

# THE ISBA BULLETIN



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The official bulletin of the International Society for Bayesian Analysis

## A MESSAGE FROM THE PRESIDENT

- Marina Vannucci -  
[marina@rice.edu](mailto:marina@rice.edu)

Dear Fellow Bayesians, it was such a pleasure to see so many of you in Edinburgh this past June, for the 2018 ISBA World Meeting. The meeting was excellent, with lively sessions and many interesting talks. I want to thank once again the Scientific and Local Organizing Committees for their outstanding work, and in particular Miguel De Carvalho. Efforts are now under way for the 2020 ISBA World Meeting, which will be held in Kunming, Yunnan, China, on June 29 – July 3. Also, pre-proposals have been submitted for the location of the 2022 Meeting, and they are now being examined by the Program Council.

The safeISBA Task Team wishes to thank those of you who have contributed comments to the draft of the Code of Conduct and the set of policies and procedures. The documents will now be revised in light of these comments over the next couple of months and will be ratified by the Board. The safeISBA Task Team will then transition to the Professional Conduct Committee. Details on this transition will be communicated at a later date. The current membership of the safeISBA Task Team is composed by Kerrie Mengersen, Chair of the team, and members Daniele Durante, Clara Grazian, Amy Herring, Christian Robert, David Rossell and myself.

Our Society continues to grow connections to the other societies and to increase its visibility. A collaboration agreement has been signed with the Institute of Mathematical Statistics and Cambridge University Press for new volumes in the IMS Monographs series and IMS Textbooks series. Volumes accepted for publication in either series will carry the “with ISBA” designation. Peter Mueller has agreed to be the ISBA Editorial Repre-

sentative for a term of 3 years. The ISBA Rep will solicit proposals for new volumes in both series and will recommend to the Coordinating Editor of the two IMS series and Cambridge proposals that are considered suitable for publication. He will also advise and assist the Coordinating Editor and Cambridge in the review of these proposals. Feel free to reach out to Peter if you are interested in submitting a proposal.

The elections of the new ISBA officers for 2019 are under way. Make sure you cast your vote! Back in June, the Editorial Search Committee, chaired by Bruno Sanso, identified the new Editor in Chief of Bayesian Analysis, Michele Guindani, and the Editor of the ISBA Bulletin, Maria De Yoreo. It is my pleasure to add that Danny Williamson will serve as the new ISBA Web Editor. These positions will be effective on January 1st, 2019. Please make sure you reach out to any of the ISBA officers if you are interested in volunteering your time for future ISBA activities.

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**FROM THE EDITOR**

- Beatrix Jones -

[beatrix.jones@auckland.ac.nz](mailto:beatrix.jones@auckland.ac.nz)

As well as our usual offerings, this *Bulletin* features the slate of candidates for the upcoming ISBA elections, including the section elections. There are so many great candidates you are likely to have a tough time choosing, so also head over to <https://bayesian.org/nominees/> where you can read candidates' statements about their vision for ISBA and their section.

We also have a full run down of the awards presented at the 2018 World Meeting for those that weren't there (or those that were and couldn't quite hear the details!) Finally, longtime members will remember the "Member's News" section of the *Bulletin*. This has analogues in most society newsletters, and typically allows members to briefly let everyone know about big non-ISBA awards they have received, or other interesting stuff happening. We are happy to incorporate this sort of news into our *News from the World* section, so if you have news of this type you would like to share, get in touch with the editor of that section (for the December issue this will be Xinyi Xu).

**FROM THE PROGRAM COUNCIL**

[program-council@bayesian.org](mailto:program-council@bayesian.org)

The ISBA 2018 world meeting at Edinburgh gathered roughly 800 participants and an exciting lineup of talks and vibrant poster sessions. We sincerely thank the local organizing committee and our sponsors. We're glad to report that the contributions from the latter combined with a generous contribution from ISBA's own finances we were able to offer more than \$50,000 in travel support for students and young researchers. Read on for more news from the program council.

**Future meetings news**

- The ISBA 2020 World Meeting will be held in Kunming, China (June 29 – July 3, 2020). The local organizing committee is co-chaired by Zhiming Ma (Institute of Applied Mathematics, CAS) and Niansheng Tang (Yunnan University). The scientific committee is chaired by Li Ma (Duke University). The Program Council has received several pre-proposals to host the ISBA 2022 World Meeting, and is currently assessing them.
- Starting from 2020 BAYSM becomes the official meeting of the j-ISBA section. BAYSM 2020 will be chaired by Raffaele Argiento and will be a satellite meeting of ISBA 2020 in China.
- ISBA@NIPS: the ISBA-sponsored Bayesian non-parametrics workshop has been accepted at NIPS 2018. The Advances in Approximate Bayesian Inference is also ISBA-sponsored and takes place at the same dates and venue as NIPS.

