## Foreword

This special issue contains selected papers of Plenary and Keynote Lectures presented at the Tenth National Congress of the Australian Institute of Physics, held at the University of Melbourne from 10 to 14 February, 1992. The Congress was attended by nearly 1000 delegates, including numerous distinguished physicists from Australia and abroad, who were treated to a smorgasbord of physics ranging from astrophysics to particle physics. The Congress was organised around a series of fifteen separate sections, representing various branches of physics in which there is active Australian interest, and incorporated the First Conference of the Vacuum Society of Australia; the Fifth Gaseous Electronics Meeting; the Fourteenth AINSE Nuclear and Particle Physics Conference; the 1992 Physics Teachers Conference; the Third Australasian Conference on Remote Sensing of Atmospheres and Oceans; and the South Pacific Solar-Terrestrial and Space Physics Workshop.

The Plenary Lecturers at the Congress were Chen Ning Yang (Hong Kong), Michael Berry (Bristol), Don Melrose (Sydney), Dan Walls (Auckland), Herbert Walther (Münich), Parmeswaran Hariharan (CSIRO), Basil Briggs (Adelaide), Roger Blin-Stoyle (Sussex), Mike Hart (Manchester), Rolf Landauer (IBM) and Mike Gore (Questacon). Unfortunately, it was not possible to include the papers of all eleven Plenary Lectures in this volume and the reader is referred to the May 1992 issue of the Australian & New Zealand Physicist for reports on these and other lectures at the Congress.

I am grateful to all the contributors for their cooperation and especially grateful to Peter Robertson, Managing Editor of the *Australian Journal of Physics* for his efforts in making this special issue possible.

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