

# PPE

That was 2025  
(Online version - many pictures of people removed)



**We met**

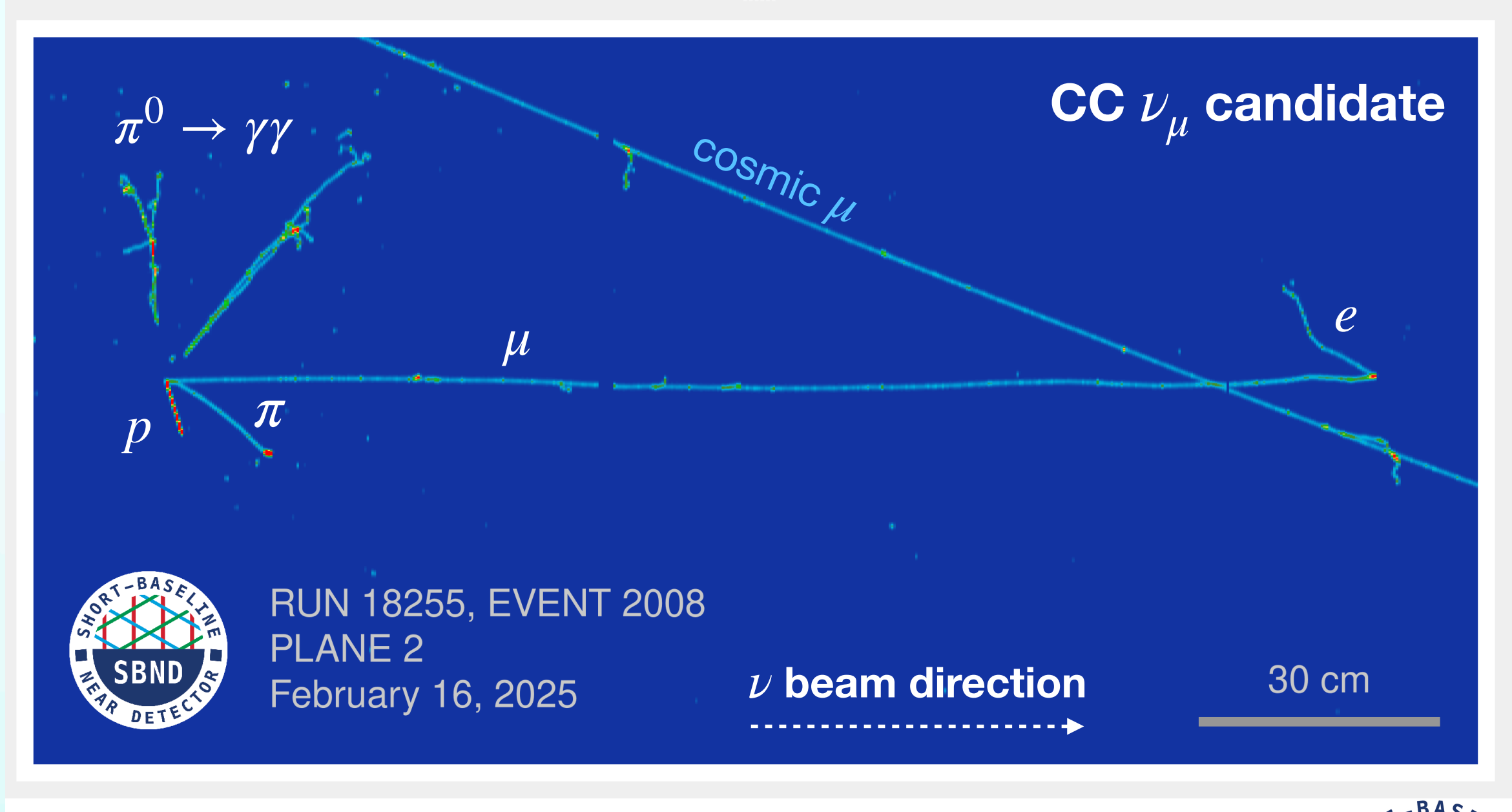


