

IT'S OK TO BE SELFISH ... IF YOU'RE THE HIGGS
BECAUSE WHY STOP AT ONE WHEN YOU CAN HAVE *TWO*?

A DISSERTATION
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DOCTOR OF PHILOSOPHY

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I certify that I have read this dissertation and that, in my opinion, it is fully adequate in scope and quality as a dissertation for the degree of Doctor of Philosophy.

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Approved for the Stanford University Committee on Graduate Studies

Abstract

This thesis tells you all you need to know about...

Acknowledgments

I would like to thank...

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- Motivation for HH
- Particulars about the 4b final state
- Connection to ML
- Highlight my work on b-tagging
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Chapter 2

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2.2 The Higgs mechanism

I heard from Dale that the pdg is a v good ref for this!!

2.3 Effective Field Theories to search for new physics

2.4 Status of the experimental HH results

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LHC

Chapter 4

ATLAS

Chapter 5

Event reconstruction

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Reweightings loss function

Appendix B

Further statistics fundamentals

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ML for jet \rightarrow parton assignment

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