

WELCOMING ADDRESS

R. WEST
*European Southern Observatory
Karl-Schwarzschild-Str. 2
W-8046 Garching
Germany*

Sehr geehrter Herr Minister Enderlein,

Dear colleagues from all over the world,

It gives me great pleasure to welcome you to IAU Symposium 161 on Wide-field Astronomy. This meeting is organised by the IAU Working Group on Wide-field Imaging that was established in 1991 within IAU Commission 9 (Instruments). I am very thankful to all who have laboured so hard and so long to make this Symposium become reality: above all the Scientific Organising Committee which has been responsible for the exciting programme now in front of us, and the Local Organising Committee which has put in an enormous amount of work to secure the wonderful surroundings of the scientific sessions. I am particularly thankful to the many sponsoring organisations which have contributed financially and otherwise towards this meeting and without whose help we would never have succeeded: to the Ministerium für Wissenschaft, Forschung und Kultur des Landes Brandenburg, the International Astronomical Union, the Deutsche Forschungsgemeinschaft, the CONVEX Computer GmbH, the ORWO Filmfabrik Wolfen AG, the VIP Verkehrsbetrieb Potsdam, the International Science Foundation and not least our official hosts, the Astrophysikalisches Institut Potsdam with all of its kind staff members.

I believe that this is a very special meeting for several reasons. First of all, it is the first, very large IAU Symposium to be held in one of the new Bundesländer after the recent German reunification, thereby demonstrating in a very direct and visible way the support of the international community of astronomers to their colleagues in this area and also our great respect for the excellent research done here. The central location at Potsdam has also had the very desirable effect of facilitating the participation of astronomers from countries in Eastern Europe and it is indeed gratifying to note that many of them have made use of this opportunity to meet their colleagues from all other parts of the world. Secondly, as you will have noted, Potsdam is celebrating its 1000-year anniversary this year and our Symposium has the honour of being one of the official events in this connection, ensuring lasting fame and vastly increased local interest. And thirdly, I doubt that any astronomical meeting has ever been held under the auspices of the IAU with such a wide coverage of our science — where, for instance, have scientists working in fields as different as near-Earth asteroids and distant quasars had the possibility to get together and exchange views of interest and utility to both?

The creation of the IAU Working Group just two years ago, and the present Symposium is

a clear sign of the increasing importance of this type of astronomy. There has recently been quite a bit of discussion of what this subject really covers, but although there are diverging opinions, I personally believe that above all, 'wide-field' stands for *very efficient information gathering*, based on an optimal symbiosis of science and technology. While the various detectors in use in astronomy are now approaching their theoretical maximum of 100% photon capturing efficiency and as it is difficult to envisage optical telescopes much larger than those of the 8 – 10 metre class now under construction, the best way forward towards even more efficient data collection is via wide-field techniques in all wavebands. In fact, we see a similar development in the field of computers with *massive parallel processing* techniques. Moreover, wide-field astronomy allows *completeness* thus rendering statistics better, not to speak of *serendipity*; there is hardly any other technique which has a larger potential for new and exciting discoveries. There remains the main problem: the enormous amount of data — how can we digest them within a reasonable time and how will we ever be able to store them in such a way that their retrieval will be easy and efficient? Clearly, the continued advance of the associated technologies will be decisive; ever-larger digital detectors with less and less noise and improved data-compression methods are just two important examples of progress in this dynamic field of science.

Many important projects will be discussed during the next days; here I just want to mention two: the LITE (Large Imaging Telescope) which is a joint French-German project for a wide-field companion to the ESO VLT (Very Large Telescope) at Paranal in Chile, and the computerized plate archive of the Working Group, now established at the National Observatory in Sofia, Bulgaria, and which may ultimately encompass 2 million photographic plates (if ever digitized, this would correspond to no less than several 10^{15} bytes!). But there are of course many other equally exciting projects on other continents.

I wish all of you a pleasant and profitable stay in Potsdam, with lots of scientific and technological interaction, and I would like once more to thank all of the organisers — you have done a great job and we look forward to being your guests during this meeting.

And thank you so much, Herr Minister, for coming to this opening and for all your kind support, now and in the future, to our meeting and also to astronomy and astronomers in the Land of Brandenburg!