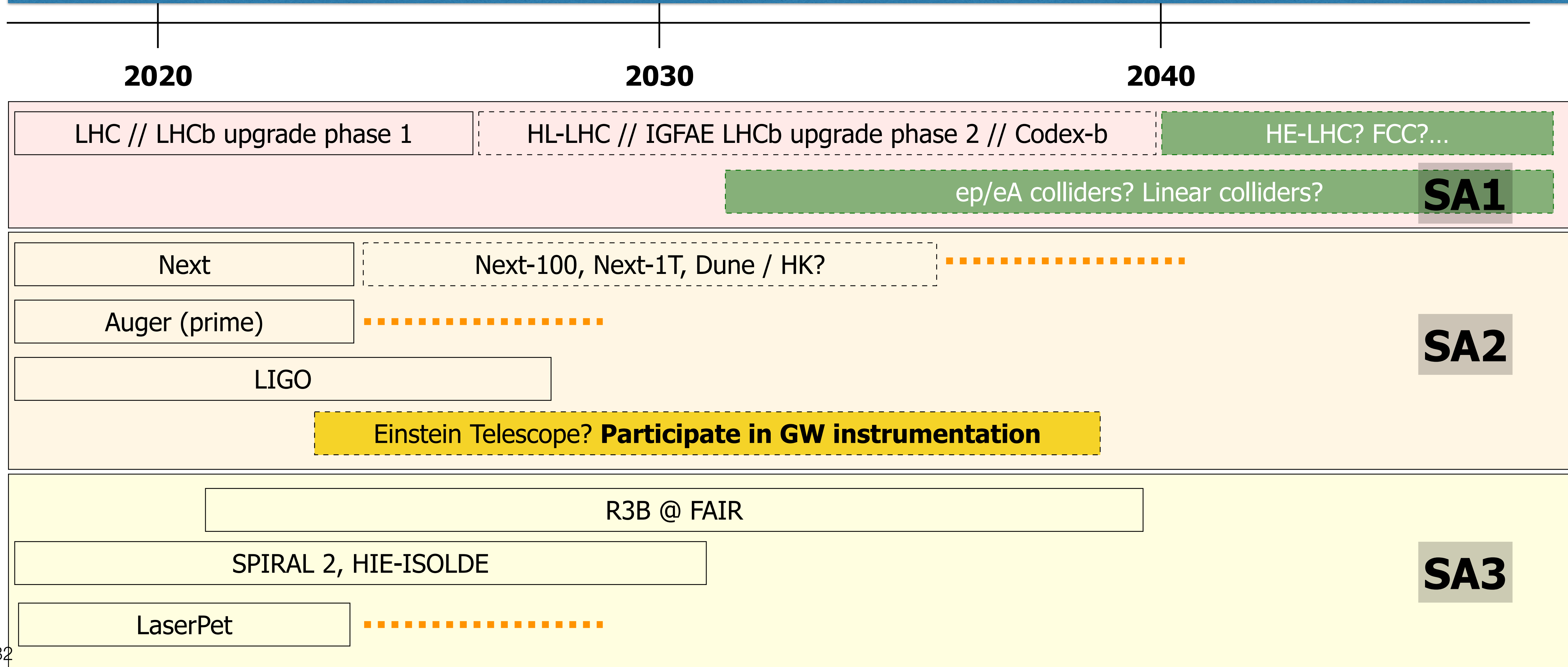
Publications



87% in Q1 // 68% in D1 // 90% in arXiv
9,5% top 1% citations // 95% in international collaboration

HL: Strategy for new facilities

IGFAE participates in global strategy - members of coordination group, working groups, chapter editors, ECFA...



HL: Strategy for new facilities

IGFAE participates in global strategy - members of coordination group, working groups, chapter editors, ECFA...

2020

LHC // LHCB

Next

Auger (pr

LaserP

Establish QIST@IGFAE

Quantum computing
Quantum sensors

- * IGFAE coordinates TalentQ in Quantum Spain
- * Promotes new master *Science and technologies of quantum information*
- * Participate in NextGen
- * Several students and postdocs already working on quantum computing applications at IGFAE

Formación



Programa TalentQ

Programas de formación en
computación cuántica
transversal

CC?...

