A person is standing in the center of a large, circular particle detector tunnel. The tunnel is filled with complex machinery, including various pipes, cables, and structural elements. The lighting is dim, with some highlights on the metallic surfaces. The text 'COMBINATION OF RESULTS ATLAS AND CMS' is overlaid on the image in a large, bold, sans-serif font. 'COMBINATION OF RESULTS' is in black, 'ATLAS' is in blue, 'AND' is in black, and 'CMS' is in red.

COMBINATION OF  
RESULTS  
ATLAS AND CMS

- We want to **combine the data collected by ATLAS and CMS collaboration** during this exercise
- To do this during the exercise we fill the google excel doc with values of the Z boson masses we have found in the events analyzed.

**<https://docs.google.com/spreadsheets/d/1M8Js4TUGhHsbe70kBCHzQOPvhDoOZUuznSwQFIdGGXc/edit?userstoinvite=ndrrini3@gmail.com&ts=5a04268e&actionButton=1#gid=0>**

- There is a spreadsheet where results from CMS and ATLAS can be combined to get the best result from LHC

5. Put together all the data from all the group from the two collaborations and produce the **combined plot** repeating steps 2-4 done before

Test ☆

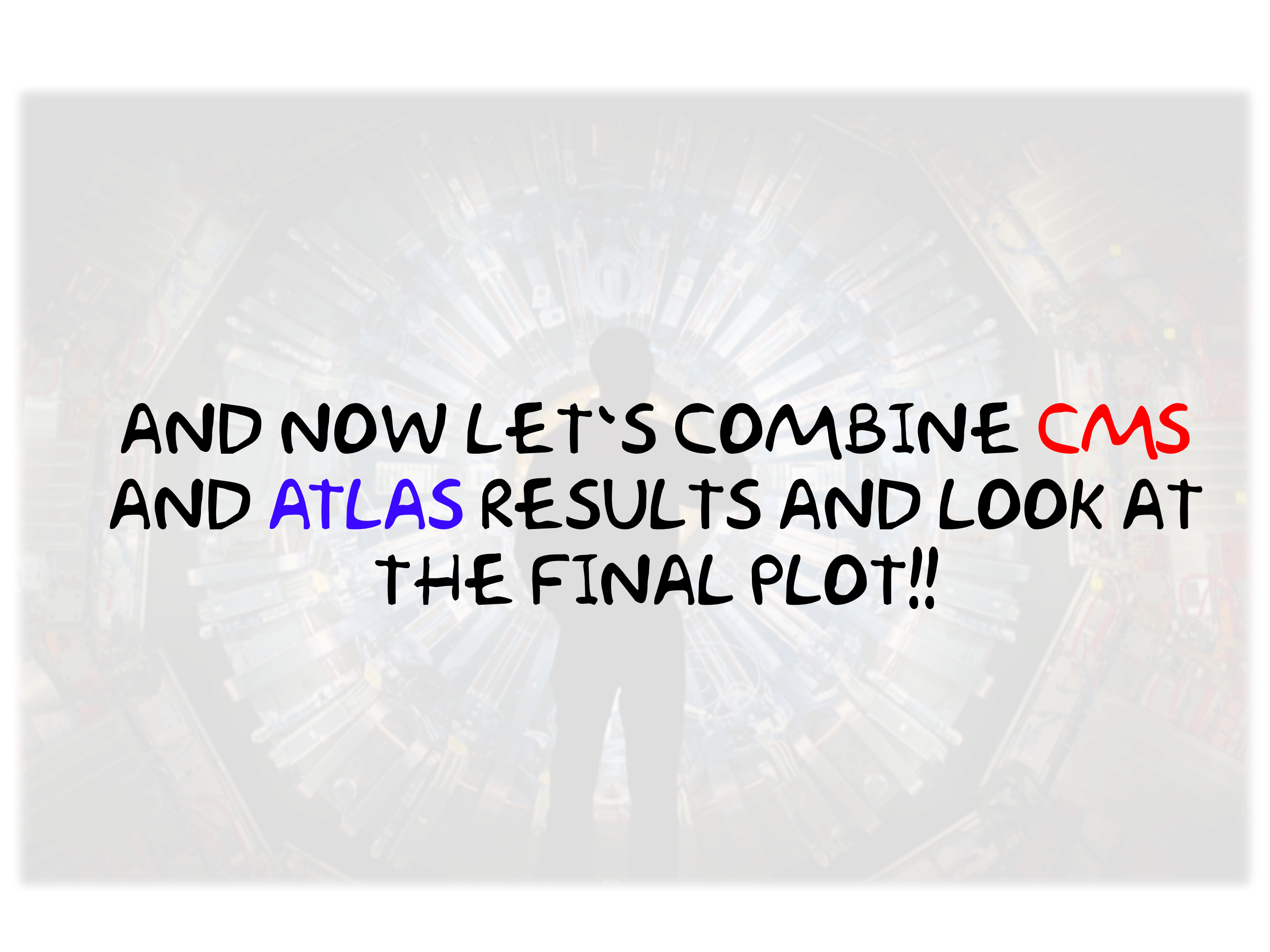
File Edit View Insert Format Data Tools Add-ons Help All changes saved in Drive

