# Preface

IAU Colloquium 176 was organized by the Konkoly Observatory in Budapest, Hungary, between August 8–12, 1999. The meeting was a significant event in the history of the Observatory which celebrated its centenary in the same year. In fact, the conference was held after the true anniversary by three months so that the participants could admire the last total solar eclipse of the millennium – and the first such event for many of us.

The colloquium entitled "The Impact of Large-Scale Surveys on Pulsating Star Research" was sponsored by the International Astronomical Union and co-sponsored by the International Union of Pure and Applied Physics (IUPAP). Upon the initiative of Commission 27, Division V (Variable Stars) was the coordinating division and there were six supporting commissions, viz. 5 (Documentation and Astronomical Data), 25 (Stellar Photometry and Polarimetry), 28 (Galaxies), 35 (Stellar Constitution), 36 (Theory of Stellar Atmospheres), and 37 (Star Clusters and Associations). This list testifies the indispensable rôle of both the large-scale surveys and the pulsating stars in astronomy.

The conference followed the Bologna (1990), Victoria (1992), Cape Town (1995), and Los Alamos (1997) meetings in the semi-biennial series of topical meetings on pulsating stars. The venue was the recently renovated, beautiful Central Building of the Hungarian Academy of Sciences in downtown Budapest facing the historic Chain Bridge over the Danube. This largest gathering of astronomers ever held in Hungary of 187 participants from 31 countries was greeted by Norbert Kroó, General Secretary of the Hungarian Academy of Sciences in the opening ceremony.

The "Large-Scale Surveys" which were the subject of this meeting have, in only half a decade, transformed variable star research for both intrinsic variables, including pulsating stars, and for geometric variables. They are revolutionary. In just a few years the number of monitored stars will exceed one billion, the number of microlensing events will exceed one thousand, and the number of known variable stars will exceed one million!

These proceedings clearly show the importance of this meeting. Both the presentation of the latest results and the lively discussion during the conference resulted in more than a hundred references in the various contributions to other papers published elsewhere in this volume.

A century ago, when Konkoly Observatory was publicly established, a lone astronomer who discovered a single new variable star was doing important research. Now, with the massive large-scale surveys, we work on variable stars by their tens of thousands – soon to be millions. While some lament the passing of the romance of the scientist working in solitary silence, eye to eyepiece, in a dark, icy dome, the beauty of the new data, the vast amount of information available, and the new depths of our understanding are surpassing compensation in this new era of variable star research. We have only just begun.

In addition to the IAU and IUPAP, the meeting was sponsored by the Hungarian Academy of Sciences (MTA), the National Committee for Techno-

logical Development (OMFB), the Hungarian Scientific Research Fund (OTKA), Silicon Graphics Inc., Sun Microsystems Magyarország Kft., and Blackwell Science Ltd. On behalf of the organizers, all financial support is gratefully acknowledged.

The editors also thank the overwhelming majority of participants who provided their manuscripts in due time.

2000 January

*L. Szabados and D. W. Kurtz*
*editors*

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The LOC is indebted to those young colleagues and students who played an indispensable rôle in solving the many practical problems during the meeting. The untiring help and constructive spirit of Gáspár Bakos, Zoltán Csubry, Róbert Szabó, and Roland Vavrek was vital for the successful organization. Drs. Margit Paparó and József Benkő are thanked for their assistance in the meeting logistics. The help of Pál Decsy in preparing various graphical products is very much appreciated. Financial matters were handled by Mrs. Lívia Jenik and Margó Nagy of the Roland Eötvös Physical Society.

*Cover illustration:* Katrien Kolenberg's artwork inspired by the total solar eclipse and Cordier et al.'s figure (evolutionary tracks in the colour–magnitude diagram from OGLE 2 photometry, page 381).

The photos on the closing pages of the individual chapters have been taken by Ferenc Kolláth and Don Kurtz.