Evidence for the Existence of the Higgs Boson (or smth like that)

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***Abstract*—Strong evidence for the existence of a particle with a mass of 125 GeV is discovered.**

I. Introduction

This section contains a brief overview of the procedures that led to the identification of a new particle. It may also be useful to include the motivations and some extra context about the discovery in this section.

II. Data Generation and Parameterisation

Here you can include information about the simulated dataset and the parameterisation of the distribution. Remember to include graphs and figures that you have generated, and elaborate on them

III. Hypothesis Testing

Here is where the different hypotheses tests carried out are explained (i.e. background-only or background and signal) and the outcomes are shown. This section can also include topics like examining the 'goodness of fit', with the reduced χ^2 statistics.

IV. Results and Analysis

The discussion of the results obtained, along with explanations and analysis and statistical inferences go here. The errors and uncertainties on your calculations can also be mentioned here.

V. Conclusion

Your chance to succinctly explain how and why the process outlined above, led to and confirms the discovery.

VI. References

Correctly cite any sources of external supporting material here.

Appendix A
Interesting Extra Information

Any information included here is optional for the reader and should not be relied upon in order to understand the report in general.

Acknowledgement

Acknowledge any individuals, groups or organisations who are not team members who have supported you with this work