## Editorial

# Statistics and Applied Probability: A Tribute to Jeffrey J. Hunter 

Paul Cowpertwait, Graeme Wake, Robert D. Anderson, Howard Edwards, and Shayle Searle

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We are delighted to be associated as guest editors with the publication of this special issue of the Journal of Applied Mathematics and Decision Sciences, in honour of our esteemed colleague Professor Jeffrey J. Hunter. This special issue marks Jeff's retirement from Massey University, although Jeff plans to continue his research. It also acknowledges Jeff's many contributions to probability and statistics over a long career of 40 -plus years, during which he has served his colleagues and university exceedingly well, with the utmost integrity, and has served and promoted his academic discipline in a consistent and highly professional
 manner, representing the interests of the statistics discipline in many capacities and roles. We have been honoured to have him as a colleague, and given the impressive response of the authors of this issue, we believe this feeling is shared by many in the academic community. Some personal notes from Robert Anderson (Pro Vice-Chancellor of the College of Sciences, Massey University), Howard Edwards (Programmes Director in the College of Sciences), and Emeritus Professor Shayle Searle are included in this editorial.

We are indebted to the Hindawi Publishing Corporation for supporting this initiative, and for their efficient handling of the manuscripts. We thank Tony Norris (Head of our Institute) and Robert McKibbin (former Head) for their helpful suggestions and moral support, and are grateful to Tony and Gaven Martin, for providing financial support via
the institute and personal research funds, respectively, without which this publication would not have been possible. Helpful comments from Stephen Haslett are acknowledged. We thank the many referees who helped tremendously with the reviewing process; in particular, we acknowledge the following referees for their helpful comments and/or detailed reviews: Tasos Tsoularis, Martin Hazelton, Valerie Isham, Beatrix Jones, Claire Jordan, Dominic Lee, Michael Leonard, Barry McDonald, Andrew Metcalfe, Christian Onof, Marco Reale, Danny Walsh, and Thomas Yee. Finally, we thank the authors, many of whom know Jeff well and are his friends; we are very grateful to them for their impressive response to this special issue and for their comments on each others work, which has helped ensure that this publication is of high standard.

> Paul Cowpertwait and Graeme Wake
> Guest Co-Editors
> July, 2007

## Professor Jeffrey J. Hunter, FNZMS by Robert D. Anderson, Pro Vice-Chancellor

It is an honour to have been asked to contribute some thoughts on Professor Jeffrey Hunter to this special publication.

I first met Jeff at the time of his interview for the Chair in Statistics at Massey University, in 1990. In the subsequent 17 years, we have developed a strong personal and professional friendship. Such is his instinctively generous and helpful nature, it is impossible not to enjoy, and value, his friendship and professional interaction. He has been an outstanding colleague and mentor to many.

When one reflects on Jeff's career and achievements, a remarkable aspect that stands out, and that others rarely emulate, is that at varying times he has held some high-level managerial posts, the Foundation Deanship of the Faculty of Information and Mathematical Sciences at Massey University for example, yet he still managed to sustain an enviable personal record of research and advanced scholarship-compared to most other university administrators. The award of a Doctor of Science degree by Massey University in 2005 is compelling evidence of enduring scholarship at the highest level. The New Zealand Statistical Association Campbell Award (its highest) in 2006 for "contributions to statistical research and education, and services to the profession of statistics" further reflects his ability to keep his managerial responsibilities-without exception, successfully discharged-in perspective in order that he could find time to concentrate on what actually counts in any university of substance, namely; advanced education and scholarship.

In the early stages of our association, Jeff and I were fellow Deans. Later when the Institute of Information and Mathematical Sciences, based at the Auckland Campus of Massey University, was founded, the wider College of Sciences needed to find a leader with an ability to inspire, and to organise, others to commit to a shared vision for a newly created multidisciplinary entity. Fortunately, Jeff was available for the role and (with high probability of success-that particular word needs to appear in any statement about him) he was appointed Foundation Head as from 1st January, 1998. It is important for the formal record that appreciation be expressed for his excellent leadership of the institute over those formative years.

It is entirely apt that there is a dedicated publication honouring Professor Jeffrey Hunter's outstanding career of advanced scholarship in statistics and mathematics.

Robert D. Anderson, ONZM<br>Pro Vice-Chancellor (Sciences)<br>July, 2007

## Jeff Hunter's Contribution to Statistics at Massey University by Howard Edwards

It has been my great pleasure to work under and with Jeff Hunter in his variety of roles at Massey University: Professor and Head of the Statistics Department at Palmerston North, Dean of the Faculty of Information and Mathematical Sciences which spanned both the Palmerston North campus and the new Albany campus, and Foundation Head of the Institute of Information and Mathematical Sciences based on the new Albany campus.

