

## Editor's foreword

E. T. Jaynes died April 30, 1998. Before his death he asked me to finish and publish his book on probability theory. I struggled with this for some time, because there is no doubt in my mind that Jaynes wanted this book finished. Unfortunately, most of the later chapters, Jaynes' intended volume 2 on applications, were either missing or incomplete, and some of the early chapters also had missing pieces. I could have written these latter chapters and filled in the missing pieces, but if I did so, the work would no longer be Jaynes'; rather, it would be a Jaynes–Bretthorst hybrid with no way to tell which material came from which author. In the end, I decided the missing chapters would have to stay missing – the work would remain Jaynes'.

There were a number of missing pieces of varying length that Jaynes had marked by inserting the phrase 'MUCH MORE COMING'. I could have left these comments in the text, but they were ugly and they made the book look very incomplete. Jaynes intended this book to serve as both a reference and a text book. Consequently, there are question boxes (Exercises) scattered throughout most chapters. In the end, I decided to replace the 'MUCH MORE COMING' comments by introducing 'Editor's' Exercises. If you answer these questions, you will have filled in the missing material.

Jaynes wanted to include a series of computer programs that implemented some of the calculations in the book. I had originally intended to include these programs. But, as time went on, it became increasingly obvious that many of the programs were not available, and the ones that were were written in a particularly obscure form of BASIC (it was the programs that were obscure, not the BASIC). Consequently, I removed the references to these programs and, where necessary, inserted a few sentences to direct people to the necessary software tools to implement the calculations.

Numerous references were missing and had to be supplied. Usually the information available, a last name and date, was sufficient to find one or more probable references. When there were several good candidates, and I was unable to determine which Jaynes intended, I included multiple references and modified the citation. Sometimes the information was so vague that no good candidates were available. Fortunately, I was able to remove the citation with no detrimental effect. To enable readers to distinguish between cited works and other published sources, Jaynes' original annotated bibliography has been split into two sections: a Reference list and a Bibliography.

Finally, while I am the most obvious person who has worked on getting this book into publication, I am not the only person to do so. Some of Jaynes' closest friends have assisted me in completing this work. These include Tom Grandy, Ray Smith, Tom Lored, Myron Tribus and John Skilling, and I would like to thank them for their assistance. I would also like to thank Joe Ackerman for allowing me to take the time necessary to get this work published.

*G. Larry Bretthorst*