

The official newsletter of the International Society for Bayesian Analysis.

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The ISBA NEWSLETTER
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ISBA is a newly created International Scientific Society with the objective of interfacing between Bayesian Statistic methods, and scientific areas such as Engineering, Chemistry, Physics, Economics, Business, Astronomy, Earth Sciences, Education, Psychology, Government Policy-Making, Medicine, and Sociology.

EDITOR'S NOTES

The Newsletter will now appear in 4 issues per year: March 15, June 15, September 15, and December 15.

Deadline for submission will be the 1st of the month of publication. The new editorial board will be announced in the next issue of the newsletter. March 15, 1995, newsletter will be the last one mailed to members who have not paid 1995 dues.

CONFERENCES

ISBA95: The Third World Meeting of ISBA

ISBA95: The Third World Meeting of the International Society for Bayesian Analysis will be held September 29-30, 1995 in Oaxaca, Mexico. Planning is underway to have a spectacular meeting in this beautiful colonial city in Southern Mexico. Broad participation is being sought for the presentation of current Bayesian developments on a wide variety of topics including actuarial science, animal breeding, Bayes factors, computing, environmental statistics, finance, forecasting, health care, hierarchical models, model selection, reference priors, reliability, robustness, shrinkage estimation and spatial statistics. Presentation formats will include both organized lectures and an elaborate poster session. As usual, the traditional Bayesian festive spirit will be maintained throughout the meeting!

The program committee consists of J. Bernardo, D. Berry, J. Besag, A. Carriquiry, C. Christiansen,

E. de Alba, D. Gammerman, E. George, M. Ghosh, W. Gilks, G. Parmigiani, L. Pericchi, J. Quintana, S. Peck, R. Soyer, W. Strawderman and R. Tsay.

For further information, please contact the Chair of the Organizing Committee, Prof. Enrique de Alba, ITAM, Rio Hondo No. 1, Mexico 20, D.F. Mexico
Tel: 011-525-628-4080
Fax: 011-525-550-7637
email: dealba@gauss.rhon.itam.mx).

To propose a paper for presentation, please submit a title and abstract (preferably by email) to the Program Chair, Prof. Edward I. George, CBA 5.202, Dept. of MSIS, U. of Texas, Austin, TX 78712-1175, U.S.
Tel: 512-471-5253
Fax: 512-471-0587
email: egeorge@mail.utexas.edu).

Don't miss ISBA95 in Mexico!

Conference on Forecasting, Prediction and Modeling in Statistics and Econometrics (CFPMSE'94) and Regional Meeting of the International Society for Bayesian Analysis December 12-14, 1994

ISBA Regional Meeting in Taiwan, Dec. 12-14, 1994 honoring Seymour Geisser. In the write-up, please emphasize that the meeting honored Seymour, a leading Bayesian, predictivist, administrator and all-round "good guy" on the occasion of his 65th birthday and for his many contributions to Bayesian analysis, etc. He and his wife Ann had a great time at the

Conference.

Topics Included, but were not limited to:

- *Aggregate and Sectional Modeling of Economies
- *Aggregation of Time Series and Prediction
- *Binary Response Data with Lagged Dependent Variables
- *Co-Integration and Forecasts
- *Comparison of Econometric Models
- *Comparison of Smoothing Methods
- * Comparison of Stratospheric Ozone and Temperature Trend with Model Calculations
- *Model Selection
- *Prediction of Growth Curves
- *Statistical Issues in DNA Profiling

Invited Paper Session: Invited Speakers Include:

