A MESSAGE FROM THE PRESIDENT

- Merlise Clyde -
ISBA President, 2013
clyde@stat.duke.edu

Welcome to the International Year of Statistics - a year-long celebration and recognition of the statistics profession taking place around the globe. Be sure to check out the list of events on the homepage of the ISBA website as well as highlights later in the Bulletin for opportunities for everyone to participate! To kick off the beginning of the International Year of Statistics, I had the pleasure in January to participate in the International Workshop/Conference on Bayesian Theory and Applications in Varanasi, India organized in part by the Indian Chapter of ISBA. The convenor, Satyanshu Upadyhay, assembled a world class meeting which drew speakers and participants from around the globe. The meeting was a great success on all counts, scientifically and culturally, with evening and early morning excursions on the Ganges and even a Birthday Cake for ISBA! In case you could not attend the conference or were too jet lagged to stay awake during the presentations, you will have another chance to see some of the invited lectures on the ISBA Video and Slide Gallery on the ISBA website (we just have to finish editing out some of the snoring).

The year 2013 is of particular importance for Bayesians worldwide as we celebrate the **Sestercentennial of Bayes Theorem** (yes - I had to google it). On December 17 in 1763 Richard Price communicated "*An Essay towards Solving a Problem in the Doctrine of Chances*"by the Re-verend Thomas Bayes to the Royal Society of London, which many view as the conception and beginning of life for Bayesian statistics. Two hundred and fifty years later Bayes Theorem is alive and well as evidenced by the widespread growth of applications of Bayesian modelling in fields ranging from astronomy, bioinformatics, and chemistry, to literature and zoology spawned by advances in computing and development of new theory and methodology.

MESSAGE FROM THE PRESIDENT, *Continued from page 1. . . .*

To celebrate this anniversary, ISBA has organized an invited session at the European Meeting of Statisticians, where Christian Robert will give the Thomas Bayes Memorial Lecture on Bayes' Theorem: then and now. ISBA will culminate the year-long celebration with a special Bayes 250th Anniverary Celebration in December at Duke University with a remarkable series of invited lectures by noted luminaries Steve Fienberg, Michael Jordan, Sharon McGrayne, Chris Sims, Adrian Smith, and Steve Stigler that will highlight Bayes past, present and future. The "Bayes250 Day"will be held in conjunction with the Economics Finance and Business Section and the Objective Bayes Section Meetings. More details appear later in the Bulletin or under the meetings section on the ISBA website, where you can the see the list of all ISBA sponsored and endorsed meetings.

The other anniversary to note is that this year ISBA will turn 21! (In the US at least, turning 21 is a much bigger deal than 20 so we'll need to top last's years event.) To mark the occasion of the 20th anniversary of the founding of ISBA, last December the ISBA Board of Directors elected Jim Berger, Jose Bernardo, Siddhartha Chib, Enrique de Alba, Jacques Dreze, Duncan Fong, John Geweke, Jayanta Ghosh, Yoel Haitovsky, John Hsu, Gordon Kaufman, Tom Leonard, Dennis Lindley, Michel Mouchart, Luis Pericchi, Dale Poirier, Jim Press, Herman van Dijk, Hajime Wago and Mike West as the inaugural group of ISBA Fellows to honor the members of the first ISBA Board of Directors and other individuals who were instrumental in the creation of ISBA. We did try to identify everyone involved in ISBA's formation, so I apologize in advance if anyone were overlooked in this initial stage. To recognize ISBA members who have made outstanding contributions in statistics (publications, teaching, and service, including service to the society), I am pleased to announce that we will elect new ISBA Fellows on a bi-annual basis with the next class of ISBA Fellows presented at the ISBA World meeting in Cancun, Mexico in 2014. More details on the Fellows Nomination process appear later in the bulletin or visit the ISBA Fellows page for links to the online nomination form.

One of the services that ISBA provides to the community is the administration of Bayesian awards, for which the ISBA Fellows represents a major expansion and key member benefit. In revising the ISBA Awards bylaws to include ISBA Fellows, we realized that the ISBA Founders Award had been given only once in ISBA's history (to Arnold Zellner) and sought to rectify the situation. To honor Arnold's "... leadership of the Bayesian movement as the founding President of the International Society for Bayesian Analysis", the Board created the Zellner Medal , which going forward will replace the Founders Award. The purpose of the Zellner Medal is to recognize ISBA members, like Arnold, who have rendered exceptional and distinguished service to ISBA over an extended period of time. Nominations may be made by any ISBA member, and should include letters of endorsement from five ISBA members who can describe how the individual's contributions have had an impact on the society beyond the time of his or her incumbency. Details about online submission will be announced shortly. Starting in 2014, we will present the Zellner Medal(s) every two years at the ISBA World Meeting.

ISBA Fellows and the Zellner Medal recognize the contributions of *members* of the society, and one of the conditions for either award is continuous membership in ISBA for at least three years. So anyone reading this who has let their membership lapse, please be sure to visit the Membership page to pay up before your membership is suspended or a member of the Board contacts you! A tip for the forgetful - become a Lifetime Member so that you never have to worry about dues reminders and at the same time support the ISBA Lifetime Junior Researchers Award!

On the topic of membership, I am pleased to say that ISBA membership reached an all time high of over 1000 members at the end of last year, boosted in part by the highly successful World Meeting in Kyoto, but also through the expansion of the number of ISBA Sections from the original two up to eight: Bayesian Computation; Bayesian Nonparametrics; Biostatistics and Pharmaceutical Statistics; Economics, Finance and Business; Environmental Science; Industrial Statistics; j-ISBA; and Objective Bayes. ISBA sections

offer members who are interested in specialized fields in Bayesian statistics the chance to organize meetings and workshops, to promote academic-industry-government interactions and outreach, to promote education, and other activities within ISBA. As most section meetings are held in odd years opposite World Meetings, section meetings and other activities provide additional outlets for participation by members. If anyone is interested in heading up the formation of a Section BayesU (or any catchy name for a section related to teaching Bayesian Statistics), please let me know and we can start a petition to obtain the necessary signatures!

ISBA's success is due to the many individuals who make ISBA run on a day to day basis! Past-President Fabrizio Ruggeri set an amazing agenda last year for ISBA, and I looked forward to continuing to work with him and other members of the Executive Committee (Mike Daniels, Sonia Petrone, and Steve Scott) and the Board of Directors to see those efforts come to fruition and embark on new directions. I would also

like to welcome our three new publication officers. Congratulations to incoming ISBA Bulletin Editor Feng Liang for assembling her first ISBA Bulletin (I promise to find an html to LaTeX converter for the next issue). Marina Vannucci, our new editor in chief for Bayesian Analysis, is up and running with the new submission system at EJMS and her first issue of the year on Project Euclid. Jarad Niemi, the new webmaster, is already up-to-speed with all the intricacies of the website and is doing a superb job managing the forums for Jobs and Conferences. Please keep the submissions flowing! The Program Council (chaired by Raquel Prado, with Vanja Ducik and Ramses Mena) are already hard at work on the program for ISBA 2014 in Cancun - stay tuned for more exciting developments on that front!

I welcome your comments on these topics or others - please feel free to email me at clyde@stat.duke.edu or comment online on the March 2013 Presidents Column at http://bayesian.org/node/4634/. ▲

A Message from the Editor

- Feng Liang -
liangf@illinois.edu

Dear readers, in this very first issue of this year, you will see several firsts: the first message from our new president, Merlise Clyde, the first update from our new editor-in-chief of Bayesian Analysis, Marina Vannucci, and the first message from me, your new Bulletin editor. It is quite an honor for me to serve as the editor of the ISBA Bulletin, which has become the major source of information and means of communication among ISBA members since it was first published 21 years ago. I appreciate the opportunity to do something for our society! I also want to thank many of you who have helped me prepare this issue, especially all the ISBA officers, Section officers, our Associate Editors, and most importantly, our former Editor, Manuel Mendoza. Without your help, the March issue won't be here!

As reflected in our president's message, the year of 2013 is of special importance for us, Bayesian statisticians. There are many activities, conferences/workshops/celebrations/webinars,

around the world, as you will find in this issue. Please mark your calendars! You will also find other useful information concerning our society: call for prizes, nominations for new ISBA fellows, and updates from various ISBA sections.

In this issue, you will find that our Associate Co-Editors of the Students' Corner Section, Isadora Antoniano and Antonio Ortiz, decide to start a new format for their section. You willl find out why they think it is time to say goodbye to the Q & A scheme, and to transite from an expert panel collaboration scheme to more student-oriented contributions.

Some of you may still remember the interesting (and also provocative) article by Larry Wasserman in last year's March issue, in which he critically discussed the peer review system we currently use and suggested 'a world without referees'. In this issue, we publish an article by Nicolas Chopin and his co-authors, who argue that the referee system remains preferable in such a data explosion era.

