

PREFACE

H.T. MacGILLIVRAY
*Royal Observatory
Blackford Hill
Edinburgh EH9 3HJ
Scotland
U.K.*

IAU Symposium No. 161 on 'Astronomy from Wide-Field Imaging', held in Potsdam, Germany, during 23-27th August 1993, was the first conference organised by the recently-formed Working Group of IAU Commission 9 on 'Wide-Field Imaging'. This Working Group was instigated during the XXIst meeting of the General Assembly of the International Astronomical Union in Buenos Aires in 1991, and represented a merging of the former formal IAU Working Group on 'Astronomical Photography' and the informal 'Digitised Optical Sky Surveys' Working Group. Dr. Richard West was 'invited' to be Chairperson, and hence was given the daunting task of organising the Group from scratch. The very fact that the first conference after only two years was a major IAU Symposium says much about the determination and enthusiasm of Richard West to fulfilling the aims of the new Working Group.

The siting of the conference in Potsdam in formerly East Germany provided an excellent opportunity to advantage from the political changes in Eastern Europe. Good access to the meeting was possible by scientists from Eastern European countries, allowing exchange of information on the very important Wide-Field facilities in both East and West, information on the rich archives of photographic plates that exist in both East and West, and allowing discussions between scientists facing very similar problems in both East and West.

Wide-Field astronomy has never been so active as it is at the present time. For the first time we have access to massive catalogues of the sky containing not tens of thousands of objects but hundreds of millions! The storage of digitised sky pixel information is taking storage technology to its limit. New techniques are being developed in order to extract the maximum possible information from the data. And in the middle of all of this, a remarkable technological revolution is taking place, with the development of large format CCD detectors with the expectation of complementing the traditional photographic plate as image detection medium in the non-too-distant future, placing even greater demands on techniques for real-time data acquisition, analysis and storage. Furthermore, wide-field imaging now embraces not only the optical waveband regime (for long regarded as the 'traditional' domain of sky-surveys), but also other wavebands of the electro-magnetic spectrum, from x-ray through optical to near-infra-red. Indeed, sky surveys in non-optical wavebands now form an integral part of 'Wide-Field Imaging'. All of these facets were contained in the Potsdam meeting.

In all, some 181 participants attended IAU Symposium No. 161 and some 200 papers (including posters) were presented. This volume presents the written versions of most of those

papers. The book is divided into sixteen 'natural' sections. The large number of sections highlights the fact that 'Wide-Field Imaging' encompasses an extremely broad area, from the sky surveys themselves, methods for data storage and retrieval, techniques for analyzing the data, etc., up to the very wide range of science undertaken, from solar system studies out to studying objects at the limits of the observable Universe.

To a great extent, the success of a meeting depends on the organisation at the local level, and this meeting was no exception. The excellent organising provided by the Local Organising Committee ensured a memorable occasion for all those who participated, and for this our thanks are due to them. Special mention must be made of Klaus Fritze and Hilmar Lorenz, who worked hard for the meeting. Finally, but by no means least, myself and my co-editors are grateful to all those who took part at the conference and contributed to its success.

This volume brings together for the first time all aspects of astronomy from 'Wide-Field Imaging', and will serve as an excellent compendium for those wishing to learn more about the subject.