

Acknowledgements

First and foremost, I offer my sincere gratitude to my supervisor Dr. Rupam Barman for his foresight, invaluable suggestions, continuous encouragement and for being an infinite source of inspiration and motivation. I am proud to be the first in what is sure to be a long line of your students.

I am thankful to my co-supervisor Prof. Nayandeep Deka Baruah for his cooperation, suggestions, and fruitful discussions.

I would like to thank Prof. Ken Ono for his continuous support, inspiration, and suggestions. I am really grateful to him for clarifying all my queries from the early stage of my PhD without which this work would not be possible. Thanks to Prof. Dipendra Prasad and Prof. R. Sujatha for their support during my PhD period.

I am indeed grateful to all the faculty members of the Department of Mathematical Sciences, Tezpur University for their valuable suggestions and advice. Special thanks to Dr. Rajib Haloi for his continuous support during my PhD years.

I gratefully acknowledge the financial support received from the Department of Science and Technology, Government of India through INSPIRE fellowship.

It is my privilege to thank all family members of Dr. Rupam Barman for their hospitality at Guwahati during the time of my visit for research works.

I thank all my fellow research scholars for helping me in many ways and making my stay enjoyable at TU during these years. Special thanks to Jayanta for all his helps. I also thank my colleagues at DBCET for their help and cooperations.

I am indebted to my uncle Mr. Prasanta Kalita for making mathematics interesting for me from my childhood and inspire me throughout.

Finally, I appreciate all of the love, blessings from my parents, bhaiti, bhanti, and Sona. I thank them for their continuous support and never ending faith in me.

Date: 25/10/2013

Place: Tezpur


(Gautam Kalita)