

THE ISBA BULLETIN



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The official bulletin of the International Society for Bayesian Analysis

A MESSAGE FROM THE PRESIDENT

- Marina Vannucci -
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I have almost reached the end of my year as ISBA President. It has been a rewarding and challenging experience!

I want to thank Kerrie Mengersen, the Past-President, Amy Herring and Bob Gramacy for working closely with me. Raquel Prado will be taking over as President in January 2019. Also, Sylvia Frühwirth-Schnatter will be President-Elect. These are two outstanding members of our community, who will do an excellent job in leading ISBA. Our Society continues to grow and its international network continues to expand. Strengthening our ties with other statistical societies has been a focus of my work, as well as of past Presidents. I am sure Raquel and Sylvia will continue those efforts and pursue new initiatives. I want to give a big shout out to Amy Herring, who finishes her term as Executive Secretary. Amy has been a true force behind ISBA and has worked endlessly for the betterment of our Society. Feng Liang will be the next Executive Secretary, starting January. Big thanks also go to Kate Calder, for her excellent work on the new ISBA website, and to Beatrix Jones, for getting the ISBA Bulletins out on time. Danny Williamson will serve as the new ISBA Web Editor and Maria De Yoreo will take over as the new Editor of the ISBA Bulletin, starting January.

Without any doubt, the biggest challenge of my presidency has been to lead ISBA through the events and debate surrounding issues of sexual harassment. I am grateful to Kerrie Mengersen, chair of the SafeISBA Task team, and the members of the team, Daniele Durante, Clara Grazian, Amy Herring, Christian Robert, David Rossell, for

the enormous amount of time and careful thinking that they have put into drafting the ISBA Code of Conduct and the set of policies and procedures. The team is about to complete the revision of these documents based on the many comments we have received from the community, for approval by the Board. In this process, ISBA is at the forefront of what appears to be a profession-wide endeavor, as proven by the positive feedback that has come from other professional societies which are going through similar discussions. I am hopeful the process we have gone through as a community, and the broad discussion it has generated, will help in creating more awareness about safety and harassment. The safeISBA Task Team will transition to become the Professional Conduct Committee in the new year.

A highlight of my Presidency has been having the opportunity to attend the ISBA World Meeting in Edinburgh, UK, this past June. The meeting was very nicely organized by the Scientific and

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Local Organizing Committee, led by Miguel De Carvalho, with lively sessions and talks of outstanding quality. Li Ma is now leading the organization of the next ISBA World Meeting, to be held in Kunming, Yunnan, China, on June 29–July 3 2020. Furthermore, I am delighted to announce that the ISBA Board approved the Program Council’s recommendation to hold the 2022 World Meeting in Montreal, Canada, and the 2024 World Meeting in Venice, Italy. A big thanks goes to the Program Council, chaired by David Rossell, for managing the nomination process!

I want to conclude this message by encouraging each one of you, and particularly the young members, to get involved with the ISBA activities and events and to consider volunteering for the various ISBA Committees and officer positions. Another way that you can support the Society is by inviting people in your communities to join ISBA. Finally, I encourage you to support our Society by submitting your best work to our flagship journal, *Bayesian Analysis*. Bruno Sanso, the Editor-in-Chief, and the Editors/AEs have done an excellent job in keeping the high quality of the papers and increasing the visibility of the Journal. Michele Guindani will take over as the new Editor-in-Chief in January 2019, with a newly revamped Editorial board.

Y’all have a Happy New Year!

FROM THE EDITOR

- Beatrix Jones -

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This is my last issue as editor of the Bulletin. The great thing about this role has been becoming more aware of all the great things ISBA members are doing, and what ISBA as a society is doing. In this issue, check **News of the World** for a rundown of Bayesian events in 2019. It’s going to be a great year! I would also like to draw your attention to the brief interview with Savage award winner Jackson Gorham in the j-ISBA section, a great chance to hear a bit from an up-and-coming Bayesian. Thanks to everyone in the society for being so active and communicative, it means we are never lacking in things to report. Thanks to everyone who has contributed over my term, especially our Associate Editors Clara Grazian, Anton Westveld, and Xinyi Xu.

