

Hi! I'm **Catalina  
Lesmes Ramírez**, the  
Researcher at UTEF,  
directly from  
Colombia.







**I was born in  
Rionegro, Colombia**

A small town in the mountains of  
the Antioquia region. Where I  
started and dared to dream big!

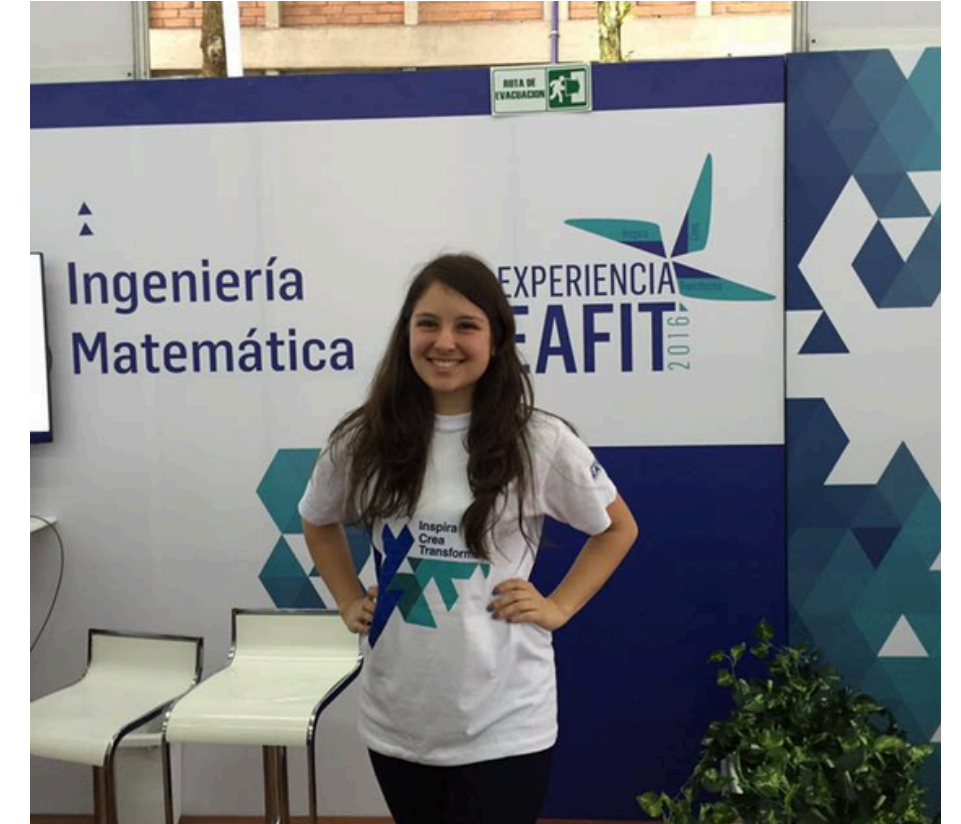


# Universidad EAFIT

The lovely campus where I had the opportunity to study.

Finished my bachelor's in Mathematical Engineering and my master's in Applied Mathematics.

Both of my research projects focused on machine learning techniques, applied to epidemiology and functional data.



**It is located in Medellín, Colombia.**

Has an incredible number of connections and agreements with countries and universities for joint collaboration.



# Internship - IEAP

This was a time to grow both professionally and personally.

I was presented with amazing challenges; professionally, through coding and understanding physics; and personally, by moving to a different country and adapting to a new culture.

My main research was focused on relative luminosity measurements and reducing statistical errors.

I fell in love with Data Science and Praha!





# Spotted!

The time I became the talk of the town!



## El sorprendente trabajo de una científica rionegrera en Europa

**Altiplano** 2019-04-17

Compartir: [f](#) [t](#) [w](#) [l](#)

Catalina Lesmes Ramírez es el nombre de la rionegrera que **durante los últimos días ha generado una cantidad significativa de reacciones** en las redes sociales. Esta estudiante de **Ingeniería Matemática de la Universidad EAFIT**, se ha convertido en una destacada practicante del Instituto de Física Experimental y Aplicada de Praga, **en República Checa**.

