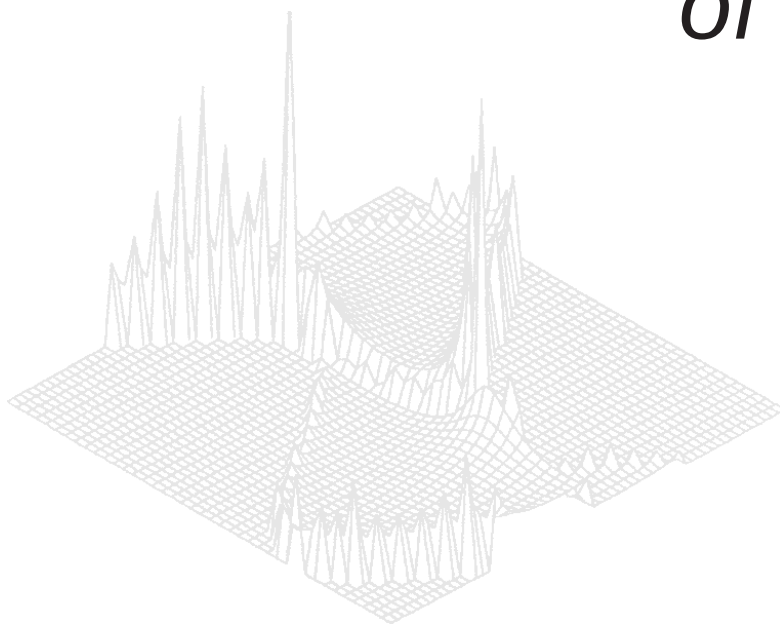

CSIRO PUBLISHING

Australian Journal of Physics

Volume 51, 1998
© CSIRO 1998



A journal for the publication of
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Australian Journal of Physics

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Australian Academy of Science



Foreword

Nuclear Methods in Magnetism

This issue of the *Australian Journal of Physics* contains nineteen refereed papers submitted by delegates to the International Workshop on Nuclear Methods in Magnetism 1997 (NMM'97), organised as a satellite to the much larger International Conference on Magnetism 1997 (ICM'97). NMM'97 was convened as a three-day meeting at Olim's Hotel, Canberra, 21–23 July 1997; that is, in the week immediately preceeding ICM'97.

The Workshop organisers sought a truly international meeting of experienced, senior, NMM researchers, complemented by younger people, with a view to benefit from the informal atmosphere and convivial exchange of ideas. Eleven invited speakers formed the core of the program with topics varying from experimental techniques and results through to advanced theory. It was particularly gratifying to the organisers that all invited speakers were able to attend, some travelling from very distant places to contribute only to NMM'97, some carrying on to the delights of Cairns and ICM'97 in the following days.

There were 38 delegates in all; from Austria, Belgium, Brazil, the Czech Republic, Denmark, France, Germany, Israel, Japan, New Zealand, Poland, Russia, The Netherlands, the United Kingdom and from within Australia. The program consisted of thirty oral presentations with adequate time reserved for lively discussion. Professor Dietmar Riegel from the Hahn Meitner Institute, Berlin, provided the opening keynote paper summarising the significant advances in the understanding of basic magnetism derived from in-beam time differential perturbed angular distribution spectroscopy. Subsequent papers covered experimental results from low temperature nuclear orientation, Mössbauer spectroscopy, nuclear magnetic resonance, NMR on oriented nuclei, perturbed angular correlations, synchrotron radiation, and muon spin resonance. Theoretical topics addressed giant nuclear spin polarisation effects on resonant gamma absorption and emission, NMR in inhomogeneous ferromagnets, the possibility of neutron magnetic tomography, and the evaluation of exchange and anisotropy constants of molecular species from high field Mössbauer spectra.

One of the sessions was set aside as a tribute to Associate Professor Graham Bowden, recently retired from the School of Physics, UNSW. Graham has returned to his native England after nearly thirty years of contributing at the highest level to Australian physics in solid state magnetism, especially Mössbauer spectroscopy and NMR, and wind energy, firstly at CSIRO's Division of Applied Physics and then at UNSW. Graham returned to Australia briefly in order to participate in NMM'97. Four of Graham's past research students, Associate Professor Sean Cadogan (School of Physics,



Delegates to the International Workshop on Nuclear Methods in Magnetism 1997

UNSW), Professor Bob Clark (School of Physics, UNSW), Dr Wayne Hutchison (School of Physics, University College, UNSW) and Dr John Martin (Laser Physics Centre, Research School of Physical Sciences and Engineering, ANU) provided relevant oral papers and reminisced on Graham's profound influence on their own careers in this special tribute.

An afternoon was set aside for delegates to tour the Research Laboratories at the School of Physics, University College, UNSW, and through the kind offices of Professor George Dracoulis, Head of Nuclear Physics, ANU, the ANU's 14UD Pelletron accelerator.

The Workshop conveners wish to acknowledge financial support from the School of Physics, University College, The Gordon Godfrey bequest, Alphatech International Pty Ltd, Canberra Packard Pty Ltd, John Morris Scientific Pty Ltd, Scientific Technology Pty Ltd, Stanton Scientific, and Varian Australia Pty Ltd.

Special thanks are due to Shirley McKeown, Secretary, School of Physics, University College, Geoff Collin and Lynne-Deanne Smith of the Information Technology Services Centre, and to Peter Robertson, Editor of the *Australian Journal of Physics*.

Don Chaplin, Wayne Hutchison and Glen Stewart

School of Physics, University College, UNSW,
Australian Defence Force Academy
February 1998