As always, you are welcome to participate in the Bulletin by emailing suggestions/contributions to me or to any member of the Editorial Board. We are still trying to find

AEs for the following Sections, *Interviews*, *Annoated Bibliography*, *Applications*, and *Bayesian History*. Please do no hesitate to contact me if you are interested in being an AE or want to suggest names. Without further ado, enjoy reading! ▲

FROM THE PROGRAM COUNCIL

THE INTERNATIONAL YEAR OF (BAYESIAN) STATISTICS

- Raquel Prado -
raquel@soe.ucsc.edu

The ISBA 2014 World Meeting will be held at the Cancun Convention Center in Cancun, Mexico, from July 14 to July 18 2014. The members of the ISBA 2014 scientific program committee are: Peter Craigmile, Vanja Dukic, Sylvia Fruehwirth-Schnatter, Lurdes Inoue, Wes Johnson, Jaeyong Lee, Brunero Liseo, Ramses Mena, Raquel Prado, Matt Taddy and David van Dyk. Details about the program, including calls for talks and poster presentations, will be announced early this summer so stay tuned! ▲

FROM THE BOARD OF DIRECTORS

CERTIFICATES OF APPRECIATION

- Merlise Clyde -
ISBA President, 2013
clyde@stat.duke.edu

The ISBA Board of Directors expresses its deepest gratitude to the following individuals who have devoted their time and energy in service to ISBA and enthusiastically awards each a Certificate of Appreciation:

Igor Pruenster for his exemplary service on the Program Council (2010-2012) and contributions to organizing a stellar scientific program for the 2012 ISBA World Meeting;

Hajime Wago and **Yasushiro Omori** for the outstanding organization of the ISBA 2012 World Meeting in Kyoto;

Satyanshu Upadhyay for his exceptional energy in promoting Bayesian statistics in India and the organization of a world-class International Workshop/Conference on Bayesian Theory and Applications in Varanasi, India;

Chris Hans for his phenomenal service as ISBA's webmaster and moderator of the Bayes News Forums for 2010-2012;

Herbie Lee (Bayesian Analysis Editor in Chief 2010-2012) and **Alyson Wilson** (Bayesian Analysis Managing Editor 2010-2012) for their incomparable commitment to improving the quality and impact of the society's journal, Bayesian Analysis;

and **Manuel Mendoza** for his remarkable dedication and efforts for editing the ISBA Bulletin from 2010-2012. ▲

NEW ISBA FELLOWS AND CALL FOR NOMINATIONS

On the 20th anniversary of the founding of ISBA, the ISBA Board of Directors elected Jim Berger, Jose Bernardo, Siddhartha Chib, Enrique de Alba, Jacques Dreze, Duncan Fong, John Geweke, Jayanta Ghosh, Yoel Haitovsky, John Hsu, Gordon Kaufman, Tom Leonard, Dennis Lindley, Michel Mouchart, Luis Pericchi, Dale Poirier, Jim Press, Herman van Dijk, Hajime Wago and Mike West as the inaugural group of ISBA Fellows to honor the members of the first ISBA Board of Directors and other individuals who were instrumental in the creation of ISBA.

To recognize ISBA members who have made outstanding contributions in some aspect of statistical work (publication, teaching, and service, including service to the sociey), an eight person committee of past Fellows will elect new ISBA Fellows on a bi-annual basis.

Any ISBA member, who has been a current member for at least three years, is eligible for nomination. Nominators should arrange to have three letters of support and a recent cv (in pdf format) to submit as part of the nomination package. Nominations should be submitted electronically using the ISBA Fellows Nomination Form by May 31. Elected Fellows will be announced at the next World Meeting in 2014 in Cancun, Mexico. ▲

SUMMER SCHOOL AND MEETING IN COSTA RICA

FIRST LA-BAYES

- Eiliana Montero -
eilianamontero@gmail.com

ISBA has decided to initiate, in collaboration with the School of Statistics at the University of Costa Rica, a Bayesian School in Latin America, to promote the dissemination of Bayesian methods in the statistical community, propitiating the interaction between generations of young statisticians from different countries in the Latin American region.

The first LA-Bayes school will be followed by one to be held in Mexico in 2014, just before the World Conference of ISBA in Cancun, and then another one in Medellin in 2015, just before COBAL 4. If successful, then LA-Bayes will continue taking place in alternate years.

On the other hand, the School of Statistics at the University of Costa Rica, is the only one in the Central American and Caribbean region that offers Bachelor's and Master's programs in this discipline, and, aware of the need to promote the use of Bayesian approaches and methods in this region has warmly welcomed this collaboration with ISBA.

Dates:
July 22 to 24 (three complete days, from 8 am to 5 pm): Bayesian School
July 25: holiday in Costa Rica, touristic excursion (optional)
July 26 and 27: Bayesian Symposium (May 15th is the deadline for submitting abstracts)

Bayesian School lecturers: Raquel Prado and Luis Raul Pericchi

Bayesian Symposium: lecturers include Carlos Barrera, Jose Bernardo, Stefano Cabras, Alicia Carriquiry, Andres Christen, Dipak Dey, Gabriel Huerta, Brunero Liseo, Rosangela Loschi, Manuel Mendoza, Elias Moreno, Eduardo Gutierrez Pena, Carlos Pereira, Maria Eglee Perez, Luis Rau Pericchi, Raquel Prado, Abel Rodriguez.

Place: Auditorium of the Economic Sciences Building, University of Costa Rica, San Pedro de Montes de Oca, San Jose, Costa Rica

Language of the events: Spanish

For More information, please write in Spanish to the email bayesenucr@fce.ucr.ac.cr or visit our website at http://bayes.fce.ucr.ac.cr. ▲

2013 DEGROOT PRIZE, MITCHELL PRIZE AND SAVAGE AWARDS

CALL FOR PRIZES

- Rosangela Helena Loschi -
loschi@est.ufmg.br

The Prize Committee of ISBA is pleased to announce the 2013 DeGroot Prize, Mitchell Prize and Savage Awards. The winner(s) will be announced at the Twelfth World Meeting of IS-BA (ISBA2014) in Cancun, Mexico. The deadline for submissions is 31 May (midnight UTC/GMT, 7pm EST, 4pm PST) for all of them.

The **DeGroot Prize** is awarded to the author or authors of published books in Statistical Science. Award winning books will be textbooks or monographs concerned with fundamental issues of statistical inference, decision theory and/or statistical applications, and will be chosen based on their novelty, thoroughness, timeliness, and importance of their intellectual scope. All books published no earlier than five years prior to the year of the competition may be considered. There are no restrictions on the publisher or country of publication. An award of US $1,500.00 will be awarded. For details on the DeGroot Prize, including names of past winners, eligibility details, and the Mitchell Prize, including names of past winners, eligibility details, and the on-line application procedure, please, visit the website http://bayesian.org/awards/DeGrootPrize.html.

The **Mitchell Prize** is given in recognition of an outstanding paper that describes how a Bayesian analysis has solved an important applied problem. The prize includes a check for US $1,000.00 and a plaque. Details on the Mitchell Prize, including names of past winners, eligibility details, and the on-line application procedure can be found in the URL: http://www.bayesian.org/awards/MitchellPrize.html.

The **Savage Award**, named in honor of Leonard J. "JimmieSSavage, is bestowed each year to two outstanding doctoral dissertations in Bayesian Econometrics and Statistics, one each in "Theory & Methodsänd "Applied Methodology". Doctoral dissertations submitted for the Savage Prize that are originally written in other languages must be translated to English. Up to two awards of US $750,00 will be awarded. Finalists will be invited to present their dissertation research at a special contributed session at the Twelfth World Meeting of ISBA (ISBA2014), in Cancun, Mexico, with the winners announced at the meeting. For details on the Savage Award, including names of past winners, eligibility details, and the on-line application procedure, please visit http://www.bayesian.org/awards/Savage.html.

Nominations for the Mitchell Prize and Savage Awards may be made by any ISBA or SBSS member. For questions regarding any of the Prizes or Awards may be sent to the ISBA Prize Committee at awards@bayesian.org. ▲

BAYESIAN ANALYSIS - A MESSAGE FROM THE EDITOR

UPDATE FROM BA

- Marina Vannucci -
Editor-in-Chief
marina@rice.edu

I am reporting on my initial activities as Editor-in-Chief, as I took over Herbie Lee this past January. Herbie did a superb job during his term and left the journal in excellent health. We just recently fully moved to the new online review system EJMS, which handles the IMS journals, and things are moving along quite smoothly (many thanks to Merlise Clyde and Herbie Lee for the very extensive testing of the system they performed).

A few changes have happened at BA with the transition to the new EiC. Kassie Fronczyk is

the new Managing Editor, while Pantelis Vlachos and Kary Myers are continuing as System Managing Editor and Production Editor, respectively. The board of Editors is now composed by: Ming-Hui Chen, David Dahl, David Heckerman, Lurdes Inoue, Valen Johnson, Antonietta Mira, Sonia Petrone, Bruno Sanso, Mark Steel and Kert Viele. Many thanks to Kate Cowles for serving in the Editor board during the period 2009-2012, and to David Dunson, who served in the Editor board of BA since the creation of the journal, in 2004. As it is typical at BA, the Editors are supported by a larger number of Associated Editors and a vast number of referees. I thank them all for their work.

Submissions are increasing steadily at BA. Of the 123 submissions in 2012, six are still under review as of mid-March, and the median time to first review of the rest was 68 days. Kassie and I are working hard at trying to lower this number down for 2013.