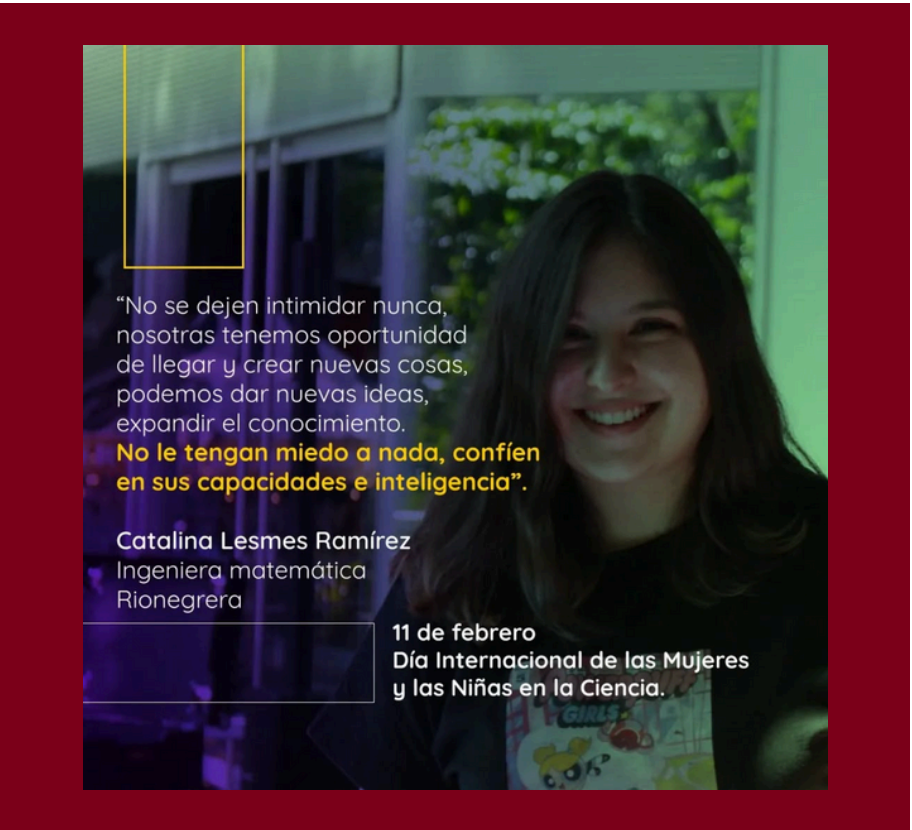
Fue justamente esta universidad la que **exaltó los logros académicos de la oriental**, al publicar en su página web una reseña de las actividades **que Ramírez adelanta en este país de Europa Central**, que consisten en analizar los datos generados por el proyecto

