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INTERNATIONAL SOCIETY FOR BAYESIAN ANALYSIS

THE ISBA BULLETIN

OFFICIAL BULLETIN OF THE INTERNATIONAL SOCIETY FOR BAYESIAN ANALYSIS

MESSAGE FROM THE PRESIDENT

Amy Herring
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Welcome to summer in the Northern Hemisphere! I hope this issue of the Bulletin finds you well. I'm happy to report that ISBA members have been busy on a number of fronts and hope that our numerous opportunities to share ideas are on your radar.

In spring of this year, we were contacted by the International Statistical Institute with an invitation to organize a Special Invited Paper Session at the World Statistics Congress in Ottawa, Canada July 16-20, 2023. We are delighted this session will feature three of our recent Blackwell-Rosenbluth Award winners: Trevor Campbell, Sharmistha Guha, and Daniel Kowal. Members who attend the Congress in Ottawa are encouraged to check out this session featuring interesting new developments in Bayesian statistics.

We expect many ISBA members will be in Toronto, Ontario, Canada in August for the Joint Statistical Meetings. At 4pm Sunday, August 6, the Savage Award finalists will present their work in what promises to be one of the highlights of my meeting. The Savage Awards and Mitchell prize will be presented on Tuesday evening at the ASA Section on Bayesian Statistical Science (SBSS) mixer, along with the SBSS section awards, at the Marriott Delta Hotel at 5:30pm. Both ISBA and SBSS are sponsoring numerous interesting sessions at the meeting, which will be a good opportunity to make new connections and renew existing ones.

ISBA's Nominating Committee has been hard at work and is now in the process of contacting potential candidates for President-Elect and the ISBA Board of Directors. I would like to express my gratitude to those who are willing to serve and my many thanks to Past-President Sudipto Banerjee and his committee for their excellent work recruiting candidates for office. ISBA Sections are also in the process of identifying candidates for office in advance of this fall's elections. Participating in and planning ISBA activities can be an extremely rewarding aspect of professional life, and if you are interested in serving, or have ideas for us to pursue, please feel free to reach out to one of our officers so that we can alert you about any upcoming opportunities. I'd also like to thank our current officers and volunteers who are giving so generously of their time to provide great opportunities for all members. Just a reminder – you must be a current member of ISBA to vote on the Board positions, and of relevant sections to vote on section officers, so you may wish to pop over to the website to make sure your relevant memberships are current.

IN THIS ISSUE

One important opportunity at present is the work of the new Sponsorship Committee, which will interact closely with ISBA's Program Council, the World Meeting Local Organizing Committee, and ISBA's Finance Committee to secure sponsorships for the 2024 ISBA World Meeting in Venice. This meeting is shaping up to be an intellectually stimulating event in a UNESCO world heritage city of outstanding universal value and will be preceded by the 2024 BAYSM conference. If you are interested in helping obtain sponsorship for these meetings, or have ideas about potential sponsors, the time to let us know is now! For the 2022 World Meeting, several academic departments provided financial support of junior researcher/developing country travel, and these opportunities will be available again in 2024. Sponsorship opportunities are under development but will emphasize ISBA's priorities, which have included support for travel of junior researchers, support for travel from developing countries, and support for parent members via provision of childcare.

We were fortunate to take our children to Venice for a prior meeting, and I still remember our youngest son's excitement at seeing a garbage boat hard at work from the window of Bruno Scarpa's lovely home, and our middle son's surprise dip in the canal while trying to get a good look at a particularly impressive resident crustacean. More information about childcare opportunities will be made available once plans under development are finalized, but the options look quite attractive.

The Program Council, Scientific Committee, and Local Organizing Committee have been very hard at work, and I encourage you to put your own mark on the meeting by submitting a proposal for an invited session (proposals are due by August 16 and selected in early fall), a short course (due by July 15), or by contributing your own abstract for an oral or poster presentation (these submissions will open at a later date). Keynote and Foundational Lecturers have been selected and are announced in this issue – I'm eagerly anticipating the conference presentations from this impressive group. Watch for the conference webpage to go live later this summer.

ISBA's local organizing committee has secured a limited number of dorm-style housing options for students and junior researchers. Additional housing recommendations will be provided in the next Bulletin, and attendees are encouraged to book at that time due to the high summer tourist season.

