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Hasan
Banerjee

KODAI SCHOOL ON SOLAR PHYSICS

Kodaikanal, India 10 – 22 December 2006

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EDITORS
S. S. Hasan
D. Banerjee

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PREFACE

The Kodaikanal Observatory of the Indian Institute of Astrophysics traces its origins to the end of the nineteenth century when the Madras Observatory was relocated to a high altitude site with a view to initiate observations of the Sun. Many valuable observations were made here including the discovery of out flowing material in sunspots discovered by John Evershed in 1909. The Observatory continues to provide useful solar data as well as serve as an important centre for research and training programmes. Moreover, with its serene and beautiful environment, and good infrastructure it is an ideal location for the pursuit of intellectual and pedagogical activity.

Recently, a series of schools in various areas of astronomy and astrophysics was initiated with a view to attract young researchers to this area as well as promote excellence in this field. The Institute chose Solar Physics as the theme for the first school, which was held in December 2006 at Kodaikanal. The response was overwhelming with participation of 38 students from several countries. In addition, we were fortunate to have a truly distinguished international panel of lecturers.

This volume consists of 11 chapters, with topics grouped to cover different regions of the solar atmosphere. The first three chapters deal with processes in the solar interior, chapters 4 to 6 focus on dynamics of the photosphere and chromosphere, followed by chapters on activity and physics of the corona. The last three chapters deal with the solar wind, energetic phenomena and radio observations of the heliosphere.

The lectures were supplemented with tutorials and “hands-on” exercises for students to get a closer feel for research problems. In addition there were evening lectures on various topics of broad interest. Unfortunately owing to limitations of space, it is not possible to include in this volume all the lectures delivered at the School. Nevertheless, every effort has been made to present a balanced distribution of topics ensuring that each contribution goes into sufficient depth to provide a valuable monograph in the field.

The success of the School was possible due to the painstaking efforts and support of a large number of persons, including H. M. Antia, the course director, K. E. Rangarajan, the convener of Kodai Schools, who worked tirelessly to put the necessary arrangements and infrastructure in place. I am especially grateful to all the speakers for readily accepting our invitation to deliver lectures at the School and for a timely submission of their manuscripts. I am thankful to the scientific and administrative staff of the Indian Institute of astrophysics at Bangalore and Kodaikanal campuses for providing local assistance and to the technical staff at the Kodaikanal campus for their support during the project and lab sessions.

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