

**Search for Dark Matter in Proton-Proton
Collisions at a Center-of-Mass Energy of 13 TeV in
the Higgs Boson associated b-anti-b quark channel**

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ABSTRACT

Search for Dark Matter in Proton-Proton Collisions at a Center-of-Mass Energy of 13 TeV in the Higgs Boson associated b-anti-b quark channel

Jue Chen

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Acknowledgments

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Part I

Introduction

Introduction

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Part II

The standard model and Dark Matter

Chapter 2

The standard model

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Chapter 3

The Dark Matter

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Part III

The LHC and ATLAS experiment

Chapter 4

The LHC

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Chapter 5

The ATLAS experiment

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Part IV

Dark Matter search in the Higgs

Boson associated $b\bar{b}$ decay

Chapter 6

Introduction

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Chapter 7

Boosted Xbb tagging

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Chapter 8

Signal selection

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Chapter 9

Background estimation

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Chapter 10

Result

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Part V

Conclusions

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Part VI

Appendices

Appendix title

A.1 Sample section

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Appendix title

B.1 Sample section

B.1.1 Sample subsection

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Part VII

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