A search for sparticles in zero lepton final states ${\it Russell~W.~Smith}$

Submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Graduate School of Arts and Sciences

COLUMBIA UNIVERSITY 2016

ABSTRACT

A search for sparticles in zero lepton final states

Russell W. Smith

TODO: Here's where your abstract will eventually go. The above text is all in the center, but the abstract itself should be written as a regular paragraph on the page, and it should not have indentation. Just replace this text.

Contents

Acknowledgements

Dedication

Introduction

Here you can write some introductory remarks about your chapter. I like to give each sentence its own line.

When you need a new paragraph, just skip an extra line.

New Section

The Standard Model

Here you can write some introductory remarks about your chapter. I like to give each sentence its own line.

When you need a new paragraph, just skip an extra line.

Overview

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Fermions

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Bosons

Symmetry breaking

Supersymmetry

Here you can write some introductory remarks about your chapter. I like to give each sentence its own line.

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Motivation

Only Additional allowed Lorentz invariant symmetry Dark Matter

Phenomenology

R parity Consequences for $\mathrm{sq/gl}$ decays

The Large Hadron Collider

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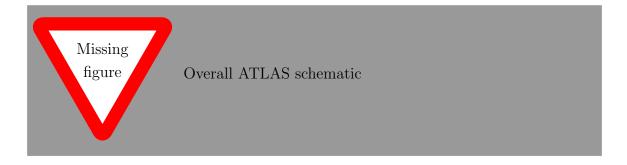
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Magnets

The ATLAS detector

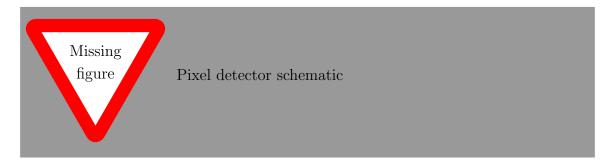
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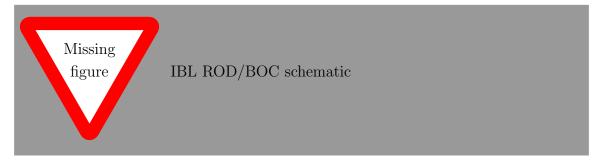
Inner Detector

Pixel Detector

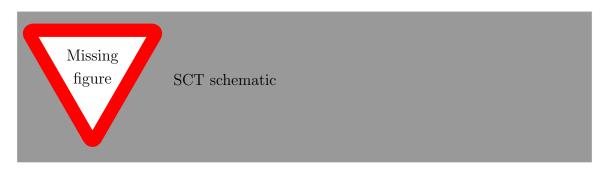


Insertable B-Layer

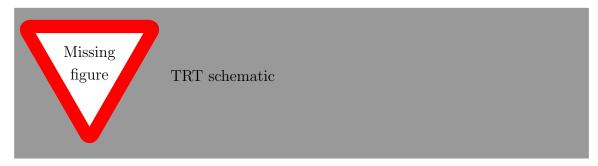
Qualification task, so add a bit more.



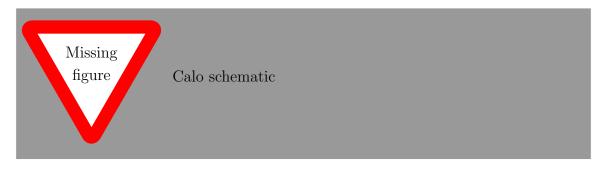
Semiconductor Tracker



Transition Radiation Tracker



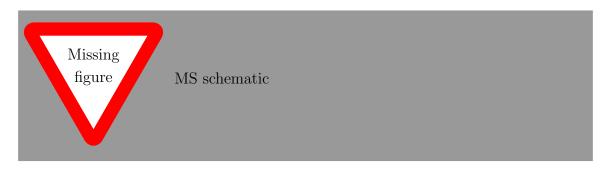
Calorimeter



Electromagnetic Calorimeter

Hadronic Calorimeter

Muon Spectrometer



Title of Chapter 1

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New Section

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Conclusion

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