

Table of Contents

Acknowledgements	iii
Abstract in Thai	iv
Abstract in English	v
Chapter 1 Introduction	1
Chapter 2 Basic Concepts and Preliminaries	9
2.1 Distribution	9
2.2 The Special Functions and Fourier Transform	12
2.3 Partial Differential Equation	19
Chapter 3 A Non-Linear Heat Equation	28
3.1 Main Results	28
Chapter 4 The Generalized \otimes^k operator related to Triharmonic Wave Equation	34
4.1 Main Results	34
Chapter 5 On the Green Function of the Operator $(\otimes + m^6)^k$ Related to the Diamond Operator	39
5.1 Main Results	39
Chapter 6 On the \boxtimes^k Operator and Nonlinear \boxtimes^k Operator Related to the Wave Equation	44
6.1 Main Results	44
Chapter 7 Conclusion	54
7.1 A Non-linear Heat Equation	54
7.2 The Generalized \otimes^k operator related to Triharmonic Wave Equation	54
7.3 On The Green Function of the operator $(\otimes + m^6)^k$ Related to Dimond Operator	55
7.4 On The \boxtimes^k Operator and Nonlinear \boxtimes^k Operator Related to Wave Equation	55
Bibliography	56
Vita	58