Ain Shams University
Faculty of Education
Physics Department

"Study of High Energy Hadron- Nucleus Interactions"

Thesis

Submitted for the Degree of Master of Teacher's Preparation in Science (Physics).

By

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To

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Approval Sheet

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Chapter 1: Basic Characteristics of High Energy Hadron-nucleus Interactions.

Chapter 2: Models of High Energy Hadron-Nucleus Interactions.

Chapter 3: High Energy Hadron- Nucleus Interactions in the Frame work of the Parton Two Fireball Model.

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Abbreviations

h-h ………………………………….hadron-hadron.

h-A ……………………….......… hadron-nucleus.

h-N………………………......… hadron-nucleon.

pp …………………………………..proton-proton.

p-N…………………………….....proton-nucleon.

p-A…………………….……….....proton-nucleus.

$\bar{p}-A$………………………………...antiproton- nucleus.

KNO scaling ………………..…. Koba-Nielsen-Olesen scaling.

CMS ……………………………….Center of Mass System.

CERN………………………………Center Europe Researches of Nuclei.

ISR ……………………………….. Intersection Storge Ring.

QCD……………………………….Quantum Chromodynamics.

PTFM……………………………...Parton Two Fireball Model.

INCM…………………………….. Intranuclear Cascade Model.

DEM…..…………………………..Diffractive Excitation Model .

TFM……………………………….Two-Fireball Model.

MSM………………………………Multiple Scattering Model.

CTM……………………………....Collective Tube Model.

EFCM…………………………….Energy Flux Cascade Model

AQMs…………………………….Additive Quark Models

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