

Preface

The annual series *Reviews in Modern Astronomy* of the ASTRONOMISCHE GESELLSCHAFT was established in 1988 in order to bring the scientific events of the meetings of the Society to the attention of the worldwide astronomical community. *Reviews in Modern Astronomy* is devoted exclusively to the Karl Schwarzschild Lectures, the Ludwig Biermann Award Lectures, the invited reviews, and to the Highlight Contributions from leading scientists reporting on recent progress and scientific achievements at their respective research institutes.

The Karl Schwarzschild Lectures constitute a special series of invited reviews delivered by outstanding scientists who have been awarded the Karl Schwarzschild Medal of the Astronomische Gesellschaft, whereas excellent young astronomers are honoured by the Ludwig Biermann Prize.

Volume 18 continues the series with twelve invited reviews and Highlight Contributions which were presented during the International Scientific Conference of the Society on “From Cosmological Structures to the Milky Way”, held at Prague, Czech Republic, September 20 to 25, 2004.

The Karl Schwarzschild medal 2004 was awarded to Professor Riccardo Giacconi, Washington, D.C., USA. His lecture with the title “The Dawn of X-Ray Astronomy” opened the meeting.

The talk presented by the Ludwig Biermann Prize winner 2004, Dr Falk Herwig, Los Alamos, USA, dealt with the topic “The Second Stars”.

Other contributions to the meeting published in this volume discuss, among other subjects, X-ray astronomy, cosmology, galaxy evolution, star formation and the Galactic Centre.

The presentation by Alvaro Giménez on the Hot Topic “The Future of ESA’s Space Programme” is not printed in *Reviews in Modern Astronomy*; the speaker emphasized that the ESA programme is so much in progress at present, that an interested reader will be better informed and continuously updated through ESA’s web-pages.

The editor would like to thank the lecturers for stimulating presentations. Thanks also to the local organizing committee from the Astronomical Institute of the Charles University of Prague, Czech Republic, chaired by Martin Šolc.

Heidelberg, April 2005

Siegfried Röser