

## PREFACE

IAU Colloquium No. 71 had its immediate origins in a small gathering of people interested in the optical and UV study of flare stars which took place during the 1979 Montreal General Assembly. We recognized that a fundamental change was taking place in the study of these objects. Space-borne instruments (especially IUE and Einstein) and a new generation of ground-based equipment were having a profound effect on the range of investigations it was possible to make. To extract maximum benefit from these new possibilities it would be necessary as never before to have good communication with colleagues in other disciplines, for instance, with atomic and solar physicists. Similarly, studies of phenomena associated with the outer atmospheres of the late-type stars could now hope to give significant insights into certain aspects of solar activity. So, in view of the wide range of backgrounds of those participating, the meeting had an unusually high proportion of invited reviews while most of the contributed papers were presented as posters. It is gratifying that in the short time since the meeting a good deal of correspondence has been received from participants remarking on the success of this format.

Once the decision had been taken in principle to hold the meeting, a very considerable amount of work fell on the two organizing committees, viz. the Scientific and Local Organizing Committees. The Scientific Organizing Committee was chaired by D.J. Mullan and consisted of A.D. Andrews, B.W. Bopp, A.K. Dupree, R.E. Gershberg, G. Godoli, J.L. Linsky, M. Rodonò, O.B. Slee and G.S. Vaiana. The Local Organizing Committee comprised M. Rodonò (chairman), C. Blanco, S. Catalano, E. Marilli, L. Paternò and S. Serio.

We would like to gratefully acknowledge the cooperation of the IAU and in particular the General Secretary, P.A. Wayman, and Assistant General Secretary, R.M. West, at all stages of preparing for the Colloquium. The Colloquium was sponsored by IAU Commission No. 27 and co-sponsored by Commissions No. 10, 29, 40, 42, 44.

The following chaired the sessions: A.K. Dupree, C. Jordan, J.L. Linsky, D.J. Mullan, D.M. Popper, M. Rodonò, R. Rosner, Y. Uchida, G.S. Vaiana and N.O. Weiss.

There are a number of people we would like to thank whose names do not appear in any of the Committees. Sterling work was done by Fabia

Foggi in the months before and both during and since the meeting. A. Calì, S. Del Popolo, G. Gentile, E. Martinetti, M.G. Minaldi, M. Miraglia, M.L. Rapisarda, S. Sardone, M.C. Scuderi, C. Sorge, and V. Stancanelli also assisted tirelessly in various capacities during the meeting. Their faces, if not their individual names, will be known to all who attended. Last, but far from least, our thanks go to Mrs. Eleonora Rodonò, who acted as interpreter, guide, social secretary and even personal confidant on a number of occasions!

Vital financial support was provided by the National Research Council of Italy, the Astrophysical Observatory and the University of Catania, the Astronomical Observatory of the University of Palermo, the Ministero della Pubblica Istruzione, the Regione Siciliana, the Comune di Catania and the Amministrazione Provinciale di Catania. Social entertainments were provided by Azienda Autonoma delle Terme di Acireale, Comune di Acicastello, Camera di Commercio di Catania, Ente Provinciale per il Turismo di Catania, and Azienda di Soggiorno e Cura di Acireale.

This preface would not be complete without commenting on a very special aspect of IAU Colloquium No. 71. Scientific intercourse was made doubly easy by the very successful social programme which accompanied the scientific meeting. Perhaps in this context we should thank one final chairman, viz. Dave Gibson, who presided during the closing dinner.

It has been our task as Editors to bring this large and diverse collection of material to a wider audience. Within each session the invited papers are followed by the related contributed ones. The order is not strictly that in which they were presented. Rather we have grouped the papers according to subject matter.

Discussions which took place after the orally presented papers were recorded on magnetic tape. We have transcribed these and they follow the text of the appropriate paper. There are inevitable gaps due to loss of recording for various reasons. Generally the discussion was transcribed word-for-word but to improve readability repetitions, excessive use of colloquialisms, etc were removed. We are confident that no unacceptable charge of emphasis resulted.