**San Carlos** 2025-06-26

**Desmantelaron centro de operaciones del Clan del Golfo dedicado a la minería ilegal en San Carlos**

**Rionegro** 2025-06-26

**Joven herido en medio de un robo necesita con urgencia donantes de sangre**





# Data Scientist - NEU Energy

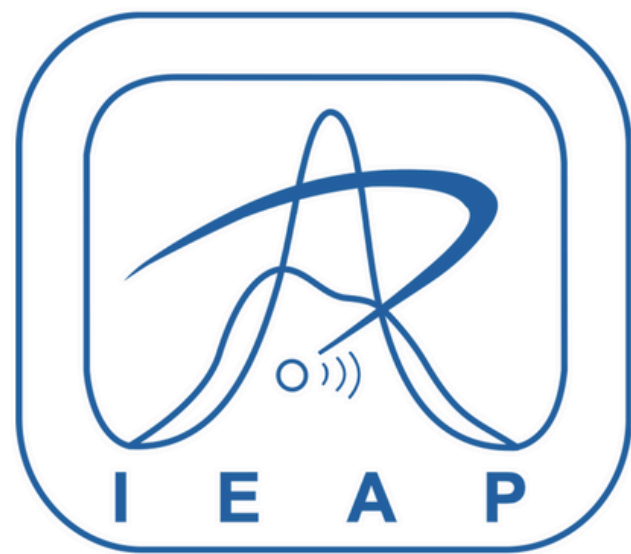


**NEU Energy was my first job as a Data Scientist, where I explored the full data spectrum.**

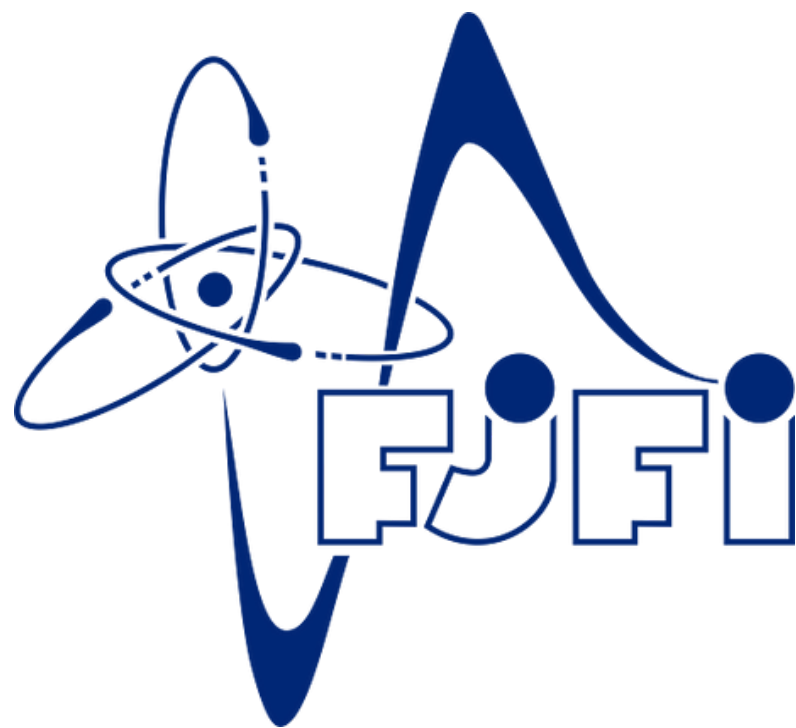
I created the data science department from the ground up, defining workflows, tools, and best practices.

This role also taught me the foundations of leadership and management, helping me grow beyond technical skills.