SA1

SA2

SA3

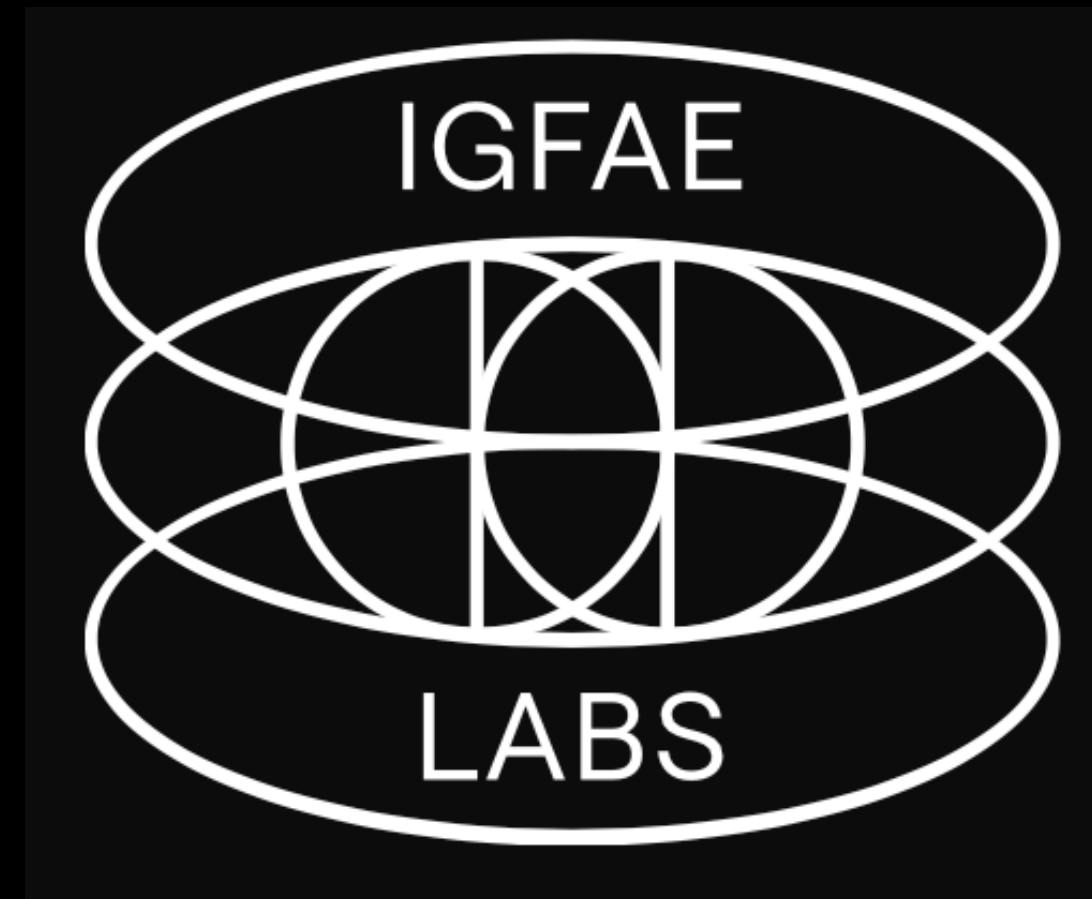
Responsible Research and Innovation

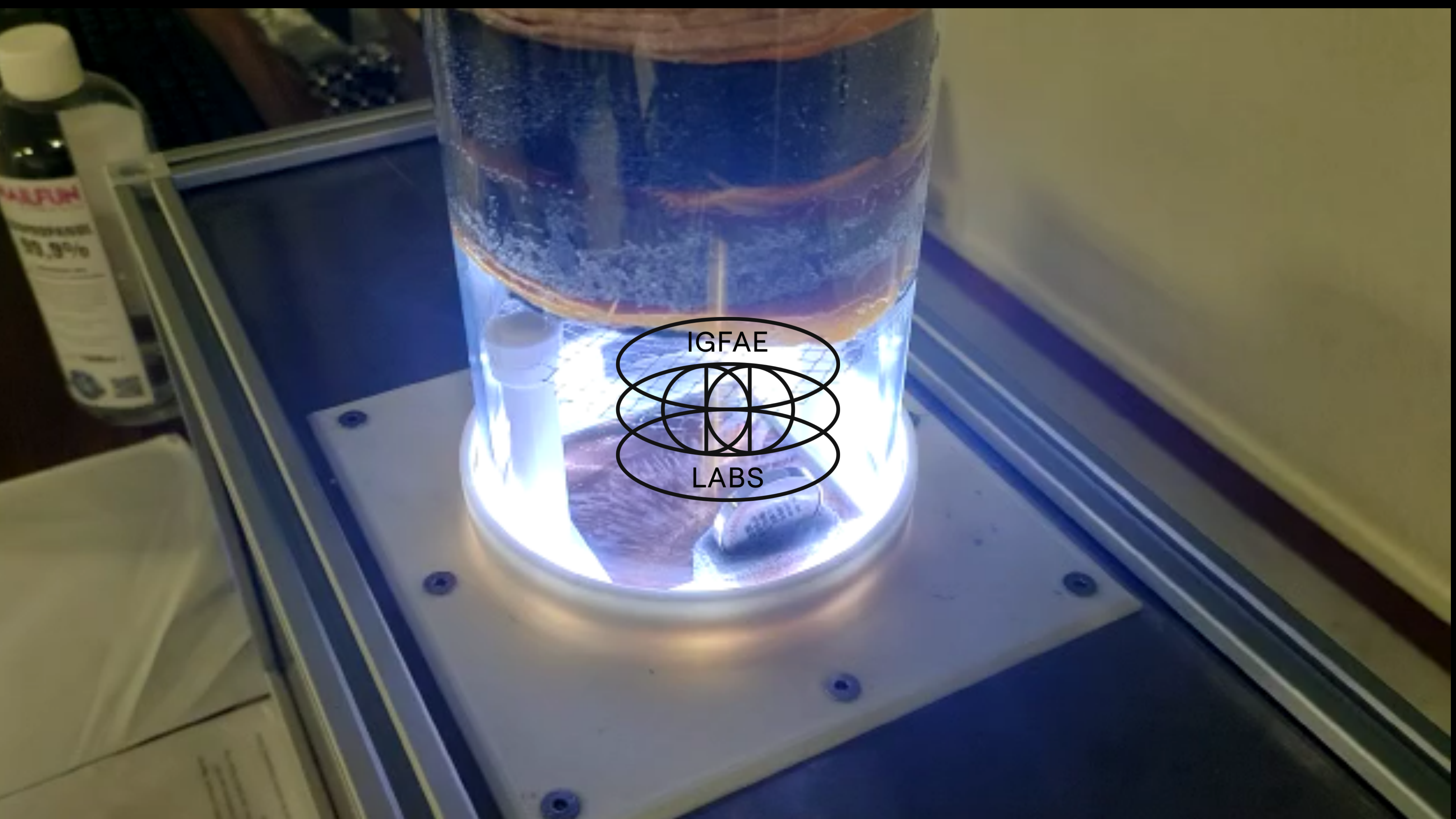


Responsible Research and Innovation



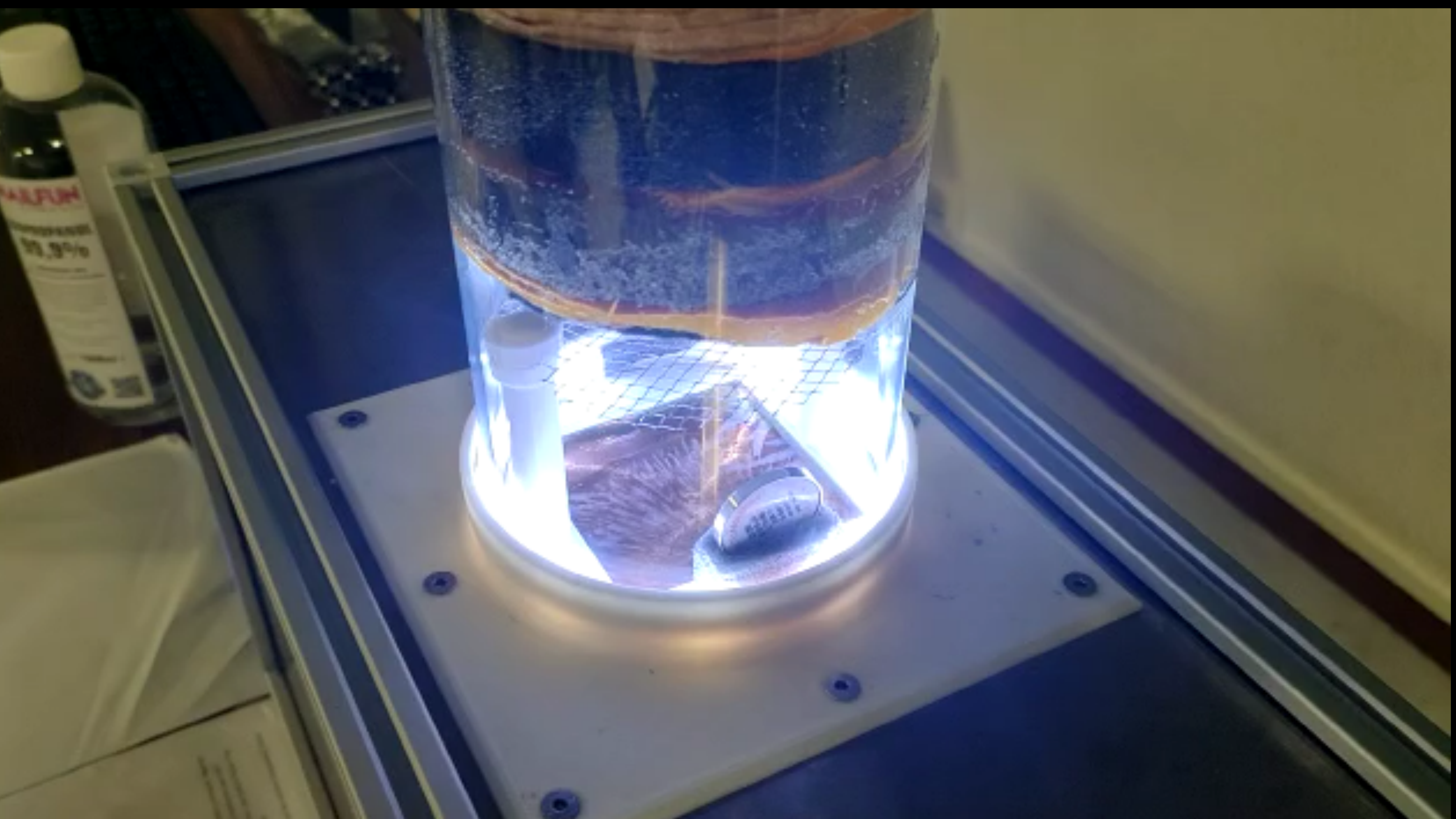
Societal and Industrial Engagement Strategy