# We passed vivas

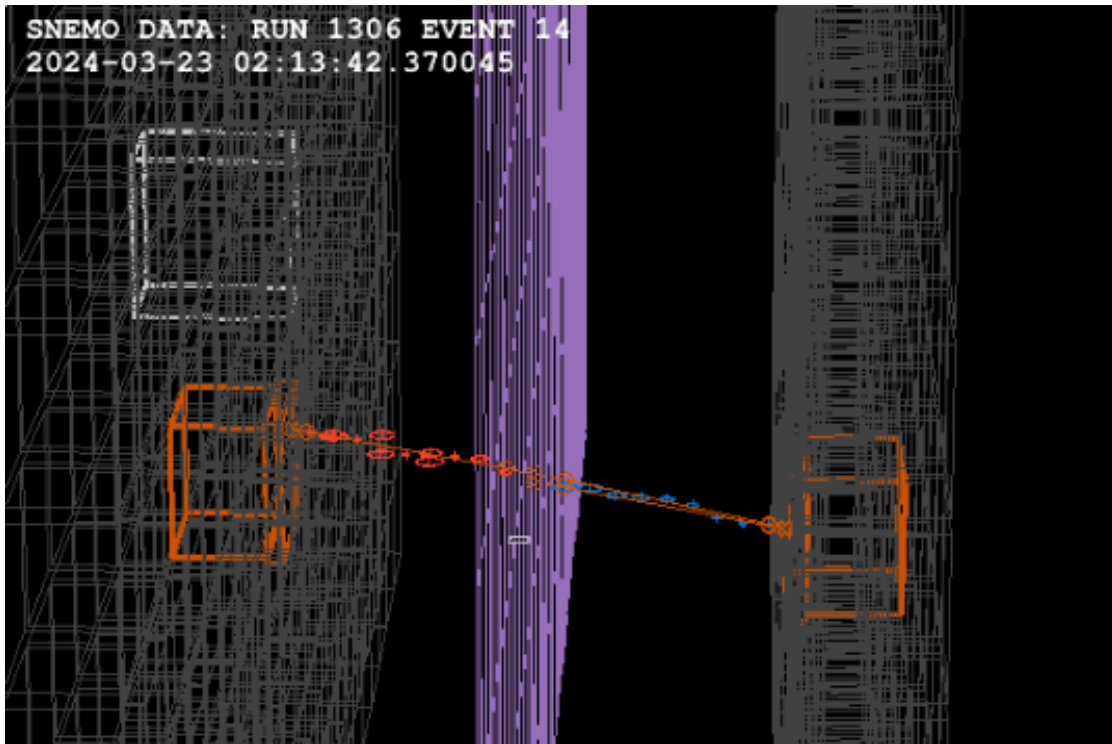




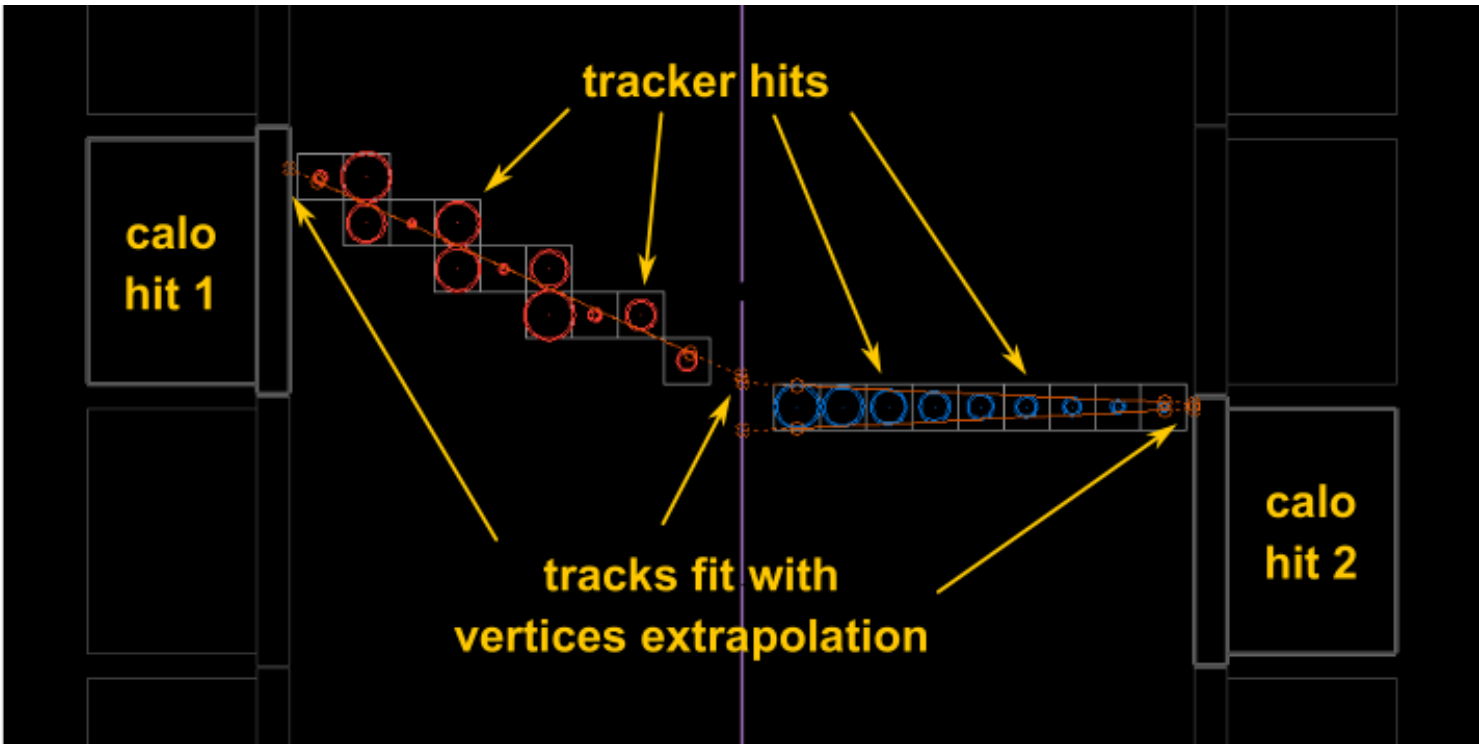
