

THE ISBA BULLETIN



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A MESSAGE FROM THE PRESIDENT

A MESSAGE FROM THE PRESIDENT

- Alexandra M. Schmidt -
ISBA President, 2015
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"In the New Year, you carry all the experiences of the past years and that is the greatest power of every New Year! This year again, you are less student and more master!" - Mehmet Murat ildan

I came across this sentence and found it quite appropriate to start my last presidential address for the Bulletin. We Bayesians use our experiences to infer and make decisions. And this can be applied to our everyday lives. The more attention we give to our past experiences, the greater the chances of making choices that lead to happiness. For the New Year, I wish you health and strength to look carefully at your experiences, to be able to dream new dreams and, most importantly, to work to make them become true.

I am about to end my role as ISBA's President. Now it is time to look back, review where we were, and understand where we are heading. My aims as ISBA's President have been to ensure that ISBA kept involved in the activities set by former Presidents and to propose new goals and activities.

One of the challenges faced by ISBA during this year was the organization of **ISBA 2016**. The Program Council, chaired by Michele Guindani, together with the Local Organizing Committee, chaired by Stefano Cabras, have been doing a wonderful job to make sure that we have a won-

derful meeting, following the Bayesian tradition of combining a superb scientific program with a astonishing location. For more details on **ISBA 2016** see page 5.

Bayesian Analysis (BA), the **open-access** electronic journal sponsored by ISBA continues to perform really well. It ranked 7th in the JCR in 2014 (among 119 journals in Statistics & Probability). Marina Vanucci, the Editor-in-Chief of BA, and the Associate Editors have been doing a wonderful job keeping the high quality of the papers published there. The Executive Board of ISBA, understands the importance of BA and encourages all initiatives that strengthen the contributions of the journal to the scientific community. Starting next year there will be changes that we believe will improve BA's visibility. For details see page 12.

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

Although ISBA has experienced a fabulous growth in the last years, more work needs to be done to increase its visibility in different regions of the world and, therefore, to attract more members. In this sense, since the beginning of the year I have been making an effort to contact all Presidents of the different Chapters to share experiences and encourage them to advertise their activities to all members. In particular, I have been working with some ISBA members on the creation of the Eastern Asian ISBA Chapter. More details about this initiative are given below.

From my experience at my University, I believe that educational research activities should be encouraged to make Bayesian methods more visible to other areas of Science. In this sense, last August I started discussing with Dalene Stangl the idea of creating a Section on Bayesian Research Education. See more details about this below.

Creation of the Eastern Asian ISBA Chapter

ISBA encourages members around the World to form local or regional chapters of ISBA to promote Bayesian statistics. Currently, ISBA has 5 chapters, spread over different regions of the World. However, none of them covers Eastern Asia. Since April I have been discussing with some colleagues in Eastern Asia and in the US the idea of creating an Eastern Asian ISBA Chapter. As a consequence of this discussion, and through the great work of Ming-Hui Chen and Michele Guindani, ISBA approved to sponsor Young Reseacher travel awards for the **2016 ICSA China Statistics Conference**. Moreover, ISBA organized two invited sessions. Also, we are organizing a satellite meeting to the 10th ICSA International Conference, **The First Eastern Asia Meeting on Bayesian Statistics**, to be held on December 18th at the Xuhui campus of Shanghai Jiao Tong University (SJTU), Shanghai, China. Below is the list of members of the Scientific Committee of this Satellite Meeting, who are also involved in the discussion of the creation of the Chapter:

- **Cathy W.S. Chen**, Feng Chia University
- **Ming-Hui Chen**, University of Connecticut
- **Michele Guindani**, UT MD Anderson Cancer Center
- **Jaeyong Lee** (Chair), Seoul National University

- **Yasuhiro Omori**, University of Tokyo
- **Alexandra Mello Schmidt**, Federal University of Rio de Janeiro
- **Mike Ka Pui SO**, Hong Kong University of Science and Technology
- **Dongchu Sun**, University of Missouri
- Dejun Tang, Novartis

During 2016 we will continue to work to formalize the creation of this new Chapter. If you are an ISBA member with links to Eastern Asia, you are more than welcome to join us in this venture, and to help ISBA strengthen its activities in this region of the World!

Creation of the Bayesian Education Research and Practice Section

In the **previous issue** of the Bulletin, **Dalene Stangl** wrote an article discussing why and how Bayesian foundations and methods should be taught to students in primary and secondary schools as well as university undergraduates in all disciplines. This discussion moved forward and **Leanna House** was invited to join Dalene and I, to explore the creation of an ISBA Section devoted to Bayesian Education Research.

Dalene and Leanna have already invited other ISBA members to participate in this initiative and are currently devising a mission statement and reviewing the by-laws of other sections to put forward a formal proposal to create this new Section.

If you are concerned about how Bayesian methods are taught and used in different fields of Science, contact Dalene Stangl (dalene@stat.duke.edu), Leanna House (lhouse@vt.edu), or Alexandra M. Schmidt (alex@im.ufrj.br). Help us spread Bayesian thinking by contributing to the creation of this Section. All contributions will be welcome!

ISBA Elections

Elections for President, Executive Secretary, members of the Board, and new members of section executives took place from October 22 through November 22. Results were announced in the end of November. Below is a summary of the main changes.

Mandate completed

I thank the following ISBA members who have donated a lot of their time to serve ISBA in different capacities:

- **Sonia Petrone**, President-Elect, President, Past President (2013-2015)
- **Steve Scott**, Executive Secretary (2013-2015)
- **Ramsés Mena**, Program Council (2013-2015)
- **Marina Vanucci**, Editor-in-Chief of Bayesian Analysis (2013-2015)
- **Jarad Niemi**, ISBA Web Editor (2013-2015)
- **Feng Liang**, Editor of the ISBA Bulletin (2013-2015)
- **Paul Fearnhead, Amy Herring, Jaeyong Lee, Håvard Rue**, Board Members (2013-2015)

Welcome new officers

Welcome to the new ISBA officers for 2016-2018:

- **Kerrie Mengersen** President-Elect, President and Past-President
- **Amy Herring**, Executive Secretary
- **Bruno Sansó**, Editor-in-Chief of Bayesian Analysis
- **Kate Calder**, ISBA Web Editor
- **Beatrix Jones**, Editor of the ISBA Bulletin
- **David Banks, Abel Rodriguez, Marc Suchard, Luke Tierney**, Board Members.

Nominations for the 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.

The Zellner Medal is restricted to current ISBA members. Candidates should have been members of ISBA for the last three consecutive years, at least, and served ISBA in a range of leadership roles over an extended period of time.

