

分类号: _____

密级: _____ 公开

UDC _____

学号: _____ 学号

华南师范大学

South China Normal University

硕士学位论文

(学术学位)

中文标题

学位申请人: _____ 名字

专业名称: _____ 粒子物理与原子核物理

研究方向: _____ 核子结构

所在院系: _____ 量子物质研究院

导师姓名及职称: _____ 教授名字 职称

2024 年 12 月 11 日

页眉标题

专业名称： 粒子物理与原子核物理

申请者： 名字

导师： 教授名字

摘 要

中文摘要

关键词： p-QCD, ...

Title in English

Major: Particle Physics and Nuclear Physics

Name: Name

Supervisor: English name

ABSTRACT

Abstract in English

KEY WORDS: p-QCD, ...

Contents

摘 要 I

ABSTRACT III

Symbol List IX

Chapter 1 Introduction 1

 1.1 Background 1

 1.2 Research Status 1

Chapter 2 Title 3

Chapter 3 Title 5

Chapter 4 Title 7

Bibliography 9

Appendix A Title 11

Appendix B Title 13

Acknowledgment 15

Publication 17

Figure List

Symbol List

q	momentum transfer
$\sigma^{\text{unpol/pol}}$	unpolarized/polarized cross section formula
p_T	transverse momentum of the j/ψ
$f_i(x), i = u, d, s, \dots$	parton distribution function
A_N	single spin asymmetry
N_c	number of colour degrees of freedom

Chapter 1 Introduction

In this chapter we will...

1.1 Background

1.2 Research Status

The remainder of this thesis is organized as follows: Chapter 1 is devoted to a brief introduction. Chapter 2 is supposed to illustrate ... Chapter 3 is designed to ... Chapter 4 is conceived to perform numerical simulations and dedicate a summary to this thesis.

Chapter 2 Title

In this chapter we will...

Chapter 3 Title

In this chapter we will...

Chapter 4 Title

In this chapter we will ...

Bibliography

- [1] R. L. Jaffe and X. D. Ji, Phys. Rev. Lett. **67** (1991), 552-555
doi:10.1103/PhysRevLett.67.552

Appendix A Title

Appendix B Title

Acknowledgment

Perhaps every graduate student has their own story when they have a first glance at research.

First and foremost, I owe my deepest gratitude to my advisor, Prof. XXX. Throughout the whole three years, he was fully supportive and helped me in all possible ways he could. Specifically, it was quite challenging for me to write this thesis in English. I could hardly ever finish it without the guidance and the support from him. Besides, I'd like to express my appreciate to Pro. XXX for providing me assistance and companionship in the course of preparing the paper. In addition, I'll express my appreciate to teachers who have taught me at this school in the past three years. They provided me with the priceless knowledge about high energy physics and guided me to dive deep into the research.

Finally, I am really grateful to all those who devote much time to reading this thesis and give me much advice, which will benefit me in my later study.

Publication

Publication

[1] J. M. Maldacena, Adv. Theor. Math. Phys. **2** (1998), 231-252

doi:10.4310/ATMP.1998.v2.n2.a1[arXiv:hep-th/9711200 [hep-th]].