# We took data



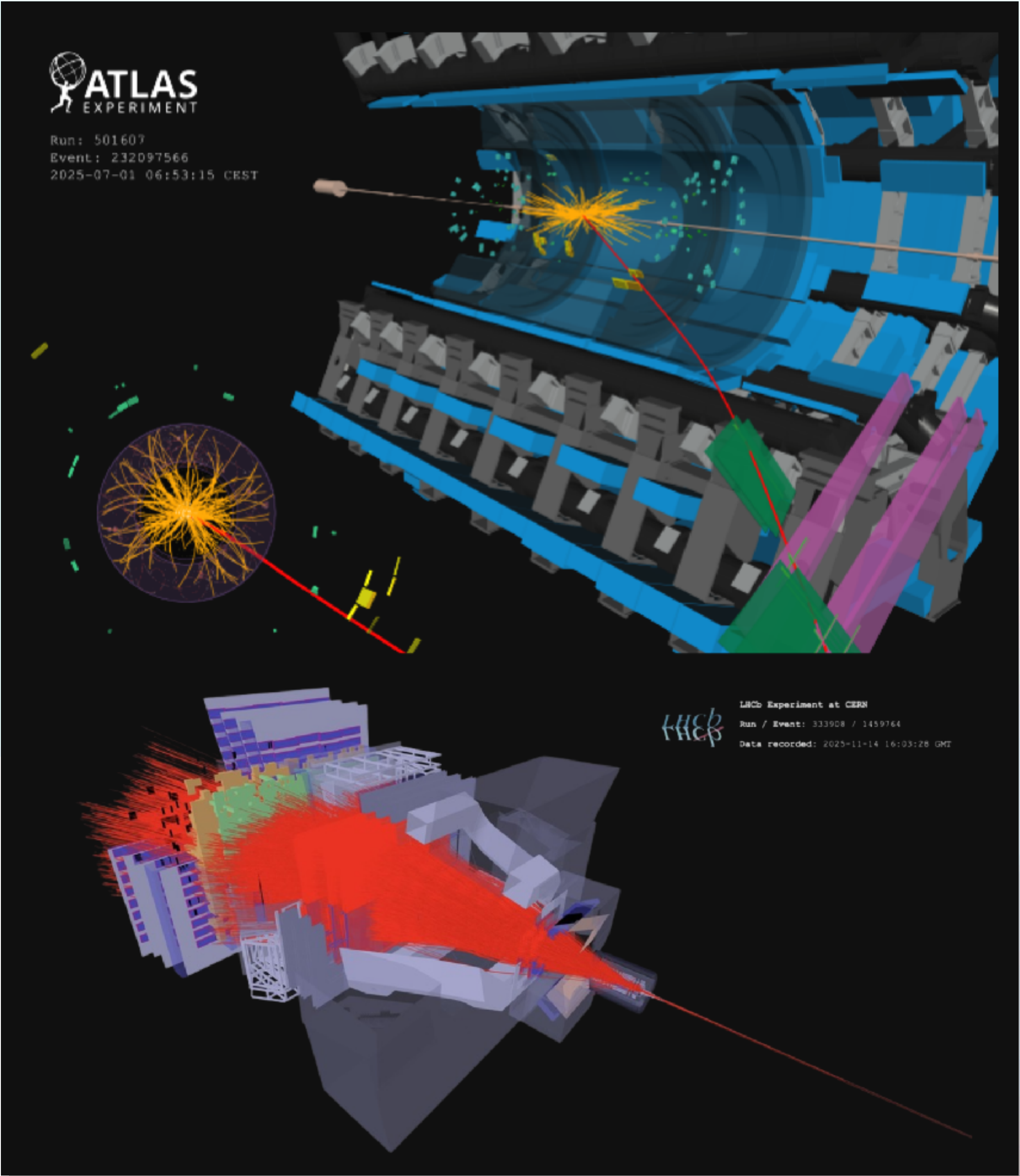
Example 2 track event seen in real data



Side View