The members of the 2016 selection committee for the Zellner Medal are Michael Jordan, Fabrizio Ruggeri, and Mike West. To nominate someone go to the [Zellner Medal site](#).

Deadline for submissions: January 15th, 2016.

Donations for the Bayarri and de Finetti funds

Thanks to the hard work of our Past-President, Sonia Petrone, I am happy to announce that ISBA has been receiving donations to fund the Susie Bayarri and the Bruno de Finetti Lectures. ISBA Named Lectures are established to honor individuals who have had a fundamental role in the advancement of Bayesian Statistics. For more details, have a look at [bylaws N](#).

The Susie Bayarri Lecture

The Susie Bayarri Lecture shall be delivered at the ISBA World Meetings by an outstanding young researcher under 35 years of age.

The Bruno de Finetti Lecture

The Bruno de Finetti Lecture shall be delivered at the ISBA World Meetings.

To reach the amount required for the establishment of the Named Lecture, additional contributions to the endowment fund of US\$8,000 are needed. Please consider making donations toward the establishment of these Named Lectures. Donations can be made at <http://bayesian.org/business/funds>.

Renew your membership As you see, ISBA is involved in many different activities. As always, this year the Program Council approved the sponsorship of different events [around the world](#). Bayesian Analysis, the flagship journal of ISBA, is open access and is one of the top journals in Statistics. ISBA keeps supporting junior researchers to attend different events sponsored by the society. All these actions are only possible through the support of ISBA's members. It is very important that you renew your membership now to continue supporting the development and growth of the society.

Go ahead and renew your membership here. Once you have completed the initial steps, the site will present a “Thank you” message indicating the total amount of your transaction. You must then proceed to a new section of the site [bayesian.org/payments](#) to make a credit card payment to ISBA. Once your payment is

received, Gabriella Bonfanti, our administrative manager, will be notified and will manually validate your transaction. You will receive an email notifying you that your transaction is complete.

Acknowledgements I would like to close this statement by thanking some key people who helped me in different ways to face the challenge of being ISBA's President.

After contributing to the Program Council between 2009-2011, I have always felt that the Program Chair is one of the key persons for ISBA. Especially if he or she is the Chair during an odd year and is therefore responsible for the organization of the upcoming ISBA World Meeting. I am deeply grateful to Michele Guindani. He has been doing a fabulous job for ISBA, and in particular for ISBA 2016. Michele, thank you for being so organized, so punctual with all the commitments, and for acting so independently in the best interests of ISBA.

I thank Sonia Petrone, the Past-President, for making sure that the wheel kept rolling; Steve Scott for managing, always with a great sense of humor, important and challenging changes to the website, and for working in the best interest of ISBA; Murali Haran for keeping track of ISBA's finances and making sure that ISBA's funds are

spent in the best interests of its members; Gabriella Bonfanti, our Administrative Manager, for her tireless work and help in managing different aspects of ISBA's administration.

I also thank Fabrizio Ruggeri and Mike West, former Presidents of ISBA to whom, in my opinion, the Society owes a lot. I benefited a lot from conversations with them in which we discussed the present and the future of ISBA. Thank you for always promptly sharing your experience and providing advice. I am also grateful to Merlise Clyde who was always ready to clarify doubts about different issues. Merlise is perhaps the only ISBA member who knows most, if not *all*, different aspects of the Society. A special thank you to Raquel Prado, who gave me some important suggestions; I am always grateful for that.

It has been a great honour to act as ISBA's President during 2015. I thank the members for the confidence placed in me. I am sure ISBA will be in great hands in 2016, and I will be happy to continue to work for ISBA. Steve, I wish you the best of luck on this new ride!

I am looking forward to see you all in June in Sardinia!

I welcome your comments on these topics or others - please feel free to email me at alex@im.ufjf.br. ▲

A MESSAGE FROM THE EDITOR

- Feng Liang -
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Another great year has passed away. As being summarized in the *last* message from our president, many activities and many initiatives have been going on in our society this year. As Editor of the Bulletin, I would like to thank Alex for all her support and guidance in 2015!

This is also my *last* message as Editor of the Bulletin. It is the time for a renewal of the Bulletin Editor office. I would like to take this opportunity

to express my deep gratitude to all the Associated Editors I've worked with and contributors such as ISBA Section Chairs, Marina (Editor-in-Chief of BA), members from the Program Council, and many others. Thank you for your help and support!

Let me also welcome Beatrix Jones, our next Editor of the Bulletin. I am confident that she will do a great job to make our Bulletin better!

Last, but not least, a word of thanks to YOU, dear readers of the Bulletin! In order for the Bulletin to become better, we need the help from YOU, the readers, and the best way to help us is to email us your suggestions/contributions in 2016! ▲

FROM THE PROGRAM COUNCIL

program-council@bayesian.org

ISBA 2016 World Meeting

We are getting close to the final deadlines in the organization of the ISBA 2016 World Meeting, which will be held in the Forte Village Resort Convention Center (Sardinia, Italy), from June 13th to June 17th, 2016. Please, make sure to follow closely the Conference Webpage (<http://www.isba2016.org/>), as well as the **Facebook** and **Google+** pages for the latest announcements about the conference.

After the successful call for special topic sessions, which led to a substantial reorganization of the program of the conference, the call for the poster sessions has already gathered more than 200 submissions. Abstract submission has been extended to **January 15th, 2015** and can be completed at the following website <http://abstracts.isba2016.org/>. As in the tradition of the previous Valencia and ISBA meetings, the posters will be presented in the very popular plenary evening session, which is generally considered to be a highlight of the conference. Depending on the space available at the conference venue, we may need to limit the number of posters accepted. However, as usual the Scientific and the Local Organizing Committee will try their best to accommodate the largest number of contributions. In addition to the submission of posters, the same website handles the submission of all abstracts for the Invited and Special Topic sessions, which has to be completed by the same deadline. Some *preliminary program information* can be found under the *Scientific Program* frame of the Conference Website.