IGFAE

LABS



IGFAE.LABS

Obradoiro

Cámara de Néboa

Sab. 09.10.2021
9:00h - 13:00 h.
Aula C / IGFAE

IGFAE.02
EDU.LAB

Inscripcións

<https://igfae.usc.es/igfae/gl/obradoiro-camara-neboa/>



001/2021

Instituto Galego
de Física de
Altas Enerxías

USC

Inventada a principios do século XX, a cámara de néboa é un dos primeiros e máis sinxelos detectores de partículas subatómicas que se poden construír. Coa colaboración de MakerGal, o programa EduLab do IGFAE deseñou un prototipo a partir do cal construír estes detectores por un orzamento reducido e con materiais que non requiren dun mantemento nin manexo complexos. Nesta actividade, impartiremos un obradoiro para profesorado de secundaria no que se ensinará o funcionamento básico destes dispositivos e o procedemento para montalos a partir dun kit de montaxe e de materiais proporcionado polo IGFAE. Unha vez finalizado o obradoiro, o detector entregarase aos centros educativos dos docentes con obxecto de que poida ser utilizado como recurso educativo.



ArtLab | Instituto Galego de Física de Altas Enerxías (IGFAE) presenta



ArtLab | Instituto Galego de Física de Altas Enerxías (IGFAE) presenta



Outreach WG

Elena G. Ferreiro:
"O universo do diminuto"

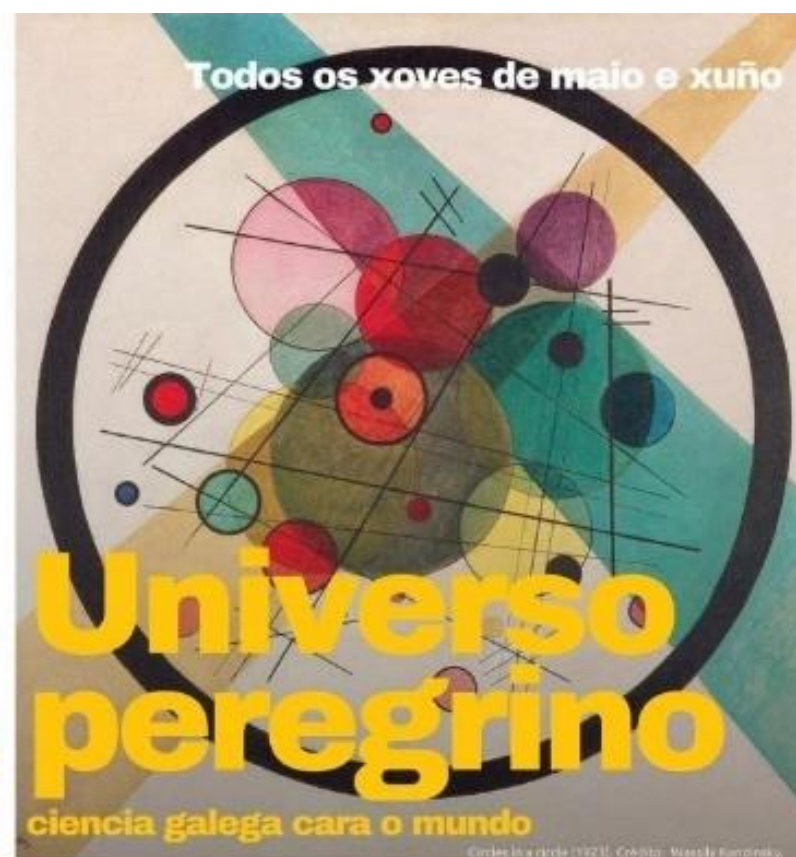
Xoves 18 xuño
16 hs (España)
11 hs (Arxentina)

Relatorios científicos dende o Instituto Galego de Física de Altas Enerxías (IGFAE), en Santiago de Compostela, para a comunidade galegofalante internacional.

Info completa: igfae.usc.es

Conecta en:

bit.ly/universoperegrino18xuño



Ana Garbayo
"Historia da gravidade"

Xoves 21 maio
16 hs (España)
11 hs (Arxentina)

Relatorios científicos dende o Instituto Galego de Física de Altas Enerxías (IGFAE), en Santiago de Compostela, para a comunidade galegofalante internacional.

Info completa: igfae.usc.es

Conecta en:

bit.ly/universoperegrino21maio



III SEMANA DA CIENCIA

DO INSTITUTO GALEGO DE FÍSICA DE ALTAS ENERXÍAS (IGFAE)

9-13/ NOV/2020

Martes, 20:00 h

A QUESOA O UNIVERSO?

Conferencia pública de Gabriela González (exvoceira de LIGO) sobre ondas gravitacionais. Presentada por Javier Santaolalla.

Mércores, 18:00 h

CONCURSO DE COMUNICACION CIENTÍFICA

Cerimonia de entrega de premios do Concurso de Comunicación Científica. Exposición en directo dos monólogos e os vídeos divulgativos finalistas.

Mércores, 19:00 h

FÍSICA: UNHA CIENCIA SEN XENERO?

Mesa redonda sobre igualdade de xénero en física con Ana Jesús López Díaz (presidenta de AMIT- Gal, vicepresidenta do Grupo de Mulleres en Física da RSEF) Yolanda Lozano (Gender in High Energy Theory - CERN) e Beatriz G. Plana (IGFAE).