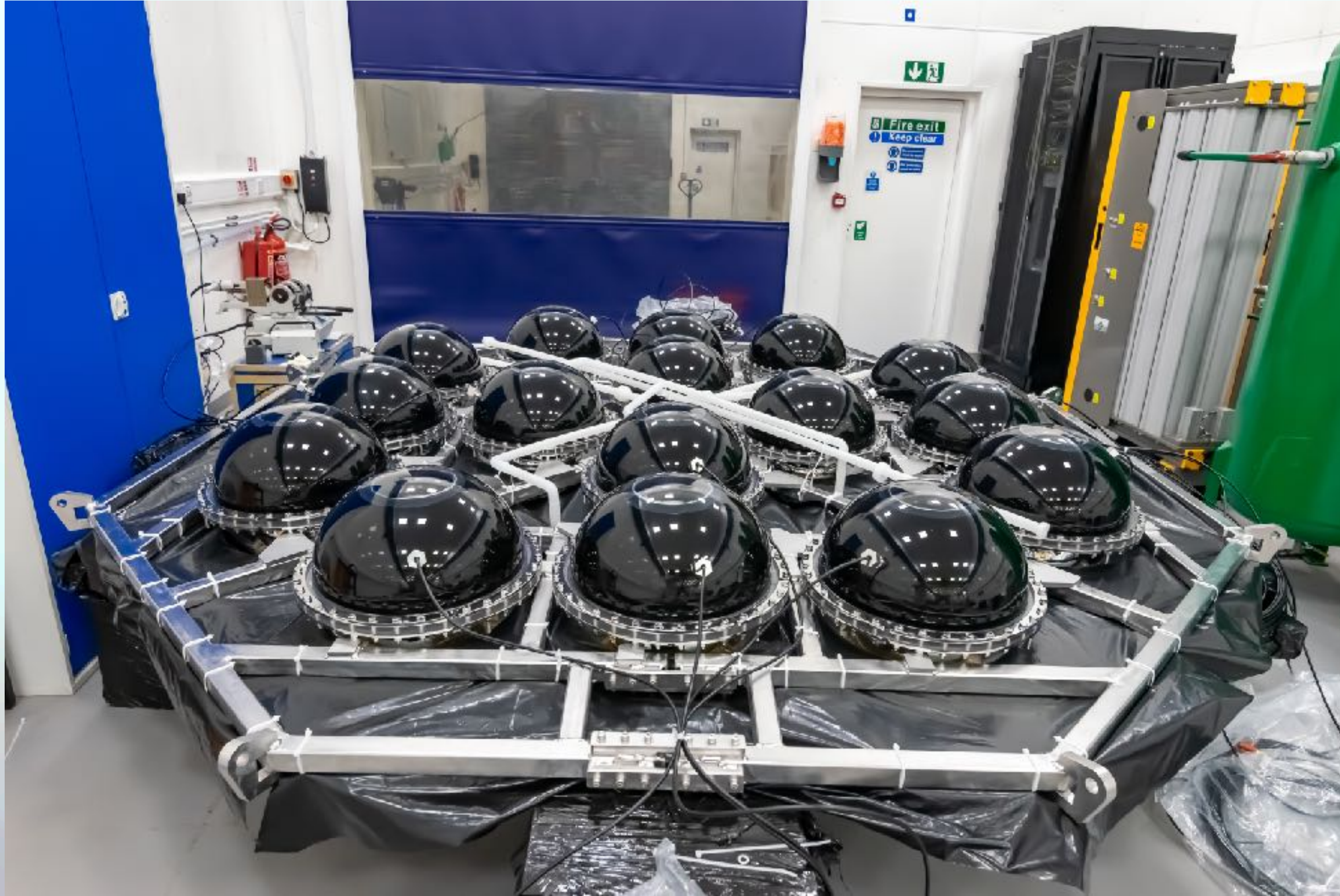


Top View





# We built BUTTON

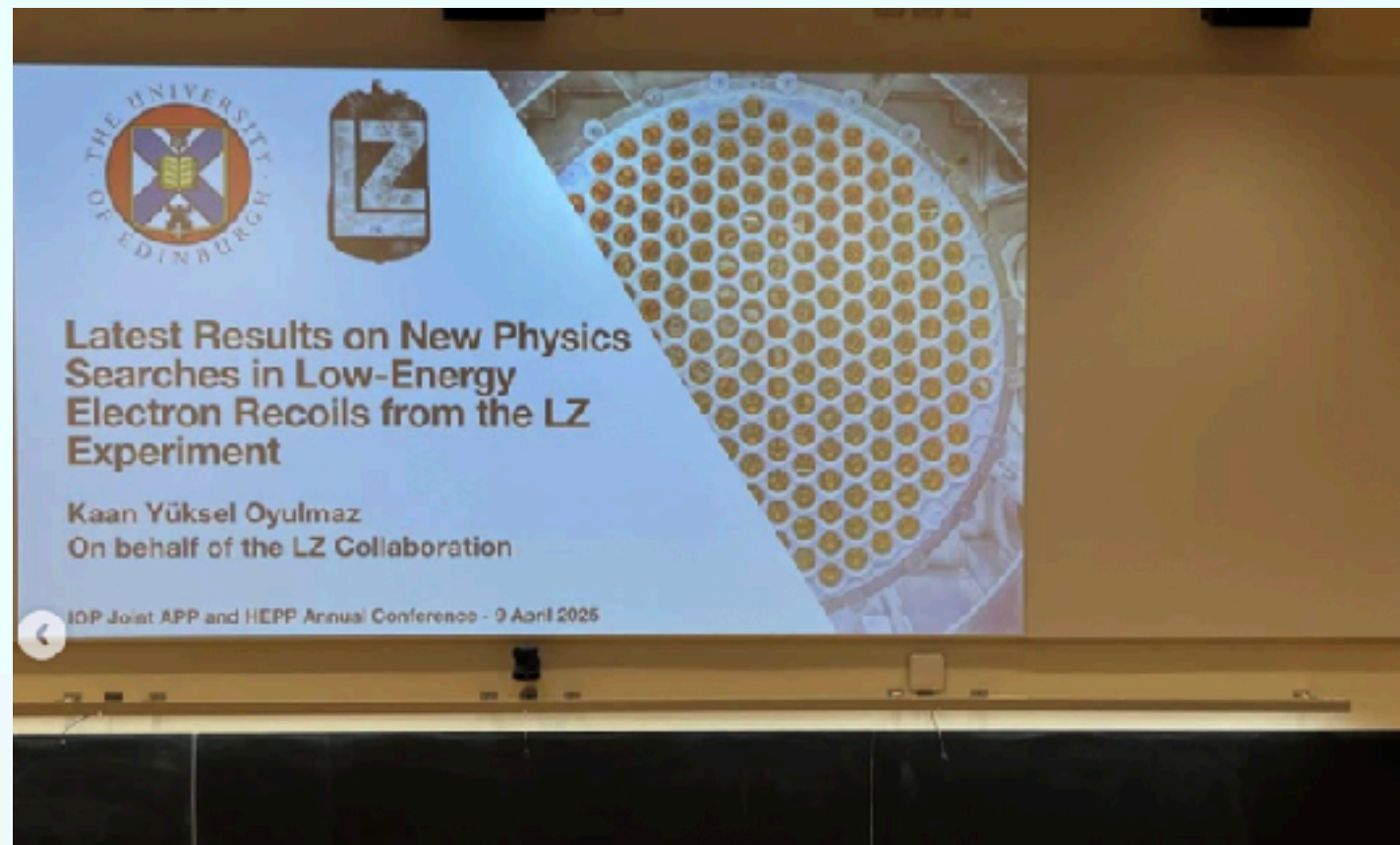






