FINAL REPORT STANDARDS
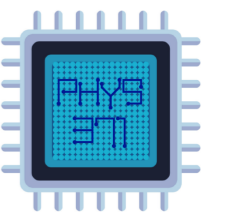
Dr. Riccardo Longo

03/24/2023

Week 9

- Please define your variables once and stick to that notation through all the paper.

> The correlation between the number of people triggering our setup, N, temperature, T, and the pressure, P, was analyzed making use of the BME680 data.
>
> ...
>
> Higher values of p and T are observed in correspondence of time intervals characterized by higher N.
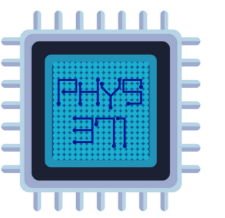
- **Use consistent language to describe the same thing**

> Several datasets were collected in different environmental conditions.
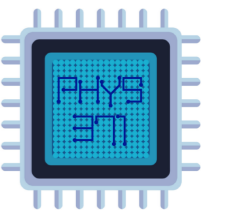>
> ...
>
> The first data-set was collected in the basement of Loomis.
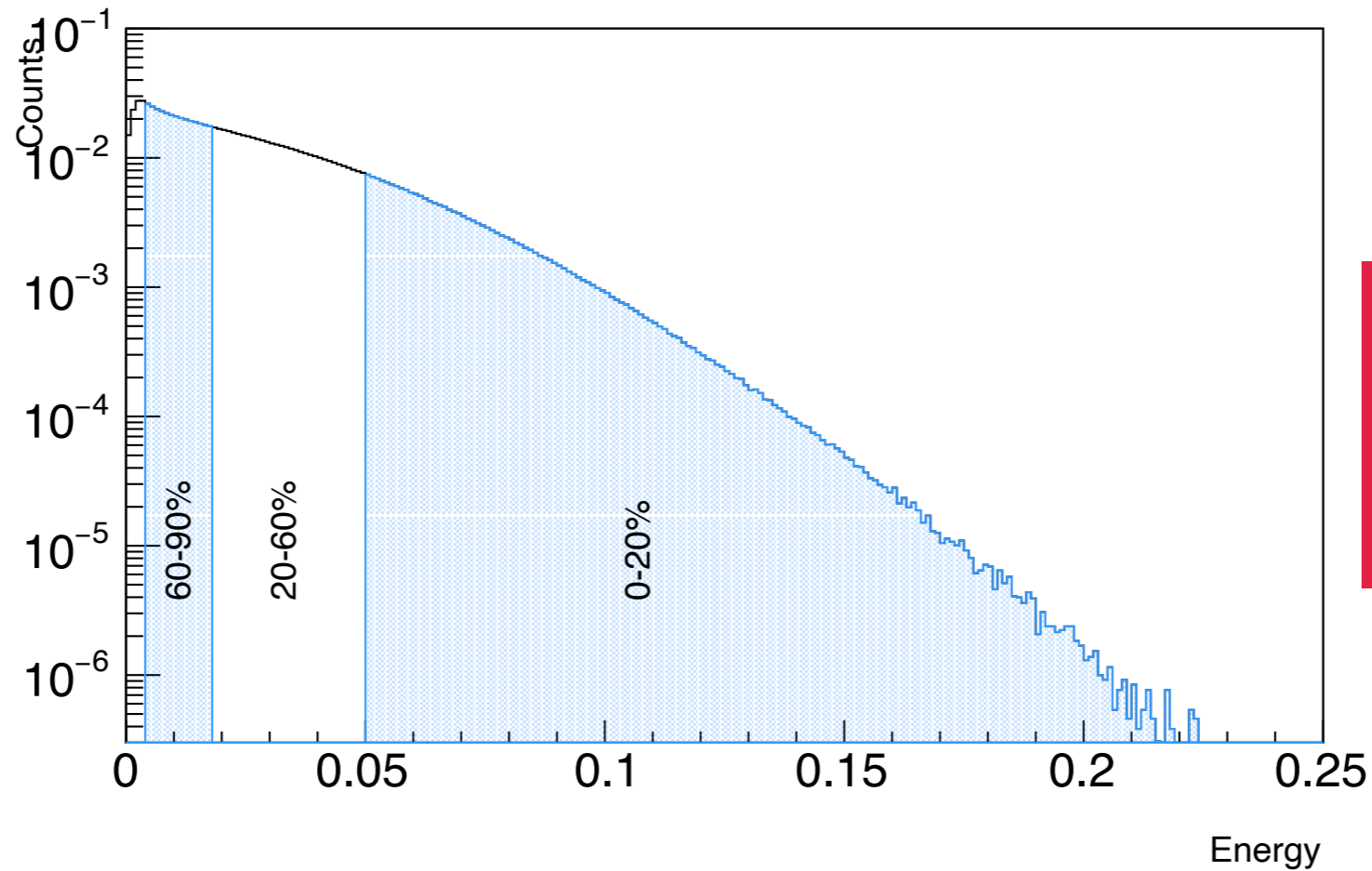
Classification of data

