A Celebration of APPLIED PROBABILITY

Edited by
J. GANI

JOURNAL OF APPLIED PROBABILITY
SPECIAL VOLUME 25A (1988)

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Preface

The present volume celebrates the twenty-fifth anniversary of the Applied Probability Trust (APT). This Anglo-Australian foundation consists of a small publishing house responsible for launching the *Journal of Applied Probability* (JAP) in 1964, and following it up with *Advances in Applied Probability* (AAP) five years later. Both these are research journals.

In publishing *Mathematical Spectrum* (MS), whose first issue appeared in 1968, the APT had quite a different aim: the magazine was to appeal to mathematics students in their final years at school and their early years at university. The fourth journal on the APT's list is *The Mathematical Scientist* (TMS), recently inherited from CSIRO and the Australian Mathematical Society; this is a publication designed to provide mathematical information of a more general nature for mathematicians, computer scientists, statisticians and other mathematically inclined scientists. Its thirteenth volume will be published by the APT this year.

These four periodicals indicate the APT's commitment to research in probability and (more generally) mathematics, and to the dissemination of information in these fields. The production of regular indexes of the Applied Probability journals, the issue of occasional Festschrift volumes and conference proceedings, and the publication of an APT monograph series in Applied Probability, whose first volumes were issued by Springer-Verlag in 1986, round off the set of APT's current publishing ventures.

When colleagues discuss these activities with me, they tend to endow them with an air of inevitability which never ceases to surprise me. Having grown up with the APT, I know just how precarious its position was in its early years. And despite the fact that JAP, AAP and MS are now essentially self-sustaining, TMS in 1988 is at that uncertain stage of development which all new journals seem to go through. TMS is designed to fill a perceived gap in the mathematical literature; as its editor, I have the bravest intentions of filling it, and the most nagging doubts as to whether these intentions will succeeed. If conviction is strong enough, and contributors are cooperative, such difficulties can usually be overcome; but for success one also needs luck, or at least the support of a fair number of readers.

For the enterprising publishing house, just as for the enterprising individual, it is essential to gauge opportunities correctly. One must then organize the

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mechanisms of publication carefully to ensure that their working details are absolutely right. And perhaps most important of all, one must recruit efficient assistants to carry through the intricate steps of the publishing process. On the very pragmatic basis of results over the past 25 years, one can only conclude that the APT has been very fortunate in its trustees, its editorial boards and its staff. It has been a real privilege for me to work with all of them.

The first of the APT's journals, JAP, was perhaps the hardest to start. I came to it with a sublime lack of experience, matched only by my persistence in the face of difficulties. That the journal was needed seemed fairly obvious by the early 1960s, and that it would command some sort of market was clear. What was unknown was the market's potential size; had someone told me that by 1988 the estimated readership of JAP would reach 2,500, I would not have believed it. I knew little about editorial duties and undertook them almost by default. Printing, publication schedules, journal pricing, distribution and all the other essential details of the publisher's trade, I learned by trial and error, together with Mavis Hitchcock, who joined me at the University of Sheffield in 1965.

Gradually, we mastered the trade together. Increasingly, I relied on her to deal with the business management of the enterprise; this arrangement was further confirmed when I left the University of Sheffield for CSIRO, Canberra, in 1974. She has described her role in some detail in her article in this volume, and I cannot do better than let her speak for herself. But I must add that she has proved to be an invaluable colleague, whose contribution to the growth of the APT deserves the fullest recognition of every applied probabilist. I am deeply in her debt for the help and support she has given me personally as trustee of the APT and editor of its journals since 1965; she has been a splendid collaborator – and a very good friend.

A few words about the APT are perhaps in order at this stage. It was founded in 1964 by three private Australian trustees: Ted Hannan, Norma McArthur (who died in 1984) and myself, together with the London Mathematical Society, then represented by the fourth trustee, Sir Edward Collingwood (who died in 1970). Each trustee provided an initial grant to the APT, and in the early years, the University of Sheffield added its contribution in the form of Mavis Hitchcock's salary and a small grant. For this early support, I must express my gratitude.

The APT's four trustees in 1988 are Ted Hannan, Chris Heyde and myself, together with the London Mathematical Society (LMS), currently represented by Rosemary Bailey. After Sir Edward Collingwood's death, Harry Reuter was appointed as the LMS Trustee between 1971 and 1983. The APT's Sheffield office is at present manned by a staff of five: Mavis Hitchcock

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(executive editor) acting as its full-time manager, and four part-time workers: Kathleen Lyle (technical editor), Marion Graham (secretary) and Mary Smith and Pat Pritchett (subscription secretaries).

I currently act as editor-in-chief of JAP, AAP and most recently TMS, relying on the assistance of a large board of editors for each journal. Of these editors, the most important are the coordinating editors for the Applied Probability journals, Nick Bingham (who has recently followed Harry Reuter in this position), Chris Heyde and Marcel Neuts. The names of individual editors will be found on the covers of the relevant journals. The present editor of MS is David Sharpe of the Department of Pure Mathematics, University of Sheffield; he followed Harry Burkill and myself in this position, and is assisted by an editorial board covering the diverse areas of mathematics. Finally, Chris Heyde and I are both editors of the monographs in the APT Series in Applied Probability, published jointly with Springer-Verlag.

The APT has been financially independent since the late 1960s; our present financial status is sound, and our prospects secure. As a foundation, our aim has been to provide publications of quality at prices only slightly above cost. We have used operating surpluses to endow prizes for students in over a dozen departments of statistics in Australia, the UK and the USA; we have supported the start of the Teaching Statistics Trust and helped provide computing facilities at the International Statistical Education Centre, Calcutta. We have also, from time to time, financed new publication ventures within the APT. Clearly, these are achievements worthy of celebration in this, the twenty-fifth year of the Trust's existence. The APT has faced a wide range of challenges, some scientific, others of a business and financial nature. Among the latter, the continuing fluctuations in the rates of exchange of the £ sterling and the US dollar have been particularly trying. By a mixture of good management and good fortune, the APT has weathered every crisis so far: I can only hope that the Fates will continue to smile as brightly upon us in future.

What of the next 25 years? I believe one can make the following two predictions with a certain measure of confidence. There is likely to be a change of editor-in-chief for the JAP and AAP before too long. I shall be 65 at the end of 1989; that seems the right time for me to hand over the editorial responsibilities of these journals to a younger colleague, more closely attuned to modern trends in applied probability. Mavis Hitchcock is due to retire in 1992, and it will be important to find a successor willing to assume her considerable responsibilities within the next year or two. I can only hope that the reputation of the Trust will help to attract to it the editorial and managerial talent which is essential for its healthy survival.

Last but not least, I should like to take this opportunity of expressing my

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thanks to all those who have helped the APT fulfil its aims over the past quarter-century. These are

— the authors who have contributed to our journals;
— the referees who have helped to evaluate submitted papers;
— the editors who have processed papers for publication;
— the APT staff who have handled all business and technical aspects of publication;
— the printers on whom we have relied so heavily for elegant typesetting; and finally
— the readers of our publications, who more than anyone else, have made the achievements of the APT possible.

Thank you one and all: the APT looks forward to your continuing support for the next 25 years.

Statistics and Applied Probability Program
University of California, Santa Barbara

J. GANI
April 1988

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PART 1

SOME THOUGHTS ON APPLIED PROBABILITY

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