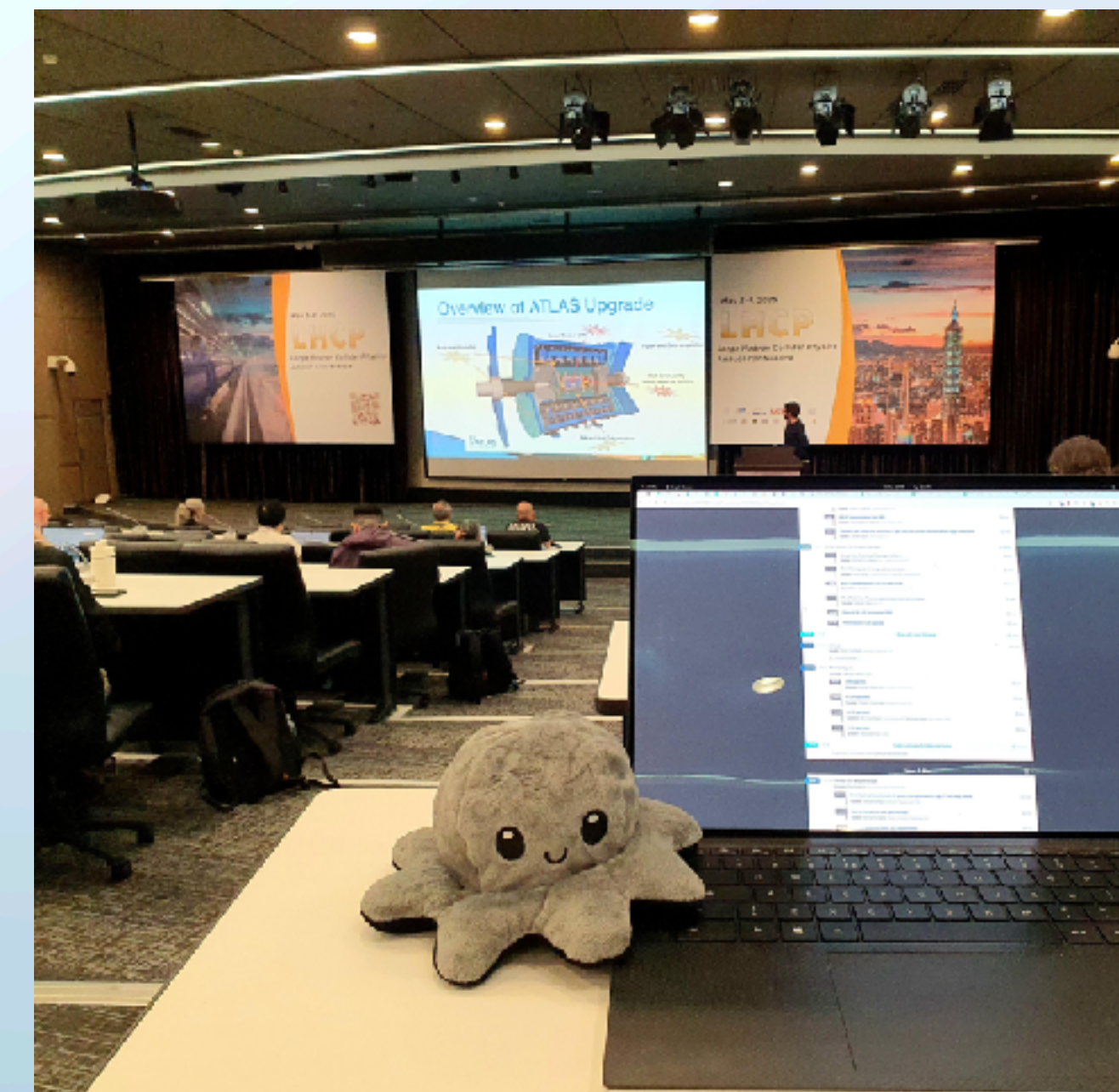
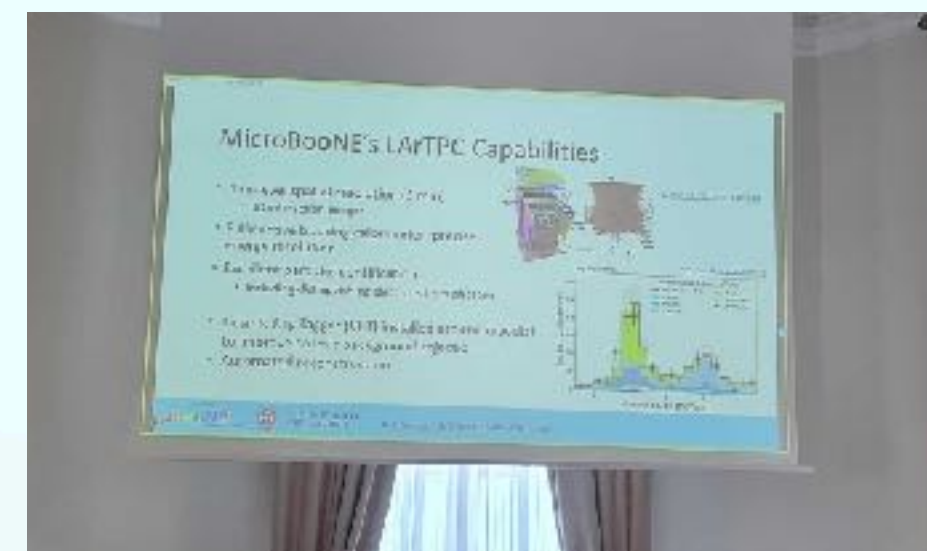
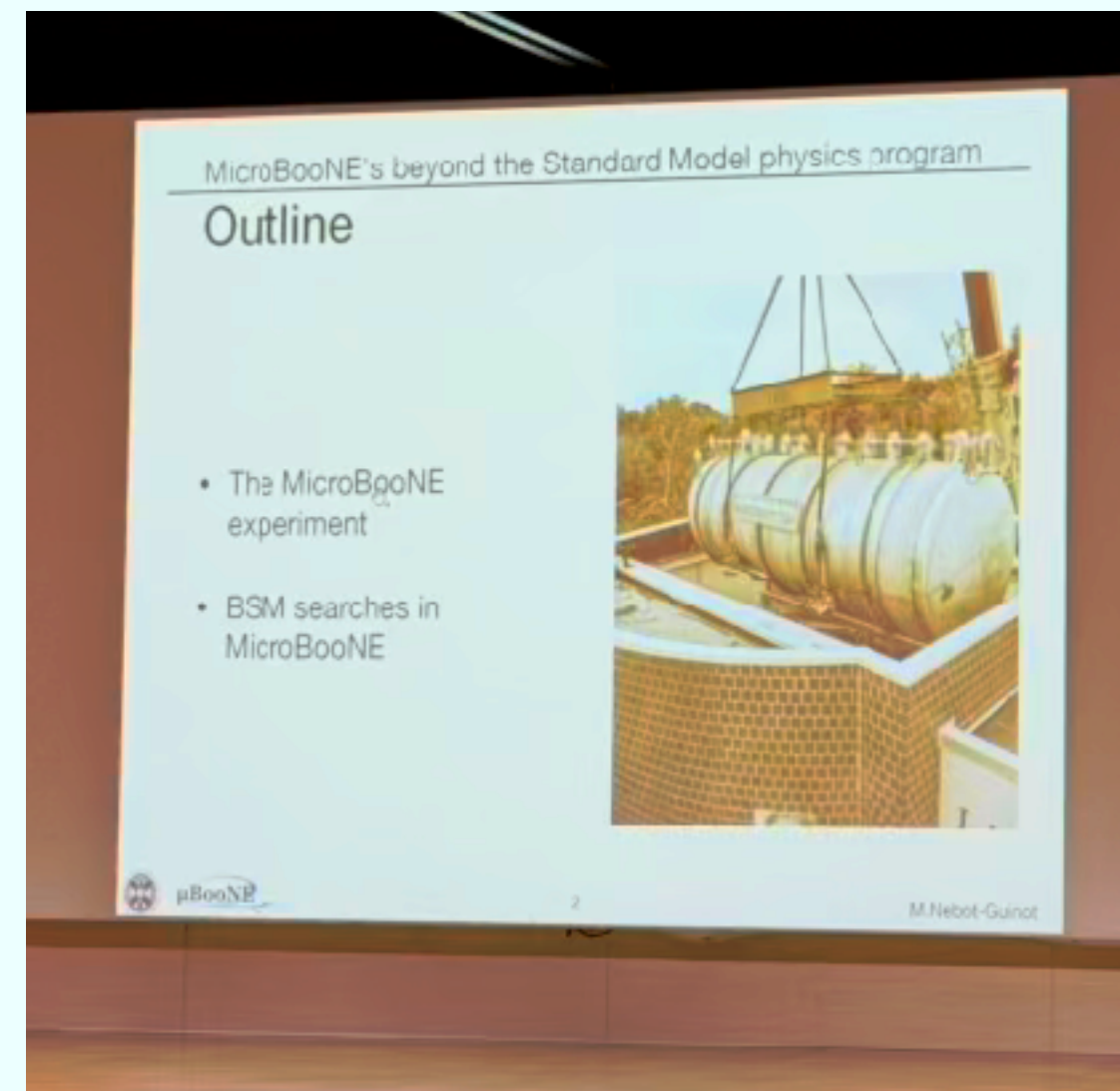