I am happy to pass the Bulletin on to our new editor Maria De Yoreo, and she is working on assembling her team of associate editors. I am happy to report Anton will continue to be an associate editor, and Gregor Kastner from WU Vienna will join the team as well. Both will be focused on bringing more feature articles to the Bulletin as well as the routine news. But the Bulletin remains your publication—whatever you would like to read (or particularly write), let your editor know.

FROM THE PROGRAM COUNCIL

program-council@bayesian.org

The ISBA community continues to be actively involved in scientific events. Besides the ISBA World Meetings in 2020 and 2022, below is a list of other ISBA-sponsored or ISBA-endorsed meetings. ISBA also continues to support NeurIPS (the new acronym for NIPS) workshops on Bayesian methodology via the ISBA@NeurIPS initiative. As a reminder, all meetings sponsored or endorsed by ISBA are expected to adhere to ISBA's Code of Conduct (<https://bayesian.org/governance/code-of-conduct>).

World Meetings

The 2020 ISBA World Meeting will be held in Kunming, China (June 29 – July 3, 2020). The organizing committee is co-chaired by Ming-Hui Chen and Zhiming Ma. The scientific committee consists of Anirban Bhattacharya, Michele Guindani, Woncheol Jang, Alejandro Jara, Xinmin Li, Li Ma, Gael Martin, Sonia Petrone, Andrea Riebler, David Rossell, Judith Rousseau, Mike So, and Yee Whye Teh. Please visit the conference website (<http://www.isba2020worldmeeting.com>) for up-to-date information. The ISBA Program Council, ISBA Executive and ISBA Board have also reviewed the applications to host future ISBA World Meetings, and are pleased to announce that the 2022 meeting will be in Montreal, Canada and the 2024 meeting in Venice, Italy.

Meeting sponsorships and endorsements

If you're planning a meeting and would like to request financial sponsorship or an endorsement from ISBA please see <https://bayesian.org/events/request-sponsorshipendorsement>. Requests should be emailed to the ISBA Program Council at program-council@bayesian.org.

Upcoming ISBA-endorsed meetings and events

See **New of the World** for a full description of our 2019 conferences.

- Advances in Approximate Bayesian Inference Workshop. Dec 2 2018, Montréal, Canada. <https://www.eventbrite.ca/symposium-on-advances-in-approximate-bayesian-inference-aabi-2018-tickets-50291872344>.
- Bayesian Nonparametrics Workshop at NeurIPS, 7 Dec 2018, Montréal, Canada. <https://sites.google.com/view/nipsbnp2018>.
- BISP11: 11th International Workshop on Bayesian Inference in Stochastic Processes. June 12-14 2019. Madrid, Spain. <https://www.methaodos.org/congresos-methaodos/index.php/bisp11/bisp11/schedConf/overview>.
- COBAL VI. The VI Latin-American Bayesian Conference. June 19-21, Pontificia Universidad Católica del Perú. Lima, Perú. <http://congreso.pucp.edu.pe/cobal-vi/en>.
- Fourth ISBA-EAC Conference, July 6-7 2019, Kobe, Japan. <https://eacisba2019.wordpress.com>.
- BNP 2019. Meeting of the ISBA non-parametrics section. Oxford, UK. <http://www.stats.ox.ac.uk/bnp12/>.
- Bayescomp 20. Jan 8-10 2020. Gainesville, Florida, USA.
- Fifth ISBA-EAC Conference, June 26-27 2020. Da Li, China. <https://isba-eastasia.github.io>.

UPDATES FROM BA

From the BA Editor

- Bruno Sansó -

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The December 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: “Bayesian Spatiotemporal Modeling Using Hierarchical Spatial Priors, with Applications to Functional Magnetic Resonance Imaging” by Martin Bezener, John Hughes, and Galin Jones. The paper proposes an approach for spatiotemporal Bayesian variable selection in order to detect activation in functional magnetic resonance imaging (fMRI).

