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978-0-521-09603-4 - Maximum Entropy and Bayesian Methods in Applied Statistics: Proceedings of the Fourth Maximum Entropy Workshop University of Calgary, 1984

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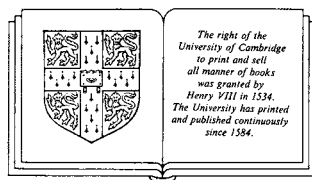
# *Maximum Entropy and Bayesian Methods in Applied Statistics*

Proceedings of the Fourth Maximum Entropy Workshop  
University of Calgary, 1984

Edited by

**JAMES H. JUSTICE**

Chair in Exploration Geophysics, University of Calgary



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## PREFACE

The Fourth Workshop on Maximum Entropy and Bayesian Methods in Applied Statistics was held in Calgary, Alberta, at the University of Calgary, August 5-8, 1984. The workshop continued a three-year tradition of workshops begun at the University of Wyoming, in Laramie, attended by a small number of researchers who welcomed the opportunity to meet and to exchange ideas and opinions on these topics. From small beginnings, the workshop has continued to grow in spite of any real official organization or basis for funding and there always seems to be great interest in "doing it again next year."

This volume represents the proceedings of the fourth workshop and includes one additional invited paper which was not presented at the workshop but which we are pleased to include in this volume (Ellis, Gohberg, Lay). The fourth workshop also made a point of scheduling several exceptional tutorial lectures by some of our noted colleagues, Ed Jaynes, John Burg, John Shore, and John Skilling. These tutorial lectures were not all written up for publication and we especially regret that the outstanding lectures by John Burg and John Shore must go unrecorded.

The depth and scope of the papers included in this volume attest, I believe, to the growing awareness of the importance of maximum entropy and Bayesian methods in the pure and applied sciences and perhaps serve to indicate that much remains to be done and many avenues are yet to be explored. At the same time, it should be clear that significant inroads are being made and the results give credence to both the importance and the practicality of these methods.

In organizing this volume, I have tried to place papers of a general or tutorial nature first, followed by papers related to theoretical considerations, and finally papers dealing with applications in the applied sciences, more or less grouped by application, and a reasonable order for logical development of content.

I would like to express my sincere thanks to a number of people whose devotion and efforts made the workshop a success and the preparation of this volume possible. First among these was surely Mrs. Esther Cockburn

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who handled all arrangements, mailing, and organization for the conference, and much of the work related to the preparation of this volume. Her efforts assured our success. Pat Foster handled all of our accounting and insured our solvency. Special thanks are also due to Bonnie Sloan who expertly handled all of the typing for this volume and who met all deadlines with work of the highest quality.

Finally, but certainly not least, go our deepest expressions of gratitude to those donors in Calgary and Ottawa who answered our call in a time of need to generously provide all the funding required to insure the success of our efforts. The following section is set aside to call attention to these organizations and to express our thanks to them. It is my hope that this volume will be of use not only to researchers in many scientific disciplines but also to those whose aspirations are to join their ranks and to carry on this tradition.

James H. Justice  
Calgary, Alberta  
April 24, 1986

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