Thesis Title: My Little Contribution

A Masters Thesis
Presented By

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Dedication

Dedicated to all those who are constantly striving to make their today better than yesterday.

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- No. 1
- No. 2

Abstract

This thesis is focussed on something very exciting.

List of Acronyms

EE	Electrical Engineering
LUMS	Lahore University of Management Sciences
FFT	fast Fourier transform
3D	3 dimensional
DC	Direct current (average value)

Notations

x	scalar variable
$\mathbf{X}$	matrix variable

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Chapter 1

Introduction

1.1 Motivation and Background

1.2 Literature Review

For example, one of the comprehensive book on Quantum Mechanics is by Sakruai [1] and the articles can be cited as [2].

1.2.1 Thesis Contributions and Organization

Chapter 2

Mathematical Preliminaries and Problem Under Consideration

This chapter introduces the concepts related to signals defined on the unit sphere and special orthogonal group

2.1 System Model

Given noise observations $f(t)$ of the signal $s(t)$ corrupted by the additive noise $n(t)$, that is,

$$f(t) = s(t) + n(t), \tag{2.1}$$

we aim to estimate $\tilde{s}(t)$ of the signal $s(t)$ that is optimal in the mean-square sense.

2.1.1 Assumptions

2.1.2 Mathematical Formulation

2.2 Signal Analysis

2.2.1 Properties

2.2.2 Spherical Harmonic Fourier Transform

2.2.3 Shorthand Notation or Vector Notation

2.3 Problem Identification

Chapter 3

Proposed Contribution 1

In this chapter, we propose something very novel

Chapter 4

Proposed Contribution 2

Chapter 5

Proposed Contribution 3

Chapter 6

Simulations, Performance Analysis and Evaluations

Chapter 7

Conclusions and Future Research Directions

In this chapter we summarize the general conclusions drawn from this thesis.

Appendix A

A.1 Proof of Theorem X

References

[1] J. J. Sakurai, *Modern Quantum Mechanics*, Addison Wesley Publishing Company, Inc., Reading, MA, 2nd edition, 1994.

[2] D. N. Spergel, R. Bean, O. Doré, M. R. Nolta, C. L. Bennett, J. Dunkley, G. Hinshaw, N. Jarosik, E. Komatsu, L. Page, H. V. Peiris, L. Verde, M. Halpern, R. S. Hill, A. Kogut, M. Limon, S. S. Meyer, N. Odegard, G. S. Tucker, J. L. Weiland, E. Wollack, and E. L. Wright, "Three-year Wilkinson Microwave Anisotropy Probe (WMAP) observations: Implications for cosmology," *The Astrophysical Journal Supplement Series*, vol. 170, no. 2, pp. 377–408, 2007.