Of course, ISBA is offering numerous other opportunities to share research ideas between now and the World Meeting. Please check two sections in this issue of the Bulletin (From the Program Council: Upcoming ISBA-Sponsored/Endorsed Events and News from the World: Upcoming Meetings, Conferences, and Workshops) for a variety of enriching activities, ranging from a virtual BAYSM in November to a summer in-person BNP networking workshop in Melbourne, Australia in December. The first BNP networking workshop in Cyprus was a wonderful meeting of a nice size for networking and exchange of ideas, and I strongly encourage you to give the meeting a close look if you have interests in Bayesian nonparametrics. The September EnviBayes Workshop in Colorado, USA will provide another in-person opportunity for researchers to exchange ideas in a smaller-scale, focused meeting, and several upcoming ISBA-sponsored and endorsed events in the calendar are partially or entirely online, facilitating access by researchers from the comfort of their own homes.

Finally, we are excited to announce that the 2026 ISBA World Meeting will be held in Nagoya, Japan in late June/early July. Many thanks to Professor Kazuhiko Kakamu and all the organizers for their outstanding proposal. I wish all members a productive few months and hope to see you at a conference soon!

FROM THE EDITOR

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Welcome to the June edition of the 2023 Bulletin! On top of the president's message above, we have important news from the program council about the ISBA 2024 World Meeting and other events

sponsored or endorsed by our society. There are also some updates from Bayesian Analysis concerning the latest BA Discussion Papers, and important announcements from j-ISBA about the Blackwell-Rosenbluth Award as well as updates on conferences/workshops organized particularly by and for early career researchers. Plus, you can read about Bayes Comp 2023 and miscellaneous meetings in "News from the World". As a special, this quarter's Bulletin contains a feature on the various options and tool chains for users of **Stan** in connection with R. I am confident that it can be useful to those who are just starting out, and also to those who use **Stan** on a regular basis.

SOFTWARE HIGHLIGHT

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A SPOTLIGHT ON STAN IN R

Stan (**Stan** Development Team, 2023) is a powerful and popular tool for Bayesian computation, accessible through interfaces available in most statistical computing platforms or from the command line. R (R Core Team, 2022) has a particularly well-developed ecosystem of packages for working with **Stan**, encompassing both packages written by the **Stan** Development Team and those that build upon this base architecture. However, the breadth of packages can make it difficult for even an experienced Bayesian statistician to identify how to replicate their workflow in **Stan** using these R packages, and how to decide between packages that appear to have a similar use case. In this note, we combine forces as a **Stan** user (LK) and **Stan** developer (JG) to walk through the ecosystem, noting how we decide which package to use in which context.

To fit a model with **Stan**, the user specifies a model in the **Stan** language and then selects one of several available algorithms to perform inference. The most commonly used algorithm in **Stan** is Hamiltonian Monte Carlo with a No U-turn Sampler, but there are also variational inference and optimization algorithms available. Users provide data and interact with **Stan** through an interface. In **R**, there are two main options for this. The first, **RStan**, uses **Rcpp** (Eddelbuettel and François, 2011) to compile and run **Stan**'s C++ code from R. The second, **CmdStanR** (Gabry et al., 2022), runs **Stan** under the hood through its command line interface (**CmdStan**) and then reads the results into R (with similarities to **CmdStanPy** for Python).

Aside from the engineering differences,[1] practically, we find that there are two important operational differences. The first is the **Stan** version that users have access to. As updating **RStan** on CRAN can be complicated, it often runs an older version of **Stan** when compared to **CmdStanR**. This means that users miss out on the most recent features and bug fixes available in the latest **Stan** versions (e.g., improved compilation time, additional GPU support, and many others). The second is licensing and permissions. **CmdStanR** has a more permissive license (BSD-3 like **Stan** itself versus **RStan**'s GPL-3). Both are open source licenses, but the increased flexibility of the BSD license may be relevant if you work for a company that plans on using **Stan** in production. Before it can be used, **CmdStanR** also requires the user to download and build the **CmdStan** command line interface, whereas **RStan** can be installed entirely from CRAN. The `install_cmdstan()` function is provided to make this convenient (performing the download from GitHub and the build with a single function call), but may impact your decision of which interface to use depending on your institutional IT regulations.