We would like to encourage all attendees to register early. Registration deadlines are available under *Registration* on the conference website. For organizational reasons, we would like to ask the speakers to complete the registration and accommodation reservation by **March 1st, 2016**. Rooms are limited at the conference venue, so booking in advance is suggested. One night deposit is enough to book the room and it is fully refundable till **February 10th, 2016**. Accommodation informa-

tion is available under *Hotel information* on the conference website. We would also invite to pay attention to the *VISA information* available on the conference website. Recent events in Europe suggest that increased scrutiny may be in place at port of entries of the so-called Schengen area, which may trigger delays in the processing of VISAs. In some countries (including the US) and in some cases, this means that applicants may need to appear in person for the collection of the biometric data. A letter of invitation can be obtained from the Organizing Committee for the purpose of the VISA request (and for other purposes) by directly contacting the conference organizing administration at isba2016@corsiecongressi.com. The letter will be sent to you by e-mail as a pdf file. In order to avoid cases of VISA fraud that may jeopardize our standing with the italian consulates abroad, both a completed registration to the conference and a submitted abstract will be needed to obtain a formal letter of invitation. We recommend that you get in touch with the italian consulates abroad and plan your trip in advance!

Finally, the Local Organizing Committee would like to remind all members that there are multiple daily flights to Cagliari from major european cities. Sometimes, long-haul international airfares may be quite pricey. Some savings may be realized by flying into a major italian or european city and then separately book a low-cost option to Cagliari. You can obtain updated information about the airlines and routes to Cagliari at the *Cagliari Elmas Airport website*. Please, check carefully baggage limitations and check-in procedures before departure if you decide to book on a low-cost airline, in order to avoid additional fees.

Short Courses

Short courses will be held at Palazzo Baffi, at University of Cagliari (note, that this is **not** the meeting venue) on **Sunday, June 12th, 2016**. The following courses will be offered:

Full Day courses:

1. *Nonparametric Bayesian inference and machine learning*, by **Peter Orbanz**, Columbia University and **Tamara Broderick**, MIT.

2. *Computational methods in Bayesian statistics* by **Abel Rodriguez**, University of California Santa Cruz.

Morning courses (9:00-12:00):

3. *Big Data*, by **David Dunson**, Duke University.
 4. *Recent advances in Bayesian adaptive clinical trial design* by **Brian Hobbs**, UT M.D. Anderson Cancer Center.
 5. *Introduction to STAN* by Sebastian Weber, Novartis, Basel.
- Afternoon courses (14:00-17:00)
6. *Time series Modeling*, by **Sylvia Fruwirth-Schnatter**, W.U. Vienna.
 7. *Bayesian Demography*, by **Adrian Raftery**, University of Washington.
 8. *Introduction to JAGS and NIMBLE*, by **Chris Paciorek**, University of California Berkeley.
 9. *Teaching Bayes – the essential parts*, by **Rebecca Steorts** and Abbas Zaidi, Duke University.

We thank the instructors for agreeing to teach those courses. We expect the courses to fill quickly and will accept participants by order of enrollment. Capacity is limited by the class room sizes. There will be buses to the Forte Village to transfer participants to the conference venue for ISBA 2016 at the end of the afternoon courses.

Registration and fees: Fees are intended only to cover the costs of organizing the courses. The fees are all-day and include the lunch organized at the University facility. You will be required to select the courses of interest (1 full day course, or up to 2 half-day courses) at the time of registration:

- Registered participants to the ISBA World Meeting: 50 euro
- Students, Faculty and other personnel of the University of Cagliari: Free
- Others: contact the Organizing Secretary for details (isba2016@corsiegressi.com)

Registrations to the Short Courses will soon be available under the *Short Courses* frame on the main conference website.

Satellite meetings

Quite a few interesting meetings have been organized in Italy in anticipation or after the ISBA 2016 World Meeting. Participants to the conference may want to consider if they plan to extend their permanence to Italy or if they want to have a stop in a major Italian city, where they could catch low-cost flight to Sardinia: Here, we are going to remind a few notable ones:

1. *The 48th Meeting of the Italian Statistical Society (SIS)*, University of Salerno, June 8th-June 10th, 2016. The call for papers is open till February 7, 2016. There are multiple daily flights to Cagliari out of the nearby International Airport of Naples.
2. *Advances in Statistics, Probability and Mathematical Physics. A conference in honour of Eugenio Regazzini* at the University of Pavia on June 10-11, 2016. This conference wishes to celebrate **Eugenio Regazzini's** (ISBA Fellow) outstanding academic career and the generous dedication to map his real enthusiasm for research into the countless young scholars he has mentored. Invited speakers at the conference include J. Berger, E. Carlen, P. Diaconis, E. George, A. Gnedin, R.C. Griffiths, I.Ibragimov, M. Jordan, G. Peccati, R.V. Ramamoorthi and C. Sabatti. There are multiple convenient flights out of the three major airport in the surrounding Milan area.
3. *BAYSM 2016*, Florence June 19th-June 21st, 2016. This is the 3rd edition of the Bayesian Young Statisticians Meeting (BAYSM). BAYSM is dedicated to Ph.D. Students, M.S. Students, Post-Docs and Young Researchers working in the field of Bayesian statistics. BAYSM is an opportunity to connect with the Bayesian community at large, to exchange ideas, and to know people working in the same field for creating future networks. The presence of a senior discussant in each session will allow participants to get advice and comments to their current research. Theoretical and applied contributions are welcome. All authors whose contribution has been accepted for an oral talk or a poster presentation are also invited to extend their papers to be considered for publication in a book of the series Springer Proceedings in Mathematics & Statistics (with ISSN). Publication will be free for authors. The submission deadline is February

15, 2016. The conference will be hosted at the University of Florence (20 June) and at the Sala dei Duecento, in the beautiful Palazzo Vecchio (21 June) next to Michelangelo's David!

ISBA Travel Awards

We have received **63** applications to compete for the three major ISBA Travel Awards. The selection of the winners of the Awards has been incredibly difficult, due to the large number of outstanding applications. Applicants notably included some of the best among the young researchers in the current Bayesian landscape.

The Travel Awards Committee was composed by Bruno Sansó, David Banks, Catherine Forbes, Alexandra M. Schmidt, Purushottam Laud, Fabrizio Leisen, Brian Paul Hobbs, Franis Caron, Jonathan Stroud, Luis Enrique Nieto Barajas, Christopher Hans, Ramses Mena and Michele Guindani (chair). In order to be considered for any Award, Ph.D. students were expected to graduate by June 2016. Young researchers were required to have received their Ph.D. after July 2010. In addition, applicants had to provide one letter of recommendation outlining their contributions, and commit to the presentation of a talk or a poster at the ISBA 2016 World Meeting. All applicants to a Travel Award have been automatically considered in the list of applicants for the standard junior travel support (see below).