The paper that is now up for discussion, and will be published in the March 2019 issue is: “Dynamic Bayesian Influenza Forecasting in the United States with Hierarchical Discrepancy” by Dave Osthus, James Gattiker, Reid Priedhorsky, and Sara Y. Del Valle. It is available from <https://projecteuclid.org/euclid.ba/1533866670> as advanced publication. We invited Leonhard Held, Lance Waller and Vladimir Minin to discuss the paper. We welcome contributions to the discussion. These should be no more than two pages in length, using the BA latex style. They should be submitted to the journal using the EJMS system <https://www.e-publications.org/ims/submission/>, before December 31, 2018.

The invited session with the highlights from Bayesian Analysis has been approved for the Joint Statistical Meetings that will take place in Denver, July 28 to August 1, 2019. The papers featured in the session are:

- *Big Data Bayesian Linear Regression and Variable Selection by Normal-Inverse-Gamma Summation*, Hang Qian;
- *Variational message passing for elaborate response regression models*, Mathew McLean, Matt Wand;
- *Bayesian method for causal inference in spatially-correlated multivariate time series*, Bo Ning, Subhashis Ghosal, Jewell Thomas; and
- *Bayesian Analysis of Dynamic Linear Topic Models*, Christopher Glynn, Surya T. Tokdar, Brian Howard, David Banks.

This is my last article for the bulletin as editor in chief of Bayesian Analysis. Starting on December 1st Michele Guindani will be taking over as the EiC. We will co-edit the journal until the end of January. I have been associated with Bayesian Analysis for a long time, first as an associate editor, then as an editor, and, for the last three years, as the editor in chief. The journal has been in existence for almost 13 years and during that period it has consolidated a strong reputation as a truly, top rated, international forum for the dissemination of Bayesian theory, methods and applications. It currently serves to showcase some of the most interesting and highest quality papers in Bayesian statistics, covering a broad range of methodological and applied topics. The success of Bayesian Analysis is the result of a collective effort that involves our whole community. The publishing operation is run by VTEX, and in particular by Ina Talandienè. The submission and management system is in the capable hands of Geri Mattson. Kassandra Fronczyk first, and then Tony Pourmuhamad have been great at helping me manage the editorial process. A phenomenal team effort is done on a daily basis by a group of about forty associate editors. In addition to that, Bayesian Analysis has a group of ten editors: Ming-Hui Chen, Adrian Dobra, Mike Evans, Michele Guindani, Lurdes Inoue, Murali Haran, Mario Peruggia, Igor Pruenster, Dan Spitzner and Mark Steel. They have worked very diligently to provide quality feedback to the authors that submit their work to the journal, and keep the review process running in a timely fashion. I feel honored that I had the privilege of working with all the people that make Bayesian Analysis such a successful reality. Thank you to all of them.

j-ISBA

- Clara Grazian -

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This month we have a contribution Jackson Gorham, who was recently awarded the Savage Award in the Section “Theory & Methods” at the last ISBA World Meeting in Edinburgh, June 2018. Jackson worked on a thesis with title “Measuring Sample Quality with Stein’s Method” at Stanford University, under the supervision of Lester Mackey. He has a great mix of both methodological and applied interests and had experiences both in academia and in private companies as data scientist. He is now data scientist at Opendoor.

Let’s congratulate again Jackson for his great achievements and now let’s read about his experience of working on Stein’s method at Stanford University.

“I began the doctoral program at Stanford University in September 2012. I had worked a couple years as a data scientist beforehand and most of what I knew about statistics was self-taught. During that time I worked some incredible data scientists, and I came to realize I was missing a foundation in statistics that these coworkers all had. This was the impetus that encouraged me to apply for graduate school.

The first two years of the Ph.D. program were mostly spent taking classes. From measure theory to convex optimization, I tried dabbling in many fields to see what I found most interesting. It was during those years I was a teaching assistant for Lester Mackey, who would eventually become my advisor. I was his first student and I truly lucked out getting to work with him. We spent the next two years working on using Stein’s method to quantify how well a discrete sample approximated a continuous distribution. These techniques proved useful when one was doing Bayesian inference for large datasets and wanted to choose how much asymptotic bias to incur for an increase in speed of the sampler.