The 2013 March issue of BA features a contribution by Schmidl et al. on a vine-copula decomposition of distribution densities in order to generate problem-specific proposals for a hybrid independence/random walk Metropolis-Hastings (MH) sampler. The key advantage of this approach is that the corresponding MH proposals generate independent samples from the posterior

distribution more efficiently. Additional discussion and perspective are provided in the invited discussions by Woodard and by Girolami and Mira. This issue also contains other fine articles on various topics of Bayesian statistics.

For the June issue, I anticipate having an invited discussion paper by Peter Mueller and Riten Mitra on Bayesian Nonparametric Inference - Why and How. The manuscript and data examples are available online at http://www.math.utexas.edu/users/pmueller/BA/

Written contributed discussions can be submitted online at EJMS, not later than April 1st, and should not exceed approximately 500 words in length (not including tables, figures or references). Contributed discussions will be selected by the EiC for publication in the June issue of BA. This initiative is sponsored by the Bayesian Nonparametric Section of ISBA.

Finally, I am working with Raquel Prado at having an invited BA session at ISBA 2014, which will feature a discussion paper, to be chosen by the EiC in late november among those recently accepted for publication (and not yet published). The paper will be discussed at ISBA and published after the conference, in the Sept 2014 issue of BA, with discussions and rejonder.

▲

ISBA - SECTIONS

ECONOMICS, FINANCE AND BUSINESS SECTION

- Mike West -
Chair
mw@stat.duke.edu

We are now into the International Year of Statistics 2013 and the first year of the **ISBA Section on Economics, Finance and Business (EFaB)**. EFaB aims to promote, encourage and reflect the vitality of Bayesian methods in applications across the full spectrum of commercial, financial and economic areas, and is beginning to organize, co-organize and endorse meetings and tutorial/short course activities as part of that. The in-

formation below updates some previously noted events, and adds new information about upcoming activities that will interest EFaB members and encourage other ISBA members to consider joining the Section.

We are particularly pleased to announce, and give details below of, the **1st EFaB Workshop: EFaB@Bayes250**

EFaB Endorsed Meetings & Short Courses

EFaB endorses or sponsors workshops and conferences concerned substantially with Bayesian ideas, methods and applications in the "E", "F" and "B" areas. Members are encouraged to come forward with ideas and proposals for endor-

sement and/or sponsorship of meetings. Endorsement agreements will often involve reduced registration fees for ISBA/EFaB members.

- EFaB has endorsed a 1-day short course on **Bayesian forecasting and time series analysis** that is being run in conjunction with the *27th New England Statistical Symposium (NESS13)* at the University of Connecticut. NESS13, on April 27th, 2013, is open for submission of papers until but not later than April 11th, 2013.

  The EFaB endorsed short-course on *Bayesian Dynamic Models: Time Series Analysis & Forecasting* will run on April 26th, 2013. Presented by EFaB Section Chair Mike West, this will cover basic principles, models and methods of Bayesian dynamic modelling in time series analysis and forecasting, with software and examples drawn from several areas. Data and examples will include studies in EFaB focus areas, such as commercial/business time series analysis and short-term forecasting, dynamic modelling and short-term forecasting of multivariate financial time series, and Bayesian portfolio decision analysis.

  With EFaB endorsement, we have been able to arrange a discount on the short course registration fee for current EFaB members; you can find more details and register at the *NESS13 short course* page.

- **Time Series 2013**, the *1st Vienna Workshop on High Dimensional Time Series in Macroeconomics and Finance*, Vienna, May 2nd-4th, 2013, is officially endorsed by EFaB. *Time Series 2013* will focus on areas linked to dynamic factor models and Bayesian methods for forecasting and time series analysis, with applications in EFaB areas. Several EFaB members are involved in organisation and as invited speakers, and registration is open until April 30th, 2013. EFaB members are encouraged to participate and we hope and expect to enjoy a stimulating and eventful meeting, the first of what is expected to be a new series of international workshops on time series methods and applications.

- **RCEA-BEW7**, the *7th Annual Bayesian Econometric Workshop* of the *Rimini Centre for Economic Analysis*, is officially endorsed by

EFaB. This is the latest in a series of focused Bayesian workshops run by the Italian economic research centre RCEA. This Bayesian econometrics group has a growing international presence in areas of interest to EFaB members, so EFaB is most interested in promoting interactions. Among other activities, RCEA runs these annual workshops and actively encourages and supports junior Bayesian econometricians.

RCEA-BEW7, in Rimini, Italy, on June 25th-26th, 2013, will focus on a range of topics in Bayesian econometrics. Several EFaB members are involved in organisation and as invited speakers at the meeting. The full workshop announcement and call for contributed presentations is available at the *RCEA workshops* page, and the workshop is open to participation and soliciting contributed talks until May 6th, 2013.

RCEA-BEW7 will be immediately followed by the 2nd Rimini Time Series Workshop that may also be of interest to EFaB and other ISBA members. RCEA-BEW7 participants may stay for this second workshop at a reduced registration rate.

- As previously advertised, **ESOBE 2013**, the 2013 meeting of the *European Seminar on Bayesian Econometrics (ESOBE)*, will be hosted by the Norges Bank in Oslo on August 22nd-23rd, 2013. ESOBE is a growing discussion forum for novel and recent research in a wide range of topics in the field of Bayesian econometrics. On behalf of ISBA, EFaB is officially endorsing *ESOBE 2013* as part of a developing relationship involving discussions of potential broader collaborations with ESOBE.

  The meeting scope is Bayesian methods in econometrics and related areas. The program includes keynotes, invited and contributed talks, with opportunities for EFaB members to present talks and/or posters. Several EFaB members are involved in organisation of the meeting. The *ESOBE 2013* conference web site gives details; the call for papers is open until April 1st, 2013.

The 1st EFaB Workshop: EFaB@Bayes 250

We are very pleased to formally announce the **1st EFaB Workshop: EFaB@Bayes250**. As previously advertised, this will be held at Duke Univer-

sity in mid-December 2013 as part of the ISBA sponsored *Bayes 250* meeting to mark and celebrate the 250th anniversary of the formal reading of Bayes' seminal paper to the Royal Society. *EFaB@Bayes250 Registration* is now open! In collaboration with ISBA, the O-Bayes Section of ISBA and Duke University, we have organized a unique event with exceptional scientific and educational activities, and the registration costs have been substantially subsidized to enable and support participation of all EFaB members. We hope and expect to see a substantial presence of junior and student members as part of that.

EFaB@Bayes250 will be held on December 15th-17th, 2013 inclusive: there will be 2 full days of EFaB tutorials, scientific sessions and poster session and reception, and then the 3rd day is *Bayes 250 Day*.

The meeting is run in parallel with a meeting of the O-Bayes Section (*O-Bayes13,* December 15th-19th), with the two groups coming together for the Bayes 250 Day on December 17th. *EFaB@Bayes250* workshop participants will also be able to attend some of the *O-Bayes13* talks– and vice-versa– as the two workshops will be held in close proximity in the same building on the Duke campus. The two workshops will also interact through shared refreshment breaks, lunches and reception.

Key aspects of the *EFaB@Bayes250* meeting are as follows:

December 15th: EFaB tutorials, including:

- *Sequential Monte Carlo*, by Hedibert Lopes, University of Chicago.
- *Computational Advertisement*, by Deepak Agarwal, LinkedIn.

December 15th-16th: EFaB scientific sessions:

- Session on Bayesian Econometrics
- Session on Bayesian Models in Finance
- Session on Bayesian Models in Business
- Session on Applications in Econometrics and Finance
- New Researcher Session

December 16th:

- EFaB Poster Session
- Bayes 250 Reception

December 17th: Bayes 250 Day.

- Talks marking the anniversary by: Stephen Fienberg, Michael Jordan, Christopher Sims, Adrian Smith, and Stephen Stigler
- Banquet

EFaB Program Chair Abel Rodriguez, and his *EFaB@Bayes250* Program Committee members Sylvia Frühwirth-Schnatter, Mark Jensen and Steve Scott, have done a wonderful job of putting the program together. You can see this at the Workshop web page and will I am sure agree that the list of speakers is simply outstanding. The committee is currently adding the final touches to the program; along with updates to the web site as the details are finalized, the committee will also shortly announce a call for presentations in the key *New Researcher Session* and *Poster Session*. The Poster Session will be run together with that of the O-Bayes Section, and combined with an overall *Bayes 250 Reception*.

IBM Student Research Award: We are very pleased to announce the generous support of IBM Research for a *Student Research Award*. All EFaB student members presenting their work in the *EFaB@Bayes250* Poster Session will be automatically participating in the competition for this award. Student posters will be viewed and judged at the poster session, and the winner(s) announced and awarded at the Bayes 250 Day banquet. We hope and expect that this will help to encourage student participation as well as recognize the interests and support of IBM Research for students in statistical and data analytics research.

Registration fees for *EFaB@Bayes250* will cover refreshments, lunches and the *Bayes 250* Banquet as well as tutorial and scientific sessions over the 3 full days. You can read more details of the *Bayes 250 Day* at the web site and elsewhere in this issue of the Bulletin.