James Berger (Purdue University)
Alicia Carriquiry (Iowa State University)
John Chao (Yale University)
R.J. Chou, (National Tsing Hua Univ., Taiwan)
Merlise Clyde (Duke University)
Seymour Geisser (University of Minnesota)
John Geweke (University of Minnesota)
Zvi Giulula (Hebrew University, Israel)
James S. Hodges (University of Minnesota)
John S.J. Hsu (UC Santa Barbara)
Wesley Johnson (UC Davis)
Takeaki Kariya (Hitotsubashi University)
K.Y. Liang (Natl Tsing Hua University, Taiwan)
David Lane (University of Minnesota)
Jack C. Lee (Natl Chiao Tung Univ., Taiwan)
J.L. Lin (Academia Sinica, Taiwan)
S.I. Liu (Natl Central Univ., Taiwan)
George C. Tiao (University of Chicago)
Ruey Tsay (University of Chicago)
Jessica Utts (UC Davis)
C.Z. Wei (Academia Sinica, Taiwan)
Charles H. Whiteman (University of Iowa)
Marvin Zelen (Harvard University)
Arnold Zellner (University of Chicago)

If you would like a copy of the program proceedings please contact:

Prof. Jack C. Lee, Conference Co-chair
Institute of Statistics
Natl. Chiao Tung Univ.
1001 Ta Hsueh Road
Hsinchu Taiwan
Tel: +886-35-728746
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e-mail: jclee@stat.nctu.edu.tw

Upcoming Workshop

SECOND INTERNATIONAL WORKSHOP ON BAYESIAN ROBUSTNESS

RIMINI (ITALY) 22-25, May, 1995

The workshop is organized by the Istituto per le Applicazioni della Matematica e dell'Informatica of Consiglio Nazionale delle Ricerche (CNR - IAMI) and sponsored by ISBA. The Workshop is the second one in a series started in Milano (Italy) in 1992.

Scientific Committee

The members are J. O. Berger, B. Betro', E. Moreno, L. R. Pericchi, F. Ruggeri, G. Salinetti and L. Wasserman.

Scientific Program

The program will consist of 15 invited lectures, each followed by a discussion started by an official discussant. Participants are encouraged to present papers in a poster session. Deadline for abstracts will be 15 April 1995. A proceedings volume will be published after the workshop, including invited papers and a selection of contributed papers. Papers from the previous workshop have been published in the Journal of Statistical Planning and Inference, Vol. 40, n. 2/3, 1994.

The opening session, including lectures delivered by E. Regazzini, Director of CNR-IAMI, and D.M. Cifarelli, will be dedicated to Bruno de Finetti on the tenth anniversary of his death.

Preliminary Program

(*) denotes the speaker

Bruno Betro' (*) and Alessandra Guglielmi: Practical Robust Bayesian Analysis under Generalized Moment Conditions;

Juan-Antonio Cano-Sanchez (*) and Elias Moreno: Sampling models: a robust Bayesian analysis;

Brad Carlin (*) and Daniel Sargent: Robust Bayesian Approaches for Clinical Trial Monitoring;

Dipak Dey: On Local sensitivity measures in Bayesian Analysis;

Hani J. Doss (*) and B. Narasimhani: Bayesian Poisson Regression using the Gibbs Sampler: Sensitivity Analysis through Dynamic Graphics;

Joel Greenhouse (*) and Larry Wasserman: Robust Bayesian methods in Biostatistics;

Paul Gustafson: Aspects of Bayesian Robustness in Hierarchical Models;

Brunero Liseo (*), Elias Moreno and Gabriella Salinetti: Bayesian Robustness for Classes of Bidimensional Priors with Given Marginals;

Daniel Pena (*) and Ana Justel: Bayesian Data Robustness;

David Rios Insua (*) and Jacinto Martin: Local Sensitivity Analysis in Bayesian Decision Theory;

Bruno Sanso' (*), Elias Moreno and Luis Raul Pericchi: On the Robustness of the Intrinsic Bayes Factor for Hypothesis Testing;

Siva Sivaganesan: Local Robustness: A Likelihood Based Assessment;

Cidambi Srinivasan: TBA;

Mike West (*) and Fabrizio Ruggeri: Bayesian Nonparametrics in Time Series;

Robert Wolpert (*) and Michael Lavine: Modeling Density Functions with Markov Spatial Priors.