**Other upcoming sponsored or endorsed events**

- BNP 2019 (June 24-29 2019, University of Oxford, UK).
- Fourth ISBA-EAC Conference (July 13-14 2019, Kobe University, Japan).
- Fifth EAC-ISBA conference: a satellite meeting of the ISBA 2020 World Meeting in celebration of James O Berger's 70th birthday (June 26-27 2020, Yunnan, China).

## UPDATES FROM BA

From the BA Editor

- Bruno Sansó -

[bruno@soe.ucsc.edu](mailto:bruno@soe.ucsc.edu)

The September issue of the journal is available online at <https://projecteuclid.org/current/euclid.ba>. This issue includes eleven papers on a wide variety of interesting topics in Bayesian methods. One of the papers is the discussion paper: “Using Stacking to Average Bayesian Predictive Distributions” by Yuling Yao, Aki Vehtari, Daniel Simpson, and Andrew Gelman. The paper extends the method of stacking to a probabilistic framework. The invited discussants for this paper were Bertrand Clarke, Peter Grünwald and Meng Li. The list of contributed discussions is an impressive total of 13. That is a record for BA! It is a testament to the interest that the paper generated in the Bayesian community.

The paper that is now up for discussion, and will be published in the December issue is: “Bayesian Spatiotemporal Modeling Using Hierarchical Spatial Priors, with Applications to Functional Magnetic Resonance Imaging” <https://projecteuclid.org/euclid.ba/1525766415> by Martin Bezener, John Hughes, and Galin Jones. Raquel Prado, Marina Vannucci and Mattias Villani have been invited as discussants. Contributed discussions are accepted until the end of September.

As has become traditional, Bayesian Analysis will have its invited session at the Joint Statistical Meetings that will take place in Denver, July 28 to August 1, 2019. I have submitted a proposal for an invited session, and I will provide more information when it gets approved. An important piece of information regarding Bayesian Analysis is that a new Editor in Chief has been appointed by the ISBA board. Michele Guindani will be taking over the leadership of the editorial board in December 2018. We will overlap as co-EiCs until the end of January 2019. Congratulations Michele on a very well deserved appointment!

## j-ISBA

- Clara Grazian -

[clara.grazian@ndm.ox.ac.uk](mailto:clara.grazian@ndm.ox.ac.uk)

This summer of Bayesian conferences has finished and j-ISBA had definitely a place in them! The first conference where j-ISBA was present was the i-Like workshop in the beautiful Newcastle. We had two sessions on the second day of the workshop. The (j-ISBA) morning, chaired by Matt Moores, was focused on approximate Bayesian computation techniques: Jochen Kursawe (University of Manchester) presented his work on approximate Bayesian computation, revealing the importance of repeated measurements for parameterising cell-based models of growing tissues, while Leah South, from the Queensland University of Technology, presented her work on Bayesian synthetic likelihood, showing a parametric alternative to standard ABC. The afternoon, chaired by Sam Livingstone, concentrated around computational solutions for complex models, with talks by Alexander Buchholz (ENSAE) on “Adaptive tuning of Hamiltonian Monte Carlo within sequential Monte Carlo” and Felipe Medina Aguayo (University of Reading) on “Bayesian model comparison avoiding reversible jump”. The day went well, with many interesting discussions. And after that, just a quick train towards Edinburgh!

We are very happy for the presence of young researchers at the ISBA World Meeting in Edinburgh, around 250 with an overall participation of around 800 people. We hope j-ISBA members had a great time! j-ISBA was also scientifically present at the conference with a heterogeneous session on complex models, where Nick Foti, Annalisa Cadonna and Michael Jauch presented their work. The session was

not very well attended (it was the last session of the day).

And then a “quick” train to Warwick, for BAYSM 2018. The conference had a good attendance, with around 100 junior researchers and nice keynote talks by senior speakers. j-ISBA sponsored two poster prizes and the winners are Laura Fee Schneider for her poster “Posterior Consistency for  $n$  in the Binomial  $(n, p)$  Problem with Both Parameters Unknown” and Maxime Rischard, for his poster “Do house prices jump across school district lines in NYC? A Bayesian nonparametric approach to Geographic Discontinuity Designs”. And don’t forget the honourable mentions to Kees Mulder and Leah South. Many congratulations! And since we are making congratulations, we would like to clap our hands for the winners of the 2018 Savage Awards: Lorin Crawford (“Applied Methodology”) and Jackson Gorham (“Theory and Methods”), with honourable mentions to Akihiko Nishimura, Abhirup Datta, and Giacomo Zanella. We’ll keep in touch soon with our annual interviews.