# We went to the IOP APP HEPP meeting





# We visited Geneva, Marseille & Taipei





# We organised workshops



SBND Analysis workshop

**ATLAS HMBS & EXOTICS  
WORKSHOP 2025**

14<sup>TH</sup>-18<sup>TH</sup> JULY  
EDINBURGH, UK

<https://indico.cern.ch/event/1524083/>

THE NUCLEUS  
Kings Buildings Campus  
EH9 3FG Edinburgh, UK

LOCAL ORGANISING COMMITTEE

- Sara Alderweireldt (chair)
- Yanyan Gao
- Christos Leonidopoulos
- Afroditi Kyprianou
- Santiago Paredes Sáenz
- Julia Cardoso Silva
- Alex Veltman
- Benjamin Wynne
- Zhongyukun Xu

ATLAS  
EXOTICS GROUP

HMBS

ATLAS  
EXPERIMENT

THE UNIVERSITY  
of EDINBURGH

Photo © Edinburgh Photo Works - Dan Munro



**We posed in Fife**



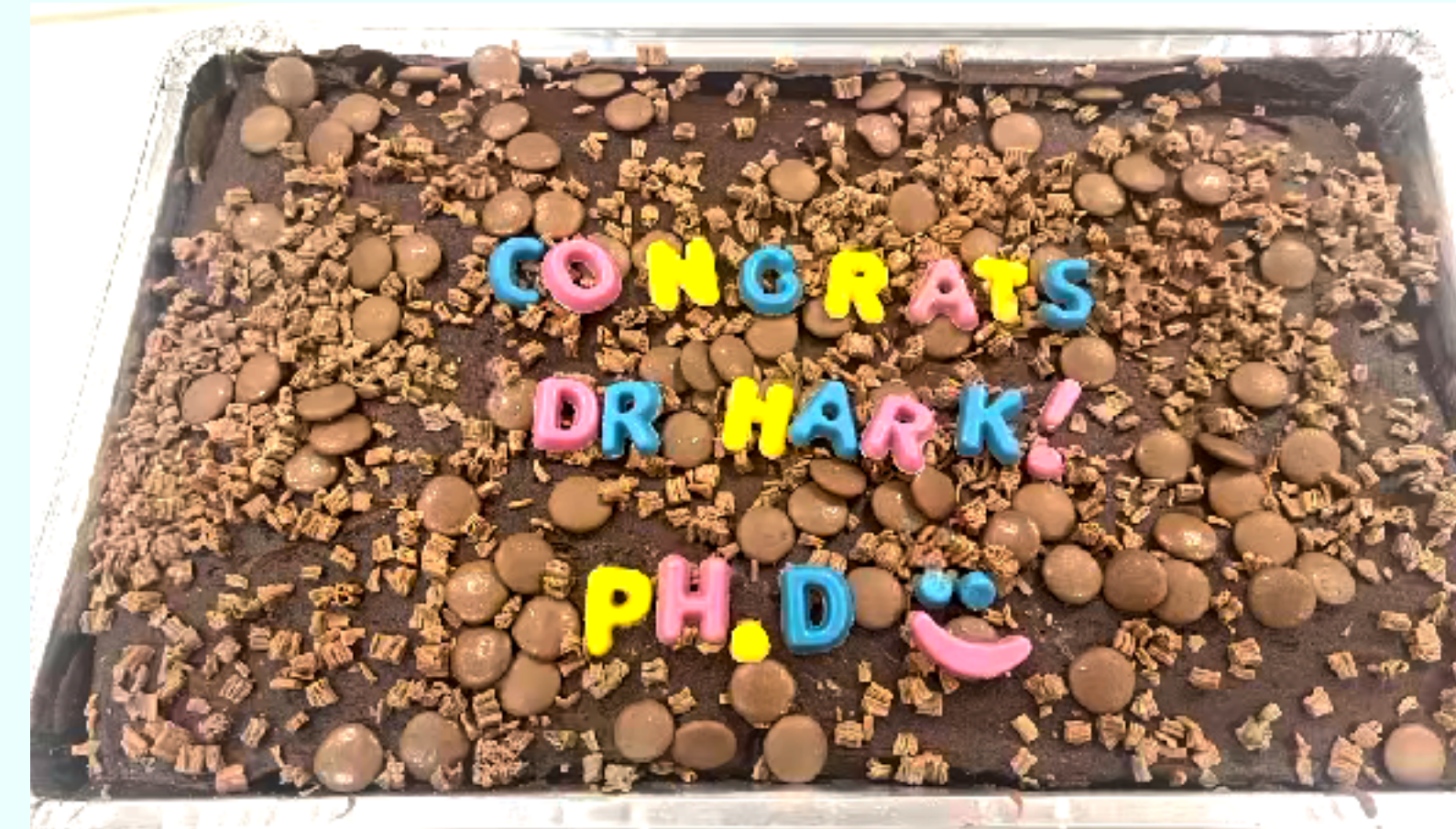








# We snacked





# We hosted the Provost at CERN





# We got elected

FERMILAB FEATURE

# Andrzej Szelc elected co-spokesperson for SBND collaboration



# We won prizes

## Neutrino Cross-Section

Winner - Lucy Kotsiopolou

### Note from Judge:

Excellent talk. A great title. Great graphics. Great acronym (and I hate acronyms). Original introduction to neutrinos. Very comprehensive look at production, triggering, reconstruction, and physics. I did not know SBN had sensitivity to stopped muons. It would be interesting to know if there is any sensitivity to stopped pions so that the program could really repeat the LSND experiment and understand their anomaly with an increased fidelity detector like SBND



Welcome to New Perspectives

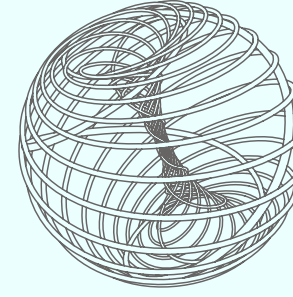
Fermilab



Lucy wins Fermilab three-minute thesis prize



# We won prizes



## BREAKTHROUGH PRIZE | FUNDAMENTAL PHYSICS

THE 2025 BREAKTHROUGH PRIZE IN FUNDAMENTAL PHYSICS IS AWARDED TO

**Jennifer Rachel Curran**

AND COLLEAGUES IN THE ATLAS COLLABORATION AT THE LARGE HADRON COLLIDER AT CERN

For detailed measurements of Higgs boson properties confirming the symmetry-breaking mechanism of mass generation, the discovery of new strongly interacting particles, the study of rare processes and matter-antimatter asymmetry, and the exploration of nature at the shortest distances and most extreme conditions at CERN's Large Hadron Collider.

