



# **Development of a QMC code to tackle interacting electronic systems in 2D with application to TMD nanoribbons**

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Thesis to obtain the Master of Science Degree in

## **Physics Engineering**

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**February 2018**



***The behavior of large and complex aggregates of elementary particles, it turns out, is not to be understood in terms of a simple extrapolation of the properties of a few particles.***

P. W. Anderson



# Acknowledgments

I would like to thank the Academy, bla bla bla..



# Abstract

The Objective of this Work ... (English)

# Keywords

Keywords (English)





# Resumo

O objectivo deste trabalho ... (Português)

# Palavras Chave

Palavras-Chave (Português)



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# Abbreviations

**acro** Dummy Acronym



# List of Symbols



# 1

## Introduction

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## **1.1 Motivation**

Electron correlations are so cool!

## **1.2 State of The Art**

State of The Art Section.

### **1.2.1 Dummy Subsection A**

State of Art Subsection A

### **1.2.2 Dummy Subsection B**

State of Art Subsection B

## **1.3 Original Contributions**

Contributions Section.

## **1.4 Thesis Outline**

Outline Section.

# 2

## A Chapter

### Contents

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*Present the chapter content.*

## 2.1 Section A

### 2.1.1 Subsection A

This would be a citation [? ].

Dummy Acronym (acro)

Dummy Acronym (acro)

acro

Dummy Acronym

acros

As seen in [? ]. *Enfatizar*

### 2.1.2 Subsection B



**Figure 2.1:** Dummy Figure Caption.

Remember you can change the reference style. Another dummy citation [? ].

## 2.2 Section B

### 2.2.1 Subsection A

The model described can also be represented as

$$\dot{\mathbf{x}}(t) = \mathbf{T}\mathbf{z}(y), \mathbf{y}(0) = \mathbf{y}_0, z \geq 0 \quad (2.1)$$

where

$$\mathbf{A} = \begin{bmatrix} -(a_{12} + a_{10}) & a_{21} \\ a_{12} & -(a_{21} + a_{20}) \end{bmatrix}, \mathbf{x} = \begin{bmatrix} x_1 \\ x_2 \end{bmatrix} \quad (2.2)$$



## 2.2.2 Subsection B

**Table 2.1:** Dummy Table.

Vendor Name	Short Name	Commercial Name	Manufacturer
Text in Multiple Row	ABC	ABC <sup>®</sup>	ABC SA
	DEF	DEF <sup>®</sup>	DEF SA
	GHF	GHF <sup>®</sup>	GHF SA
Text in Single Row	IJK	IJK <sup>®</sup>	IJK SA
Frescos SA	LMN	LMN <sup>®</sup>	LMN SA
Carros Lda.	Text in Multiple Column		



# 3

## **Conclusions and Future Work**

## Conclusions Chapter



## **Title of AppendixA**