Discussants: S. Basu, S. Bayarri, J. O. Berger, S. Bose, A. DasGupta, A.P. Dawid, S. Fortini, J. de la Horra, J. Kadane, E. Moreno, L. R. Pericchi, W. Racugno, F. Ruggeri, G. Salinetti and L. Wasserman.

General Information

The workshop will take place in Hotel Continental e dei Congressi in Rimini, on the Adriatic Sea. Rimini is one of the most popular beach resorts in Europe, known also for an ancient Roman bridge and a Renaissance temple. Two popular, very close, attractions are Repubblica di San Marino, the oldest and smallest Republic in the world, and Ravenna, whose worldwide known mosaics and churches will be visited in a half-day excursion.

The registration fee is Lit. 250,000 (currently

\$153), reduced to Lit. 200,000 (\$122) for ISBA members. Depending on availability of funds, the registration fee might be either waived or reduced in some special cases (e.g. students).

Cost for accommodation varies depending on the length of stay and the choice of the room (e.g. full board from the evening of May, 21st to the morning of May, 26th, in a single room, should cost around Lit. 600,000 (\$366)). Full information about lodging will be provided upon request.

We are applying for NSF funding to provide U.S. participants financial assistance for travel but the availability of funds will not be known until the spring.

Correspondence regarding the workshop can be sent by e-mail (preferably), mail, or fax addressed as follows to the local organizers, Bruno Betro' and Fabrizio Ruggeri:

Second International Workshop on
Bayesian Robustness
c/o CNR IAMI
via A.M. Ampere 56
I - 20131 Milano (Italy)

Telephone: +39 2 70643206 - 70643208
Fax: +39 2 2663030 (specify "CNR IAMI")

VOTING RESULTS

In the recent ISBA journal referendum, 132 valid ballots were received by the December 15 deadline out of the 416 ballots which were mailed to ISBA members. Here is a tally of the results on each issue.

1) ISBA should sponsor a journal whose principal focus is Bayesian analysis.

agree 64/ disagree 68

2) ISBA should sponsor a journal of abstracts of Bayesian statistics.

agree 81/ disagree 43/ abstain 8

3) A journal focusing on Bayesian analysis should contain:

Review articles:

approve 98/ disapprove 21/ abstain 13

Applications:
approve 105/ disapprove 14/ abstain 13

Basic Theory:
approve 87/ disapprove 31/ abstain 14

Techniques:
approve 94/ disapprove 22/ abstain 16

4) Should these journals be published by ISBA or should they be contracted to a private publisher?

ISBA 76/ private publisher 24/ abstain 32

AWARDS

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) for an outstanding doctoral dissertation in the area of Bayesian Econometrics and Statistics.

To be considered for the 1995 Savage Award, a doctoral dissertation must be submitted by the dissertation supervisor before September 1, 1995 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 1995 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, IL 60637.

RENEWAL REMINDER

Anyone wishing to join ISBA or renew their membership should send \$25.00 with name, address and e-mail address to

Professor Gordon M. Kaufman, ISBA Treasurer, MIT School of Management, Rm. 53-375, Massachusetts Institute of Technology, Cambridge, MA 02139

Jeffrey H. Dorfman, Newsletter Editor

This issue's Newsletter Note is an interview with the current ISBA President, Arnold Zellner. Prof. Zellner is the H.G.B. Alexander Distinguished Service Professor of Economics and Statistics in the Graduate School of Business at The University of Chicago. He is a past-president and fellow of the American Statistical Association. He was one of the moving forces behind the formation of ISBA and is a tireless evangelical preacher working to save the sampling theoreticians from their sins and help them see the light and beauty of Bayesian statistics.

Q) Tell me something about how the concept of ISBA evolved and how the association got up and running.