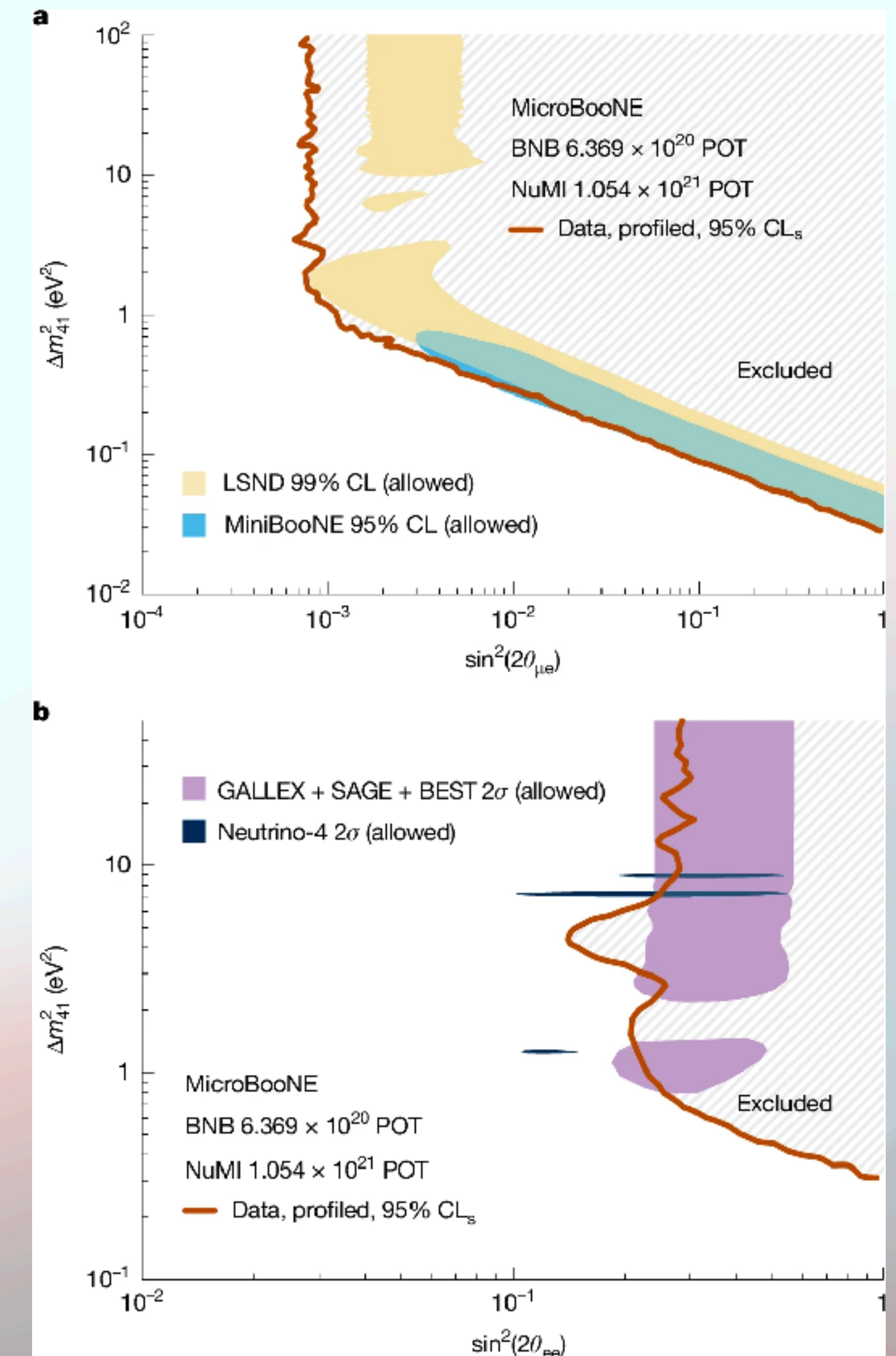
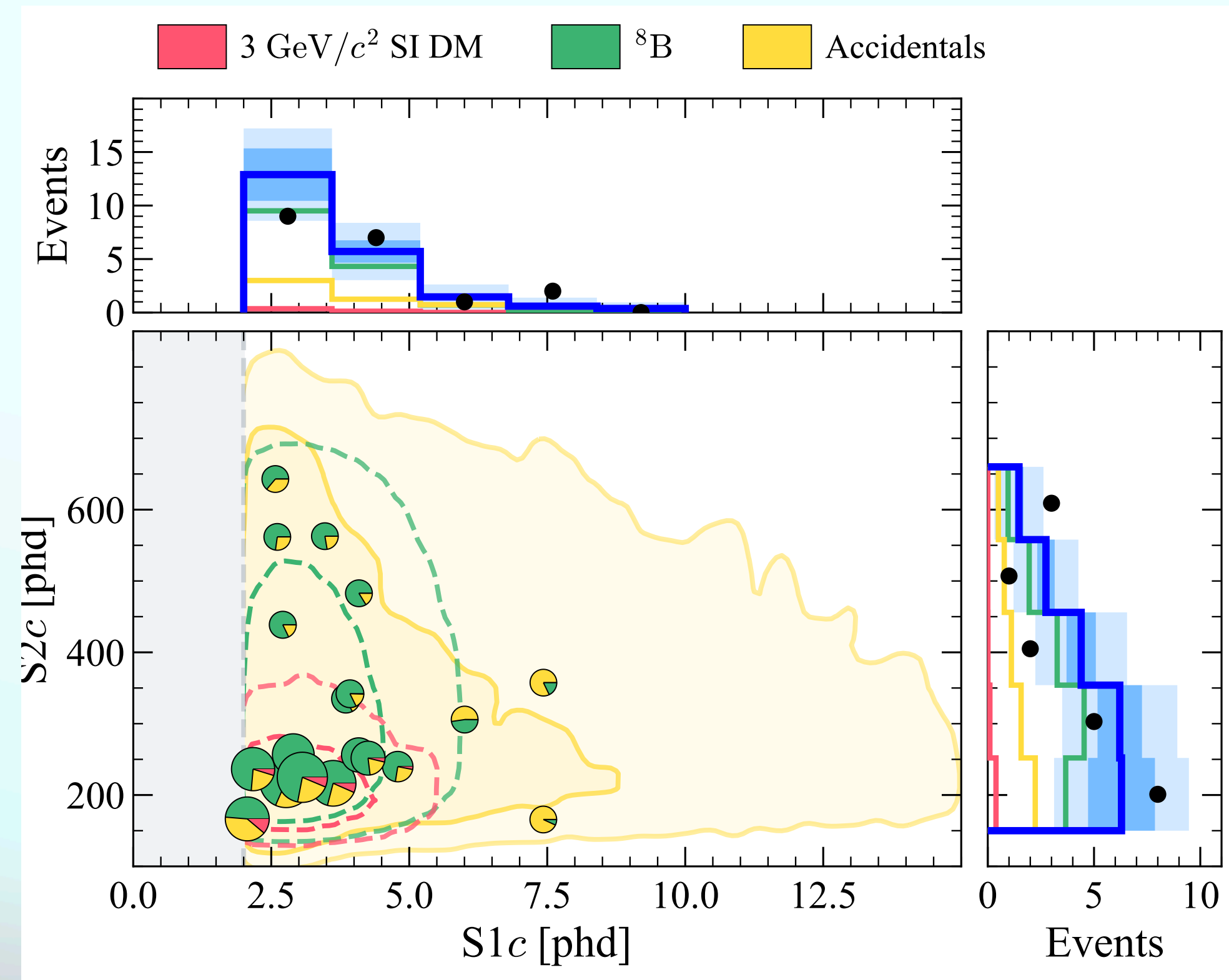
APRIL 5, 2025



Pete Worden  
Chairman  
Breakthrough Prize Foundation



# We didn't find dark matter or sterile neutrinos



[https://lz.lbl.gov/wp-content/uploads/sites/6/2025/12/LZ\\_Paper\\_Preprint\\_WS2025\\_v6.0\\_20251208.pdf](https://lz.lbl.gov/wp-content/uploads/sites/6/2025/12/LZ_Paper_Preprint_WS2025_v6.0_20251208.pdf)

<https://www.nature.com/articles/s41586-025-09757-7>



**We posed at KB**



**We welcomed future physicists**

The background of the slide features a series of overlapping, wavy, and semi-transparent bands of color. These bands create a sense of depth and movement, with colors ranging from light blues and greens on the left to warm yellows and oranges on the right. The overall effect is a soft, abstract landscape that complements the text.



