

## Acknowledgments

*I wish to acknowledge the assistance I have received from various people and agencies during the course of my research work. To begin with, I must express my deepest gratitude and indebtedness to Prof. S. Mukherjee for shaping me up to this point. His encouragements, suggestions and vision were guiding factors to me throughout the course of my research work. In the Physics Department, I received assistance from all the teachers whenever I sought help from them. I have also received tremendous support from all my friends. In particular, Mr. Subham Majumdar and Mr. Biplab Raychoudhury helped me by providing material and software packages at various stages of my research work. I would like to thank my co-research workers in the Research Scholar's Hostel, NBU, for boosting me up all the time. In the home front, I was always encouraged by my parents and brothers. I would also like to express my gratitude to Prof. S. D. Maharaj, Prof. M. Dey, Prof. J. Dey, Prof. K. S. Govinder, Dr. M. Govender and Dr. T. K. Dey for useful discussions and collaboration. I am also grateful to the Inter University Centre for Astronomy and Astrophysics (IUCAA), Pune, and its sister organization Iucaa Reference Centre (IRC), NBU, for providing me library and computer facilities. I gratefully acknowledge financial support from the Department of Science and Technology (DST), New Delhi, and the Council of Scientific and Industrial Research (CSIR), New Delhi. True, there are many other people without whose direct or indirect support this work would not have been completed; I apologise for not mentioning their names and thank them all most warmly.*