A) The idea of having an international society of Bayesians arose from our Bayesian research meetings in Brazil, Canada, India, Mexico, Spain, and Venezuela as well as those in the U.S. At these meetings, as many of you know, there were splendid research interactions and very enjoyable social functions. I believe that it was at our meeting in "heady" Rio de Janeiro in 1990 that we agreed to go ahead to form an International Bayesian Society and toasted its success many times. After that, there were favorable votes on the issue at meetings in the U.S. and Spain. This led to a series of successful meetings, the 1992 first World Meeting of ISBA in San Francisco, the second in 1993 in Spain and two regional meetings, Toronto in August, 1993 and Taiwan in December 1994.

The 1995 ISBA World Meeting, ISBA 95, will be held in Oaxaca, Mexico, September 29-30 (Edward George, Program Chair and Enrique de Alba, Chair of the Organizing Committee). These ISBA meetings, particularly their impressive theoretical and applied research papers and the ISBA Newsletter have been instrumental in getting ISBA off to a good, fast, running start

Q) Are you pleased with the seeming early success of ISBA (approx. 400 members, several international conferences sponsored)?

A) Yes, I am pleased with the early successes of ISBA in the meetings and membership areas. However, I am concerned about further growth that is needed and retention of current members. ISBA has to meet the research and educational needs of its members and society to stay vibrant and relevant and to grow. It is critical, in my opinion, that this point be appreciated and that appropriate policies and innovations be instituted in order to insure that ISBA will be even more successful in the future. Further, I invite you all to help recruit new regular and student ISBA members.

Q) What do you see as the role of the President, the Board, and the other officers?

A) In my view, the role of the President, the Board and other ISBA officers is (1) to help members realize their research and educational objectives and (2) to create and maintain a stable, well-functioning, outstanding organization of which members can be proud and which many non-members respect because of its achievements in serving its members and society by promoting the progress of Bayesian analysis. Above all, I hope that we can avoid bureaucratic excesses and mismanagement that unfortunately characterize so many organizations. Further, the Vice-President, Robert Kass and I oversee the general operations of ISBA and try, along with others, to suggest new, worthwhile initiatives. Gordon Kaufman, our Treasurer keeps tabs on our financial operations and records while our Secretary, Mark Schervish keeps records of ISBA Board meetings, deals with membership issues and provides help with many other matters.

John Geweke, Chair of the ISBA Publication Committee and its members were instrumental in formulating the journal referendum ballot and advise the Board on publication issues. The International Advisors are consulted on all important ISBA matters and provide a channel of communication with members in various parts of the world. Donald Berry, Chair of the Council of Sciences (COS) and members of the COS are considering ways to link ISBA with other Bayesian organizations,

Bayesian workers in many areas of science and fields of application and researchers in the philosophy of scientific method. Jay Kadane, Chair of the Constitutional Committee and its members are formulating a draft of the ISBA Constitution. Jeffrey Dorfman and Tom Leonard, ISBA Newsletter Editors, have been effective in preparing and producing issues of the Newsletter with help from Hiroki Tsurumi and others. The Former Program Chairs, Robert McCulloch (ISBA93), Michel Mouchart (ISBA94), Michael Evans (ISBA94 Toronto) and Jack Lee and myself (ISBA94 Taiwan) and the Local Arrangements Chairs, Wesley Johnson (ISBA93), Susie Bayarri (ISBA94), and Jerry Brunner (ISBA 94 Toronto) and their Committee members worked hard to make these meetings successful and deserve our deep thanks.

Q) Can you discuss the results of the journal referendum and what you think will happen now?

A) It's not hard to discuss the results of the journal referendum but it is difficult to discuss what will happen now. Of 416 ballots mailed to members, only 132 valid ballots were returned. With such a high rate of non-response, which surprised me, it is difficult to draw definitive conclusions with respect to the members' views, particularly given that the vote was so close, 68 against and 64 in favor of a journal. Similar remarks relate to the vote on an abstract journal. The Board and International Advisors will consider the matter further and report back to the membership in the near future. Personally, I believe that ISBA needs an outstanding journal of its own to realize its full potential.