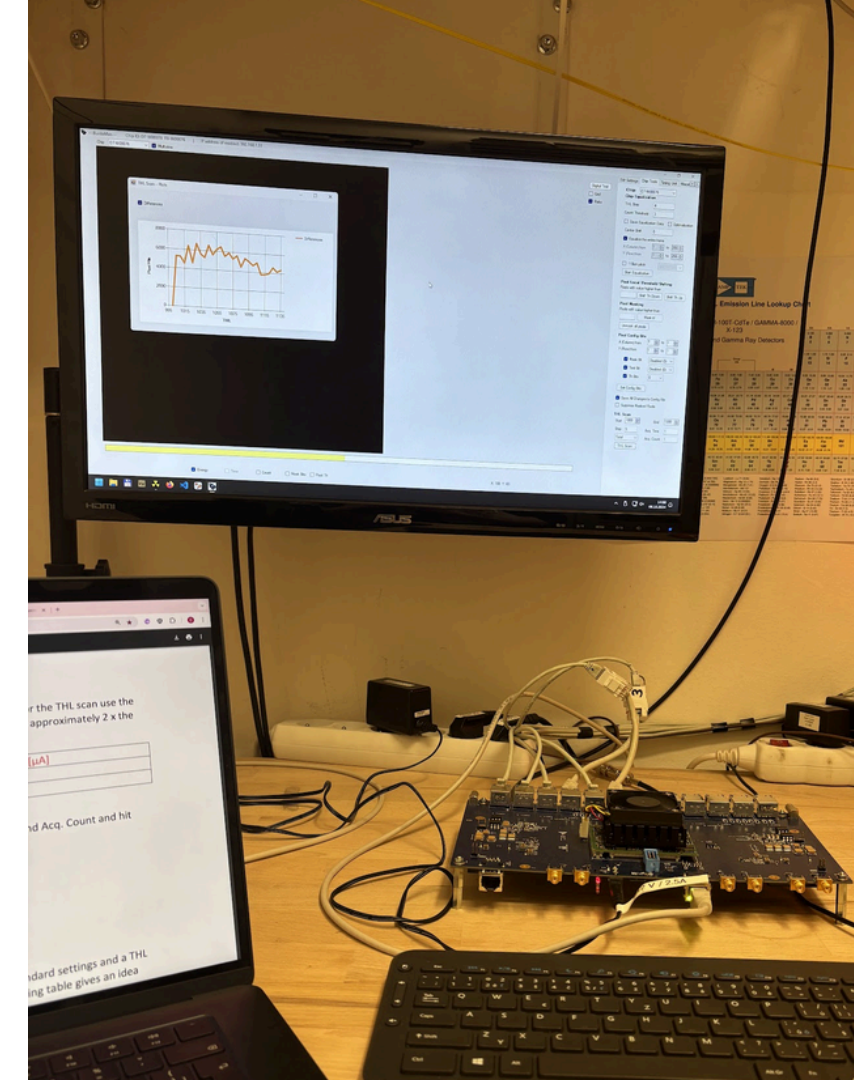
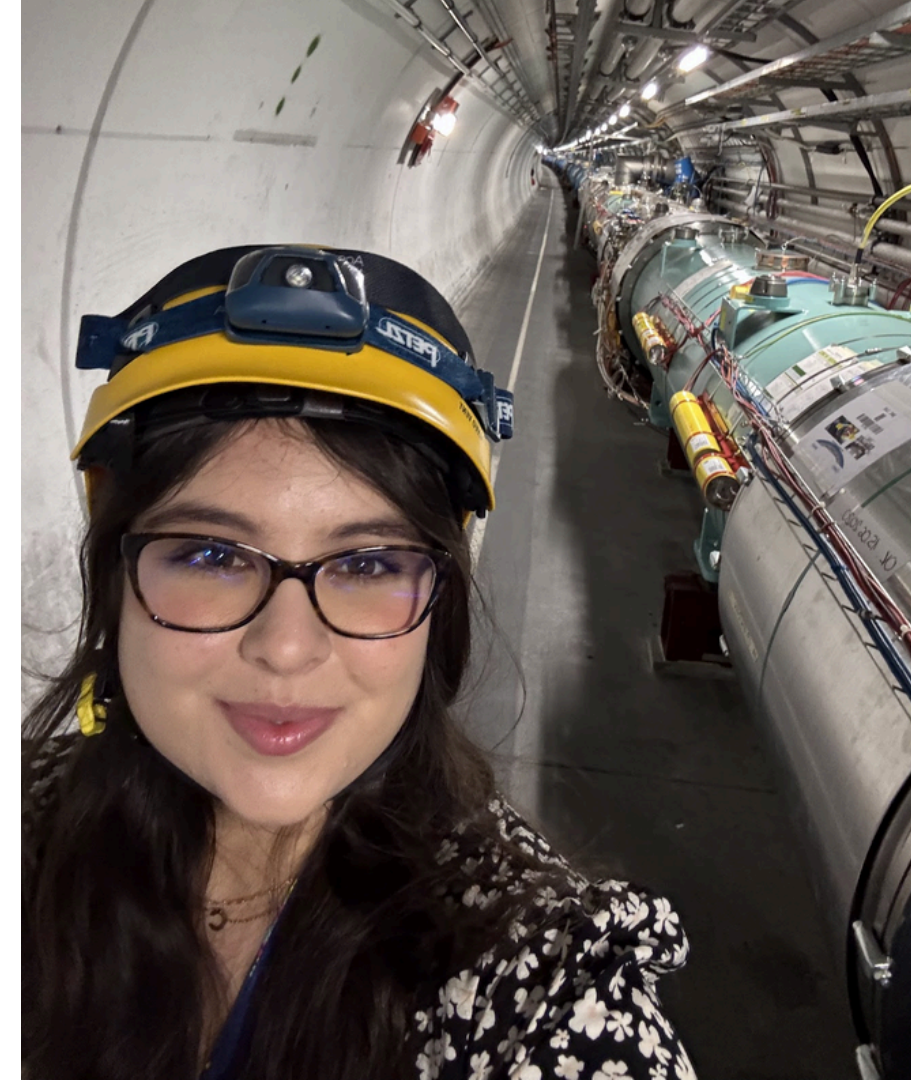




## PhD Student & Researcher



I was lucky enough to come back to IEAP to continue my research on luminosity and start my PhD on Nuclear Engineering.

