The official newsletter of the International Society for Bayesian Analysis.

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The ISBA NEWSLETTER
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ISBA is a Scientific Society encouraging the interface between Bayesian Statistic methods and all other areas of science and policy-making.

CONFERENCES

ISBA96: Fourth World Meeting of ISBA

The Fourth World Meeting of International Society for Bayesian Analysis ISBA96 will be held in Cape Town, South Africa over the period 17-21 December 1996, on the main campus of the University of Cape Town (UCT).

An Educational and Research Workshop on Bayesian Analysis (ERWBA) will precede ISBA96 on the same site over 15-16 December 1996. The workshop is intended to introduce users of statistical models and graduate students to Bayesian analysis, and to discuss the teaching of Bayesian statistics. Sponsorship is being sought to bring at least 12 faculty and graduate student statisticians from African countries other than South Africa to the meetings.

Full information on the meetings, social activities, and vacation options is available at the following addresses: World Wide Web:

Http://www.uct.ac.za/depts/maths/isba96/isba96.html

anonymous ftp:
ftp://ftp.uct.ac.za/depts/maths/isba96/isba96.info

Printed versions of the same information may be requested from e-mail: isba96@uct.ac.za
fax: international+27-21-6503726 Attention: Tim Dunne

Interested persons should preferably register by www, or by e-mail. Where that is not possible please use fax rather than mail.

The Program Committee consists of Daan de Waal (RSA), Herman van Dyk (Netherlands), Jack Lee (Taiwan), S James Press (USA), Seymour Geisser (USA), John Geweke (USA), Arkady Shemaykin (Russia), Piet Groenewald (RSA). e-mail: wwdw@wwg3.uovs.ac.za

Sessions will be organized on Bayesian methods in:

Model Choice	Finance
Portfolio Constraints	Econometrics
Meta-analysis	Statistical Edu.
Time series	Growth curves
Inferential Procedures	Animal Science
Imaging	Performance Evaluation

Cape Town is a city of great beauty and scenic splendour. ISBA96 is an opportunity for an escape from the Northern Winter into the glories of summer on the majestic slopes of the Table Mountain range. UCT must rank among the most beautiful university campuses in the world.

Be warned that Cape Town is a very popular tourist destination in December-January. Booking of flights and accommodation should be done as early as possible.

The Multiple Criteria Decision Making Conference MCDM97 will take place at the same site 6-10 January 1997. Various options for staying over during the Christmas-New Year period and attending MCDM97 are available to interested persons.

e-mail: mcdm97@maths.uct.ac.za

The Fifth World Meeting of the International Society for Bayesian Analysis (ISBA) will be held in Istanbul Turkey during August 16-18, 1997 as a satellite meeting to the 51st Session of the International Statistical Institute (ISI) in Istanbul.

The meeting will be residential and take place in a five star hotel in Istanbul on the shores of Marmara Sea. The meeting runs from Saturday

August 16 to Monday August 18th (Noon). The participants are expected to arrive in Istanbul on the evening of Friday August 15th. The ISI meeting starts in Istanbul immediately after the ISBA meeting.

The scientific program will consist of invited, contributed and poster paper sessions. A Call for Papers will be sent in late October 1996.

For more information, contact:

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(after 10/15/96)

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ANNOUNCEMENT

Members of the NBER-NSF Seminar on Bayesian Inference in Econometrics and Statistics, the International Society for Bayesian Analysis and the ASA Section on Bayesian Statistical Science are co-sponsoring an annual Leonard J. Savage Award of seven hundred fifty dollars ($750.00) for an outstanding doctoral dissertation in the area of Bayesian Econometrics and Statistics.

To be considered for the 1996 Savage Award, a doctoral dissertation must be submitted by the dissertation supervisor before December 31, 1996 and accompanied by a short letter from the supervisor summarizing the main results of the dissertation. Dissertations completed after January 1, 1977 are eligible to be considered for the 1996 Savage Award. An Evaluation Committee will be appointed by the board of the Leonard J. Savage Memorial Trust Fund (S.E. Fienberg, S. Geisser, J.B. Kadane, E.E. Leamer, J.W. Pratt, and A. Zellner, Chairman) to evaluate dissertations that are submitted for the Savage Award.

Dissertations and supporting letters should be sent to Professor Arnold Zellner, Graduate School of Business, University of Chicago, 1101 East 58th Street, Chicago, Illinois 60637.

The co-winners of the 1995 Savage Award are:

Alyson Wilson for her thesis, "Statistical Models for Shapes and Deformations," completed at Duke University under the direction of Valen Johnson.

Christopher Carter for his thesis, "Markov Chain Monte Carlo Methods for State Space Models," completed at the University of New South Wales, Australia under the direction of Robert Kohn.

The following were accorded Honorable Mention:

Ming-Hui Chen, "Monte Carlo Markov Chain Sampling for Evaluating Multivariate Integrals with Applications to Bayesian Computation," completed at Purdue University under the direction of James Berger.

Simon J. Godsill, "Bayesian Enhancement of Speech and Audio Signals in the Presence of Both Impulsive and Background Noise," completed at Cambridge University under the direction of P.J.W. Rayner.

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Results of the ISBA election from last May.

International advisors:

Jose Bernardo
Arnold Zellner
Mike West
Ed George
Jay Kadane
Alan Gelfand
John Deely
Luis Pericchi
Jim Zidek
Robert Wolpert
Mark Berliner
Dani Gamerman

Officers:

President Stephen Fienberg
Vice President Susie Bayarri
Secretary Larry Wasserman
Treasurer Rob McCulloch
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The constitution ratification passed.

Submitted:

Mark J. Schervish
Outgoing Secretary, ISBA
Department of Statistics
Carnegie Mellon University

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Abstract of Student Research

CONTRIBUTIONS TO THE SOLUTION OF SUPERCOMPLEX DECISION PROBLEMS

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The foundations of Bayesian Decision Theory provide a coherent framework in which decision making problems may be solved. With the advent of powerful computers and given the many challenging problems we face, we are gradually attempting to solve more and more complex decision making problems with high and multidimensional uncertainty, multiple objectives, influence of time over decision tasks and influence over many groups.
These complexity factors demand better representation tools for decision making problems; place strong cognitive demands on the decison maker judgements; and lead to involved computational problems. This thesis will deal with these three topics.

In recent years, many representation tools have been developed for decision making problems. In Chapter 1, we provide a critical review of most of them and conclude with recommendations and generalisations.

Given our second query, we could wonder how may we deal with those representation tools when there is only partial information. In Chapter 2, we find out how to deal with such a problem when it is structured as an influence diagram (ID). We give an algorithm to compute nondominated solutions in ID's and analyse several ad hoc solution concepts.

The last issue is studied in Chapters 3 and 4. In a reservoir management case study, we have introduced a heuristic method for solving sequential decision making problems. Since it shows very good performance, we extend the idea to general problems and quantify its goodness.

We explore then in several directions the application of simulation based methods to Decision Analysis. We first introduce Monte Carlo methods to approximate the nondominated set in continuous problems. Then, we provide a Monte Carlo Markov Chain method for problems under total information with general structure: decisions and random variables may be continuous, and the utility function may be arbitrary. Our scheme is applicable to many problems modeled as IDs.

We conclude with discussions and several open problems.
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