

## Preface

In 1992 a number of astronomers in Boulder, Moscow, Uppsala, and Vienna spearheaded a sequence of workshops on the modeling on stellar atmospheres. This series culminated in the 1995 meeting, *Model Atmospheres and Spectrum Synthesis*, with the proceedings published as volume 108 of the Astronomical Society of the Pacific Conference Series. Since then, rapid progress in this field through faster computers, more sophisticated software, better observations of stellar spectra, and deeper physical understanding called for a comprehensive meeting that would discuss the role of models of stellar atmospheres in a much wider perspective than done with the workshops. This was accomplished in IAU Symposium 210, held at the Uppsala University, June 17-21, 2002.

Sometimes one hears the opinion that the theory of stellar atmospheres is a “mature” field of science. Indeed, both B. Gustafsson in his introductory remarks and J. Landstreet in his closing remarks mention this. However, both these authors, as well as many of the other participants, present evidence of severe shortcomings in our understanding of stellar atmospheres. There is some urgency in our efforts to solve these problems since the field of stellar atmospheres underlies, indeed is fundamental to, much of the edifice of modern astrophysics.

In this symposium, the organizers limited the number of oral presentations to four per session. The remainder of each session consisted of round-table discussions involving the speakers and poster-paper authors of the session. The moderators of the round-table discussions wrote the summaries presented in this volume. The editors are well pleased with the high quality of the oral presentations and the round-table discussions. The large number and high quality of the poster papers presented at the symposium is also gratifying.

Thanks to the cooperation of the publisher, we are able to include with the published proceedings a compact disk containing not only the material printed in this paper volume, but also all of the poster papers. In this way, the publisher has helped preserve the ‘flair’ of the meeting. The disk also shows many of the figures in color and at higher resolution than is possible with the printed page.

We give our sincere thanks to the official sponsors of the symposium: the International Astronomical Union, Uppsala University, the Swedish National Research Council, the Swedish Nobel Foundation, Datagate, and Hewlett Packard Sweden. Through their generosity this important meeting became possible and was a great pleasure to attend. We are also very grateful to the many volunteers in Uppsala without whose enthusiastic support the meeting would have faltered.

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