90% \$ % .0 .00 123 Arial 10 B I A [Color Picker] [Background Color] [Text Color] [Link] [Unlink] [Image] [Filter] [Sum]

*fx*

	A	B	C	D	E	F	G	H	I	J	K
1		All Groups CMS			Frequency All Groups CMS			All Groups ATLAS		Frequency All Groups ATLAS	
2		Event ID	Mass [GeV]		Events/bin			Event ID	Mass [GeV]	Events/bin	
3						0					0
4						0					0
5						0					0
6						0					0
7						0					0
8						0					0
9						0					0
10						0					0
11						0					0
12						0					0
13						0					0
14						0					0
15						0					0
16						0					0
17						0					0
18						0					0
19						0					0
20						0					0
21						0					0
22						0					0
23						0					0
24						0					0
25						0					0
26						0					0
27						0					0

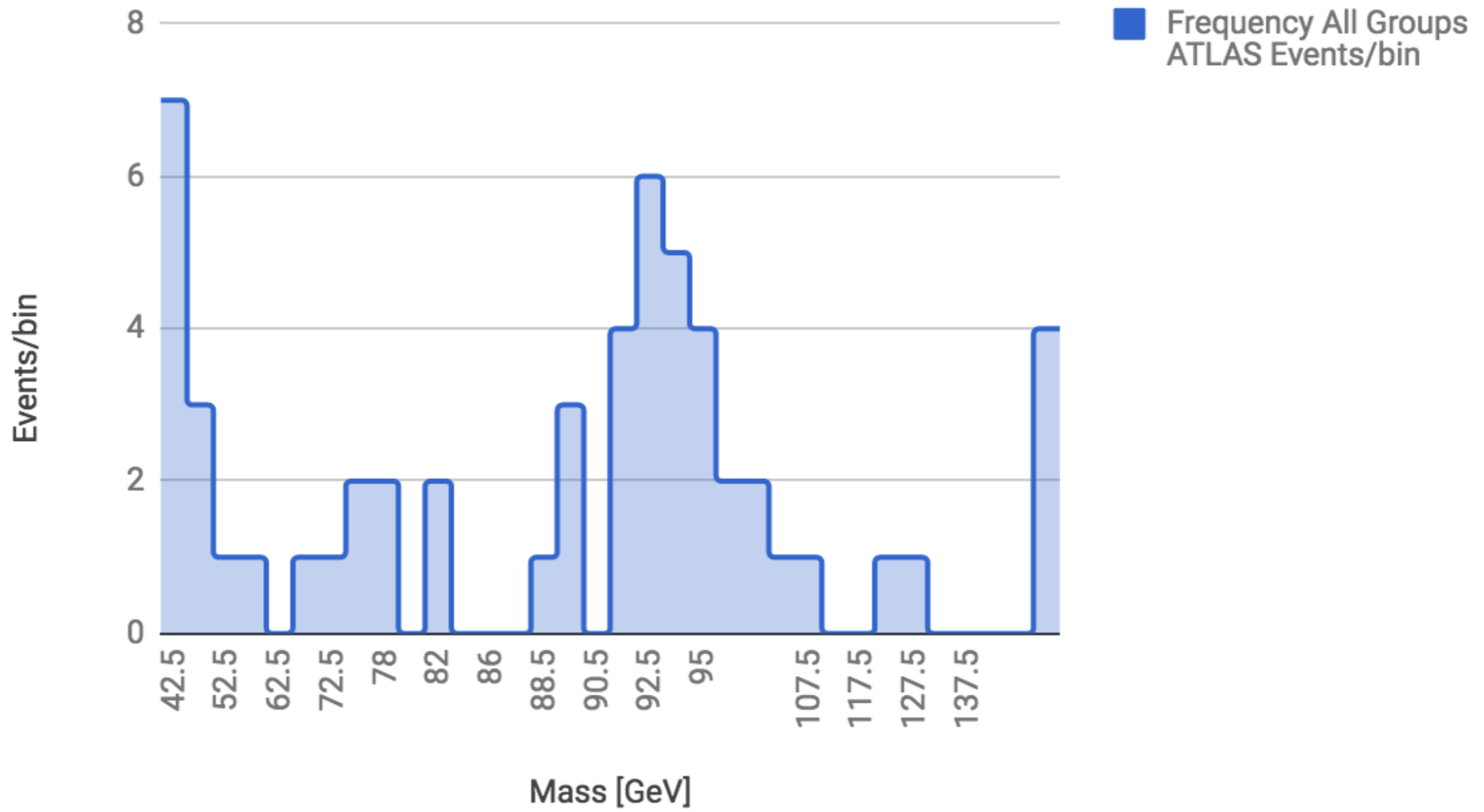
+ CMS Collaboration ATLAS Collaboration **LHC Combination**