Member Involvement in EFaB

We invite and encourage all ISBA members to contact any of us to discuss ideas for EFaB activities of any kind (consistent with the Section aims and bylaws), and especially related to short-courses, webinars– which ISBA is starting to more actively develop and promote– workshops and conferences. Activities linked to other groups, organisations and businesses are to be encouraged, as well as more traditional forms of educational outreach. Please visit the Section web page at the ISBA site. If you are interested in discussing, participating, volunteering, (volunteering others), and/or have any other input, please do not hesitate to come forward, and feel free to contact any members of the EFaB executive committee to discuss. ▲

BAYESIAN COMPUTATION SECTION

- Peter J. Green -
Chair
P.J.Green@bristol.ac.uk

We shall very soon be launching the new BayesComp website, which will support research into and using all kinds of Bayesian Computation in several ways.

The initial launch will include a Directory of member-contributed links to papers, presentations, videos and software, and a Diary of member-contributed links to events such as workshops, conferences and summer schools. There will also be a discussion Forum, focussing on both Bayesian computation and on Section activities.

The most innovative feature will be pages on Advice on appropriate computational methods for various tasks in Bayesian analysis, aimed at statistical practitioners who are not themselves researchers into computational methodology. These pages will be community-edited using a Wiki, and will gradually accumulate into an important resource for computational Bayesian analysis.

All pages in the site will be visible to all, but you will need to be a member of the BayesComp section to edit the Advice pages, contribute to the Directory or Diary, or start new threads in the Forum. Once we are ready to go, all section members will receive by email instructions on how to register to edit information on the website.

Meanwhile, progress continues in organising the first major BayesComp event - MCMSki IV from 6 to 8 January 2014. The scientific committee has received a dozen proposals for invited sessions, and the programme will be finalised and posted on the conference webpage around the time this Bulletin appears. All participants at the meeting will be free to present posters - all you need to do so is to indicate this on the registration form (online now). Another important element of the conference is of course the Ski Race, and this has been fixed for 8 January.

Associated with MCMSki, and starting on 9 January at the same venue, there is a satellite workshop run by Judith Rousseau on Bayesian nonparametrics, semiparametrics and computation, freely open to anyone taking part in MCMSki IV.

Finally, the section is also sponsoring the 3rd Workshop on Bayesian Inference for Latent Gaussian Models with Applications that will be held in Reykjavik, Iceland, on September 12-14 2013 hosted by the University of Iceland. Details can be found at https://sites.google.com/site/lgm2013ice/. Abstract submission deadline is May 6th 2013. ▲

ENVIRONMENTAL SCIENCES SECTION

- Renata Rotondi -
Chair
reni@mi.imati.cnr.it

The gestation period of the new EnviBayes section is finally over; in the first months of this year the initial officers took office:

Section Chair, to end of 2014
Renata Rotondi,
reni@mi.imati.cnr.it

Progran Chair, to end of 2013
Alexandra Schmidt,
alex@im.ufrj.br

Secretary, to end of 2014
Veronoca Berrocal
berrocal@umich.edu

Treasurer, to end of 2013
Michael Messner
Messner.Michael@epamail.epa.gov

In March the election for the chair-elect was held, and so our formation is now complete with the appointment of the chair-elect:

Section Chair-elect, to end of 2014

Section Chair, 2015-2016
Bruno Sansó
bruno@ams.ucsc.edu

We would also like to again thank the other candidate: Peter Craigmile for his helpfulness

and availability, and to remind him that the section still needs his contribution.

We invite all ISBA members to visit our site bayesian.org/sections/Env and encourage to join the Section because in EnviBayes the environment is warm!   ▲

OBJECTIVE BAYES SECTION

- Luis Pericchi -
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The 2013 International Workshop on Bayes Model Selection (**BMS 2013**) was held in January 14-18, 2013 at the East China Normal University (ECNU) in Shanghai, China. It was sponsored by ASA, ISBA and particularly the Objective Bayes Section, School of Finance and Statistics and Academy of Applied Statistical Science (AASS) of ECNU, Shanghai, China.

The meeting was residential in the Academic Exchange Center (Yifu Building) of the East China Normal University. The conference was opened by the Vice-President of the ECNU, the Dean of Finance and Statistics and by Jim Berger representing ISBA. This was also the inaugural workshop of AASS, which was created to be a national center for statistics, at international standards, as part of ECNU's long term plan for development in crucial areas of science.

This was a breakthrough conference in more than one respect:

1) This is a Bayesian Meeting with a focus on a class of problems grouped under the name of "Model Uncertainty"(Model Selection, Hypothesis Testing, Multiplicity, Surprise and Goodness of Fit Measures, Bayesian Model Averaging) on which 32 recognized "overseas"Bayesian researchers met with around 78 Chinese faculty, and students, to learn and research about Bayesian Statistics.

2) The workshop were designed to simultaneously carry out the missions of education, presentation of the latest research developments, and establishment of an environment conducive to collaboration. The format of the meeting was original. In particular, in the mornings 4 formal invited talks (each talk has 40 minutes presen-

tations and each followed by a 10 minutes invited discussion and 5 minutes floor discussions). Then after lunch, the groups split:

a) Tutorial Lectures: Jim Berger and Susie Bayarri delivered the previously sent Tutorial Lecture Notes: Lectures on Bayesian Testing and Model Uncertainty"with 113 pages and 6 slides per page!

b) Research Groups: After a lively discussion right after the openning ceremony, the researchers (not attending the tutorial lectures) split in 4 groups of discussion (each researcher could belong to two groups, each group meeting 90 minutes per day). The research groups were:

1.1 How should model uncertainty methodologies should be evaluated? How can we transfer Bayesian testing or model uncertainty methodologies to non-statisticians?

1.2 Dealing with huge model spaces computation (where enumeration is not possible) and interpretation (no model has substantial probability);

2.1 Choice of prior distributions for model parameters;

2.2 Dealing with complex models: Mixed Models, Generalized Linear Models, Graphical Models, Nonlinear Models etc.

Each group delivered a report with an outline of a research route to proceed.

3) The final day, on January 18, Friday afternoon, there were three events.

• Event A. Tutorial lectures and completion of participation ceremony. Certificates were given by Berger, Bayarri and Dean of

School of Financce and Statistics to 25 graduate students and 10 undergraduate students at ECNU and 20 other general participates around the world.

- Event B. All research group participates gathered with the report from 4 research groups of 15 minutes each, presented by Luis Pericchi for Group 1.1, Peter Green for Group 1.2 and Group 2.1, and Guido Consonni for Group 2.2, respectively. The participants are very excited by the initiate research developments for the working group.

- Event C. It was held a joint event with "Shanghai Biostatistics Forumön the topic "Bayes Methods in Biostatistics". Participants and speakers were from: Biostatistics Center ECNU, China Novartis Pharma, Actuarial Science ECNU, China Boehringer-Ingelheim.

- At 4pm, Events A and B ended and all participates joined the panel discussions in Event C, chaired by Dr. Luyan Dai of China Boehringer-Ingelheim and panelists: Jim Berger (Duke University, USA), Peter Green (UTS, Sydney and Bristol, UK), Luis Pericchi (UPRRP, Puerto Rico) and Dongchu Sun (University of Missouri, USA and ECNU).

Overall, this was a substantial introduction to Bayesian Statistics, particularly to Objective Bayesian Statistics, to Chinese Students and scholars, and to the Chinese pharmaceutical industry. Besides, it was instrumental in promoting joint efforts in research on the hot topic of "Bayesian Testing and Model Uncertainties", through well documented lectures, cutting-edge research conferences (with discussion) and task research groups. ▲

BAYESIAN NONPARAMETRICS SECTION

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The Bayesian Nonparametrics (BNP) Section of ISBA would like to advertise the following initiatives that are coming up:

- First and foremost, the 9th Conference on Bayesian Nonparametrics will be held on June 10-14, 2013, in Amsterdam, The Netherlands. The scientific and local organizing committees have put together an exciting program, with plenary talks by G. Roberts, D. Dunson, M. Jordan and J. Rousseau. Registration is now open. Regular registration closes on May 7. For more information, see the conference website at html://http://www.bnp9.win.tue.nl/.

- We are already accepting proposals for the organization of the 10th Conference on Bayesian Nonparametrics, to be tentatively held in June, 2015. Proposals need to be submitted by May 15th, 2013. To request a detailed form for the submission and for more information on the selection procedu-

re, please contact Michele Guindani, Program Chair of the BNP section of ISBA, at michele.guindani@me.com.

- The June issue of Bayesian Analysis will feature a captivating paper by Peter Mueller and Riten Mitra, titled "*Bayesian Nonparametric Inference - Why and How*". The editor in chief of Bayesian Analysis has organized invited discussions by three masterminds of anything Bayes, as well as a set of contributed discussions by other many prominent authors.

- Last but not least, Judith Rousseau has

organized a one-day satellite workshop to MCMCski, on "Bayesian nonparametrics, modelling and computations (BN-Pski)". The workshop will be held in Chamonix on January 9th, 2014 and is free for any person registered at MCMCski. For more information, see the MCMCski website (http://www.pages.drexel.edu/~mwl25/mcmski) , or contact directly Judith at rousseau@ceremade.dauphine.fr.

For any more information on BNP related events (or propose your own), stay tuned on our Section website at http://bayesian.org/sections/BNP. ▲

INDUSTRIAL STATISTICS SECTION

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Upcoming ISBA IS (Industrial Statistics) activities:

- An ISBA/IS session is organized at the ISBA South Africa Chapter meeting in Grahamstown during June 26-28, 2013.