- Your report will include data taken at different time and in various conditions
- Effective labelling of the data sample will make your text less wordy and providing more informative plots

- **Example:**
  - Our group has taken three datasets in different environmental conditions. The first dataset was collected in the basement of Loomis, and will be referred to as LBD in the remaining part of the report. The second data taking was carried out on the third floor of Loomis. The corresponding dataset is labelled as LTFD....

Figures: what to do and what to avoid

Y-axis title Overlapped w/ axis

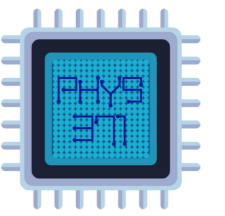**No information about the data displayed**
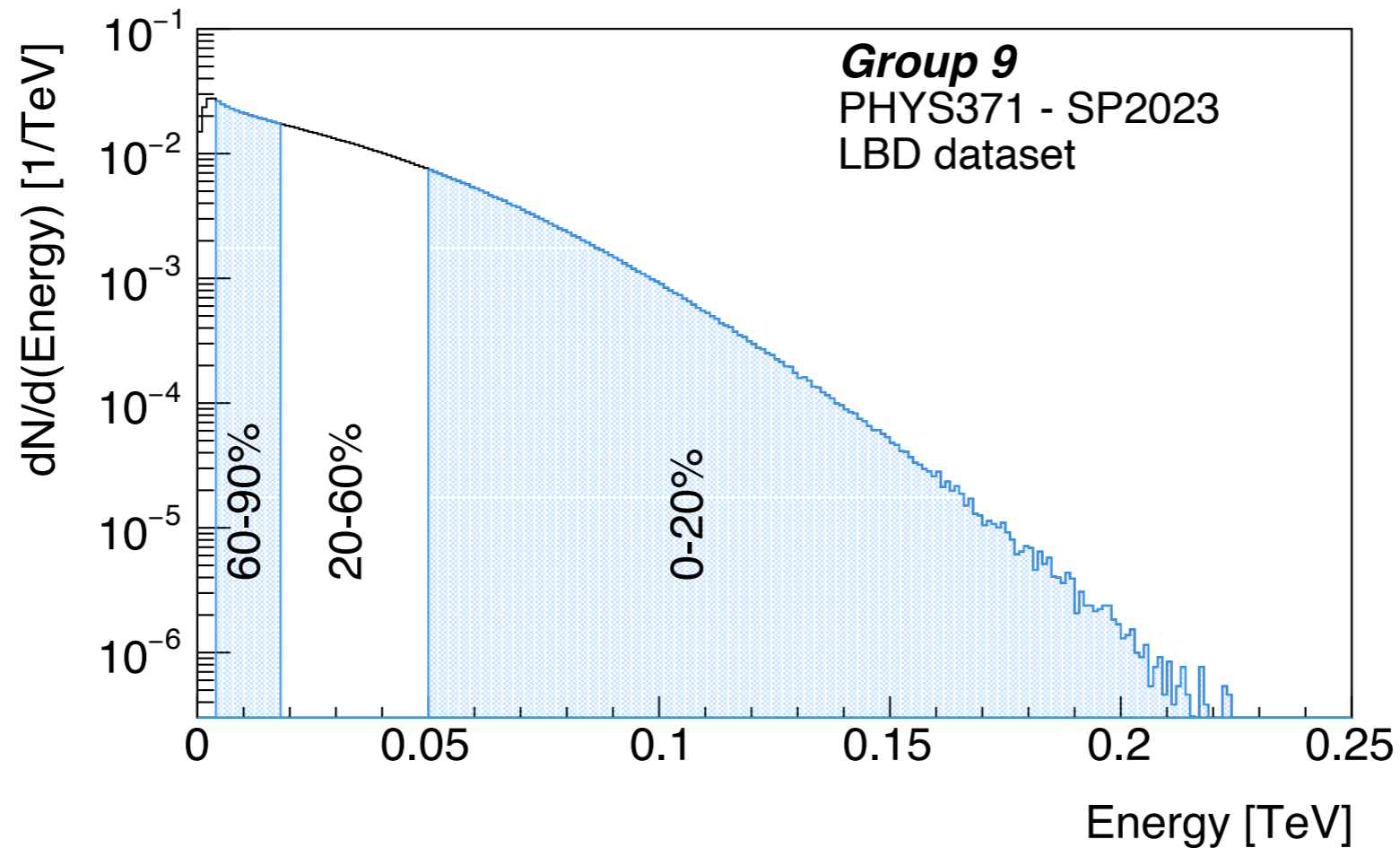
Small text on the plot - not readable

