MEASURING THE STANDARD MODEL AND SEARCHING FOR NEW PHYSICS WITH JET SUBSTRUCTURE USING THE ATLAS DETECTOR

A DISSERTATION
SUBMITTED TO THE DEPARTMENT OF PHYSICS
AND THE COMMITTEE ON GRADUATE STUDIES
OF STANFORD UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

Maximilian Swiatlowski
February 2015

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.

(Ariel Schwartzman) Principal Adviser

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.

(Su Dong)

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.

(Jay G. Wacker)

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

Preface

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

Acknowledgments

I would like to thank...

Contents

List of Tables

List of Figures

Chapter 1

Introduction

...

Chapter 2

The Standard Model, and the Theory of Strong Interactions

...

Chapter 3

Supersymmetry, R-Parity, and Naturalness

...

Chapter 4

The Large Hadron Collider

Do I need this?

Chapter 5

The ATLAS Detector

It's a detector[1].

It has a lot of parts.

Woo.

Chapter 6

Conclusions

...

Appendix A

A Long Proof

...

Bibliography

[1] ATLAS Collaboration,, *ATLAS detector and physics performance: Technical Design Report, 1*, Technical Design Report (1999).