Xoves, 20:00 h

TRANSFRONTEIRIZAS: CONVERSAS DE ARTE E CIENCIA

Con Alejandro Dolina, escritor, músico, actor, condutor de radio e televisión arxentino, e José Edelstein (IGFAE).

igfae.usc.es/igfae/scienceweek2020



CIENCIA SINGULAR SÁBADO **28** NOVEMBRO **Xornada VIRTUAL**

Rede de Centros Singulares de Investigación da USC

cienciasingular.usc.es

Accede e participa desde a web da xornada

ciQUS Centro Singular de Investigación en Química Biolóxica e Materiais Moleculares

ciMUS Centro Singular de Investigación en Medicina Molecular e Enfermidades Crónicas

ciTUS Centro Singular de Investigación en Tecnoloxías Intelixentes

IGFAE Instituto Galego de Física de Altas Enerxías

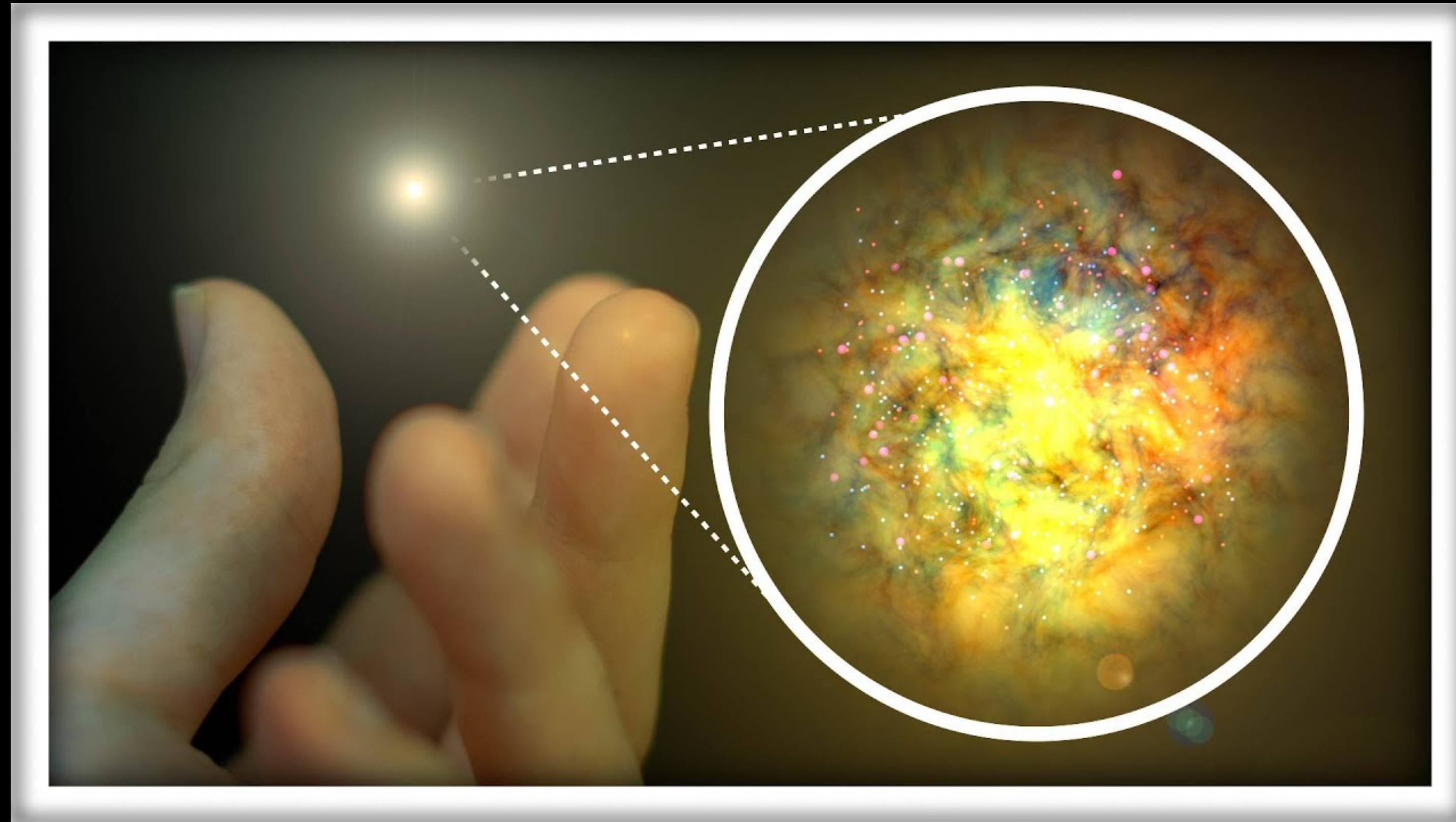
EXCELENCIA MARIA DE MAEZTU