Jeff arrived at Massey University in 1990 after an already distinguished career at the University of Auckland. At the time, the Statistics Group within the combined Department of Mathematics and Statistics at Massey had recently tried to break away and form a separate department but had been unsuccessful in this regard. Jeff recognised that Statistics as a discipline within the university would only receive its proper recognition and grow if it were a separate department and argued accordingly for this, within a larger grouping of departments, including that of Mathematics. Under his leadership a de facto department was effectively created, and the university recognised this in 1991 with the establishment of the Department of Statistics.

Jeff's background in applied probability led some to worry that he might alter the applied focus of statistics at Massey. However, Jeff always put the interests of the statisticians as a group first, and the subject flourished as a result of judicious staff appointments through the early 1990s.

In 1993, Massey University opened its new Albany campus at Auckland and Jeff was fully supportive of the small Statistics group (consisting of Denny Meyer, Barry McDonald, and myself) that was set up there in 1994 to support the offerings in Business and in Information Sciences. The campus grew swiftly and so did the group, and when the Faculty of Information and Mathematical Sciences went out of existence as part of university restructuring in 1997 Jeff was appointed as Foundation Head of the Institute of Information and Mathematical Sciences which was (and continued to be) based on the Albany campus. Both Statistics in particular and Information Sciences in general flourished under Jeff's leadership, and when Jeff stepped down as Head in 2002, he continued to lead the Statistics group at Albany.

Those of us who have been part of Statistics at Massey University have been fortunate to benefit from Jeff's leadership, vision, and collegiality over the past 17 years, and we owe him a huge debt of thanks in making Statistics the success it is at Massey University.

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## A Personal Note to Jeff J. Hunter on His Retirement by Shayle Searle

What would mathematically bring together a Markov chain enthusiast and a linear models devotee? The link for Jeff and me is generalized inverse matrices. And it is of no small importance that we are also both New Zealanders each with an off-shore Ph.D., both enjoy travel and for more than twenty years have had much pleasure in being guests in each other's homes. For a variety of reasons, some legitimate and some patently transparent, I have been fairly inactive statistically since retiring twelve years ago. Hence, I cannot, in the time made available to me, offer anything new, as much as I would like to be in a position to do so. Retirement for me has been, and is, a delight, especially for relaxingly doing things other than statistics. I sincerely hope that my good friend Jeff and his wife Hazel get the same pleasure from it as I do. All good wishes to you both.

Emeritus Professor Shayle Searle
April, 2007
Paul Cowpertwait: Institute of Information and Mathematical Sciences, College of Sciences, Massey University, Auckland, New Zealand
Email address: p.s.cowpertwait@massey.ac.nz
Graeme Wake: Institute of Information and Mathematical Sciences, College of Sciences, Massey University, Auckland, New Zealand
Email address: g.c.wake@massey.ac.nz
Robert D. Anderson: College of Sciences, Massey University, Auckland, New Zealand
Email address: r.d.anderson@massey.ac.nz
Howard Edwards: Institute of Information and Mathematical Sciences, College of Sciences, Massey University, Auckland, New Zealand
Email address: h.edwards@massey.ac.nz
Shayle Searle: Department of Biological Statistics and Computational Biology,
Cornell University, Ithaca, NY 13101, USA
Email address: srs24@cornell.edu

## Mathematical Problems in Engineering

## Special Issue on Space Dynamics

## Call for Papers

Space dynamics is a very general title that can accommodate a long list of activities. This kind of research started with the study of the motion of the stars and the planets back to the origin of astronomy, and nowadays it has a large list of topics. It is possible to make a division in two main categories: astronomy and astrodynamics. By astronomy, we can relate topics that deal with the motion of the planets, natural satellites, comets, and so forth. Many important topics of research nowadays are related to those subjects. By astrodynamics, we mean topics related to spaceflight dynamics.

It means topics where a satellite, a rocket, or any kind of man-made object is travelling in space governed by the gravitational forces of celestial bodies and/or forces generated by propulsion systems that are available in those objects. Many topics are related to orbit determination, propagation, and orbital maneuvers related to those spacecrafts. Several other topics that are related to this subject are numerical methods, nonlinear dynamics, chaos, and control.

The main objective of this Special Issue is to publish topics that are under study in one of those lines. The idea is to get the most recent researches and published them in a very short time, so we can give a step in order to help scientists and engineers that work in this field to be aware of actual research. All the published papers have to be peer reviewed, but in a fast and accurate way so that the topics are not outdated by the large speed that the information flows nowadays.

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| Manuscript Due | July 1, 2009 |
| :--- | :--- |
| First Round of Reviews | October 1, 2009 |
| Publication Date | January 1, 2010 |

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## Guest Editors

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Silvia Maria Giuliatti Winter, São Paulo State University (UNESP), Guaratinguetá, 12516-410 São Paulo, Brazil; silvia@feg.unesp.br