The **ISBA Lifetime Members Junior Researcher Award** is intended to recognize junior researchers, attending a World Meeting, who gave significant contributions in the early stage of their career. The Awards are partially funded by the contributions of ISBA Lifetime Members. The recipients of the 2016 ISBA Lifetime Members Junior Researcher Award are:

Luke Bornn, Simon Fraser University, for his distinctive contributions in spatial statistics, Bayesian statistics, Approximate Bayes inference, and Monte Carlo methods. In addition, his Bayesian models to analyze basketball data and assess the quality of individual players have received major attention by the *US media*, showcasing the usefulness of Bayesian models in sports analytics.

Tamara Broderick, MIT, for her distinctive

work on the characterization of exchangeability in feature allocation, and the study of the stick-breaking properties of the beta process. She has also been recommended for her service record in the Bayesian community, by promoting ties with the machine learning community and being a major promoter of the recent ISBA@NIPS initiative.



Abbildung 1: Luke Bornn & Tamara Broderick, recipients of the ISBA 2016 Lifetime Members Junior Researcher Award

The purpose of the **ISBA New Researchers Travel Award** is to support participation in ISBA Meetings by promising junior researchers. Recipients of the ISBA New Researchers Travel Award are selected on a competitive basis, and are characterized by an outstanding early record of significant publications. The recipients of the 2016 ISBA New Researchers Travel Awards are:

Botond Szabó, University of Amsterdam, for his early significant and foundational contributions to frequentist optimality theory for nonparametric Bayes procedures, including empirical Bayes estimation of hyper-parameters and the performance of nonparametric credible sets.

Jeff Miller, Duke University, for his work on clustering properties of commonly used Bayesian nonparametric models, and his study of the robustness of Bayesian inferences to model misspecification.



Abbildung 2: Botond Szabó & Jeff Miller, recipients of the ISBA New Researchers Travel Award

The Pilar Iglesias Travel Award provides travel grants for one or two graduate students or young researchers from a developing nation so that they can participate to an ISBA World Meeting. The recipients of the 2016 Pilar Iglesias Travel Awards are:

Minerva Mukhopadhyay, Indian Statistical Institute and Bethune college, for her original work on Bayesian variable selection.

Kelly Cristina Mota Gonçalves, Federal University of Rio de Janeiro, Brazil, for her work on clustered and sparse populations when the data are obtained from an adaptive cluster sampling.



Abbildung 3: Minerva Mukhopadhyay & Kelly Cristina Mota Gonçalves, recipients of the Pilar Iglesias Travel Award

ISBA junior travel support

We have received 151 applications for junior travel support to the ISBA 2016 World Meeting. Decisions should be expected approximately by Ja-

nuary, 20th 2016. This number includes the non-selected applications for the Travel Awards. The junior travel support grants represent the traditional mean that ISBA has been using to facilitate the participation of young researchers to the ISBA World meetings. As we all know, ISBA is one of the few professional societies that encourages and sponsors the active participation of PhD students and young researchers to their meetings. ISBA sponsored more than 80 students for their travel to the World Meeting in Cancun in 2014. For the 2016 World Meeting, ISBA has been applying for funds from the government and private companies to support the travel of students and young investigators to the conference. So far, only **Google**, **Stata** and **RStudio** have agreed to help us with such endeavor. We will have dedicated ISBA-Google, ISBA-Stata and ISBA-RStudio funds, in addition to the funds usually provided by ISBA and government agencies. The **Section on Bayesian Computation** is also offering travel support funds obtained from their Section budget. **Collegio Carlo Alberto**, a joint venture of Compagnia di San Paolo and University of Turin is also providing general financial support to the conference. If you own a company, or know of any other private entity which may be willing to be added to the list of sponsors, please let us know as soon as possible! As you can see by the number of submissions, even by supporting the travel of just one or two students, sponsors provide a very important help to these young students, and to the mission of ISBA! The current list of sponsors can be found here: <http://sponsors.isba2016.org>.

ISBA@NIPS

The second edition of the ISBA@NIPS initiative was again a great success! The majority of the ISBA-endorsed workshops made it into the final program of the 25th Annual Conference on Neural Information Processing Systems (NIPS), which was held in Montreal, December 7th-December 12th, 2015. More precisely, these were the approved workshops:

Scalable Monte Carlo Methods for Bayesian Analysis of Big Data, organized by B. Shahbaba, Y. W. Teh, M. Welling, A. Doucet, C. Andrieu, S. J. Vollmer and P. Jacob

ABC in Montreal, organized by T. Meeds, M. Gutmann, D. Prangle, J.M. Marin, R. Everett

Bayesian Nonparametrics: The Next Generation, organized by T. Broderick, N. Foti, A. Schein, A. Tank, H. Wallach, S.A. Williamson

Advances in Approximate Bayesian Inference, organized by D. Tran, T. Broderick, S. Mandt, J. McInerney, S. Mohamed, A. Kucukelbir, M.D. Hoffman, N. Lawrence, D. Blei

Applications to the ISBA@NIPS Travel Awards were also outstanding. Indeed, the high quality of the applications we received highlights the necessity of this type of initiatives. On the other hand, it also makes it particularly difficult to reach a decision! The two recipient of the 2015 NIPS@ISBA Travel Awards were:

Wentao Li, Senior Research Associate, De-

partment of Mathematics and Statistics, Lancaster University, who was participating to the workshop *ABC in Montreal*

Diana Cai, Ph.D. Student, Department of Statistics, University of Chicago, who was participating to the workshop *Bayesian Nonparametrics: The Next Generation*.

We would like to thank all the researchers that contributed to the success of this second edition of the ISBA@NIPS initiative. Reports from the conference tell us of a great audience turnout and extremely positive feedback from the participants! This initiative represent an important mean by which ISBA can increase its ties with the machine learning community at large, and we expect to renew its success and its reach in the years to come!



Abbildung 4: A moment of a panel at the ISBA@NIPS Approximate Bayesian Inference workshop

ISBA Co-sponsorships

As announced in the previous bulletins, starting with 2016 there will be **new procedures for requesting ISBA co-sponsorship of conferences, meetings (including the Sections' meetings) and other events.**

All requests for co-sponsorships need to be received by May 30th of each year for conferences organized at any date between January 1st and December 31st of the following year. Please, note that **this holds true also for Section and Chapter meetings!**

The full policy was published in the [March](#) edition of the Bulletin, and it is now available online

at <https://bayesian.org/meetings/planning>.

The policy includes also precise rules for the use of the funds, which should be used only for junior travel support. In addition, the funds may be used to establish one or a maximum of two ISBA New Researcher Travel Awards, which are awarded on a competitive basis to junior researchers. A junior researcher is a graduate student in a current degree program or someone who has received a PhD or equivalent in the last 5 years. The full description of the new types of travel grants is available at <http://bayesian.org/awards/StudentTravelAward>.

