

Preface

The 151st Colloquium of the International Astronomical Union (IAU) was held in Sonneberg, Germany, from the 5th to the 9th December, 1994. With this Colloquium, the IAU has honoured G.A. Richter and W. Wenzel, two well-known Sonneberg astronomers. Both had their 65th birthdays in autumn 1994. This volume is dedicated to them for their outstanding contributions in the field of variable star research.

At the time of the Colloquium, Sonneberg Observatory was going to be closed within three weeks, and we originally had the hope that hosting a high-ranked international conference in Sonneberg would help in the fight for survival against the Thuringian Ministry for Science and Culture (as the main responsible authority). At the moment, this hope seems to have been fulfilled only partially.

This Colloquium was unique in trying to combine many different fields of current research under the aspect of rapid variability of astrophysical sources from radio up to gamma-ray wavelengths. This experiment proved to be very successful. Many discussions between the different groups and on the use of data collected in dedicated projects for different research projects took place. The principal focus of the Colloquium was the presentation and discussion of observational results, as well as their theoretical implications. The printed questions and answers and the edited roundtable discussion mirror only very imperfectly the lively discussions.

In these proceedings we attempted to group together similar issues sorted according to wavelength. However, many papers could have fit equally well in more than one section. The order in which the papers appear in these Proceedings is close, but not identical, to the order in which these talks were presented at the Colloquium. In addition to the papers printed in this volume we had the following additional presentations: by C. Kouveliotou on the *Temporal Properties of Gamma-Ray Bursts*, by F. Mahmoud on a *Renewed Brightness Decrease of the Flare Star V774 Her*, by F. Mirabel on *Relativistic Ejections from Gamma-Ray Transients*, by W.S. Paciesas on the *Monitoring of High-Energy Transients with BATSE*, by G.R. Ricker on *HETE*, and by R. Sunyaev on *Galactic Center Monitoring with Granat*.

Many persons and institutions helped to make the workshop a success.

This Colloquium would not have been possible without the dedication and vigor of the three most important members of the Local Organizing Committee, Angelika Wicklein and Bernd Fuhrmann from Sonneberg Observatory, and Beatrix Ott from the Astronomical Institute in Münster. We would like to thank them and the other staff members of Sonneberg Observatory very much for doing a very demanding job with great competence and providing at the same time a friendly atmosphere for the Colloquium.

We were fortunate to have received support for this Colloquium from a number of sources. We are very grateful to the Deutsche Forschungsgemeinschaft, which not only supported the Colloquium with a substantial grant, but in addition supplied travel grants for 19 astronomers from Eastern Europe. We thank the International Astronomical Union for its spiritual and financial support, which resulted in 18 additional grants for travel support. We also thank the International Science Foundation (New York), which financed the stay of three participants from Russia, Ukraine, and Usbekistan.

We thank the City authorities of Sonneberg for their permission to use the Assembly Hall of the Rathaus for our Conference. Professor Kippenhahn, who, in the 1940s, as a teenager gained his first exposure to astronomy at Sonneberg Observatory, gave a popular evening lecture on *The Life of the Stars* for the people of the city. In the free time, excursions to the cities of Coburg (visit to the Veste, organ concert in the St. Moriz church) and Lauscha (visit to the Glass Museum and a glassblower's workshop), and to the Sonneberg Toy Museum and Sonneberg Observatory took place.

We thank our colleagues A. Bruch, P.B. Byrne, D.H. Hartmann, R. Pallavicini, J. van Paradijs, and W.C. Seitter who served, on short notice, as 'referees' for some of the contributed papers.

Finally, we thank the Max-Planck-Institut für Extraterrestrische Physik and the Astronomisches Institut der Universität Münster for the excellent logistical support they supplied for the Organizers of this Colloquium.

The IAU Colloquium 151 presented the ideal opportunity to honour G.A. Richter and W. Wenzel, to whom this volume is gratefully dedicated.

München/Münster/Crimea
March 1995

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