It is now time for elections and we are honoured to have four nominations for the two soon-to-be vacant positions: Treasurer and Chair-Elect. Brenda Betancourt (University of Florida) and Yang Ni (Texas A&M University) are our candidates for the position of Treasurer and Trevor Campbell (University of British Columbia) and Abhra Sarkar (The University of Texas at Austin) are our candidates for the position of Chair-Elect. We wish all of them good luck for the elections and we are sure they can do much for the Section. You can find their biography on the ISBA website: <https://bayesian.org/nominees/>.

Of course, j-ISBA is an open community, so the work of the officers is often done jointly with the members. We are always happy to hear from our members of any opportunity to share experiences, having career-advice, interact and have statistical fun. So, don’t be shy, and participate to the j-ISBA life on our Facebook group, our Twitter account or our blog (<https://jisbablog.wordpress.com/>)!

## ISBA ELECTIONS

The ISBA election is fast approaching! The Society will again be using a secure election service, Helios Voting, to administer the election. In mid November, ISBA members will receive one or more e-mail messages from Helios Voting with a Voter ID and password needed to cast your ballot; this ensures votes are verified and confidential. You will receive one e-mail for the ISBA general election (President-Elect, Executive Secretary, and Board of Directors) and separate e-mails for each section to which you belong.

The candidates are listed below; their statements can be found at <https://bayesian.org/nominees/>.

### President Elect

**Sudipto Banerjee**, Professor and Chair, UCLA Department of Biostatistics.

**Sylvia Fruhwirth-Schnatter**, Professor of Applied Statistics and Econometrics, Vienna University of Economics and Business.

### Executive Secretary

**Feng Liang**, Associate Professor, University of Illinois at Urbana-Champaign.

**Donatello Telesca**, Associate Professor, UCLA Biostatistics.

### Board of Directors

*Four to be elected.*

**Clair Alston-Knox**, Senior Lecturer, Griffith University, Queensland, Australia.

**Ioanna Manolopoulou**, Associate Professor, University College London.

**Eduardo Gutiérrez-Peña**, Senior Researcher, National University of Mexico.

**Yasuhiro Omori**, Professor of Economics, University of Tokyo, Japan.

**Nancy Reid**, Professor of Statistical Sciences, University of Toronto.

**Beatrix Jones**, Senior Lecturer, University of Auckland, New Zealand.

**Mike So**, Associate Professor, The Hong Kong University of Science and Technology.

**James Scott**, Associate Professor, University of Texas, Austin.

## Section Officers

### Nonparametrics

**Chair Elect:** Jim Griffin (University of Kent); Fernando Quintana (Pontificia Universidad Católica de Chile).

**Secretary:** Bernardo Nipoti (University of Warwick); Sara Wade (Trinity College, Dublin).

### Biostatistics and Pharmaceutical Statistics

**Secretary:** Ju Hee Lee (University of California, Santa Cruz); Manuela Zucknick (University of Oslo).

**Treasurer:** Irina Irincheeva (University of Bern); Anna Freni Sterrantino (Imperial College, London).

**Program Chair:** Cosetta Minelli (Imperial College, London); Tony Pourmohamad (Genentech).

### Economics, Finance, & Business

**Secretary:** Catherine Forbes (Monash University, Melbourne); Kenichiro McAlinn (University of Chicago); Angela Vossmeier (Claremont McKenna College).

**Program Chair:** William McCausland (University of Montreal); Yasuhiro Omori (University of Tokyo); Mike Smith (University of Melbourne).