III CONCURSO DE COMUNICACIÓN CIENTÍFICA

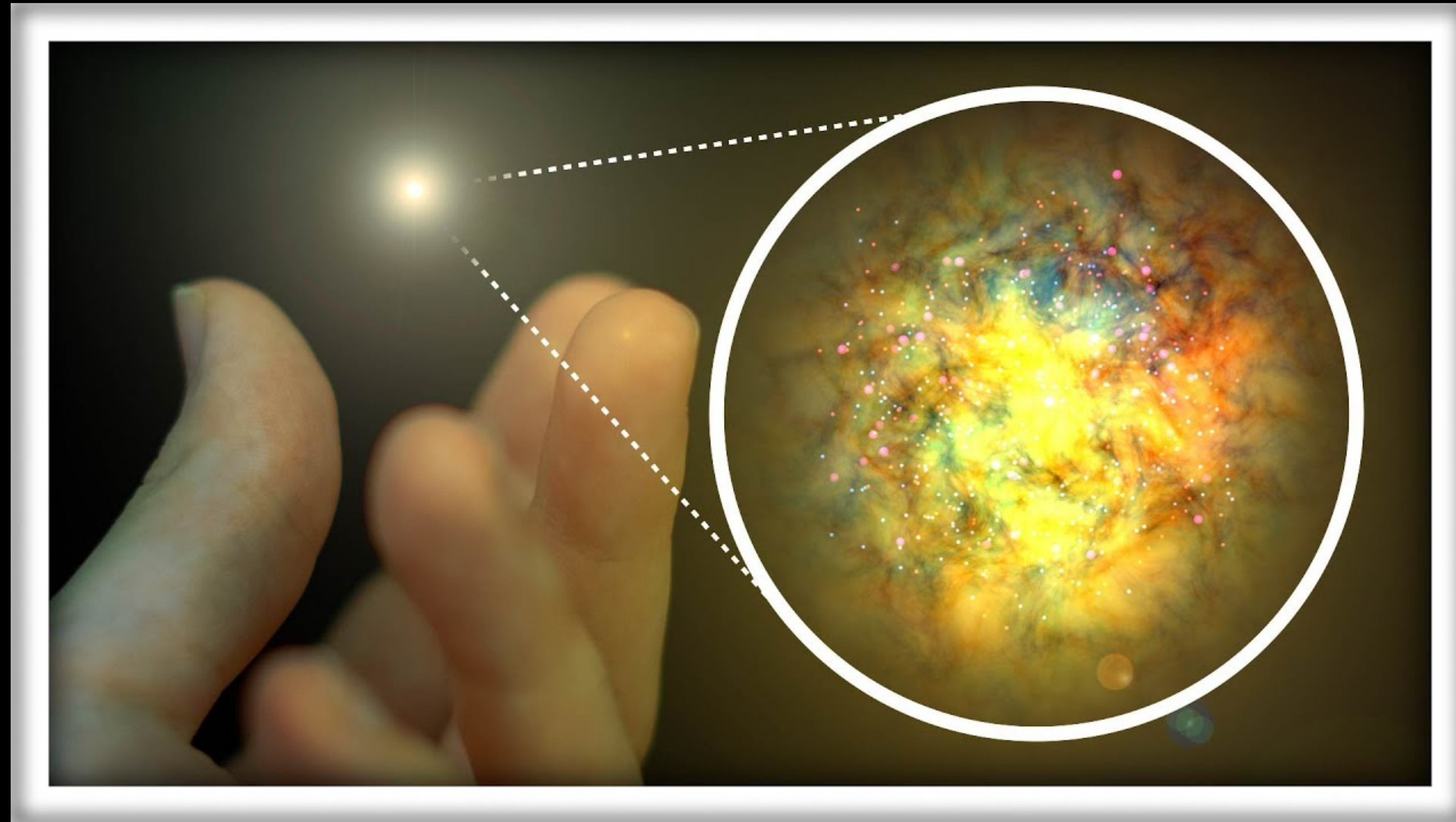
IGFAE C³

Colaboración con Quantum Fracture



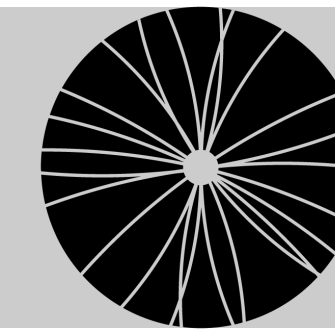
3 vídeos en Youtube con **más de 2 millones** de visitas acumuladas

Colaboración con Quantum Fracture



3 vídeos en Youtube con **más de 2 millones** de visitas acumuladas

Gender & Diversity WG



IGFAE

Instituto Galego de Física de Altas Enerxías

Grupo de trabajo muy activo y comprometido

MINORÍAS
en *ciencia*

conversas sobre igualdade e inclusión entre
viño e cervexas

por Ágnes Mocsy, física, cineasta e comunicadora

20:00 horas
15 novembro 2019

O BESBELLO - BAR CULTURAL

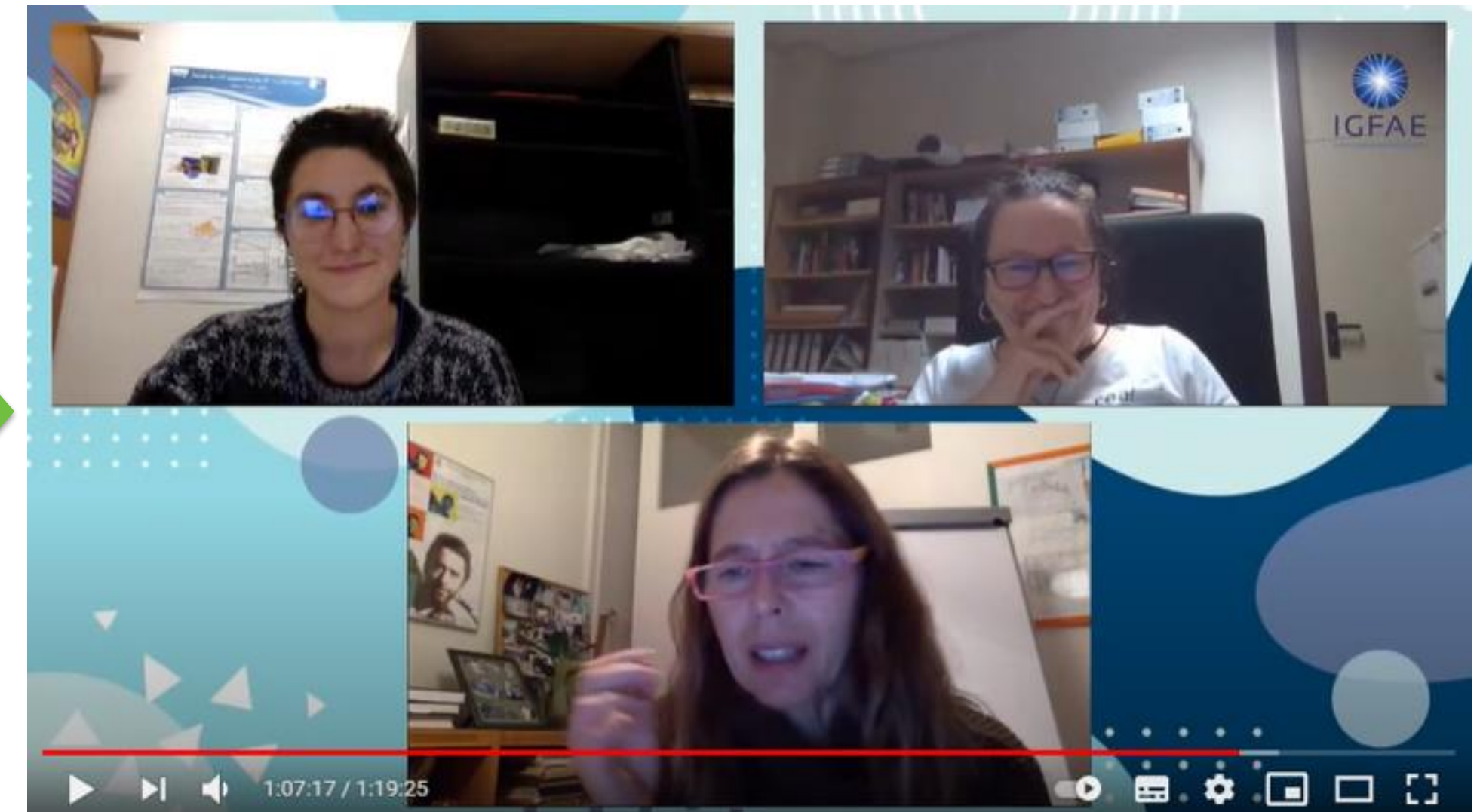
Rúa da Caldeirería, 26, Santiago de Compostela



