

Opening Remarks

It is a great pleasure to see so many astronomers at a meeting devoted to small telescopes. It's a clear indication that while a lot of effort, and even more funds, are directed to build ever bigger and more expensive telescopes, there is plenty of most interesting science to be done with small and low cost instruments. It is not clear what is the upper size limit for a telescope to be classified as small: 1 meter? 2 meters? perhaps even larger. And what is the lower size limit? Note that among the most spectacular discoveries made in 1999, two were done with instruments of only 10 cm in diameter. These were, the first (and so far the only) optical flash associated with gamma ray burst GRB 990123, and the first (and so far the only) planetary transit in front of a star (HD 209458). Perhaps during this meeting we shall learn about interesting science done with even smaller instruments.

I am convinced that while there are very important astrophysical goals that can be achieved only with the largest telescopes, there are other important problems for which small instruments are far more efficient. We shall certainly hear about many of these during this meeting.

Only small instruments, because of their low cost, allow for a great luxury for their users: there is no need to fight with Time Allocation Committees. To be truly efficient, small instruments have to be made as fully robotic as possible. I am tempted to use these two properties: no TAC and being fully robotic, as the definition of a modern small instrument. Certainly, these are among the most important properties that make small instruments so attractive to me, and perhaps to many of you as well.

A very special application of small telescopes are global networks. The Internet will certainly lead to the expansion of networks, perhaps well beyond our current imagination, certainly well beyond the current systems which will be presented during this meeting. It is possible, even likely, that monitoring all sky for any unusual events will be done from many sites, to provide instant alerts to be used for follow-up observations by a variety of large telescopes.

Another very useful feature of small telescopes is their usefulness for education and public outreach, made possible by their low cost. This is very important, not only in our search for funds, but also in justifying what we do. In my view astronomy, just as any science, is an entertainment, certainly for the scientists, but also for the general public, which, one way or the other, is the source of our funds. We are lucky that astronomy is popular and that very many people find it attractive. While big telescopes are attractive because of their size, small instruments allow a broad range of amateurs and students to actually have a "hands-on" experience. And even more: non-professionals can do genuine science with small telescopes. A very well known example is provided by the observations of selected variable stars. It is less well known that thousands of new variable stars can be discovered by amateurs using very small instruments.

As enthusiastic as I am about small telescopes, and as much as I am looking forward to the next few days, I am only responding to the initiative of professor Wen Ping Chen. It was his idea to have this meeting, and it was his effort and a huge amount of work that made it happen. I would like to use this opportunity to thank him for all his efforts, and let us all enjoy the meeting.

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