

## ACKNOWLEDGEMENTS

*I have been fortunate enough to associate myself simultaneously with Professor J.C Parikh and Professor P.K. Kaw, just a right combination to get myself introduced to this fascinating multidisciplinary field of Quark-Gluon Plasma. Their constant encouragement and moral support throughout this work was a source of inspiration for me. I have learned immensely from them in the very lively and illuminating discussions I had on various aspects of Physics.*

*I am extremely thankful to Prof. Madhuben Shah for her sincere encouragement and keen interest in this work.*

*I am thankful to Profs. A. Sen and A.K.Sundaram for the useful discussions I had with them regarding the various aspects of Plasma Physics. I have greatly benefitted from the useful discussions with Profs V.B. Sheorey, A.S. Joshipura, S.D. Rindani. I take this opportunity to thank them all.*

*I would like to express my thanks to Drs. B.R. Sitaram, U.Sarkar, Vishnu Maya and Vijay Shankar for their steady encouragement rendered throughout the period of this work.*

*I would like to make a special mention of Subrat for his constant interest in my work and the great concern he has shown towards me. It is very rare that one gets a friend like him.*

*My friends Subrat, Vijaya kumar, Birendra Pandey, Bhaskaran, Lambodar and Shwetaketu have guarded me in the period of the great depressive mood I had and also I have shared many bright moments of my life with them. I would like to thank them all on this occasion.*

*Thanks are also due to my other colleagues Ajay Singh, Shishir, Sudip, Avijit, Dipankar Banerjee, Raju, Kishku, Krishnan and Sunil for the personal rapport and very useful discussions I had with them. At every stage of this work they have helped me selflessly.*

*I am also thankful to I.P.R and P.R.L library and computer centre staff for their very kind and considerate cooperation through out this work.*

*Finally, I would like to thank my family members for providing me a firm moral support in this profession of low paying long hours. I am thankful to Purvi for her sweet proddings kept me on my toes and her patience kept me steady.*