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## **Foreword**

Donald Blair Melrose's sixtieth birthday occurred on 13 September 2000. In honour of this occasion and to celebrate his achievements, a Festschrift was held on the 10th and 13th of November 2000 at the University of Sydney, NSW, Australia.

Don graduated with a BSc(Hons) from Uni. Tasmania in 1962, and completed a D.Phil as a Rhodes Scholar from Oxford University in 1965. After postdoctoral positions at Sussex, and at Yeshiva University and University of Maryland, Don returned to Australia in 1969, joining the Australian National University as a Senior Lecturer. He joined the academic staff in the School of Physics at the University of Sydney in 1979 as a Professor. Don has been Director of the Research Centre for Theoretical Astrophysics since 1991 and is currently Head of the School of Physics.

The all-encompassing title of the Festschrift, "Extraterrestrial Plasmas", reflects the diversity of Don's research in plasma astrophysics, from solar physics, to pulsar emission and the propagation of radio signals in interstellar plasmas. Don has also made (and continues to make) a significant contribution to the theory of quantum electrodynamics of plasmas, particularly in the presence of strong magnetic fields. His research achievements have been recognised through the award of the Pawsey and Lyle Medals by the Australian Academy of Science, the Boas Medal by

the Australian Institute of Physics, and the Harrie Massey Medal and Prize by the Institute of Physics. In all, eighteen talks were delivered over the two days of the Festschrift by friends and past and present students. The majority appear here as papers with several additional contributions by colleagues who were unable to attend the Festschrift. I thank the speakers and authors for their contributions, Bob Hewitt for prefacing the scientific talks with an enlightening presentation of the history of Don, and Lewis Ball, Dick Collins, and Jan Kuijpers for presenting different perspectives of Don in their speeches after the Festschrift dinner.

The meeting was sponsored by the School of Physics. The organisation of the Festschrift was carried out by Iver Cairns, Jenny Nicholls, Margaret Smith and myself. I am particularly grateful to the editor of PASA, Michelle Storey, for her efforts in guiding this Festschrift volume of PASA through the publication process.

Mark Wardle School of Physics University of Sydney

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