ISBA Events in 2015 & Beyond

Since this is the last number of the Bulletin for the year, we would like to provide a list of the meetings and main activities that were endorsed or sponsored by ISBA in 2015:

Joint Adaptive Design and Bayesian Statistics Conference: Drivers of Efficiency, Feb 10-12th, 2015, Endorsed meeting

G70, A conference in honor of Alan Gelfand's 70th birthday, April 19th-22nd, 2015, endorsed meeting.

11th International Workshop on Objective Bayes Methodology, O-Bayes15, June 1st-4th, 2015, Section Meeting. With generous grants from ISBA and NSF, travel support was provided for **30** junior participants. This included **8** ISBA junior travel support grants.

BISP9 Workshop on Bayesian Inference in Stochastic Processes, June 14th-June 16th, 2015, endorsed meeting.

The Fourth Symposium on Games and Decisions in Reliability and Risk (GDRR 4), June 17th-June 18th, 2015, endorsed meeting.

10th Conference on Bayesian Nonparametrics, Section meeting, June 22nd-26th, 2015. Both ISBA and the Bayesian Nonparametrics Section of ISBA have issued **7** travel support grants to young participants who presented either a poster or a talk.

IV Latin American Meeting on Bayesian Statistics IV COBAL 2015, July 1st-4th, 2015. ISBA funded **6** junior travel support grants.

International Conference on Health Policy Statistics (ICHPS), October 7th-9th, 2015, endorsed meeting.

Bayes on the Beach 2015, Dec 7th-9th, 2015, Australasian Chapter meeting.

ISBA@NIPS, Dec 7th-12th, 2015, endorsed workshops.

Sixth IMS-ISBA Joint International Meeting: "BayesComp at MCMSki V", Jan 5th-7th, 2016, Section Meeting. The BayesComp Section of ISBA provided funds for **29** travel support grants to support students with a PhDs earned in 2012 and later.

13th Edition of the Brazilian Meeting on Bayesian Statistics (EBEB), Feb 22-24th, 2016, Chapter meeting.

ENVR/EnviBayes Workshop on Bayesian Environmentmetrics, March 31st-April 2nd, 2016, Chapter Meeting.

Advances in Statistics, Probability and Mathematical Physics, conference in honour of Eugenio Regazzini, June 10-11, 2016, endorsed meeting.

The 13th World Meeting of ISBA (ISBA 2016), June 13th-June 17th, 2016. Short Courses on June 12th, 2016.

The 10th ICSA International Conference on Global Growth of Modern Statistics in the 21st Century and the first Meeting of the East Asian Chapter of ISBA, Dec. 19th-22nd, 2016, co-sponsored and Chapter meeting.



2015 ISBA ELECTION

We are pleased to announce the results of the recent ISBA elections:

ISBA President-Elect

Terrie Mengersen,
Queensland University of Technology,
Australia,
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ISBA Executive Secretary

Amy H. Herring,
The University of North Carolina
at Chapel Hill, USA,
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ISBA Board

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Section on Bayesian Computation Chair-Elect

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Section on Bayesian Computation Program Chair

Nicolas Chopin
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Section on Biostatistics and Pharmacology Chair-Elect

Leonhard Held,
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Section on Bayesian Nonparametrics Program Chair

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On behalf of all ISBA members, we congratulate all those named above, thank them for their willingness to serve the profession in these positions, and look forward to their leadership contributions in coming years! We also again thank the candidates who stood for election but were not elected (this year!) ▲

BAYESIAN ANALYSIS - A MESSAGE FROM THE EDITOR

UPDATE FROM BA

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

The December issue of Bayesian Analysis (Volume 10, Number 4) is now closed and available in final form at the Journal website. The issue features articles from the 2014 ISBA World Meeting that are competing for the 2014 Lindley Prize, to be awarded at the 2016 ISBA World Meeting. It also contains other fine articles on various topics of Bayesian statistics.

This is also the last issue I am handling as Editor-in-Chief, as my 3-year term is ending at the end of this year. I am leaving the Journal in the very capable hands of Bruno Sanso', who will also bring a set of new Editors/AEs to the editorial board. The old and new boards will overlap for a short period of time, to ensure a smooth transition.

The Journal is in good health, with a large number of submissions, an acceptance ratio which is now around .25 and a median time to 1st decision that has remained steady at around 60 days. Authors can now submit manuscripts for consideration as discussion papers. These can also be sponsored by an ISBA section. The Journal is featured at every JSM, with the "Highlights from BA" invited session, sponsored by SBSS/ISBA, and at the ISBA World Meetings, with the "ISBA World Meeting BA discussion paper", which is presented at the ISBA meeting and published, with discussion, in the September issue following the meeting.

BA is now fully hosted at Project Euclid. Furthermore, production and editing are now handled professionally by the company vTeX - Solutions for Science Publishing. All accepted articles, including discussion papers, are now available at the journal website under the "advance publication" tab, and journal issues are assembled

'live'. The new production system allows readers to read articles in a timely manner and to cite them appropriately. All this of course has come with a price, as ISBA is now incurring increased costs for the new production system, in addition to those for hosting the Journal on Project Euclid. BA authors can help ISBA defray such costs by paying the voluntary article charges. I strongly encourage everybody to do so.

In closing, I wish to thank the Editors I have worked with for making the review process run-

ning smoothly: Ming-Hui Chen, David Dahl, David Heckerman, Lurdes Inoue, Antonietta Mira, Igor Pruenster, Bruno Sanso, Dan Spitzner, Mark Steel, and Kert Viele, as well as Valen Jonson and Sonia Petrone, who were also on the board in the first part of my 3-year term. The editors are supported by a larger number of associated editors and a vast number of referees. Kassie Fronczyk has been serving as the Managing Editor, and has done a great job chasing people up. Thank you all for your support and dedication to our Journal. You have made these 3 years very enjoyable! ▲

SOFTWARE HIGHLIGHT

A MENU-DRIVEN SOFTWARE PACKAGE FOR BAYESIAN REGRESSION ANALYSIS¹

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1 Introduction

Regression modeling is ubiquitous in empirical areas of scientific research. This is because most research questions can be asked in terms of how a dependent variable changes as a function of one or more covariates (predictors). Applications of regression modelling involve either prediction analysis, categorical data analysis, causal analysis, meta-analysis, survival analysis of censored data, spatial data analysis, time-series analysis, item response theory (IRT) analysis, and/or other types of regression analyses.