Axis titles way smaller than axis labels
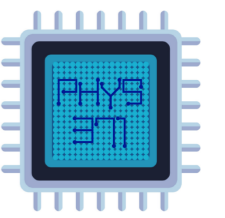
Axis titles w/o units (!!!)

More potable version

A good style for your plots makes easier to pass a message through them
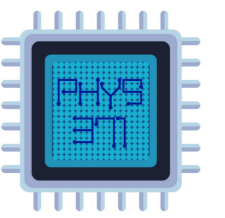
Copy paste

Avoid over-reliance on Copy/Paste, especially for technical details

❌ **Bad**: "The BME680 is the first gas sensor that integrates high-linearity and high-accuracy gas, pressure, humidity and temperature sensors. It is especially developed for mobile applications and wearables where size and low power consumption are critical requirements."

✅ **Good**: The BME 680 is an integrated circuit board from Adafruit that can measure air quality, pressure, humidity, and temperature [**ref**]. In this study, the BME 680 is used to record pressure and temperature during data-taking. It was chosen because of ...

Avoid emotionally charged language
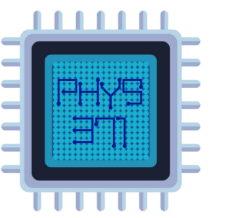
❌ **Bad**: "There is an amazing relationship between pedestrian traffic and resuspended particles."

✅ **Good**: "Measurements of pedestrian traffic and resuspended particles are strongly correlated."

Avoid exclamation marks (!) and ellipsis (...) and other punctuation that doesn't belong to scientific writing

Other features to avoid [2]

Avoid redundant words

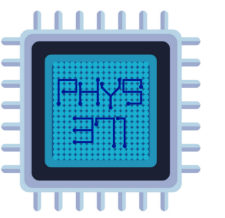❌ **Bad**: "Some beetles appear brown in color, while others appear black in color."

✅ **Good**: "Some beetles appear brown, while others appear black."

Avoid pointless modifiers

❌ **Bad**: "Basically, the initial transverse momentum of the puck can be essentially ignored."

✅ **Good**: "The initial transverse momentum of the puck can be ignored."

Other features to avoid [3]
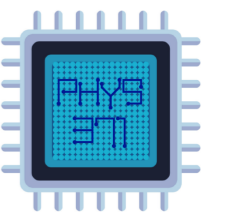
Avoid tautologies

❌ **Bad**: "The Adafruit ultrasonic distance sensor uses ultrasonic waves to measure distances."

✅ **Good**: " The Adafruit ultrasonic distance sensor is accurate at distances of 2 cm to 400 cm."

Avoid broken sentences, typos and extra spaces

You are 3-5 people per group to write and proof-read the report. Please avoid submitting text that includes broken sentences, typos and extra spaces.

Peer review & next week

- **Details on how the peer-review will work will be give on April 7th**

- **Please be available for 1h more (up to 6 PM) on the last day of class (April 28th). In this way, we can have the final presentations all on that day**

- **Link to the guidelines document presented today:**

- **Next week I will be away for a Conference in Germany**

  - I may be en-route back to the US on Friday at lecture time - but there are still good chances that I can join remotely

  - **All the activities will be in person** - led by Matthew and Jenny