A person is standing in the center of a large, circular particle detector tunnel. The tunnel is filled with complex machinery, pipes, and cables, creating a radial pattern of light and shadow. The person is silhouetted against the bright light at the end of the tunnel. The text is overlaid on the image in a bold, handwritten style.

AND NOW LET'S COMBINE **CMS**  
AND **ATLAS** RESULTS AND LOOK AT  
THE FINAL PLOT!!

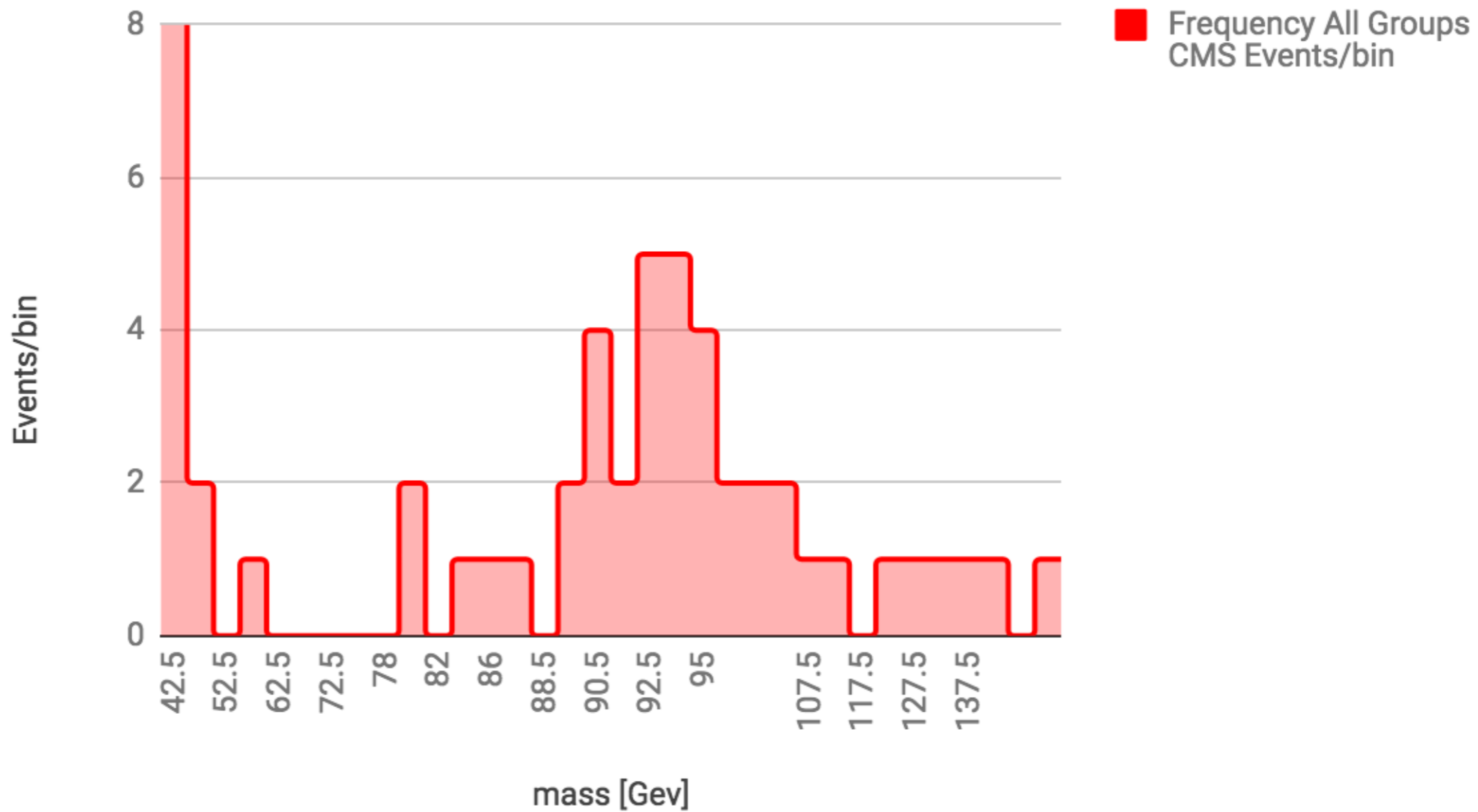
# ATLAS

Events/bin



