

## Address by the Scientific Organizing Committee

Dear colleagues,

Also from us a warm welcome at this IAU Symposium No. 212. We are delighted to see you all here, on one of the beautiful Canary Islands. All of us are aware of the fact that the neighboring islands Tenerife and La Palma are extremely important for present day astronomy, because of their outstanding astronomical observatories and institutes. But some 2000 years ago the Canary Islands played already a world-scale scientific role, in the days that navigation and astronomy became closely interlinked. About 300 bc, the concept of coordinates had been developed and lines of latitude and longitude began crisscrossing our worldview. By ad  $\sim 130$ , the Greek astronomer and cartographer Claudius Ptolemaeus, working in the library of Alexandria, Egypt, had plotted them on twenty-seven maps of his first world atlas, containing the coordinates of  $\sim 8000$  places on Earth, where the equator marked the zero-degree parallel of latitude. Ptolemaeus was free, however, to put his prime meridian, the zero-degree longitude line, wherever he liked. He chose to run it through the Fortunate Islands, now called the Canary and Madeira Islands. Later mapmakers moved the prime meridian, according to their political preferences, to the Azores and to the Cape Verde Islands, as well as to Rome, Amsterdam, Copenhagen, Jerusalem, St. Petersburg, Paris, Pisa and Philadelphia, among other places, before it settled finally in Greenwich, London (e.g., Sobel 1995). But the first prime meridian ran through here. So much for our fortunate and well appreciated venue.

This symposium is concerned with massive stars. Massive stars are manifesting themselves prominently through the work of you all and others in numerous aspects of astrophysics. We mention here briefly two aspects: (i) thanks to infrared image-masking interferometry with the Keck telescope a few of the nearest dust-producing WC stars have been imaged, to show rotating dust plumes in the wake of colliding wind cones, proving the binarity of these objects in a most spectacular way (Tuthill et al. 1999; Monnier et al. 2002); and (ii) thanks to X-ray spectroscopy, massive stars at cosmological distances have been linked via supernovae and hypernovae to Gamma-Ray Bursts. E.g., XMM data of GRB 011211 shows emission lines of Mg, Si, S, Ar, Ca and Ni originating in hot gas moving outward by  $26\,000\text{ km s}^{-1}$ . Those data favor models where a supernova explosion, responsible for the outflowing matter, from a massive stellar progenitor in the Wolf-Rayet phase, precedes the GRB event caused by core collapse (Reeves et al. 2002).

We wish you all a very constructive and pleasant five working days here.

*Karel A. van der Hucht and Artemio Herrero, co-chairs SOC  
Lanzarote, 24 June 2002*

### References

- Monnier, J.D., Tuthill, P.G., Danchi, W.C. 2002, ApJ (Letters) 567, L137  
 Ptolemaeus, C.  $\sim 130$ , Γεωγραφικὴ ὑφήγησις (Geographical Guide)  
 Reeves, J.N., Watson, D., Osborne, J.P., et al. 2002, Nature 416, 512  
 Sobel, D., 1995, Longitude (London: Fourth Estate), p. 2  
 Tuthill, P.G., Monnier, J.D., Danchi, W.C. 1999, Nature 398, 487