Bayesian Regression: Nonparametric and Parametric Models, is a free stand-alone, user-friendly, and fully menu-driven software package that can be used to perform data analysis using any one of over 80 Bayesian regression models, without having to write code. Currently, the software includes Bayesian infinite-mixture regression models, with mixture distribution assigned a prior distribution defined by either a Dirichlet process (Ferguson, 1973) (defining an ANOVA/linear

DDP mixture model; De Iorio, et al. 2004; Müller, et al. 2005), the Pitman-Yor (1997) process, the normalized stable process (Kingman, 1975), the beta 2-parameter process (Ishwaran & Zarepour, 2000), the normalized inverse-Gaussian process (Lijoi et al., 2005), and processes defined either by geometric mixture weights (Fuentes-Garcia, et al. 2009) or covariate-dependent, ordered-probits regression mixture weights (Karabatsos & Walker, 2012b). The software also provides various parametric (finite-dimensional) Bayesian normal regression models, including normal linear models, and normal mixture models that define either 2-level or 3-level random-effects models (or HLMs: Hierarchical linear models). All of the nonparametric and parametric mixture regression models can handle multi-level data, and perform mixing on either the intercept parameter, or on the intercept and slope coefficient parameters.

All the nonparametric and parametric regression models of the software can handle either continuous, binary, ordinal dependent variables (including probit and logit models), as well as continuous dependent variables subject to either left, right, and/or interval censoring. The software allows the user to perform, as a function of covariates, various posterior predictive inferences of the dependent variable, including the mean, median, quantiles, variance, probability density function (p.d.f.), cumulative distribution function (c.d.f.), survival function, hazard function, and cumulative hazard function. Therefore, the software not

¹Supported by NSF-MMS research grant SES-1156372.

only provides a traditional mean-based regression analysis, but also provides median regression, quantile regression, density regression, and survival analysis. Many of these models are assigned spike-and-slab priors to provide automatic variable (covariate) selection inference from the posterior distribution (e.g., George & McCulloch, 1997). Finally, the software also includes versions of the Bayesian infinite-mixture models for density estimation.

The software implements Markov chain Monte Carlo (MCMC) sampling methods to perform inference of the posterior distribution and posterior functionals. MCMC procedures for the infinite-mixture models are based on the slice-sampler of Kalli et al. (2011). Inference for all regression models are based on standard Gibbs and Metropolis sampling MCMC methods for the normal linear model (e.g., Denison et al., 2002; see Karabatsos & Walker, 2012a, 2012b).

2 Regression Models Provided by the Software

As is well-known, the Bayesian linear model, with conjugate multivariate normal (N) inverse-gamma (IG) prior, is defined by $y_i | x_i \sim N(x_i^t \beta, \sigma^2)$, with $\beta \sim N(0, \sigma^2 \text{diag}(v_\beta))$, and $\sigma^2 \sim \text{IG}(a, b)$. This model can be extended by the multi-level, normal mixture model. For example, for N_h groups of observations respectively indexed by $h = 1, \dots, N_h$, the 2-level normal random effects linear model may be specified by $Y_{i(h)} | x_{i(h)} \sim N(y_{i(h)} | x_{i(h)}^t \beta + x_{i(h)}^t u_h, \sigma^2)$ for $i(h) = 1, \dots, n_h$, with prior distributions $\beta \sim N(0, \sigma^2 \text{diag}(v_\beta))$, $u_h | T \sim N(0, T)$, $\sigma^2 \sim \text{IG}(a_0/2, a_0/2)$, and $T \sim \text{IW}(p+3, s_0 I_{p+1})$ (IW: inverted-Wishart distribution). The assumptions of normal linear models, namely, the linearity of covariate effects, and the normality (or unimodality) of regression error and random effects distributions, can be violated by data, affecting model fit and posterior inferences.

Therefore, the Bayesian nonparametrics (BNP) field has developed many infinite-mixture regression models that relax these assumptions (e.g., Hjort, et al. 2010; Karabatsos & Walker, 2012a, 2012b; Mitra & Müller, 2015). A highly-flexible, BNP infinite-mixture regression model has the ge-

neral form:

$$\begin{aligned} f_{G_x}(y | x; \zeta) &= \int f(y | x; \psi, \theta(x)) dG_x(\theta) \\ &= \sum_{j=1}^{\infty} f(y | x; \psi, \theta_j(x)) \omega_j(x), \end{aligned} \quad (1)$$

$$\begin{aligned} G_x(B) &= \sum_{j=1}^{\infty} \omega_j(x) \delta_{\theta_j(x)}(B), \\ \forall B \in \mathcal{B}(\Theta), \end{aligned} \quad (2)$$

given a covariate (x) dependent, discrete mixing distribution G_x ; kernel (component) densities $f(y | x; \psi, \theta_j(x))$ with component indices $j = 1, 2, \dots$, respectively; with fixed parameters ψ ; and with component parameters $\theta_j(x)$ having sample space Θ ; and given mixing weights $(\omega_j(x))_{j=1}^{\infty}$ that sum to 1 at every $x \in \mathcal{X}$, with \mathcal{X} the covariate space. In the model (1), the covariate-dependent mixing distribution is a random probability measure that has the general form given by (2), and is therefore an example of a species sampling model (Pitman, 1995), where $\delta_z(\cdot)$ denotes the degenerate probability measure $\delta_z(z) = 1$, with $\delta_z(B) = 1$ if $z \in B$; and $\mathcal{B}(\Theta)$ denotes the Borel σ -field of the space Θ of θ . The infinite-mixture mixture model (1) is completed by the specification of a prior distribution $\Pi(\zeta)$ on the space $\Omega_\zeta = \{\zeta\}$ of the model parameter, given by $\zeta = (\psi, (\theta_j(x), \omega_j(x))_{j=1}^{\infty}, x \in \mathcal{X})$.