### Environmental Sciences

**Chair Elect:** Matthew Heaton (Brigham Young); Ben Shaby (Penn State).

**Program Chair:** Caitlin Buck (University of Sheffield); Gabriel Huerta (Sandia National Laboratories).

**Secretary:** Candace Berrett (Brigham Young); Alessio Pollice (Università degli Studi di Bari Aldo Moro).

**Treasurer:** Mark Risser (Lawrence Berkeley National Laboratory); Lyndsay Shand (Sandia National Laboratories).

### Industrial Statistics

**Chair Elect:** Sanjib Basu (Northern Illinois University); Marco Ferreira (Virginia Tech).

**Secretary:** Didem Egemen (George Washington University); Tahir Ekin (Texas State University).

### j-ISBA

**Chair Elect:** Trevor Campbell (University of British Columbia); Abhra Sarkar (University of Texas, Austin).

**Treasurer:** Brenda Betancourt (University of Florida); Yang Ni (Texas A&M University).

### Computation

**Secretary:** Maria Lomeli (Babylon Health); Yanxun Xu (Johns Hopkins).

**Treasurer:** Lester Mackey (Microsoft Research New England); Rémi Bardenet (CNRS, France).

### Education, Research, and Practice

**Chair Elect:** Sonali Das (Council for Scientific and Industrial Research, South Africa); Sally Cripps (University of Sydney)

**Program Chair:** Colin Rundel (Duke University); Pat Flaherty (University of Massachusetts, Amherst).

## ISBA AWARDS

Prizes presented at the 2018 World Meeting. Congratulations to the awardees on their excellent work!

### Zellner Medal

The purpose of the Zellner Medal is to recognize ISBA members who have rendered exceptional and distinguished service to ISBA over an extended period of time, and whose contributions have had an impact on the society beyond the time of his or her incumbency.

**James Berger** Honored for “his deep and foundational contributions to Decision Theory and Bayesian Analysis, his prominent role in the Valencia and ISBA Meetings and Journal, his services as President of ISBA, his outreach as Director of SAMSI, Editor of the Annals of Statistics and in the organization of several workshops, for his leadership in the creation and development of the Section of Objective Bayes, for his sustained role as supervisor of generations of first-class researchers and for his legendary welcoming net to visitors from all over the world.”

**Peter Mueller** Honored for “for sustained and exceptional service to the society through outstanding impact in his many administrative roles, for being a major figure in organizing and planning conferences, for being an excellent role model and advocate for young statisticians, and for his transformative research in Bayesian nonparametrics, optimal design, dynamic modeling, multiple testing and biostatistics among other areas.”

### Mitchel Prize

The Mitchell Prize is awarded in recognition of an outstanding paper that describes how a Bayesian analysis has solved an important applied problem. The 2017 winner is:

**Daniele Durante and David B. Dunson** “Bayesian Inference and Testing of Group Differences in Brain Networks,” *Bayesian Analysis*, 13(1), 29-58, 2018.

### DeGroot Prize

The DeGroot Prize is awarded to the author or authors of a published book in the statistical sciences. 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. The 2017 Winner is:

**David Banks, Jesus Rios, and David Rios Insua.** *Adversarial Risk Analysis*. CRC Press.

From CRC Press: “The book shows decision makers how to build Bayesian models for the strategic calculation of their opponents, enabling decision makers to maximize their expected utility or minimize their expected loss. This new approach to risk analysis asserts that analysts should use Bayesian thinking to describe their beliefs about an opponent’s goals, resources, optimism, and type of strategic calculation, such as minimax and level-k thinking. Within that framework, analysts then solve the problem from the perspective of the opponent while placing subjective probability distributions on all unknown quantities. This produces a distribution over the actions of the opponent and enables analysts to maximize their expected utilities.”

### Lindley Prize

The Lindley Prize is awarded for innovative research in Bayesian Statistics that is presented at an ISBA World Meeting and accepted for publication in the journal *Bayesian Analysis*. The winning paper from the 2016 World meeting is:

**Benoit Lique, Kerrie Mengersen, Anthony Pettitt, & Matthew Sutton** “Bayesian Variable Selection Regression of Multivariate Responses for Group Data,” *Bayesian Analysis*, 12(4), 1039–1067, 2017.

## 2018 ISBA Fellows

- Sudipto Banerjee
- Sylvia Fruewirth-Schnatter
- Igor Pruenster
- Marc Suchard
- Aad van der Vaart

## Savage Award

The Savage Award, named in honor of Leonard J. “Jimmie” Savage, is bestowed each year to two outstanding doctoral dissertations in Bayesian econometrics and statistics.

### Theory & Methods

Jackson Gorham, Measuring Sample Quality with Stein’s Method. Stanford University; Lester Mackey, advisor.

#### *Honorable Mention*

Akihiko Nishimura, General and Efficient Bayesian Computation Through Hamiltonian Monte Carlo Extensions. Duke University; David Dunson, advisor.

### Applied Methodology

Lorin Crawford, Bayesian Kernel Models for Statistical Genetics and Cancer Genomics. Duke University; Sayan Mukherjee, advisor.