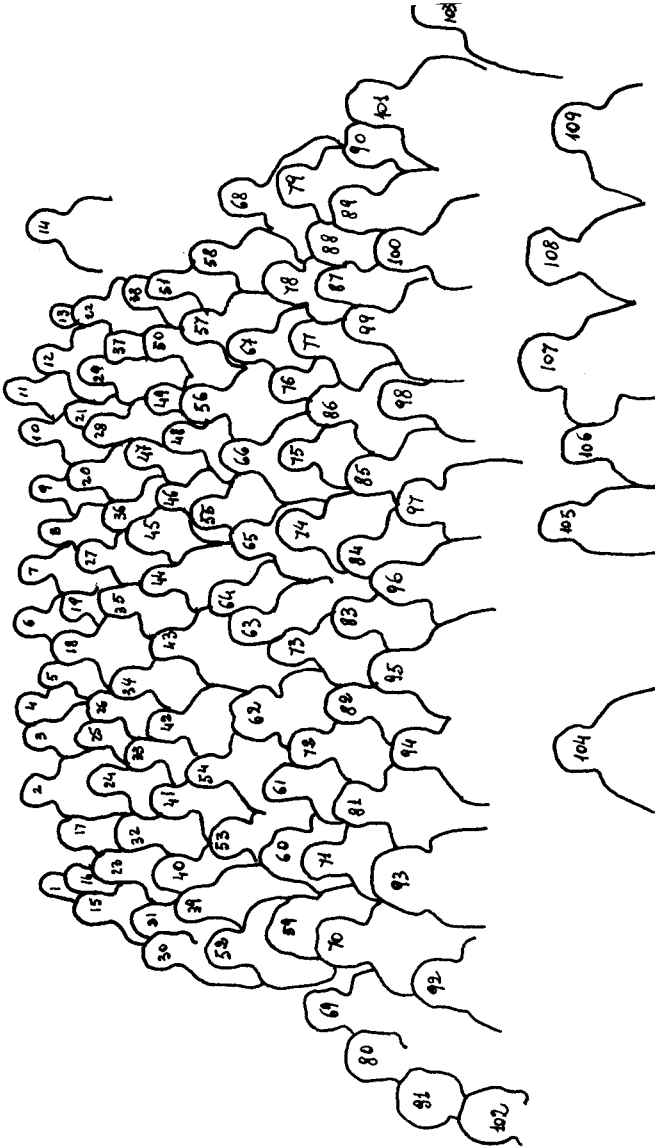
An index follows the text at the end of the book. In preparing it we were conscious of two dangers. The first was that of producing too sparse an index which would make the exercise a trivial one. The second lies in the direction of "safety first", including all references one could possibly imagine. We have tried to take a middle road, bearing in mind the likely use of the book. For instance, in the case of star names, we have not referenced every one appearing in the book but rather those which are discussed at some length.

Finally we would like to thank all of those authors who brought their manuscripts in camera-ready form at the beginning of the meeting as requested, making our editorial duties much easier. Our thanks go to D.Reidel Publ.Co. in the person of Mrs. Pols v.d.Heijden for their excellent cooperation.

30th October 1982

P.B. Byrne and M. Rodonò





1. Agrawal, 2. Linnell, 3. Bopp, 4. La Fauci, 5. Wing Jr., 6. Wing, 7. Bodo, 8. Rodonò, 9. Kameswara Rao, 10. Fischerstrom, 11. Weiss, 12. Scaltriti, 13. Mrs. Scaltriti, 14. Das, 15. Doyle, 16. Gokhale, 17. Goldberg, 18. Pallavicini, 19. Simon, 20. Pirronello, 21. Olah, 22. Bruca, 23. Gimenez, 24. Herrero, 25. Sarma, 26. Lang, 27. Magazzù, 28. Andersen, 29. Pidotella, 30. Butler, 31. Elliott, 32. Tanaka, 33. Paternò, 34. Belvedere, 35. Oskanian, 36. Bohn, 37. Haisch, 38. Giampapa, 39. Walter, 40. Brown, 41. Feldman, 42. Linsky, 43. Charles, 44. Venugopal, 45. Torres, 46. Van Leeuwen, 47. Reglero Velasco, 48. Golub, 49. Cutispoto, 50. Worden, 51. Stencil, 52. Basri, 53. Mrs. Catalano, 54. Catalano, 55. Stern, 56. Sakurai, 57. Kuypers, 58. Kodaira, 59. Angelico, 60. Calvet, 61. Ducati, 62. Baliunas, 63. Priest, 64. Hidayat, 65. Serio, 66. Dupree, 67. non participant, 68. Rucinski, 69. Byrne, 70. Budding, 71. Popper, 72. Peres, 73. Bookmeyer, 74. Mrs. Vaiana, 75. Mrs. Serio, 76. Uchida, 77. Alphenaar, 78. Melikyan, 79. Chugainov, 80. Blanco, 81. Rosner, 82. Mullan, 83. Andrews, 84. Maggio, 85. Vaiana, 86. Sciortino, 87. Ni, 88. Mattig, 89. Gibson, 90. Jordan, 91. De La Reza, 92. Pazzani, 93. Zuccarello, 94. Rapisarda (LOC), 95. Godoli, 96. Del Popolo (LOC), 97. Mrs Rodonò, 98. Micela, 99. Simnett, 100. Tsai, 101. Pettersen, 102. Collier, 103. Collura, 104. Strazzulla, 105. Minaldi (LOC), 106. Scuderi (LOC), 107. Cali (LOC), 108. Foggi (LOC), 109. Nha.