11 Febrero
Día internacional de la mujer
y la niña en la ciencia

Masterclass

Conversaciones
Mesas redondas



Transferencia de tecnología

TT unit created - one person hired - Pablo Cabanelas

A lot of activity, several opportunities identified

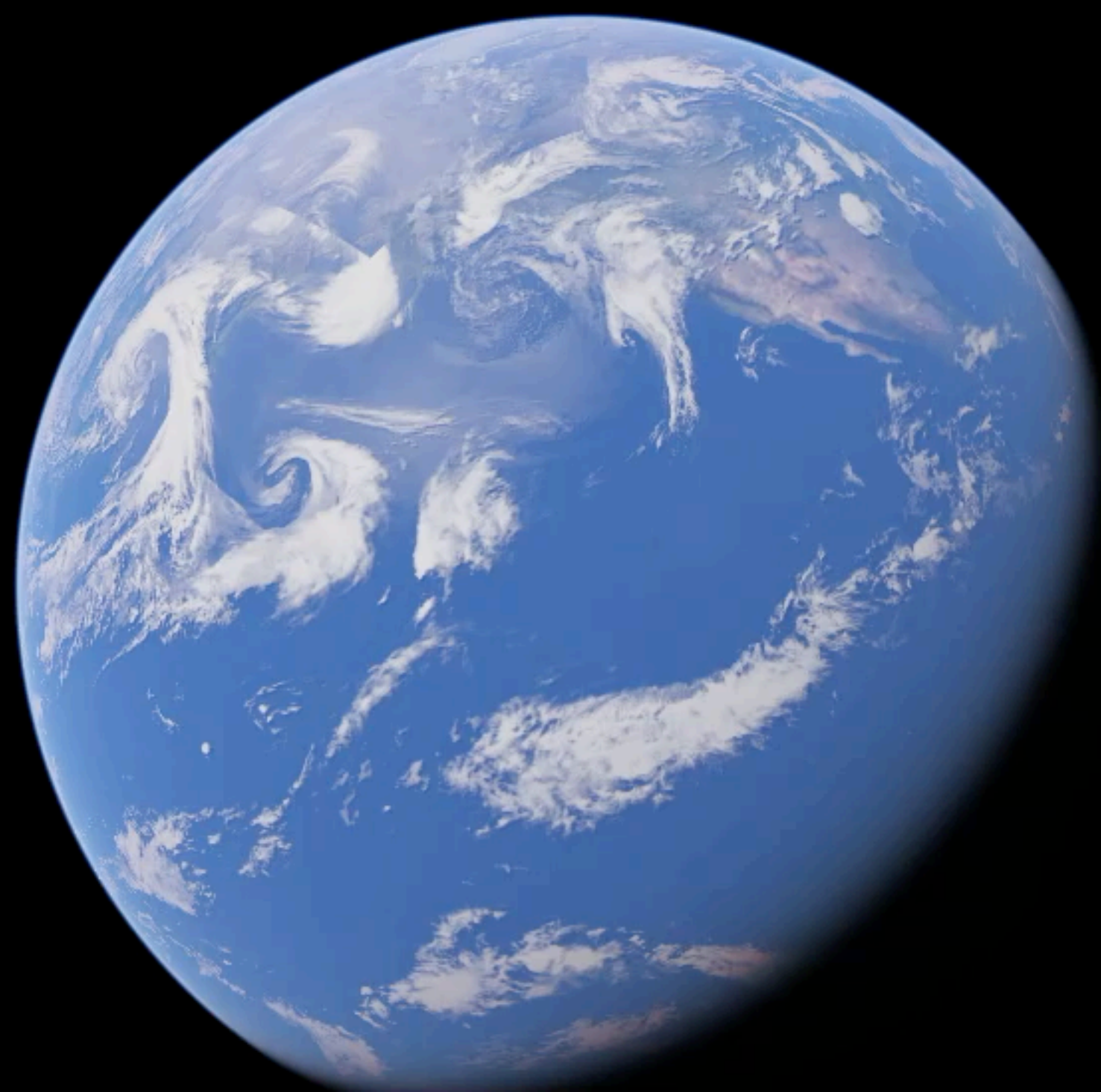
- *IP protection
- *Metrology
- *Protontherapy
- *Pre-clinical mini-PET in collaboration with Vall d'Hebron
- *Applications to Proof-of-concept
- *WG KTI at SOMMa
- *Homeland security - Galician ports
- *Industrial doctorate

ARE YOU INTERESTED? Contact Pablo!

**New IGFAE headquarters
Construction works to start in September**



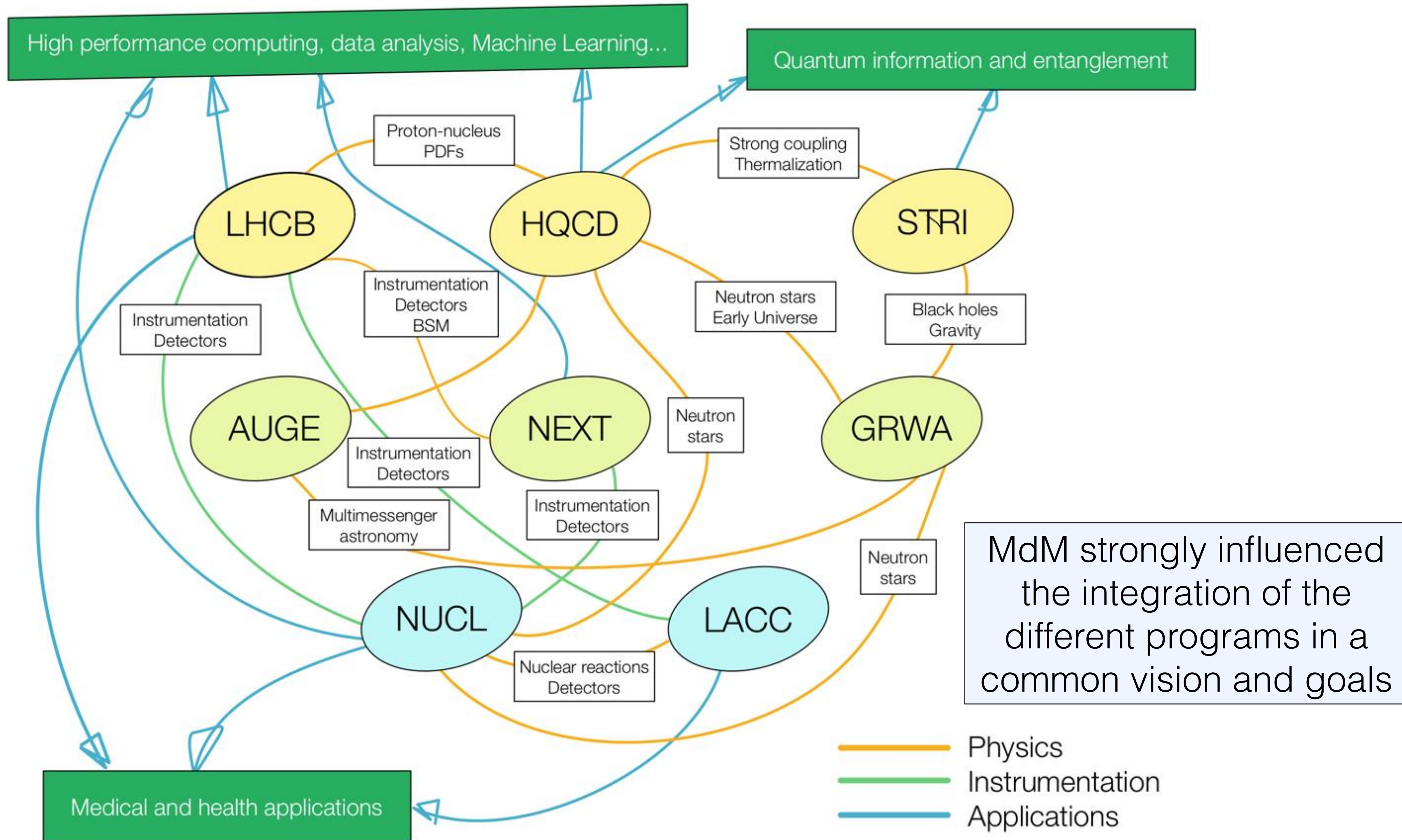
Google Earth
Data SIO, NOAA, U.S. Navy



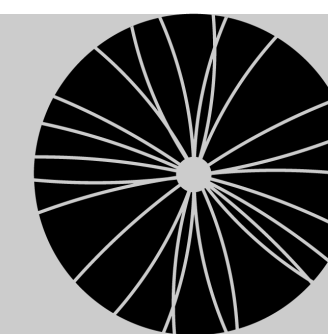
Google Earth
Data SIO, NOAA, U.S. Navy

Moitas grazas!