For example, if G_x is assigned a Dirichlet process prior distribution with $G \sim \mathcal{DP}(\alpha, G_0)$ (assuming $G_x := G$), then the Bayesian model (1), with prior distribution $\Pi(\zeta)$ on all model parameters, is called a Dirichlet process mixture (DPM) model (Lo, 1984) where the mixture distribution (2) has stick-breaking mixture weights of the form $\omega_j = v_j \prod_{l=1}^{j-1} (1 - v_l)$, with $v_j | \alpha \sim \text{Beta}(1, \alpha)$ and $\theta_j | G_0 \sim G_0$ for $j = 1, 2, \dots$ (assuming $\theta_j(x) := \theta_j$) (Sethuraman, 1994). Furthermore, if the kernel density functions are specified by normal density functions, with $f(y | x; \psi, \theta_j(x)) := N(y | x^t \beta_j, \sigma^2)$ for $j = 1, 2, \dots$, then the model defines an ANOVA/linear DDP model, a DPM mixture of random intercept linear regression models. As alternative stick-breaking priors for G , a Pitman-Yor process assumes $v_j \sim \text{Beta}(1 - a, b + ja)$ with $0 \leq a < 1$ and $b > -a$; the normalized σ -stable process assumes $v_j \sim \text{Beta}(1 - a, b + ja)$; the beta 2-parameter process assumes $v_j \sim \text{Beta}(a, b)$ for $a, b > 0$; the normalized inverse-Gaussian process assumes $v_j = v_{1j} / (v_{1j} + v_{0j})$, $v_{1j} \sim \text{GIG}(c^2 / \{\prod_{l=1}^{j-1} (1 - v_l)\}^{1(j>1)}, 1, -j/2)$, and $v_{0j} \sim \text{IG}(1/2, 2)$, with

GIG the generalized inverse-Gaussian distribution (Favaro, et al., 2012); and the geometric weights prior assumes $v_j := v$ and $v \sim \text{Be}(a, b)$ (Fuentes-Garcia, et al. 2009). A covariate-dependent process prior for G_x is defined by ordinal regression mixture weights

$$\omega_j(\mathbf{x}) = \Phi\left(\frac{j - \mathbf{x}^t \beta_\omega}{\sqrt{\exp(\mathbf{x}^t \lambda_\omega)}}\right) - \Phi\left(\frac{j - \mathbf{x}^t \beta_\omega - 1}{\sqrt{\exp(\mathbf{x}^t \lambda_\omega)}}\right), \quad (3)$$

where $j = 0, \pm 1, \pm 2, \dots$ with $(\beta_\omega, \lambda_\omega) \sim \text{N}(\mu, \Sigma)$, and $\Phi(\cdot)$ the standard normal c.d.f. (Karabatsos & Walker, 2012b).

3 Using the Software

After starting the *Bayesian Regression* software, the user may click the File menu to import a comma-delimited data file. Before running a Bayesian regression analysis of the data set, the software user can mouse-click menu options: (1) to inspect, describe, and explore the data variables via basic descriptive statistics (e.g., means, standard deviations, quantiles/percentiles) and graphs (e.g., scatter plots, box plots, normal Q-Q plots, etc.); and (2) to pre-process the data of the dependent variable and/or the covariate(s) before including the variable(s) into the BNP regression model for data analysis. Examples of data pre-processing includes constructing new dummy indicator (0 or 1) variables, two-way interaction variables, and (e.g., thin-plate) spline covariates from variables in the data set (e.g., to set up a spatial data analysis); constructing lagged dependent variables (of chosen lag order) as covariates to set up a Bayesian auto-regression time series analysis; constructing propensity score covariates to set up a causal analysis with a regression model; and to perform other variable transformations (e.g. z-score transformations). Finally, the user can perform a nearest neighbor hot-deck imputation of missing data.

Next, the user can then click menu options to select a Bayesian regression model for data analysis, and the model's prior distribution parameters, dependent variable, and covariates. If necessary, the user can, for her/his chosen model, select the (level-2 and possibly level-3) grouping variables (if s/he chose a multilevel model); select the observation weights variable (e.g., to set up a meta-analysis); and/or select the variables that indicate

whether the dependent variable is left-censored, right-censored, interval-censored, or uncensored (e.g., to set up a survival analysis). Finally, after the user makes all of these menu-selections for her/his chosen Bayesian model for data analysis, the software immediately presents a graphic of the model, along with all the variables that were selected for this model (e.g., lists of dependent variables, covariate(s)).

Then, the software user can click a button to run the MCMC sampling algorithm for the menu-selected Bayesian model, for a user-chosen number of MCMC sampling iterations. After all the MCMC sampling iterations have completed, the software automatically opens a text output file that summarizes the basic results of the data analysis (calculated from the generated MCMC samples). Results include point-estimates of the (marginal) posterior distributions of the model's parameters (e.g., posterior mean, median, variance, quantiles, etc.), and summaries of the model's predictive fit to the data. The user can also click other menu options to produce graphical and text output of the results. They include density plots, box plots, scatter plots, trace plots, and various plots of (marginal) posterior distributions of model parameters and fit statistics. Certain menu options allow the user to perform MCMC convergence analyses, via univariate trace plots of MCMC samples of model parameters, and via batch means (or sub-sampling) analyses to calculate the 95% Monte Carlo confidence intervals for the posterior point estimates. Other menu options allow the user, as a function of one or more covariates of interest, to graph and tabulate various posterior predictive estimates of the dependent variable, including the dependent variable mean, median, quantiles, variance, p.d.f., c.d.f., survival function, hazard function, and cumulative hazard function.

4 Software Access

The Bayesian Regression software can be downloaded and installed for use, from: <http://georgek.people.uic.edu/BayesSoftware.html>. This web-page also provides links to a user's manual (paper) for the software, which includes a textbook-style review of Bayesian statistical inference, and the MCMC methods, as well as software-based illustrations and exercises of

Bayesian regression modeling for the analysis of real data. The Help menu provides user instructions, and describes all the 83 models and example data sets that are currently provided by the software.

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STUDENTS' CORNER

Isadora Antoniano

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Hello dear readers! I hope you didn't miss us too much on September's issue. And if you did, there's a simple solution: Send us your contribution, question or proposal and help ensure that we'll be back with you every three months.

At some point or another, in almost every working person's life, the question arises of how to conciliate professional activities with a healthy life outside of work. The issue becomes more evident where a family and young kids come into play. It may be a hypothetical question or a very solid one and if you haven't asked for yourself, I'm sure you know someone who has. So, this time, I decided to ask some young members of our community their view on the matter and what follows... Well, let's just say I found it quite refreshing and I hope you enjoy it too.

Academic and Family Life

by Arianna Alfonsi and Pietro Canale

We have been asked to write something for the ISBA bulletin Students' corner even if we are still far from being real students. Yes, we go to school every morning, but this probably doesn't make us the typical students who write in this space... Indeed, our school is a nursery school as we are both between one year and half and two years old. Age is not the only thing that we have in common; we also both have a parent working in academia, Pietro's father, Antonio Canale, and Arianna's mother, Sara Wade, are young assistant professors of Statistics.

