



PHY417S

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Title of Your Experiment is Here

XX YY with lab partner Aa.CD

Instructor: Professor Oh

Abstract

This should be one paragraph which explains the overall goal, important results and conclusion from the experiment. This is the first impression of the paper and many people decide to read or not to read based on the abstract. As people say, you do not get a second chance to make a first impression.

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Category	μ	e
$b \rightarrow \ell$	$65.2 \pm 0.4\%$	79.3%
$b \rightarrow c \rightarrow \ell$	$8.8 \pm 0.3\%$	5.4%
Total	$74.0 \pm 0.2\%$	9.1%

Table 1: Monte Carlo estimates of the fraction of each process in the single lepton data sample. This table uses \pm as the inter column separator.

1 Introduction

The introduction can be brief. State the measurement being made, motivate its importance experimentally and theoretically. Include a summary of what is known to date about this measurement. Also one could include some historical background and other relevant previous experiments. Give a brief outline for the rest of the paper.

2 Theory

Give here an explanation of the theory relevant for this paper, with proper referencing [1].

3 Experimental setup and data taking

Include at least one clear diagram of the experimental setup. You need to explain how the experiment is done in detail, including the working principle of the equipment involved, but should leave out trivial detail. All relevant data should appear in this section including errors. Figures and tables should be used as necessary. Label the axes carefully with units. Do not forget to number figures and tables and to include captions. The data is listed in Table 1 and shown in Fig. 1

4 Analysis (and Results)

All figures and tables appearing in the paper must be mentioned in the text. The figures should appear in the same order as mentioned in the text. All figure axes must be labeled, including units. The vertical axis units should specify the bin width, unless arbitrarily normalized. The caption should be placed below figures and tables. All lines, all plotting symbols, and all variables used in the figure must be defined in the caption.

5 Results

This is the section where you present the results from the previous section. Data should be compared with any theoretical predictions. Again, figures and tables should be used as necessary. Be sure to include a discussion on how you estimate your experimental uncertainties and how you propagate these uncertainties into your results.

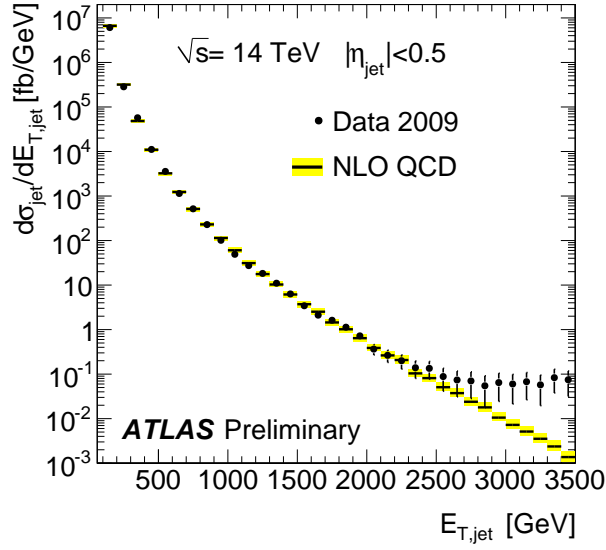


Figure 1: An example figure.

6 Discussion

This is an extension of the section 5. Here you summarize the important results and present your discussion of what the experiment shows and its significance. Put the results into the context of the theory or a model. This could be the section where one could discuss any future plans and new ideas. This is a good place to discuss systematical uncertainties.

7 Summary and conclusion

Reiterate the main points of the paper and the primary results and conclusions.

Note that many readers look mostly at the title, abstract and conclusion. The conclusion should be interesting enough to make them want to read the whole paper. It is not good style to just repeat the abstract.

8 Acknowledgements

References

- [1] T. Aaltonen *et al.* (CDF Collaboration), *Phy. Rev. D* 86, 012002 (2012).