#### *Honorable Mention*

Abhirup Datta, Statistical Methods for Large Complex Datasets. University of Minnesota; Sudipto Banerjee, advisor.

Giacomo Zanella, Bayesian Complementary Clustering, MCMC and Anglo-Saxon Placenames. University of Warwick; Wilfrid S. Kendall, advisor.

## NEWS FROM THE WORLD

## Members’ News

**Akaike Memorial Lecture** Mike West, the Arts & Sciences Professor of Statistics & Decision Sciences at Duke University, is the recipient of the 2018 Akaike Memorial Lecture Award. Professor West, a founding ISBA Fellow, past ISBA President and inaugural Zellner Medalist, was selected to present the Akaike Memorial Lecture at the Japanese Joint Statistical Meetings in Tokyo this September. The Award recognized Mike as “one of the pioneers who have led the field of the Bayesian statistics” and who has “significantly influenced the development of the theory and practice of statistics.”

The Akaike Memorial Lecture Award was established by the Institute of Statistical Mathematics and the Japan Statistical Society to cel-

ebate the outstanding achievements and pioneering contributions to statistical science of the late Dr. Hirotugu Akaike. Full details are available at the Akaike Award announcement web site, [http://www.ism.ac.jp/ura/press/ISM2018-05\\_e.html](http://www.ism.ac.jp/ura/press/ISM2018-05_e.html).

## Join in the fun with the “Better Bayes” competition!

**The Challenge:** Explain Bayes to a non-technical audience

**The Organiser:** Stats + Stories (<https://statsandstories.net>)

**Entries:** A story headline (6 words) and the lede (or lead) sentence (30 words).

**Submit:** Better Bayes (<https://statsandstories.net/betterbayes/>). poster sessions, contributed and invited talks, and expert panel discussions.

**By:** October 6, 2018.

**Prizes:** the adoration of your friends, a year's subscription to ISBA, and the opportunity to talk to Stats+Stories team about your work.

**Judges:** A Bayesian statistician and a journalist.

## Meetings and conferences

**BNP@NIPS 2018:** "All of Bayesian Nonparametrics (Especially the Useful Bits)", Montreal, Canada. December 7, 2018.

This workshop aims to highlight recent advances in modeling and computation through the lens of applied, domain-driven problems that require the infinite flexibility and interpretability of Bayesian nonparametric (BNP). It will consist of lively

Travel awards for students and junior researchers (within 5 years of finishing their PhD) are available for the best contributed submissions. Authors may also apply for the competitive ISBA@NIPS Travel Award and Google Travel Award. There are several other travel awards in the form of free workshop registration available for contributed work. Award recipients will be reimbursed by NIPS for their workshop registration.

Extended abstracts will be submitted in two rounds. The deadline for the first round is October 11, 2018. Authors who wish to apply for the ISBA@NIPS travel award must submit by this deadline. Please indicate in the submission whether the presenting author needs a workshop registration. Those who need a NIPS workshop registration are strongly recommended to submit to round 1. Detailed submission instructions can be found at <https://sites.google.com/view/nipsbnp2018/call-for-papers?authuser=0>.



### Executive Committee

**President:** Marina Vannucci  
**Past President:** Kerrie Mengersen  
**President Elect:** Raquel Prado  
**Treasurer:** Robert Gramacy  
**Executive Secretary:** Amy Herring

### Program Council

**Chair:** David Rossell  
**Vice Chair:** Li Ma  
**Past Chair:** Clair Alston-Knox

### Board Members:

**2018–2020:**  
Alicia Carriquiry, Michele Guindani, Lurdes Inoue, Surya Tokdar

**2017–2019:**  
Natalia Bochkina, Catherine Forbes, Feng Liang, and Luca Tardella

**2016–2018:**  
David Banks, Abel Rodriguez, Marc Suchard, Luke Tierney

## EDITORIAL BOARD

### Editor

Beatrix Jones  
[beatrix.jones@auckland.ac.nz](mailto:beatrix.jones@auckland.ac.nz)

### Associate Editors

*News of the World*  
Xinyi Xu  
[xinyi@stat.osu.edu](mailto:xinyi@stat.osu.edu)

*Software Highlight*  
Anton Westveld  
[anton.westveld@anu.edu.au](mailto:anton.westveld@anu.edu.au)

*j-ISBA*  
Clara Grazian  
[clara.grazian@ndm.ox.ac.uk](mailto:clara.grazian@ndm.ox.ac.uk)

*Interviews*  
Leanna House  
[lhouse@vt.edu](mailto:lhouse@vt.edu)