It is not always easy to share them with their work. When we were very young, we both had a really good plan to not let them sleep, then, they were so tired that they would not be able to work. Moms are more involved in this and Arianna's mom surely had harder nights than Pietro's dad did. But we happened to see them replying to emails or having what they call "MCMC" running in the middle of the night when we were simply asking for additional milk.

Arianna: Then we started to stay with nannies or go to nursery, and it was tough at the beginning, both for our parents and us. I would cry and

scream when my mom left, and she would also be upset and feel guilty. She no longer had time to do fun things with me like go to the playground or play groups during the week. It was a struggle for my mom, who stayed home with me for nine months before going back to work fulltime. She enjoyed what she called "using her brain again" but terribly missed me and witnessing every development.

Pietro: Eventually, we got used to our nurseries and made lots of friends. We discovered that our nursery colleagues also have working parents! What is not clear when discussing with other kids is what our parents actually do when they "work". Sometimes they work from home and during the evenings or weekends, so we are starting to understand how is to work in statistics and academics. They told us that they often have to work at night after they put us to bed, but we think that they end up putting themselves to sleep too! When they work from home, they spend most of the time writing things on their computers, and we often help by pushing some of those nice black keys. Another interesting part of our parents' job is called "skype with coauthors". I really love this and I often participate by jumping on dad's desk, waving to the webcam, chatting loudly, or simply borrowing his headphones. He often takes notes while working, and I draw with my crayons on his notes, just to be sure that he made no errors!

Arianna: Outside of their "work", our parents also have a lot of household tasks, as almost any other working parents, such as cooking or cleaning. I live in the U.K., but my mom is American and my father is Italian. He travels a lot, and without family nearby, it falls on my mom to carry out a lot the household chores. This also means longer days at the nursery when my father is away. These housekeeping tasks take away even more time for fun, but we typically do our best to help our parents. For example, I have my mom hold me while she is cooking, so that I can make sure that she is doing everything correctly!

Pietro: Having a parent working in academia also has its pros. For example, we travel a lot! I was 5 months old when I took my first plane to go to my first statistics conference. I almost met Arianna there....

Arianna: ...I was only 2 weeks old, and unfor-

tunately my mom said I was too young to travel (moms!), so we had to present via skype and with the help of my mom's PhD supervisor. Now that I am one year and half, I have travelled to Italy, USA, and Canada for conferences. I also get to see my grandparents when we travel as my mom arranges for them to visit with me while she is busy with the conferences.

Working in academics provides our parents with the flexibility to be there for us when needed. It is difficult to find a balance between work, household tasks, and family life and still have time for the fun things. Our parents told us that they feel the pressure of publication even more, but we are helping them to become more efficient with their time.

It seems that our parents have great time at Bayesian meetings and working with their worldwide colleagues, and we look forward to meet other "junior-ISBA members" in one of the next meetings!

BAYSM2016

On behalf of the **BAYSM board** and the **BAYSM2016 organizing committee**
baysm2016@mi.imati.cnr.it

We proudly announce the 3rd Bayesian Young Statisticians Meeting, **BAYSM2016**, taking place in Florence, Italy (19-21 June 2016), as a satellite to the ISBA 2016 world meeting.

BAYSM is dedicated to Ph.D. Students, M.S. Students, Post-Docs, Young and Junior Researchers working in the field of Bayesian statistics, providing an opportunity to connect with the Bayesian community at large. Senior discussant will be present at each session, providing participants with advice and comments to their work. Recognized figures of the Bayesian community will also participate as keynote and plenary speakers, making an altogether exciting program.

Young and junior researchers, Ph.D. students and Master degree students interested in presenting a talk or poster at the 3rd Bayesian Young

Statisticians Meeting 2016 can submit their work by **February 15, 2016**. Accepted papers may be considered, after a peer review process, for publication in the book of proceedings (indexed in Scopus) Registration form will be available from December 2015.

The event will be hosted by the **University of Florence** and the Sala dei Duecento of the **Palazzo Vecchio**. It will include social events, providing the opportunity to get to know other junior Bayesians, while enjoying the beautiful city of Florence.

Plenary speakers:

- **Fabrizia Mealli** University of Florence, Italy
- **Peter Müller**, University of Texas at Austin, USA
- **Steven Scott**, Senior Economic Analyst at Google
- **Marina Vannucci**, Rice University, USA

Keynote speaker:

- **Alessandra Guglielmi**, Politecnico di Milano, Italy

Discussants:

- **Daniela Cocchi**, University of Bologna, Italy
- **Fabrizio Corradi** and **Emanuela Dreassi**, University of Florence, Italy
- **Brunero Liseo**, Univesit  di Roma Sapienza, Italy
- **Antonio Pievatolo** and **Fabrizio Ruggeri**, National Research Council, Italy

While the meeting is organized for and by Junior Bayesians, attendance is open to anyone who may be interested. For more information, please visit the conference website:

<http://web.mi.imati.cnr.it/conferences/BAYSM2016>

or follow us on **Facebook**

NEWS FROM THE WORLD

Announcements

The First Eastern Asia Meeting on Bayesian Statistics (A Satellite Meeting of the 10th ICOSA International Conference)

**Shanghai Jiao Tong University,
Shanghai, China,
December 18, 2016**

The First Eastern Asia Meeting on Bayesian Statistics, a satellite meeting of the 10th ICOSA International Conference, will be held at Xuhui campus of Shanghai Jiao Tong University (SJTU), Shanghai, China, Sunday, December 18, 2016, which is just one day before the 10th International Chinese Statistical Association (ICSA) International Conference, which will be held at the same campus, December 19-22, 2016. This satellite meeting is sponsored by the International Society for Bayesian Analysis (ISBA) and the Department of Mathematics, SJTU. The purpose of this satellite meeting is to promote modern Bayesian statistics in Eastern Asia, particularly in China, and to promote collaboration between ISBA and ICOSA, especially, ICOSA-Shanghai Chapter, and others. There will be invited tutorials, invited sessions, and contributed sessions/posters on Advances in modern Bayesian statistics, High-dimensional Bayesian statistics, and Modern Bayesian computation. Inquiries and questions may be addressed to Jaeyong Lee, Chair, the Scientific Program Committee, via email at leejyc@gmail.com. Please visit the 10th ICOSA International Conference website: <http://www.math.sjtu.edu.cn/conference/2016icsa/Default.aspx> for more information.

Size of this Satellite Meeting and Registration Fee: The number of participants is limited to 100. The registration fee is \$130 including the banquet for those who will attend the satellite meeting only and \$30 (covering the cost of banquet) for those who have registered for the 10th ICOSA International Conference.

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