Relational Map



Contexto: centros gallegos



IGFAE

Instituto Galego de Física de Altas Enerxías

Convocatorias
Agrupacións
Estratéxicas



Convocatoria
Centros
2016

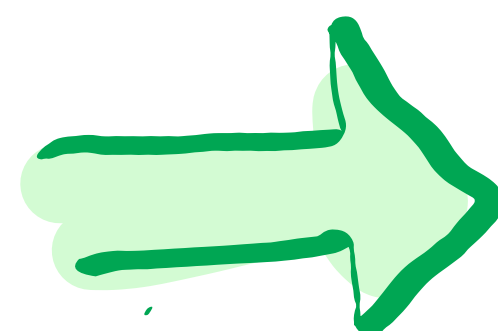
2016 - 2019



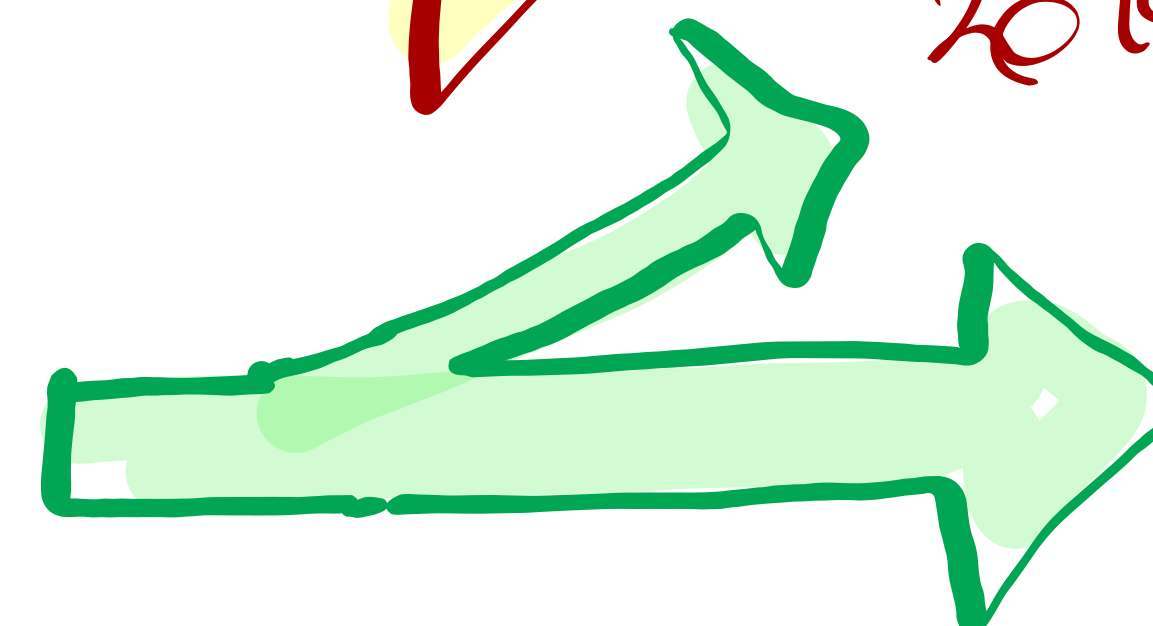
Convocatoria
Centros
2019



IGFAE



María de
Maeztu
2016



2017 - 2021

— Centro mixto Xunta - USC

El IGFAE se incluye entre los centros CIGUS por primera vez en 2019 tras haber sido acreditado unidad de excelencia María de Maeztu en 2017

New structure of the MU

- ▶ Redefine Executive Associate Director
- ▶ Head of MU
- ▶ Define tasks

Implement plans - all approved during last months

- ▶ Communication
- ▶ Gender and Diversity
- ▶ Mentoring
 - ▶ New structure - see talent

Communicate new plans, etc



Bruna Vives
CRG



David Badía
IBEC

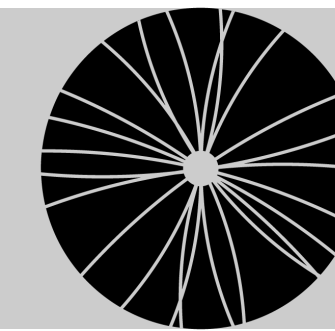


Miguel Arocena
BCBL

Evaluation of MU in fall 2021
Committee formed by SOMMa G.M.