- ISBA/IS sponsored session on "Advances in Bayesian Reliability Analysisïs organized at the, Mathematical Methods in Reliability Conference at Stellenbosch, South Africa during July 1-4, 2013.

- The ISBA/IS executive committee is active-

ly involved in organization of the Third Symposium on Games and Decisions in Reliability and Risk in Kinsale, County Cork, Ireland during July 8th - 10th, 2013. There will be an ISBA/IS sponsored section at the symposium.

- At the INFORMS 2013 annual conference in Minneapolis, October 6-9, 2013, ISBA-IS is organizing a session titled on"Bayesian Methods for Industrial Statistics". The session is cosponsored by ISBA/IS and Quality, Statistics and Reliability (QSR) section of INFORMS.

- An ISBA/IS sponsored invited section is organized at the European Network Business and Industrial Statistics (ENBIS) meeting in Ankara, Turkey, September 15-19, 2013. ▲

INVITED CONTRIBUTION

IN PRAISE OF THE REFEREE

- Nicolas Chopin, Andrew Gelman, Kerrie L. Mengersen & Christian P. Robert -
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A peer-review system in flux

Scientific and scholarly publishing has for years been centred on peer-reviewed journals, where the authors of published articles are responsi-

ble for their correctness, while editors and referees vouch for this correctness to some extent, but mostly for the novelty and importance of the work.

Widely-acknowledged problems with the current refereeing system include inefficiency for authors (e.g., waiting time for referees, referee reports of different quality), waste of reviewers' efforts (e.g., resubmissions of papers to other journals without cross-reference to previous reviews, long referee reports that are read by at most two people—the author and the journal editor), a proliferation of journals (so that it is no longer sufficient for scholars to keep up with a field by reading a few top journals), and, most importantly, a profusion of unreplicated or unreplicable claims even in the highest-prestige outlets.

For instance, Wasserman's (2012) remarks that "we are using a refereeing system that is almost 350 years old. If we used the same printing methods as we did in 1665 it would be considered laughable." He describes the refereeing process as"'noisy, time consuming and arbitrary," that it "limits dissemination" and that provides an "illusion" of quality control. He likens the process to a "priesthood" or "guild" and advocates its replacement by a "marketplace" of ideas.

Proposals for reform typically vary among the following options: (1) replacing the formal referee process with a communal process by bypassing the journals altogether and posting articles freely on the web, (2) formalising a post-publication peer-review process so that referee reports are open and available for all to read, and (3) putting more of the burden of proof of replicability on published work by requiring data-based articles to come with full replication materials.

Each of these steps has been taken already, to some extent. Personal websites and servers such as arXiv (physics and mathematics) and SSRN (social science) are widely used for posting unreviewed preprints. While arXiv or SSRN is not completely open, it is not difficult for a researcher to establish the connections necessary to post there. Post-publication peer review exists in some journals and, more effectively, in an informal network of scientific blogs. The goal of ensuring replicability is tougher, but some journals (for example, the *Quarterly Journal of Political Science*) do require a full suite of replication materials before allowing any empirical article to be published.

Thus, proposed reforms typically involve taking some aspect of the current system and pushing them further. Here are three illustrations:

1. Theoretical statistician Larry Wasserman (2012) calls for "a world without referees":

> "We should be disseminating our research as widely as possible. Instead, we let two or three referees stand in between our work and the rest of our field (…) We should think about our field like a marketplace of ideas. Everyone should be free to put their ideas out there. There is no need for referees. Good ideas will get recognised, used and cited. Bad ideas will be ignored."

2. Cognitive psychologist Nikolaus Kriegeskorte (2009, 2011) proposes "open post-publication peer-review":

> "Any scientist can instantly publish a peer review on any published paper. The scientist will submit the review to a public repository (…) The repository will link each paper to all its reviews, such that that readers are automatically presented with the evaluative meta-information. In addition, the repository allows anyone to rank papers according to a personal objective function computed on the basis of the public reviews and their numerical quality ratings."

3. Political scientist Brendan Nyhan (2012), following ideas that have become popular in medical research, recommends that data-collection protocols be published ahead of time, with the commitment to publish the eventual results:

> "In the case of experimental data, a better practice would be for journals to accept articles before the study was conducted. The article should be written up to the point of the results section, which would then be populated using a pre-specified analysis plan submitted by the author. The journal would then allow for post-hoc analysis and interpretation by the author that would be (…) distinguished from the previously submitted material. By offering such an option, journals would create a positive incentive for preregistration that would avoid file drawer bias."

All three of these proposals are appealing, compelling, and radical—and go in different directions, with the statistician wanting to eliminate referees, the psychologist recommending reviews but in a different structure, and the political scientist proposing a more stringent system of pre-publication quality control.

Our goal is not to evaluate these particular proposals but rather (a) to consider the relevance of these ideas for the field and (b) to emphasise the value of the referee system and to focus attention on how to not lose its benefits in this time of change. As statisticians, it would be most appropriate for us to evaluate reform proposals by analysing existing data, gathering new information, or at the very least proposing a plan for sampling, measurement, and causal inference. Unfortunately, as in much of our professional lives, we do not practice what we preach.

This note attempts to find a middle ground between what we have now and various proposed reforms. In our opinion, the debate is as much about ethics as it is about science, namely how to work out a system of dissemination in which papers are evaluated on the basis of their scientific worth, rather than on the paper's conformity with existing norms (a problem with the traditional system of peer review), its potential popular impact (an issue with proposed open alternatives), the author's reputation or networks, or the reviewer's own long-term plans. Based on our own experiences, we argue that in this era of data explosion, the referee system remains preferable to the frightening morass of an uncontrolled accumulation of self-published documents.

Background

Each field brings its own perspective on publishing. For a mathematician or theoretical statistician such as Wasserman, what is important in a publication is the idea. Mathematical ideas can be evaluated openly and, in principle, by anyone. From the other direction, Nyhan focuses on the *difficulty* of replicating empirical results, especially given the selection problem that positive rather then negative findings tend to get published. As applied statisticians, we see the merits of both approaches, depending on our focus.

At the same time that mathematicians are moving to deregulate academic publications, many experimental scientists are pushing toward more formal registries. Beyond their direct benefit in replicability, such reforms involve incentives

for better behaviour of researchers. If you know ahead of time that you will have to supply details of your design, methods, data and computer code, you will be motivated to keep better records and clearer codes from the start, which in turn leads to a positive feedback in which later analyses are improved by iterating on existing material, as argued by O'Rourke and Detsky (1989).

Publication patterns also vary among academic fields. Some of the best mathematicians and economists work alone or in small collaborations and publish papers after they have been honed by workshop and seminar presentations, while, at the other extreme, leading physicists, biologists, and electrical engineers supervise laboratories producing dozens of publications a year. In the first case, one could argue against an extra refereeing stage; however biases in the workshop process also need to be ironed out by this anonymous refereeing step.

We should ask the same of sport and of scientific referees: assurance of quality—in terms of the merit, originality and substantive contribution of the scientific content; fairness—in terms of equitable treatment for all authors; consistency—in terms of reasonable, useful feedback to authors; and timeliness—a fast turnaround of reviews. These are the very qualities that Wasserman laments are lacking in the current process.

Horror stories with happy endings

The previous section seems to proceed along the line that refereeing is a necessary evil. We believe on the contrary that it is a necessary good. Yes, certain referees are annoying, or even aggressive or too dismissive about one's work. Of course, like others, we can tell horror stories about referees completely missing the point or even being outright dishonest. As authors of many peer-reviewed publications, we have however benefited immensely from the unpaid labour of referees (and repaid this by serving as referees, associate editors, and sometimes editors).

At times, we've been annoyed at having to jump through hoops but more often than not the suggestions are helpful. For example, Gelman's (2006) most successful article of the past decade was his paper on prior distributions for hierarchical variance parameters. Originally an example in (*Bayesian Data Analysis*), it was solicited as an article by the editor of *Bayesian Analysis*. The referees were brutal and the paper could only be published in the journal as discussion of another

accepted article. However, as a consequence of this revision process, Gelman was motivated to add a whole new section that made the research much more general and interesting. It is thanks to the referees that the author put in the work to make the paper what it was.

Another extreme example experienced by Chopin is that of a referee who was adamant about rejection on grounds that the authors believed unreasonable, but who in the third revision exposed a mistake in a sampling algorithm. Since publishing a wrong paper is much more damaging in the long run than being rejected by a given journal, this turned out to be most useful.

At the other end of the spectrum are sloppy referees who form a strong opinion based on a cursory read, along with their particular priors about the topic in question. The result, especially for competitive journals, is often a rejection based on unconstructive comments, which also contributes to an incentive structure that favours incremental and conventional work. Alternatively, an "accept" decision based on shallow refereeing can allow a poor paper to appear. Often, however, the system corrects itself, the discrepancy with the other reports or the lack of substance in the review being spotted by associate editors or editors.

We also believe that our papers are preemptively improved by refereeing, in that we mostly write better papers because we know they will be critically evaluated by colleagues prior to publication. We go the extra mile, chase typos, think more carefully about real examples, and so on, before submitting, because we do not want to give a negative referee this additional and objective leverage we can ourselves perceive.