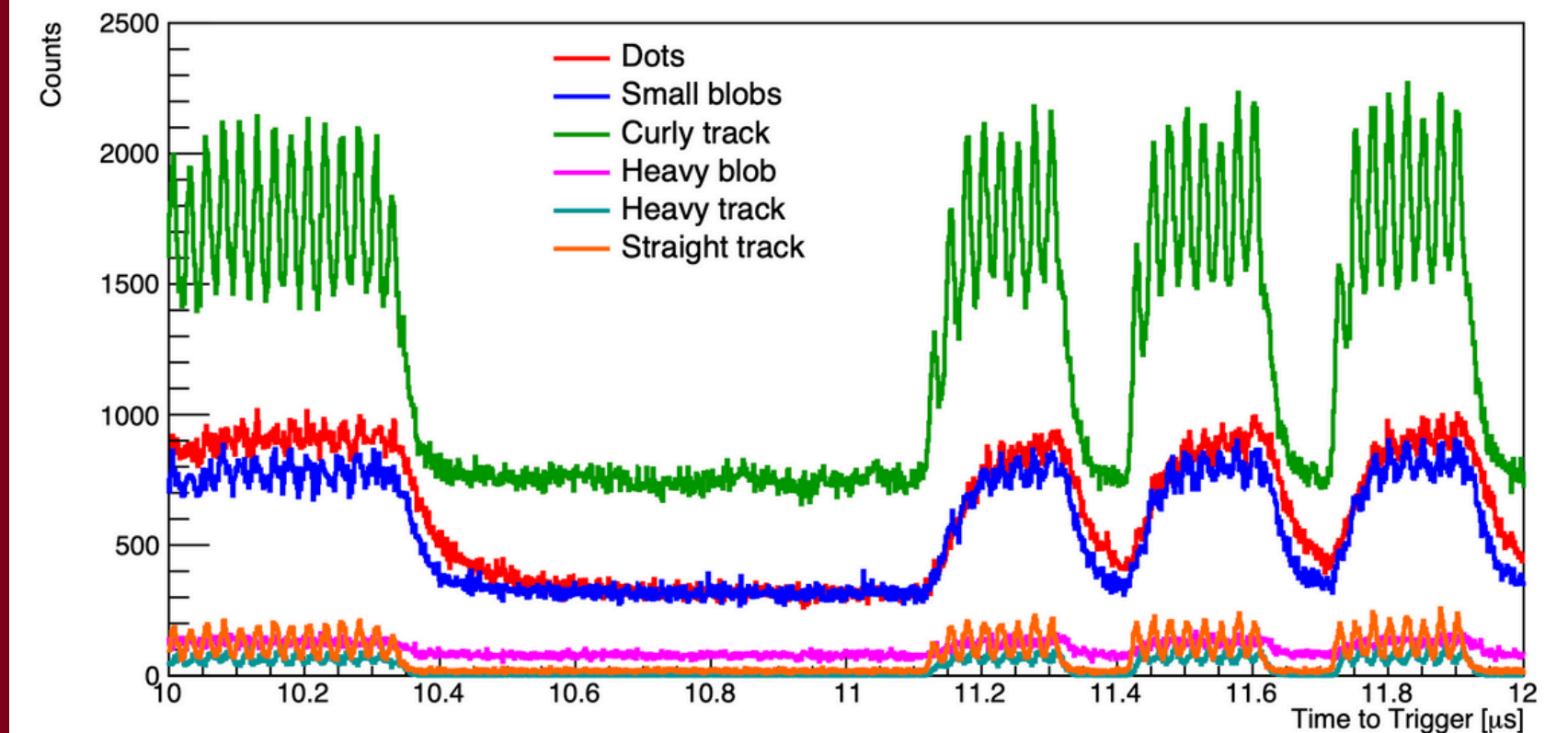
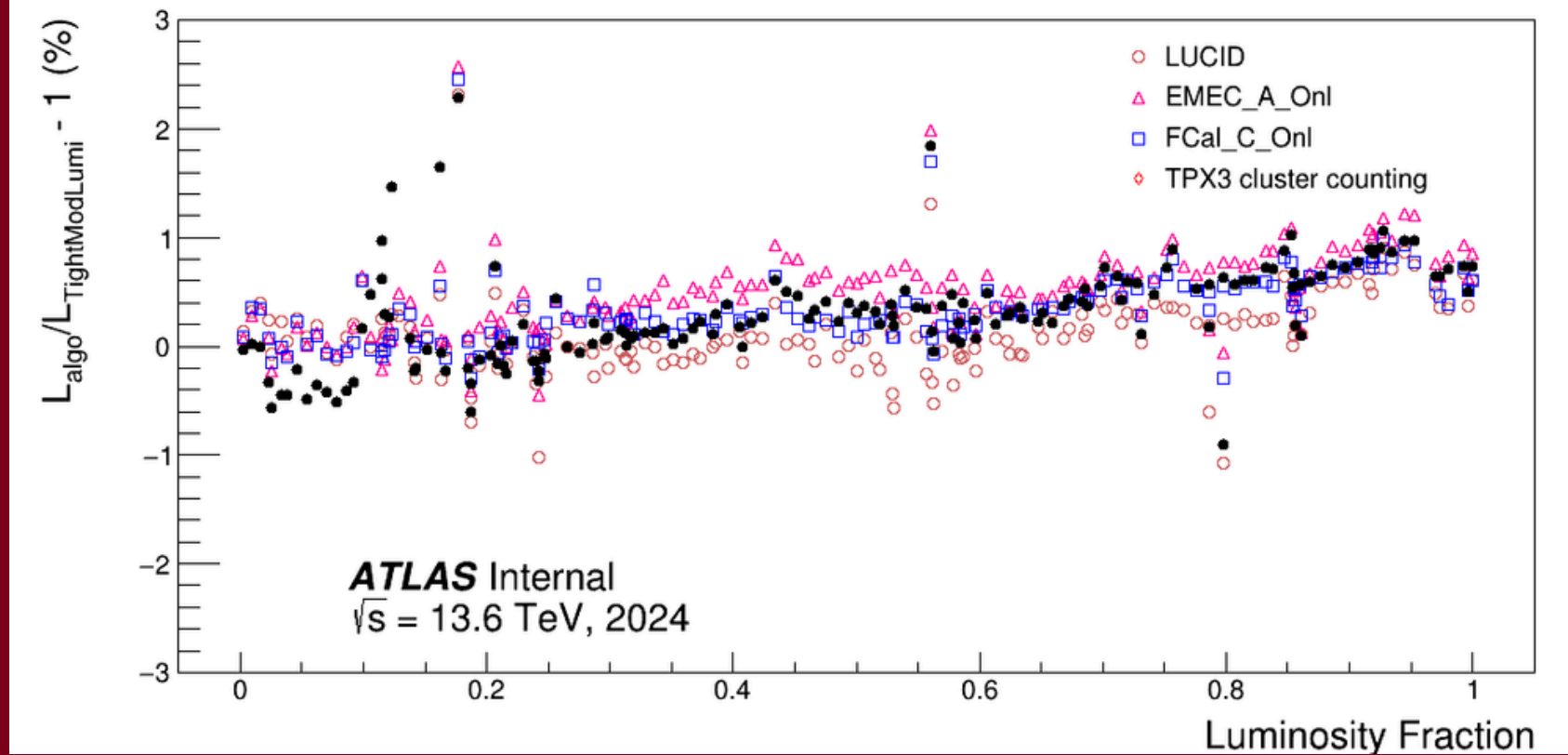




# My current focus!

Currently my main research focuses on measuring relative luminosity and radiation fields from different experiments inside the LHC.

Mainly working with the ATLAS experiment and the TPX3 network installed inside the cavern.  
Tiny steps with the ALICE and MoEDAL experiments.





# Thank you!

Feel free to approach me  
if you have any questions.