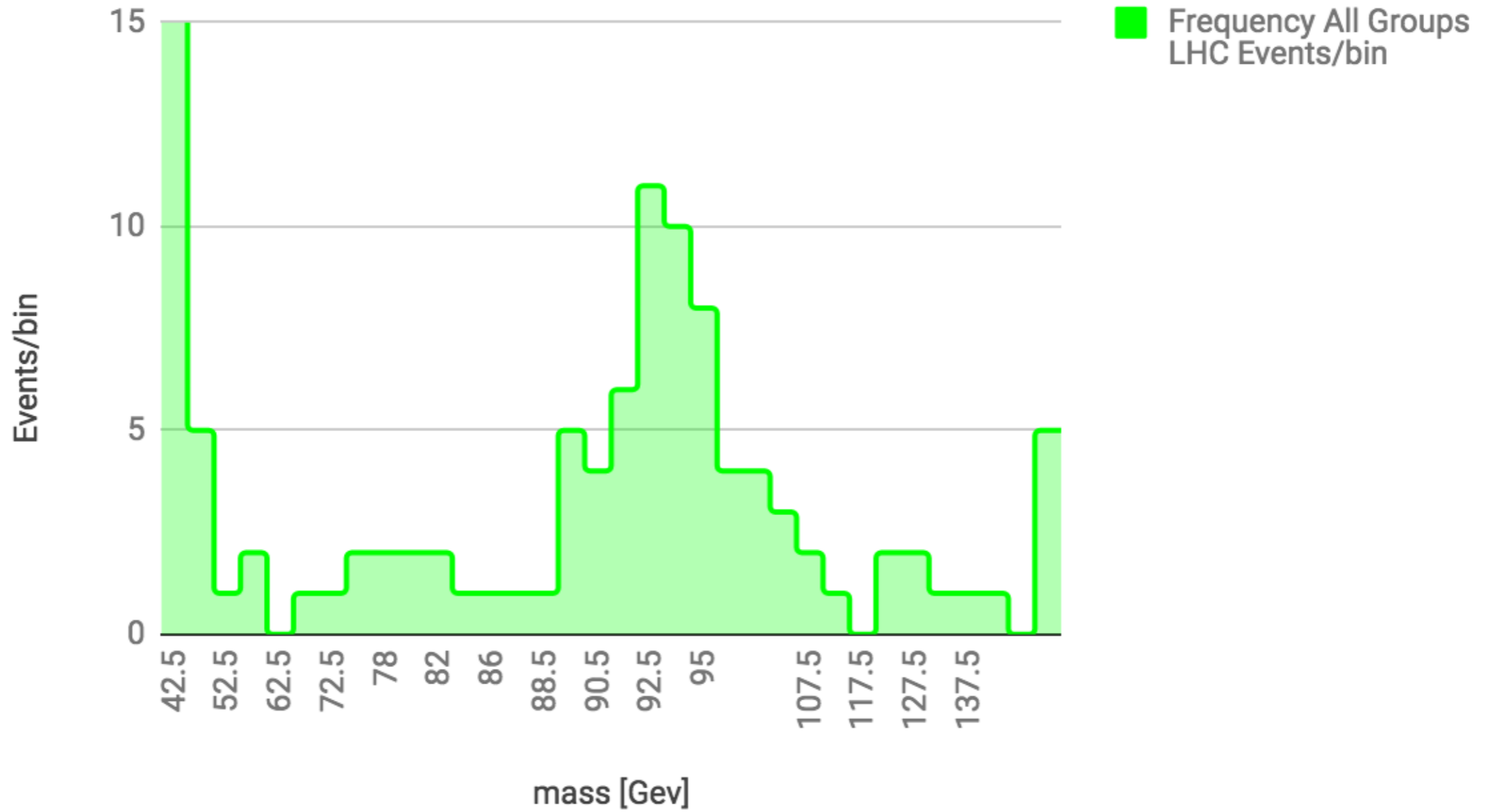
# CMS

Events/bin



# LHC

Events/bin



A person's silhouette is centered in the foreground, standing in a server room. Behind them is a large, glowing circular light that illuminates the surrounding server racks. The server racks are filled with various components, including cables and hardware. The overall scene is dimly lit, with the primary light source being the circular glow behind the person.

**GREAT JOB!! THANKS EVERYBODY!!**