Wheat from chaff

While scientific review processes have been evolving forever, the current paradigm is that editors send submitted manuscripts to selected reviewers for comments, and then make a decision based on these comments and their own judgement. The issues of concern in such a simple system arise from the arbitrary and often narrow selection of reviewers, the generous, even unreasonable time allowed for response, the mostly unhelpful guidelines for comments, the opaque manner in which the final decision occurs, and the huge and often wasted investment in time by all actors. In particular, junior scholars can take their refereeing duties very seriously, writing

long and careful reports even on papers that are not worth the effort.

We agree with Kriegeskorte and Deca (2012) that a better use of reviewers' time and effort would be to have many reviews of important papers and only zero or one review for the sorts of minor contributions that fill up our journals. Conversely, a very specialised result can sometimes be useful; in this case it might well merit a post-publication review thread by its user community, in a *Tripadvisor* manner.

When faced with these issues, some journals have evolved from the traditional model. For example, some have databases of reviewers from which to more objectively draw subject-specific referees; others demand short review times; others have formalised the referee process by instituting a detailed checklist or providing careful guidelines about the type of review required; and a small number have adopted the post-modern (or pre-traditional) practice of an editorial board making decisions at regular team meetings.

A strong argument against doing away with referees is the problem of sifting through the chaff. The daily volume of published research documents is overwhelming and accelerating, perhaps not so much in statistics but certainly in biomedical research and engineering. There is a maximum amount of time one can dedicate to looking at websites, blogs, twitter accounts, and such. And blog comments have certainly not delivered the post-publication quality control some had hoped. Commenting on a blog is not a well-respected use of time, while commenting on a busy blog might not get noticed amidst all the chaff. Right now there seem to be very few blogs providing a useful communal review function (and none of these focus on statistics).

Even keeping track of new arXiv postings may gets overwhelming. Wasserman writes, "if you don't check arXiv for new papers every day, then you are really missing out," but our own experience is that it is almost impossible *not* to miss out. Checking arxiv.org/list/stat/new indeed takes less than a minute, checking potentially interesting papers takes much longer!

Without an organised system of reviews, why should anyone bother to comment on poor or wrong, but not newsworthy, papers? The result could well be a clutter of mediocre and uncommented results making it difficult for researchers who are not well-connected to navigate the field. We, the authors of the present article,

know enough experts in our research areas that we can often get a quick evaluation of unpublished work. But a student whose advisor is not an expert on statistical computation or a researcher in biology (say) who wants to use the latest computational methods, will not generally have the resources provided by our social network. The review process does not completely level the playing field—nothing could, given institutional disparities of resources—but it comes closer to equalising the information available to differently-equipped teams.

Given the amount of chaff and the connected tendency to choke on it, filtering will be done— somehow or another. Getting rid of referees and journals in favour of repositories like (the great) arXiv would force us to rely on other and less well-defined sources for ranking, selecting, and eliminating papers. Again this would be subject to arbitrariness, subjectivity, bias, variation, randomness, peer pressure, and so on. In addition, having no prior quality control makes reading a new paper a tremendous chore as one would have to check the references as well, leading to a type of infinite regress, or forcing one to rely on reputation and peer opinions.

In fact, one may wonder if it is really possible to go that far in reducing the impact of peer reviewing. For many of us, so much depends on our publication record (including jobs, promotions, grants, and eventually salaries) that very few would be bold enough to stop sending papers to peer-reviewed journals from their own initiative. Getting rid of peer-reviewed publications would make sense only if the vast majority of scientists in a given field would agree to do all at once. And, since it is not only individuals but also scientific fields that compete for grant money, one could argue that a simultaneous move from *all fields* would be required to ditch peer reviewing, which is of course even less likely.

Thus, despite the appeal of chucking the journals and starting over, we think an uncontrolled system would be even more unethical than what we currently have and may be exactly what we would like to avoid. If our profession did start from scratch, that new institutions would certainly arise to serve the filtering and reviewing functions, but we would prefer to see a smooth switch. In the next sections, we make two proposals that constitute a middle ground between *statu quo* now and Wasserman's suggestion. The first is a further evolutionary step in the review process, while the second is more radical.

Proposal 1: Post-publication peer review

In a world where (nearly) everything is published, how can the scientific community sift through the mass of results? It should be possible to use more efficiently the effort that is currently going into peer review. While writing dozens of careful referee reports per year, we realize the futility of creating mini-articles for such a tiny audience (the author and the journal editor). It makes much more sense to switch to blogging about important papers, as to reach a much wider audience. And to keep reviews short and to the point (and available to the readers of the article in question at some point; see below). This notion is met with reluctance by many, for whom the secrecy of the reviewing process and the anonymity of the reviewer appear like sacrosanct principles.

Post-publication peer review could be done in different ways, most simply by adding a comment thread to each arXiv article (with the caveat of being possibly unread), but more formal approaches are possible. Kriegeskorte (2009, 2011) recommends "peer-to-peer editing: authors ask a senior scientist to edit the paper; editor chooses 3 reviewers and asks them to openly review the paper; editor is named on the paper."

Another, perhaps complementary, approach would be for groups of scholars and academic societies to manage a filtering service. For example, instead of the ASA running *JASA*, *JABES*, *JCGS*, etc., and maintaining a separate editorial staff for each of those journals (representing a huge amount of possibly overlapping and hence redundant volunteer service), it could support filtering services. The editors of each filter would be expected to scan the literature and handle submissions (which in this case would point to articles already published on the web). Editorial boards would have the responsibility to come up with monthly (say) recommended reading material. This would require some work, but less than the existing job of producing a journal. The main concern we see would be to keep the editors focused on solid research rather than getting tabloid-like, but the latter seems less likely if the process involves simply flagging articles rather than formally and exclusively publishing them. The flagging could even be multidimensional, with some papers tagged as potentially exciting but speculative, and others labelled as solid contributions within an existing paradigm.

Instead of a simple thumbs-up or down, reviewers would have the task of situating each new paper within the literature. As journal editors and frequent referees ourselves, we would appreciate the opportunity to prepare reviews that are directed outward to the potential users of the published articles rather than inward.

We suspect that a key step in getting post-publication peer review to work is to transfer the efforts that *would have gone into refereeing* into filtering. It would be difficult to start up a filter all on its own without the free labour that comes from referees (who are in turn motivated by a sense of obligation and scientific community). Time being a limited resource, we foresee a challenge in instilling the same sense of duty for filtering and post-publication review as is now present in the journal review process.

Proposal 2: A reviewer commons

Just as it is useful to ask why sport referees do not always get it right, we could ask the same here. What is broken in our system? There is a constant proliferation of new arenas of training and competition and an exponential growth in the community of participants, which has great potential benefits for science but is daunting for reviewers. However, instead of the open scrutiny to which we subject our sports referees, scientific reviews are conducted behind closed doors. Perhaps it is time we came out.

We are thus suggesting a dramatic move in the creation of reviewer commons, namely a (virtual) repository for the placement of scientific reviews, open to all. The advantages of such a commons are many. It would encourage high quality, fair and useful reviews. It would facilitate acknowledgement of reviewer contributions, benefiting both the journals and authors (since reviews could be referenced in the manuscript) and the reviewers (since reviews could be accessed by peers). Reviewers would then write not only for the authors but also for the readers, turning their comments and suggestions into a valuable discussion at the end of the reviewing process, to be added to their publication list as well. Furthermore, as well as improving quality, this notion of a commons might also help to reduce the workload of reviewers and editors. For example, until the current practice of not requiring authors to declare prior submissions of articles is revised, access to previous reviews might help to mitigate replication of effort by reviewers in dealing with manuscripts doing the rounds of journals.

We are not the first to argue that revealing the names of referees, not only to the authors, but also to the public, would deter referees from being complacent or un-constructively negative. Indeed, it may bring more explicit recognition in the scientific sense to referees and to their role in publishing better research, possibly all the way to referees' reports becoming a valued part of their own publication record, as is already the case for referees for *Hydrology and Earth System Sciences*.

A related concern is the increasing focus of some journals on headline-grabbing articles. This can lead to evaluating articles on the basis of their popularity rather than their science. As discussed above, this is against the principles that we laid down for good refereeing practice. Psychologist Sanjay Srivastava (2011) identifies the problem: "As long as a journal pursues a strategy of publishing 'wow' studies, it will inevitably contain more unreplicable findings and unsupportable conclusions than equally rigorous but more 'boring' journals. Ground-breaking will always be higher-risk. And definitive will be the territory of journals that publish meta-analyses and reviews."

Looking forward

Three cheers for the referee: One cheer for quality, two for fairness, three for excellence. Just as backyard players aspire to higher levels of play, (true) scientists *want* to be reviewed. We want our work to be high quality and accepted by our peers, and we accept refereeing—and journals—as part of this evaluation excellence. This does not mean that we must accept poor practice, in terms of quality or ethics, among referees or publishers. Nor does it mean that having found such faults, we should abolish the system. Indeed, for the self-same reasons of ethics and quality, it is likely that even if we did away with scientific refereeing, if we opted instead for a web-free-for-all, a system for identifying excellence and equity would soon emerge. So instead of evicting, let us try evolving. Like any good complex system, improvements such as the establishment of a commons or of society supported post-publication peer review might exhibit similar self-organisation whereby a more satisfactory process of scientific review evolves of its own accord—or then again, it might equally implode.