Q) Do you think Bayesian methods are gaining acceptance (compared to 10, 20 or 50 years ago)?

If yes, what do you think has led to the wider use and reliance on Bayesian methodology?

A) There is no question but the Bayesian methods are "gaining acceptance," mainly because they have axiomatic support and can produce many sensible non-Bayesian results and other important, useful results that non-Bayesian

cannot produce. In addition, the quality of Bayesian solutions to applied problems of science, industry, and government is hard to match using non-Bayesian methods. For other tangible evidence of the spread of Bayesianism, check the current statistical, econometric and other journals against those published some years ago. You will note a sharp upswing in the number of published Bayesian articles; see also the ASA/IMS Index to Statistics which each year lists hundreds of articles and books with the words Bayes or Bayesian in their titles. In essence, I believe that we have won the old battles and now have to prepare for battles regarding new issues, namely, new learning models, improved axiom systems, and very important, future tests of the relative performance of Bayesian and alternative approaches in solving scientific and practical problems.

Q) What areas of Bayesian research do you see as most exciting and/or promising?

A) Frankly, I find almost all areas of Bayesian research "exciting." To get finite sample results for problems in which non-Bayesians usually have to invoke asymptotic approximations, e.g. in analyses of time series problems, is very exciting as are the sophisticatedly simple Bayesian solutions to many private and public forecasting, decision and control problems. The black magic and power of Monte Carlo, Markov Chain and other numerical techniques are impressive and exciting. Further, work on improving Bayesian axiom systems and on getting approved learning models and approaches that I have encountered in recent years is fascinating. Last, good Bayesian applied studies have increased in number over the years and are exciting and of great interest to me.

Q) What other scientific disciplines do you think offer the best opportunity for applications of Bayesian methods?

A) Since Bayesian analysis is present in varying degrees in almost all areas of science that I know about, it's difficult to answer your question. However, I would like to point out that in many sciences there is not a completely satisfactory interaction among subject matter specialists, Bayesian statisticians and philosophers of science. Hopefully, researchers

and others in these sciences will hear about ISBA, join and be active in presenting papers and interacting with ISBA members.

Q) What is your all-time favorite piece of Bayesian research (theory or application)?

A) Predictably by almost anyone in the Bayesian area, my response is Harold Jeffreys' book, *Theory of Probability*, that appeared in 1939 and has since gone through several editions, 1948, 1961, 1967, and 1988. I am not alone in regarding this book to be a masterpiece containing fundamental contributions to theoretical and applied Bayesian analysis including a thoughtful axiom system, other contributions to the philosophy of science, new Bayesian technical results and many serious applications of Bayesian analysis. Since Jeffreys worked not only with experimental data but also non-experimental data of astronomy and geophysics, much that he says is relevant for those who work with non-experimental data. Also, his philosophical remarks on different definitions of probability, the product rule of probability theory, simplicity and complexity, the Bayes-Ramsey approach versus Jeffreys' approach, randomization, Ronald Fisher's maximum likelihood approach, Neyman-Pearson testing methodology, etc are very relevant for current Bayesian research and applications.

Q) Last, what is your current prior probability that there will be baseball with regular major-league players (not minor-leaguers) in 1995?

A) While I have not followed the baseball situation very closely, I'll throw caution to the winds and say that it appears probable (say about 0.6) that there will be a "pier-head" settlement of one sort or another just before the season starts. This may involve an agreement with the union or possibly by-passing the union to deal directly with the players or some arrangement imposed by arbitrators. With an average salary in the vicinity of \$1.2 million, I don't believe that the regular players enjoy sitting out a season.

Best wishes to ISBA members and their loved ones for a very happy and productive New Year!