# From physics to industry

Featuring former PPE members



**Dr Julia Allen**

Energy Systems Modeller  
at Green Cat Hydrogen



**Dr Guillermo  
Hamity**

Senior Data Scientist at  
Lloyds Banking Group



**Tuesday 26th August, 4-6pm**

**JCMB 4325b**



**FREE CAKE!**

## We met old friends



# We outreached





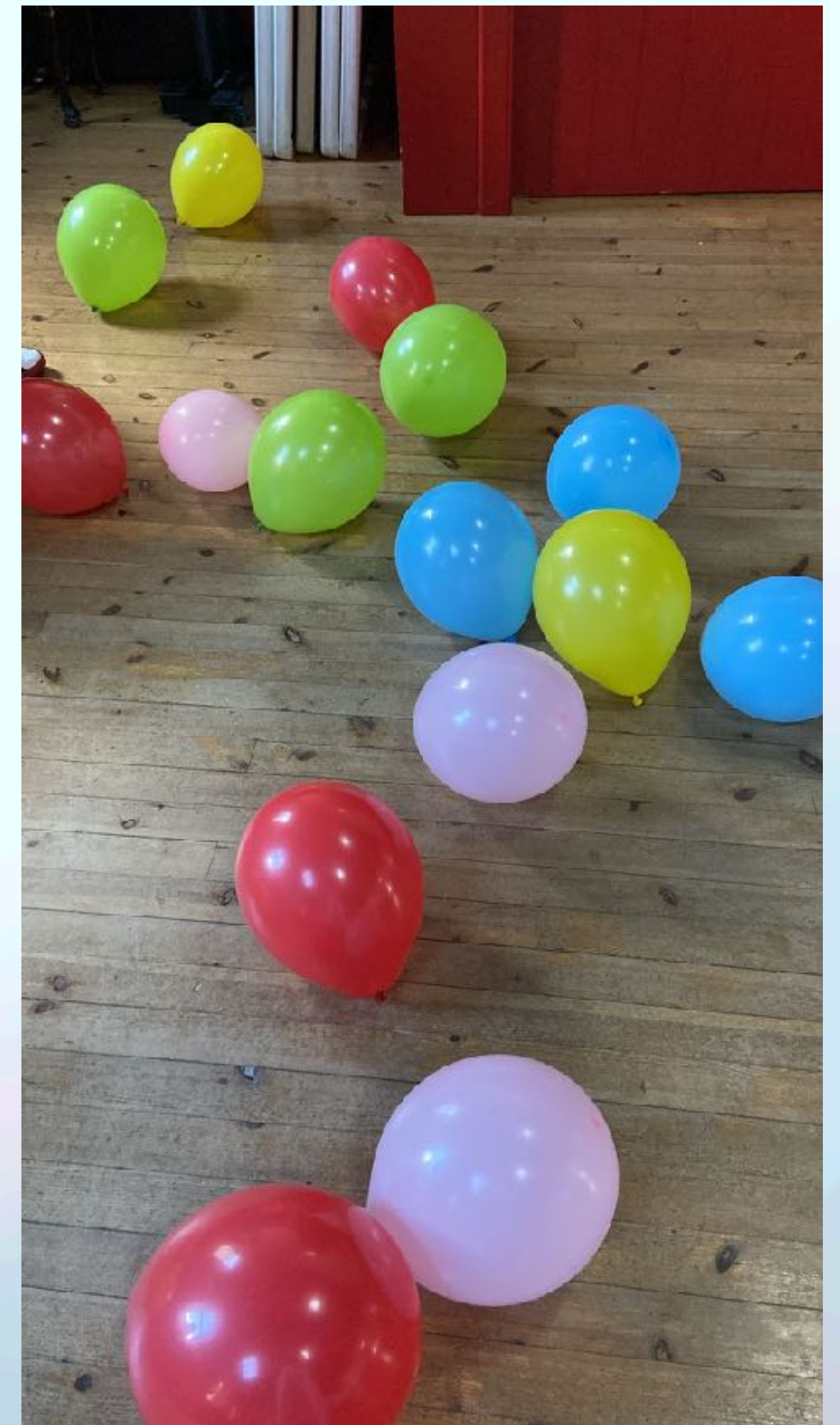
**We exchanged culture**





# We said goodbye

- **Marina Reggiani-Guzzo** —> **Syracuse** 🇺🇸
- **Gedas Sarpis** —> **CERN fellow** 
- **Ozlem Ozcelik** —> **CERN fellow** 
- **Federico Betti** —> **INFN Bologna** 🇮🇹
- **Lais Lavra** —> **CBPF Rio** 🇧🇷
- **Julia Silva** —> **DESY fellow** 🇩🇪





# We graduated

- Dr Jack Gargan, Dr Li Jiaoyang, Dr Charlie Batchelor, Dr Ryunosuke O'Neil, Dr Anh Nguyen, Dr Elena Villhauer
- Dr Harkirat Riyat, Dr Julia Allen, Dr Richards Gonzalez, Dr Mary Slipper



# We welcomed new colleagues

- Emma Ellingwood, working with Andrzej and Matt
- Dan Foulds-Holt, working with LHCb
- Fernando Gallego, working with Will
- Linxuan Zhu, working with Franz
- George Ramsay (working with Will)
- Sana Tabsaaza (working with Christos)
- Finn Onori (working with Ben)
- Hussain Al Saleh (working with Matt)
- Grace Buzzard (working with Cheryl and Andrzej)
- Kate Renforth (precision medicine doctoral training program, working with Catriona)



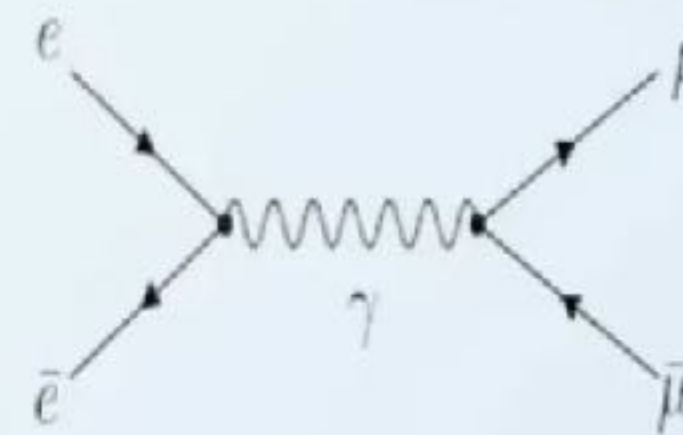
# We took advice

## STOP DOING PARTICLE PHYSICS

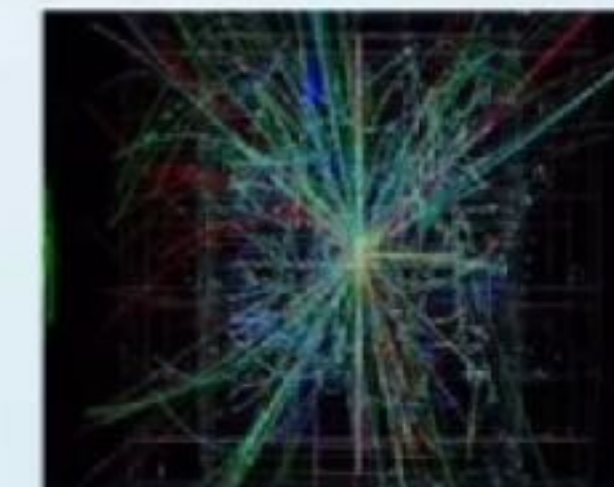
- PARTICLES WERE NEVER MEANT TO BE SMASHED TOGETHER
- Years of particle physics and NO REAL-WORLD USE for anything besides protons, neutrons, and electrons
- "Muon decay is mediated by a virtual W- boson" - statements dreamed up by the UTTERLY DERANGED

LOOK at what particle physicists have been demanding your Respect for all this time, with all the particle accelerators we built for them

**This is REAL PARTICLE PHYSICS done by REAL PARTICLE PHYSICISTS**



????



??????



kayaking?

"Hello I would like a top squark and a higgsino please"

**They have played us for absolute fools**



We look forward to 2026!



# Annual APP and HEPP Conference

**8–10 April 2026**

John MacIntyre Conference Centre,  
University of Edinburgh, Edinburgh, UK





# PPE Away Day June 2026