During my third year, I presented some of this early work at ISBA in 2016. That year, it was in Sardinia. The size of ISBA is great—it is not a behemoth the size of NeurIPS but it is also big enough that there is always something interesting going on. The quality of talks at ISBA are also stellar; both years I’ve gone to ISBA, the marquee lectures have been very thoughtful and delightful. Because of the size of the conference, you also have a great opportunity to meet others doing similar research. In fact, I met the other Savage award winner Lorin Crawford during my 2016 visit to ISBA! I would highly encourage any doctoral candidate to attend ISBA; it is a conference with a lot to offer, not to mention it also consists of a vivacious and friendly crowd.”

ISBA ELECTION RESULTS

These officers will serve terms ISBA and its sections beginning in 2019.

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jISBA

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NEWS FROM THE WORLD

Call for nominations

2019 SBSS student paper competition.

ASA section on Bayesian Statistical Science (SBSS) is pleased to sponsor a student paper competition for research on Bayesian methodology, which may be broadly construed and includes applied, computational, or theoretical work. This paper competition is for completed research. A manuscript suitable for journal submission is required to enter the competition.

The application deadline is December 15, 2018. Formal application consists of sending an e-mail to Professor Surya Tokdar (surya.tokdar@duke.edu) with the subject line "SBSS 2019 Student Paper Competition" and the required attachments. Details can be found at <https://community.amstat.org/sbss/awards>.

Nominations for Fisher Award.

The Fisher Award and Lectureship is awarded yearly for outstanding contributions to aspects of statistics and probability that closely relate to the scientific collection and interpretation of data. The award exists to recognize the importance of statistical methods for scientific investigations. The awardee's hour-long lecture is delivered during JSM. Eligible nominations should be sent in PDF format by December 15, 2018, to the Fisher Award Committee Chair (Sharon-Lise Normand, sharon@hcp.med.harvard.edu) or the COPSS Secretary (Wendy Lou, wendy.lou@utoronto.ca).

Meetings and conferences

Bayes 2019: Bayesian Biostatistics, Lyon, France. May 21-24, 2019.

This workshop will bring together scientists interested in the latest applications and methodological developments of Bayesian Biostatistics in trial designs, addressing the need for more effi-

cient and flexible approaches to answer key clinical questions; and in the analysis of complex observational data, to enhance causal understanding of disease processes in support of personalised clinical care and public health policies.

The call for abstract is now open. Please send abstract (Title + Authors + Max 300 words) to info@bayes-pharma.org before March 1st 2019. For more information, see http://www.bayes-pharma.org/?page_id=17.

BISP11: 11th International Workshop on Bayesian Inference in Stochastic Processes. Madrid, Spain. June 12-14 <https://www.methaodos.org/congresos-methaodos/index.php/bisp11/bisp11/schedConf/overview>. The workshop will provide an opportunity to review, discuss and explore directions of development of Bayesian Inference in Stochastic Processes. Theoretical and applied contributions are both welcome. A non-exhaustive list of topics includes Markov processes, state-space models, spatial, empirical, birth-death and branching processes, queueing, population modelling, signal processes, stochastic differential equations. All sessions at this symposium will be plenary, with a mix of invited and contributed talks. There will be a poster session. Submit your contributed abstract before 15 February 2019.

COBAL VI. The VI Latin-American Bayesian Conference. June 19-21, Pontificia Universidad Católica del Perú. Lima, Perú. <http://congreso.pucp.edu.pe/cobal-vi/en> The COBAL series serves to disseminate Bayesian ideas within the Latin American statistical community, offering interested researchers and academics in the region the opportunity for interaction and discussion. COBAL put sparticular emphasis in fostering participation of junior researchers. The program will consist of short courses, plenary lectures, invited sessions, contributed sessions and posters. We have confirmed the following three short courses **Empirical Bayesian methods in personalized medicine** Francisco J. Diaz, University of Kansas, USA; **Bayesian Computation** Hedibert Freitas Lopes, Insper, Brasil; **Time Series** Raquel Prado, University of California Santa Cruz. USA.