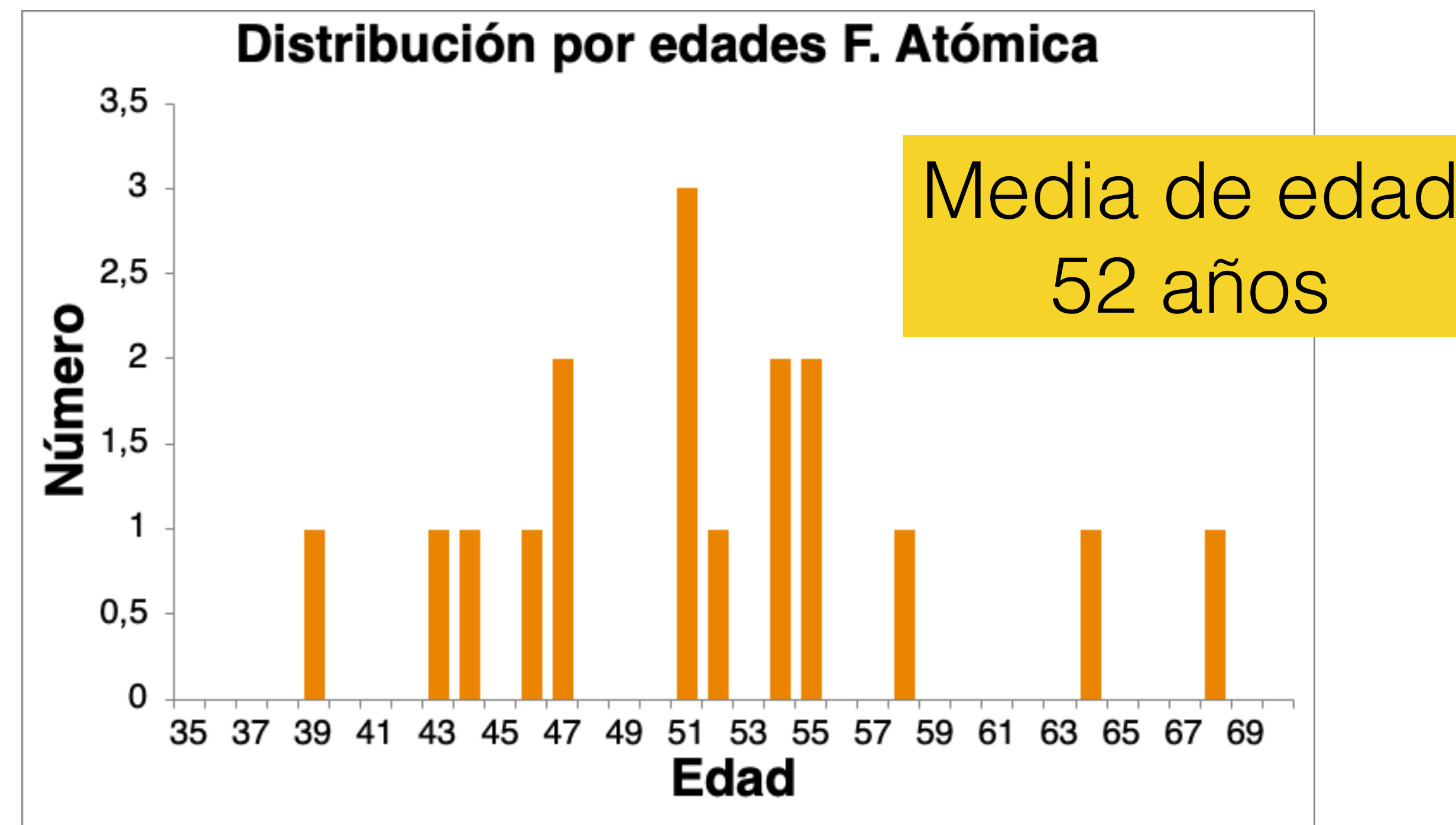
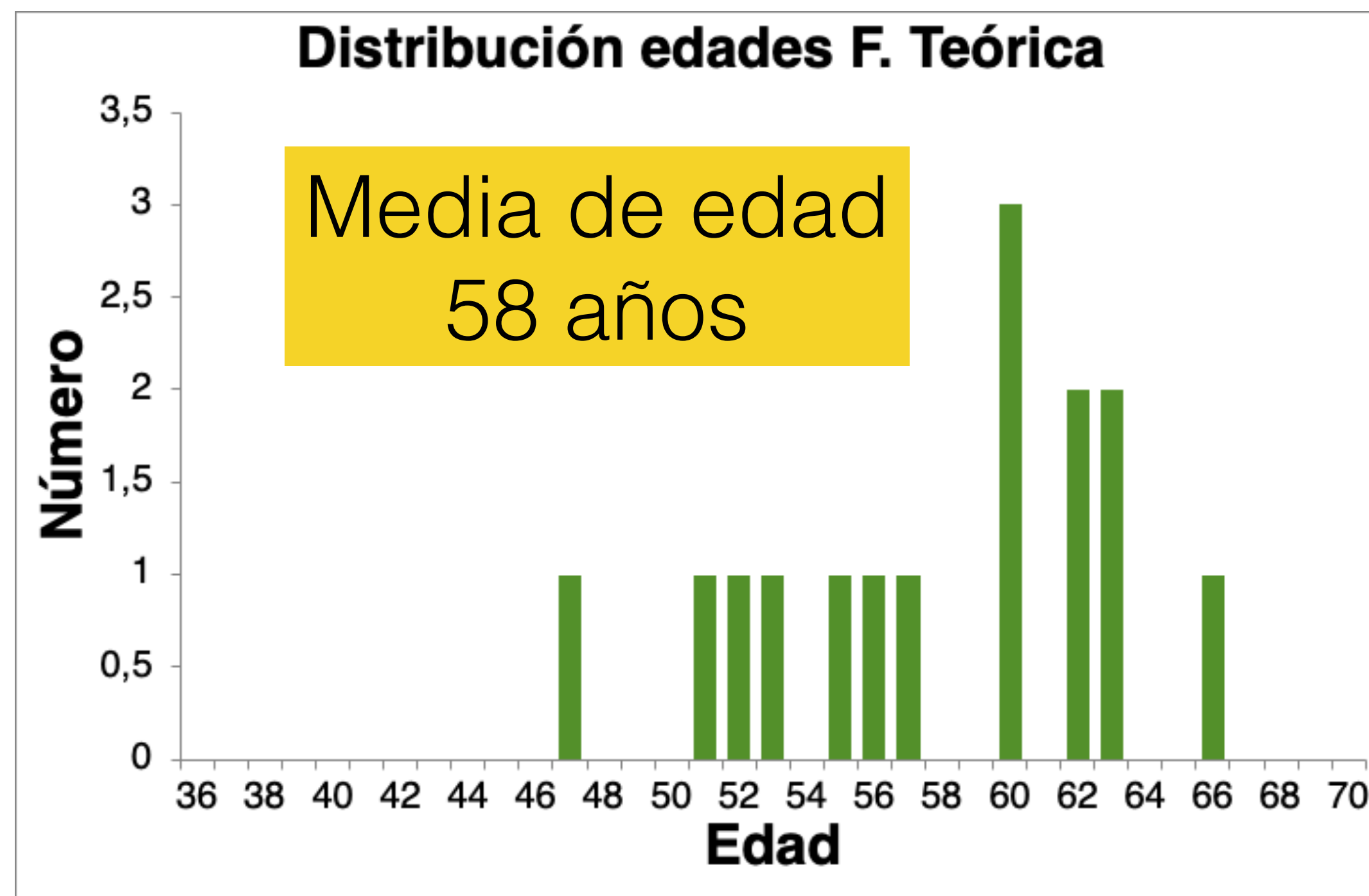
- New scientific career at IGFAE**
 - ▶ Aprovechando nuevas leyes (Reforma Laboral, Ley de la Ciencia...) y normativas de la USC (Investigadores Distinguidos)
- Nuevo programa Global Talent**
 - ▶ No limitado a junior staff, pero en todas las categorías
 - ▶ 1 senior, 1 junior, 4 postdocs de 2 años y 10 predocs - buscando captación internacional
- Programas internacionales de doctorado y postdoc reforzados**
 - ▶ Mantener cohorte de unos 20 postdocs y 50 estudiantes de doctorado
- Pre-PhD inspiring and nurturing talent**
 - ▶ Programas pre-PhD también abiertos a perfiles no-STEM
- Mentoring**
 - ▶ Implementar el plan de mentoring
 - ▶ Diseño de nuevos programas de training
- Diversidad y género**
 - ▶ Implementar el plan de género con especial énfasis en la evaluación de su impacto
- Nuevo Modelo de evaluación de la investigación**
 - ▶ Implementar las pautas de Coalition on Reforming Research Assessment de la CE

Distribución por edades



IGFAE

Instituto Galego de Física de Altas Enerxías



Jubilación del 50% del área de Física Teórica en 10 años
Situación en experimental más estable gracias a incorporaciones de RyC