Finally, we have not addressed the problems of non-replicability in social science, medicine, and applied and computational statistics. Just as bio-

medical journals are moving toward registration of protocols and data, statistics researchers might soon be expected to produce replicable papers with code, data, and even random seeds. This would in turn impact further the refereeing process.

Acknowledgements

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STUDENTS' CORNER

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Dear Student's Corner audience. With this issue, the ISBA bulletin has reached a turning point. We welcome our new editor, Feng Liang. And, to mark the new beginning, we announce the introduction of a new format for this section.

The first and most important change is that we have decided to give a rest to the Q & A scheme and, particularly, to the experienced members of the Bayesian community who made such section possible. Before we tell you about our new format, we pause to make a bow to those who deserve it so much. We hope you're still following the section, and reading this:

"Dear Q & A Panel Members, in the name of the previous editors, present co-editors and readers, we wish to express our most sincere gratitude for sharing your points of view, experiences, worries, feelings, and opinions during all these time. We appreciate every single of your collaborations in this Corner and wish you the best."

Now, what were we thinking when we decided to suspend the Q & A scheme? To give an answer, we need to explain the vision we have for the section, which benefited from many helpful suggestions from the same panel members we are so grateful to. The Q & A scheme, after an initial gathering of very interesting questions from the Bayesian Student community, was starting to become one-way communication from

professors to students. As such, the students, to whom this section belongs, were playing a passive roll. The student's corner seemed too quiet; more a seminar room, than a "student neighbourhood". We hope to transform this passive lecture corner into that corner inside a restaurant/bar/pub/cafe/beach/club, which we so often experience during Bayesian Conferences; a place where students gather and chat about their student's lives. Life which are intimately intertwined with the world of academia and Bayesian statistics and, therefore, have a place in the ISBA Bulletin.

How to achieve the desired Student's Corner? Well, keeping the idea of a student gathering, this section will be the opportunity for students and those who were students not so long ago, to take the stage and express their points of view. So, instead of the familiar "Q & A" you will, from now on, see "Student Voices". And instead of emailing a group of experienced professors, asking concrete questions, we will email you, our readers, students or recently graduated Bayesians, asking you to contribute to the section. We want to keep it informal, like a chat, but interesting, with a content adequate for the Bulletin. Therefore, we will not ask a specific question, but we will give you a suggestion about what we would like to hear from you. It is up to you to choose a style, or change the subject. As long as it is well written and interesting to the community, we will find a place for it. You can talk about your experience in academia or outside of it, the challenges and pleasures of: research, teaching, or interdisciplinary collaboration in industry, that paper you found so exciting or so difficult to understand...

And of course, if you're dying to see your ideas in black and white. If you cannot wait for us to contact you, feel free, as always, to send us your voluntary contributions. If there is a friend you know has an interesting story to tell, let us know, and we'll try to convince him to share it with us. And if you still have a question for an expert, email us your question and his/her name, and we'll try to get an answer.

We hope you like this new idea and that you make this section your own, by participating in the chat.

Student Voices

I have known Cristiano Villa for some time now. He is currently on the third year of his PhD at the University of Kent, under the supervision of Stephen G. Walker. But that, of course, is not where his story begins, nor where it ends. I could have asked Cristiano to tell us about his field of research. After all, I have spent quite a few hours discussing with him the objectivity of objective priors. However, in this issue, we are transitioning from an expert panel collaboration scheme to more student-oriented (or j-ISBA-oriented) contributions. My co-editor Antonio and I thought it better to emphasise the change by inviting a student to talk about the life of a PhD student, rather than the technical details of his work. We may all be studying different problems, but there are experiences that we, as students and early career researchers, share. And, why Cristiano? Because I believe he has an interesting story to tell, and an interesting way to tell it. I hope you think the same. And if you don't, don't just complain, contribute!

EXCHANGING A FEW WORDS WITH CRISTIANO
by Cristiano Villa
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It is a sunny Tuesday afternoon in Kent, and it all starts in the same way it always started in the past. Me and him, sitting on opposite sides of a cafeteria table with two cups in the middle. A large one, with my small latte, and a little one, for his espresso. Espresso that he drinks in a single gulp, while it is still hot.

"Shall we start?" he asks, with his eyes lost in an indefinite spot behind my back.

"Well, I think you know what the first question is going to be," I say, smiling.

"If you want to know why I decided to change career, to leave a life with a steady income and certain future, I'm afraid your curiosity is going to stay unsatisfied."

"Why?"

"Because that is personal, and that's not what we agreed on."

True. He agreed to discuss the topic, but only if the questions did not become personal. And I guess this is too personal. It must not be easy to

talk about something that made you drop everything you were doing, leave a country and embark in a quest where question marks are way more numerous than days. And I already know, without even trying, that no answer would come from asking when the decision matured in him. Not because it is personal, but simply because it would be impossible to find that moment. That turning point in the chain of his thoughts.

"Ok,Ï say, "but we still need to put down the facts, straight. You were working as an auditor and advisor, risk management I think. Your income was good, I would say, and you had a clear career path laid in front of you. I also know that you had to work a lot. That you used to spend weekend days at the office. And that your work, by choice or not, took you into many countries."

"That's right."

"How old are you?"

"Don't be nosy,"he says with a warm smile painted on his face. "But I see where you want to go. You wonder why I have decided to change career so late in my life. Am I right?"

"Something like that, yes."

"You see, I believe that life is like a journey in the dark. Where you need some sort of light source to help you reveal your path. Not everybody has the same source, though. Some of us carry a flash-light. And with a single beam they can look straight ahead and have an understanding of what there is far away. Some, on the other hand, carry a lantern. Like those you see in old movies, powered by oil rather than electricity. They do allow you to look around without effort, but the range is so limited that you can easily walk in the wrong direction for a bit, before realising it. You need to proceed at a slower pace than if you were carrying the flash-light. You know what I mean?"

"I do. And you belong to the latter type of persons."

He nods, playing with the coffee cup in his hands.

"But, don't you think that people like you, the lantern-bearers, are somehow disadvantaged, at least in comparison to the others?"

"No, why?"

"Well...", but before I could gather the right words to complete my sentence, he started again.

"You are measuring success on the basis of what is achieved."

"And is that wrong?"

"Well, it's not wrong, but for sure incomplete. I find it more important how you get somewhere, rather than when you arrive. So, I do not think it disadvantageous becoming a professor ten, twenty years later than someone else, as long as you eventually get there (if that is what you really want) and, most importantly, that you have accomplished something on the way."

"I find it a bit scary, don't you think?"

"Scary? It's petrifying, tough, and there is no single day when I don't question my choice. It would be so much easier and comfortable to return to do what I was doing before."

"Yeah, the good old times, as someone may say."

"See? Another common misunderstanding, in my opinion. There have never been good old times, for anybody. We find them good just because we know what happened and, should we face again the same challenges, we would know how to handle them. That's it."

There is always a moment during a conversation with Cristiano, always, when I know that it is better not to argue. Not to respond to his opinion. We would end up in a discussion loop, an endless one. And this, it is one of those times.

"How do you find the supervision process?"

"Challenging, I have to say. Don't get me wrong, I have no issues with Stephen, it's just so different from how I was used to work in the last twelve years before starting the PhD."

"But you did a master's first. Right?"

"You do not miss a thing, do you?" he says, laughing. "Yes, that's where I started the change. But I see that as a transition period, like if I were not yet totally out of the cocoon. My new life, if we want to categorise it like that, started when I resigned and kicked off the PhD. I knew that, from that point on, everything would have been different."

"And it has been?"

"Oh yes. I'm not talking (only) about finance or life style, but the way you relate to others. The status reached during a career goes well beyond money or prestige. It is something even more intimate, that is able to reach the deepest and remote parts of your soul, of your life."

"An example?"

"Sure. A silly one, but that may give you an idea of what I'm talking about. When you fill out a form and they ask you what you do, at my age it is not easy to write "student". You know?"

"I guess I do. Even though I'm not as old as you, yet." I do like, from time to time, to punch him below the belt. But we both laugh. "How did your wife see this idea?"

"She found it challenging too. She probably thought about the possible financial issues more than I did; and I have to thank her for that, as she forced me to take some preventive actions that I hadn't thought about."

"What actions?"

"That's personal. Sorry."

"What about the good things in being a PhD student? Is there any?"

"Oh, yeah. Plenty. I had the chance to meet you, for a start." Big smile, again. "I can spend more time thinking about what I'm doing, rather than just doing it. I, possibly, work even harder than before, but without the many secondary formalisms that were necessary in my previous job. I can teach, pass my knowledge on, without the pressure of time... and money."

"Can I ask you why statistics?"

"Yes, that's not a secret. My undergraduate studies were in statistics and economics. I though that going back to study, making something that I enjoyed and, at the same time, I had already partially done, would make things easy."

"Did it?" I ask.

"They have been pretty hard, so far," he admits. "When you move away from studies and, I guess, the academia environment, your mind tends to develop different skills. For example, you tend to focus on getting things right and completed in a given timeline, not so much in analysing the deep reasons for doing them in a certain way rather than another. Or, you build a modus operandi that is hierarchical, where you have persons reporting to you and, in turn, you report to your superiors. In academia, it is mandatory to understand the essence of things and, if you do research, to doubt until you are not completely sure about things. And when you work with someone, you really work with someone, even if this person is more senior than you. There

may be exceptions, of course, but that's the general idea I have."

