



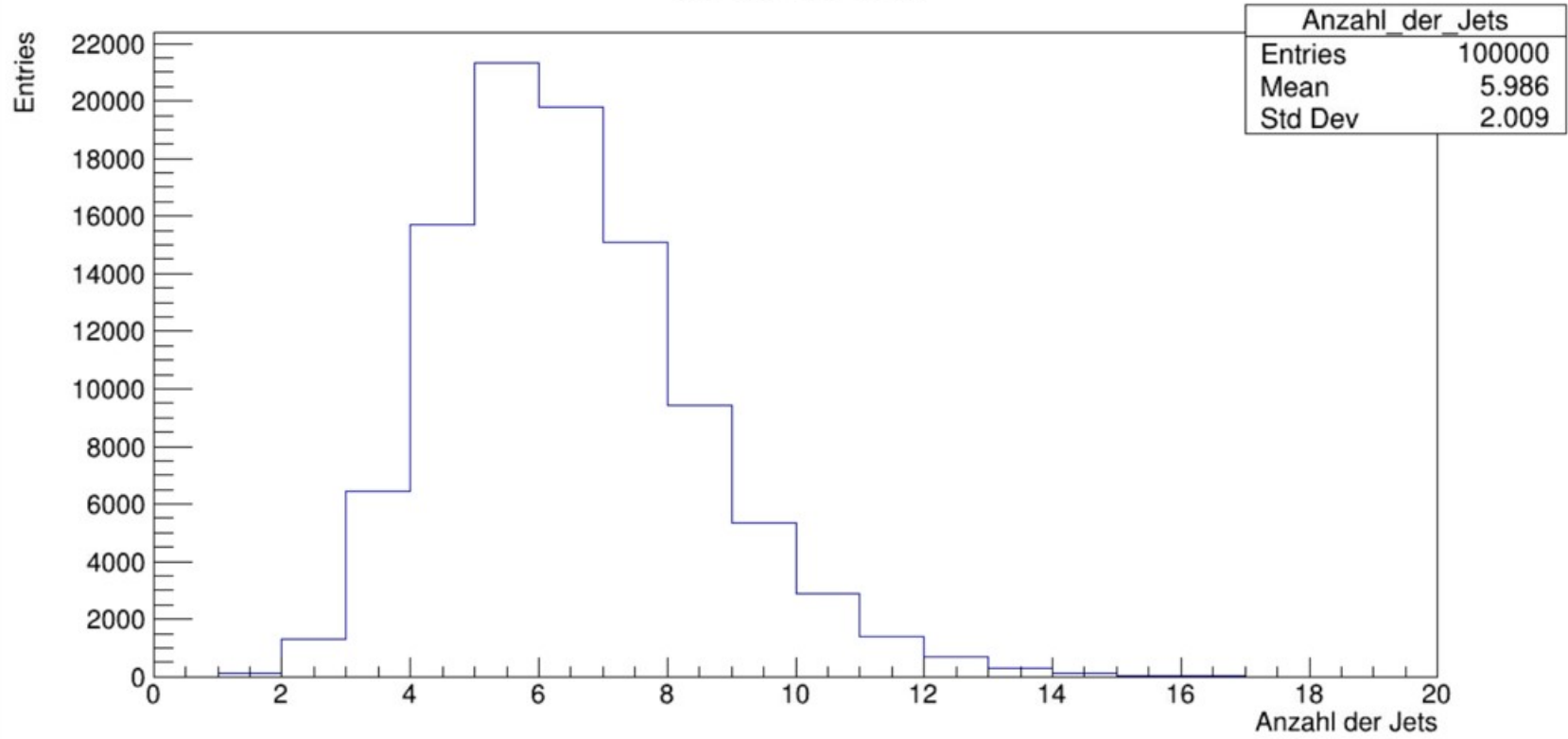
Bao Tai Le

Masterthesis update

SoSe 2024
7.5.2024

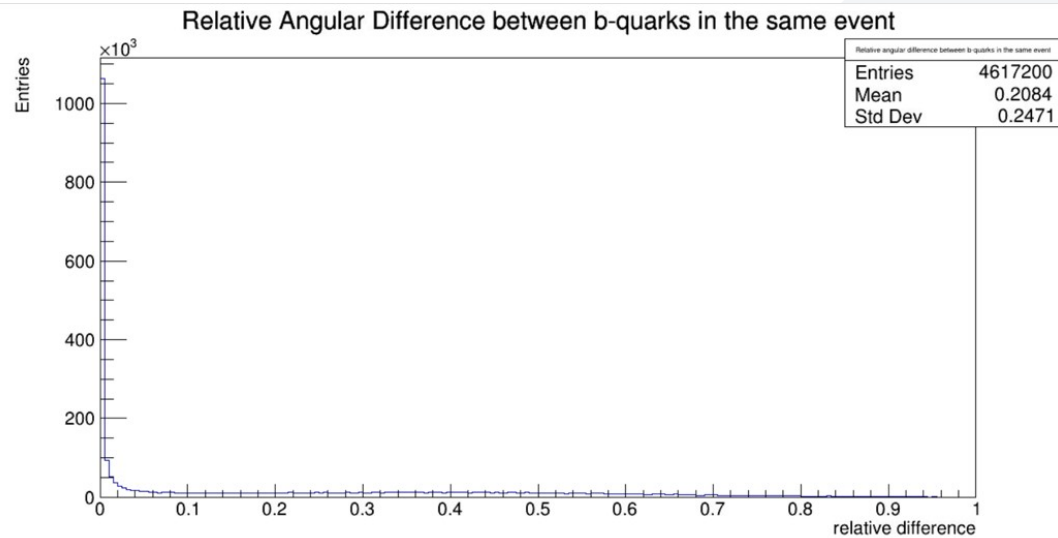
**So how did my
last week look
like?**

Anzahl der Jets

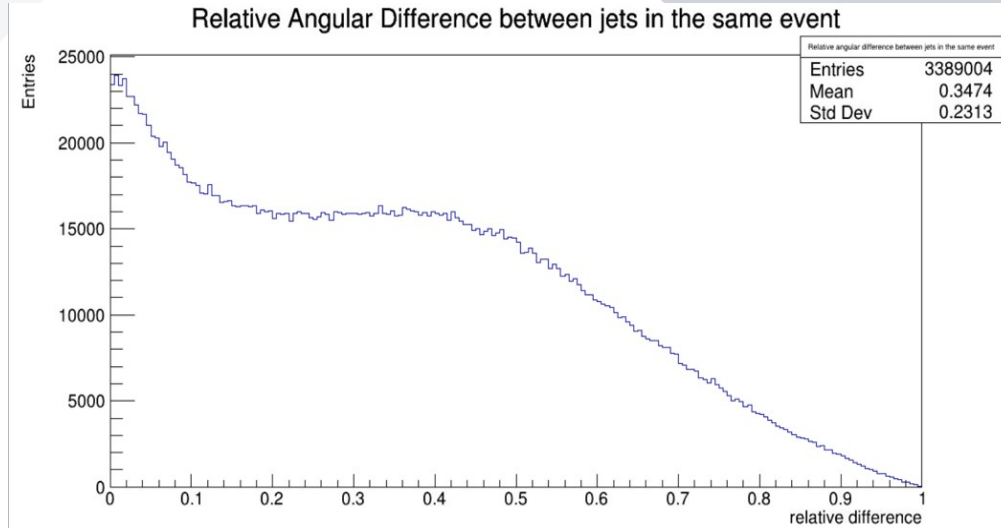


Variables-Check(per event)

b-quark-relative-angular-difference



jet relative-angular-difference



Relative angular difference:

$$\frac{|\theta_1 - \theta_2| + |\phi_1 - \phi_2|}{|\theta_1| + |\theta_2| + |\phi_1| + |\phi_2|}$$

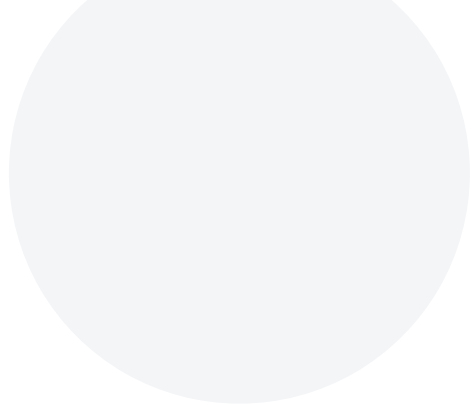
**So how does it
look now?**

b-quarks-relative-angles

What comes next

- Sanity Checks
- Implementing Variables and analysing them
- ideas for other variables that can be investigated





Resources

- <https://www.curious-cravings.com/images/post/standard-model.png>
- https://en.wikipedia.org/wiki/Gargamelle#/media/File:Neutral_current,_leptonic_vent,_muon_neutrino.png
- <https://arxiv.org/ftp/arxiv/papers/2310/2310.03073.pdf>
- Discrimination of HH and HZ Final States Using Neural Networks
- <https://cdn3.iconfinder.com/data/icons/data-science-11/64/neural-network-machine-learning-algorithm-1024.png>
- https://www.researchgate.net/figure/Feynman-diagrams-for-the-leading-Higgs-boson-interactions-Higgs-boson-production-in-a_fig1_361733458