Fourth ISBA-EAC Conference, July 13-14 2019, Kobe (Japan). <https://eacisba2019>.

[wordpress.com](#). The Fourth EAC-ISBA conference will be held at the Kobe University, Kobe, Japan (July 13-14, 2019). The conference serves the Eastern Asia Chapter's purpose of promoting research and education in Bayesian statistics in the area as well as the countries nearby.

The conference program includes keynote sessions, tutorial lectures, invited sessions and a poster session. The conference has confirmed the two keynote speakers, Siddhartha Chib (Washington University in St. Louis, USA) and Hedibert Freitas Lopes (INSPER, Brazil). The two tutorial lectures will be given by Dipak K. Dey (University of Connecticut, USA) and Igor Prünster (Bocconi University, Italy).

The conference is now accepting the invited session proposal and poster submissions. The following is a list of important dates:

- December 15, 2018: poster submission opens.
- February 1, 2019: registration open.
- March 15, 2019: invited session proposal submission deadline.
- March 31, 2019: early registration deadline.
- April 30, 2019: poster submission deadline.
- June 30, 2019: regular registration deadline.

BNP 2019. 24-28 June, Oxford, UK. <http://www.stats.ox.ac.uk/bnp12/> The Bayesian non-parametrics (BNP) conference is a bi-annual international meeting of the ISBA non-parametrics section, bringing together leading experts and talented young researchers working on applications and theory of nonparametric Bayesian statistics. Keynote speakers are Tamara Broderick, MIT; Long Nguyen, U. of Michigan; and Aad Van der Vaart, Leiden. Call for contributed abstracts and travel support close **December 15**.

Statistics conference in honor of Aad van der Vaart's 60th birthday Leiden, The Netherlands, June 17-21, 2019. <http://pub.math.leidenuniv.nl/~schmidthieberaj/aadbirthday/index.html#registration> Aad van der Vaart has shaped mathematical statistics through his wide range of contributions including seminal work on empirical processes, likeli-

hood based methods and semiparametric statistics. He is well known for the Ghosal-Ghosh-van der Vaart theory for nonparametric Bayes. In addition, Aad has been contributing to many fields in applied statistics, in particular statistical genetics and genomics. He is author of several excellent books that are standard references and basis of statistics courses worldwide. The conference will bring together collaborators and leading researchers in theoretical and applied statistics. Topics include nonparametric Bayes, high-dimensional/nonparametric statistics and applications of statistics in the life sciences.

2019 Spring Research Conference (SRC) 22-24 May, 2019, Blacksburg VA. <https://www.stat.vt.edu/index/SRC2019.html> The ISBA section on Industrial Statistics is sponsoring student scholarships to attend the 2019 Spring Research Conference (SRC). The deadline for application is 31 January 2019.

ABS16, the Applied Bayesian Statistics summer school June 24-28, 2019 Como, Italy. <http://web.mi.imati.cnr.it/conferences/abs19/index.html>.

The topic for the 2019 school is *Bayesian Demography* and the lecturers will be Adrian Raftery and Hana Sevcikova, University of Washington, Seattle, USA. The Directors of ABS19 are Guido Consonni and Fabrizio Ruggeri. Raffaele Argiento is the Executive Director.

Course outline: Population projections have until recently usually been done deterministically. Recently, the United Nation Population Division adopted a probabilistic approach to project fertility, mortality and population for all countries. In this approach, the total fertility rate and female and male life expectancy at birth are projected using Bayesian hierarchical models estimated via Markov Chain Monte Carlo. They are then combined with a cohort component model, which yields probabilistic projection for any quantity of interest. The methodology is implemented in a suite of R packages, which has been used by the UN analysts to produce the most recent revision of the World Population Prospects.

This course will teach the theory and practice of Bayesian probabilistic projections. Ideas of the Bayesian hierarchical modeling for the three main components of population change, fertility, mortality and migration, will be explained. In hands-on exercises, students will become familiar with the functionality of the R packages.

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