"So, everything seems better, now."

"Not at all. It's different. I can already feel that administrative tasks can be an issue in academic life too. That certain politics and stuff like that, do not simply vanish because you are in a not so much money-centred environment."

"Any last minute wise words for our readers?"

"Why do you ask me for wise words? You should have understood from our discussion that I am not in a strong position and, believe me, years do not make wise men, they just make old men."

The sun is now low at the horizon, and the cafeteria has started filling with people, mostly students. Loud voices, laughs and clinking of teaspoons on cups frame our conversation which, I have to admit, has come to an end.

We decide to leave everything like this, without any particular closing remark, or summary, or else. As we do in our chats, we simply stand up, walk out and talk about something else. More trivial.

Dissertation Abstracts

BAYESIAN MIXTURE MODELS IN
EXTREME VALUE THEORY WITH AN
APPLICATION TO INVESTMENT
PORTFOLIO ANALYSIS

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PhD Supervisor: Stephen G. Walker

The aim of this work is to model multivariate behaviours of extremes. Unlike the univariate framework, there is not a unique parametric family of multivariate extreme distributions. The selection of the parametric form will determine the dependence structure, and in most of the cases, it is a rigid structure, in the sense that it hardly embraces different types of dependence among the variables. We propose a mixture model to deal with this difficulty. The indi-

vidual models of the mixture belong to the same parametric family, embrace different dependence structure from each other, have marginal coherence, and have a simple parametric form. The individual models are defined with a special construction of dependent variables, such that the asymptotic dependence relies only on one common interpretable parameter. This parameter does not have any consequential influence on the univariate marginals. Although, in principle, the fact that the dependence relies only on one common parameter seems restrictive, it must be noticed that the weights of the mixture model play as well an important role in the general dependence structure. Therefore, the relevant information re-garding asymptotic dependence of an individual model is given by both the common interpretable parameter and the correspondent weight of the individual model. Hence, the introduction of the weights improves the flexibility of extreme parametric models. Accordingly, we do not interpret the mixture model as a model selection approach. Instead, it is our belief that the importance of the mixture model is the prediction produced by spreading the uncertainty via a flexible model averaging. The Markov Chain Monte Carlo and reversible jump methods constitute the inference basis of the thesis. Finally, we present financial applications and a portfolio study case.

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NEWS FROM THE WORLD

Webinars

Bayesian Computing with INLA, April 4th 8:30 am - 12:30 pm EDT (with a short break).

ISBA announces a webinar on Bayesian computing with INLA (Integrated Nested Laplace Approximation) and spatial modelling using SPDEs presented by Prof. Håvard Rue and Dr. Daniel Simpson. Prof Rue is the principal developer of INLA and Dr. Simpson has worked extensively on INLA development. The purpose of the course is to discuss the concept of latent Gaussian models, how and why INLA works, how to use the INLA software for doing Bayesian inference and how to use special INLA features that boost the applicability of the software.

The course covers material on latent Gaussian models and Gaussian Markov Random fields, what they are and why they are so useful, approximate Bayesian inference using INLA (basic ideas), and the R-INLA package - overview of the package, various examples and comparison with MCMC, and advanced features that really make a difference! The target audience is anyone with past or concurrent basic training in Bayesian hierarchical modeling and MCMC (say, via the BUGS language) who wants to learn about R-INLA, a fast, R-based, non-MCMC alternative to BUGS.

Registration is free for current ISBA Members. Please login with your ISBA account to receive the automatic member discount. Please register prior to April 3rd so you may receive access information. To register go to https://bayesian.org/civicrm/event/info?reset=1&id=24.

Nonparametric Bayesian Inference, March 28, 2013, 12:00 p.m. - 2:00 p.m. Eastern time.

A new ASA webinar sponsored by the Section on Bayesian Statistical Science (SBSS) and ISBA, "Nonparametric Bayesian Inferencepresented by Peter Müller.

Registration Deadline: Tuesday, March 26, at 12:00 p.m. Eastern time.

Registration Fees: SBSS Member, $60; ISBA Members, $60; ASA members, $75; Nonmembers: $95.

Each registration is allowed one web connection and one audio connection. The ASA and SBSS encourage multiple persons to view each registered connection (for example, by projecting the webinar in a conference room).

For more information, including an abstract of the webinar and instructions for how to register, visit the ASA website http://www.amstat.org/education/weblectures/index.cfm.

Meetings and conferences

Bayes 250 Day

ISBA announces a special celebration of the

250th anniversary of the presentation (December 23, 1763) of Thomas Bayes' seminal paper "An Essay towards solving a Problem in the Doctrine of Chancesthat will be held at Duke University in conjunction with the O-Bayes 13 Workshop (*December 15-19*) and EFab@ Bayes250 Workshop (*December 15-17*).

Speakers for the anniversary celebration are legendary contributors to the Bayesian literature, spanning a range of fields: **Stephen Fienberg**, Carnegie-Mellon University; **Michael Jordan**, University of California, Berkeley; **Christopher Sims**, Princeton University; **Adrian Smith**, University of London; **Stephen Stigler**, University of Chicago.

There will be a banquet in the evening, with a speech by **Sharon Bertsch McGrayne**, noted author of the popular book *The Theory That Would Not Die: How Bayes' Rule Cracked the Enigma Code, Hunted Down Russian Submarines and Emerged Triumphant From Two Centuries of Controversy*.

Click here to register for the Bayes250 Day, O-Bayes 13, or EFaB @ Bayes250. Members should login prior to registering in order to receive the automatic ISBA Member Discount.

Participants should Book Accomodations for the 250th Anniversary Celebration on their own.

See the Bayes 250 page (http://bayesian.org/meetings/Bayes250) for more details.

ISBA 2014 world meeting, Cancun, Mexico. 14-18 July 2014.

On behalf of the Organizing Committee I am very pleased to announce our world meeting, to be held in the world renowned resort of Cancun, Mexico. The meeting will be held in the Cancun Conference Center, with many hotels at walking distance offering a comprehensive range of rates. We will have a welcome cocktail on sunday 13 July, afternoon, and also long, Valencia style, Lunch breaks. Dinner will be held in the Conference Center, before our traditional and always exiting Poster Session. And indeed on friday the 18th we will have our most expected Gala dinner and cabaret!

Cancun is a beautiful modern resort, surrounded by many natural, archaeological, cultural and entertaining sites suited for all tastes and styles. Its airport is served by many flights to all major hubs in North and South America as well as in Europe. We are confident ISBA 2014 will be a great scientific success and we will work hard to make it a landmark in the history of our Bayesian conferences. In the next few months we will launch the conference web site with more detailed information, but for the moment please set aside the dates of Cancun ISBA 2014 in your agendas! ▲

Bayesian Theory and Applications

Edited by **Paul Damien**, University of Texas, USA, **Petros Dellaportas**, Athens University of Economics and Business, Greece, **Nicholas G. Polson**, University of Chicago, USA and **David A. Stephens**, McGill University, Canada

The development of hierarchical models and Markov chain Monte Carlo (MCMC) techniques forms one of the most profound advances in Bayesian analysis since the 1970s and provides the basis for advances in virtually all areas of applied and theoretical Bayesian statistics.
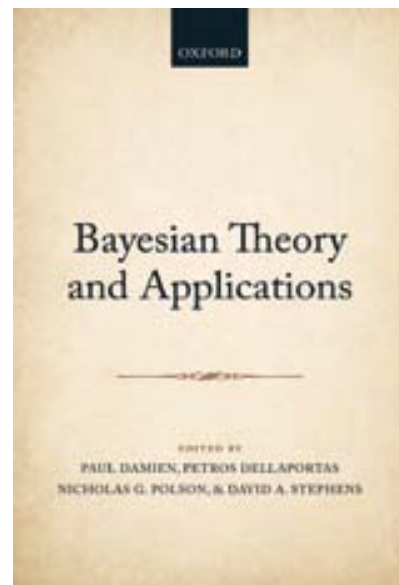
This volume guides the reader along a statistical journey that begins with the basic structure of Bayesian theory, and then provides details on most of the past and present advances in this field. The book has a unique format. There is an explanatory chapter devoted to each conceptual advance followed by journal-style chapters that provide applications or further advances on the concept.

Thus, the volume is both a textbook and a compendium of papers covering a vast range of topics. It is appropriate for a well-informed novice interested in understanding the basic approach, methods and recent applications. Because of its advanced chapters and recent work, it is also appropriate for a more mature reader interested in recent applications and developments, and who may be looking for ideas that could spawn new research.

The book honours the contributions of Sir Adrian Smith, one of the seminal Bayesian researchers, with his papers on hierarchical models, sequential Monte Carlo, and Markov chain Monte Carlo and his mentoring of numerous graduate students -the chapters are authored by prominent statisticians influenced by him.

Bayesian Theory and Applications should serve the dual purpose of a reference book, and a textbook in Bayesian Statistics.

- A clear, concise description of all the major ideas in Bayesian statistics, brought together for the first time

- Includes basic and advanced algorithms aiding anyone who wishes to implement Bayesian models in their own work

- Application topics have been included to help practitioners in finance, marketing, psychology, engineering, physics, economics, biostatistics, and medicine implement new models in a very straightforward manner

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