There are also a few smaller differences between the interfaces. **RStan** has a number of its own helper functions for calculating important posterior summary statistics and diagnostics, while **CmdStanR** instead outsources this to the newer R package posterior (Bürkner et al., 2023).[2] Finally, **RStan** makes use of R's S4 object system while **CmdStanR** uses R6 (Chang, 2022), which is similar to R's reference

[1] More details at https://mc-stan.org/cmdstanr/articles/cmdstanr.html#comparison-with-rstan.
[2] **RStan** users can also utilize the posterior package on their own using the MCMC output from **RStan**.

classes and classical object object-oriented programming. From the end user's perspective, the main impact of this difference is just the coding style required to use the package. The latter provides a coding experience more similar to Python and is essentially identical to the **CmdStanPy** interface.

Both interfaces work by users directly coding their model in the **Stan** language. For bespoke models, this allows for the greatest flexibility for users. However, for many of the most common models (e.g., a logistic regression or a multilevel linear model), this may mean an average user writing similar **Stan** code over and over, with small variations for specific data (e.g., number of variables). As all coders know, this can make bugs more likely and can be unnecessarily time-consuming. Two R packages from the **Stan** Development Team assist with this problem – **rstanarm** (Goodrich et al., 2022) and **brms** (Bürkner, 2017). Both take a data frame and a formula in standard R notation, run the model using **Stan**, and return the posterior distributions estimated by **Stan** without the user needing to write their own **Stan** code. Both packages also allow the user to make predictions for new data points similarly to the `predict()` function (through the `posterior_predict()`, `posterior_linpred()`, and `posterior_epred()` functions) and provide other post-processing functionality.

However, the practical use cases for **rstanarm** and **brms** can be quite different. **rstanarm** contains a number of precompiled models, which means working in **rstanarm** reduces the chance of encountering time-consuming installation issues or issues compiling individual models. For users new to R and large classrooms of individuals being introduced to Bayesian analysis, this is a major benefit. It includes a range of useful and common models (e.g., all GLMs, many hierarchical regression models, survival models). The priors used by **rstanarm** are good generic priors and can be modified to some extent, but there is limited support for fine-level modifications. For those working in a research context, more control might be needed. While it is possible to access the **Stan** model code corresponding to an **rstanarm** model and tweak it, the **Stan** code has been written for generality (to pre-compile many variations of similar models), efficiency, and numerical stability, and not for readability, making it difficult to directly implement your own modifications to the underlying **Stan** code.

Like **rstanarm**, **brms** takes R formula notation and a data frame, but unlike **rstanarm**, **brms** produces the corresponding **Stan** model code in real time instead of pre-compiling it. This means that it needs to then be compiled before running. This is a disadvantage in that compilation can sometimes be slow, and the user needs a suitable C++ tool chain. However, not pre-compiling the models means that **brms** can offer a wider range of models than **rstanarm** (**brms** uses an extended formula notation to incorporate a wide range of models). The priors can also be modified more freely, either through the package functionality or by directly modifying the **Stan** code. Both packages have the nice feature of reducing post-hoc data manipulation for new data predictions, which again reduces the risk of bugs (through additional testing) and increases efficiency of coding. **brms** can be run with both a **CmdStanR** or **RStan** backend, while **rstanarm** relies on **RStan**.[3]

After running a model, it is vital to visualize the output and diagnose any sampling or modeling issues. Two packages designed to work with output from **Stan** are **bayesplot** (Gabry and Mahr, 2023) and **shinystan** (Gabry and Veen, 2022). Both assist the user with visual diagnostics in line with the recommendations in Gabry et al. (2019). **shinystan** uses an interactive **Shiny** dashboard, with options to export for paper appendices. **bayesplot** relies on the user calling its many plotting functions and can be built upon using standard **ggplot2** (Wickham, 2016) notation.

Of course, any model also requires validation. An efficient approximate form of leave-one-out cross-validation (Vehtari et al., 2017) is implemented in the **loo** package (Vehtari et al., 2023) and works with all **rstanarm** and **brms** models, and also with custom **Stan** models run using **RStan** and **CmdStanR** more generally, provided they have been written in a particular form (more details available in the **loo** package documentation). Again, this is available without much manual manipulation through the use of a tested function (`loo()`). For variable selection, the **projpred** package (Piironen et al., 2022) is designed to work with **rstanarm** and **brms** models and provides methods to find the smallest

[3]Currently, R package developers must rely on **RStan** to provide pre-compiled models via CRAN binaries (like **rstanarm** does). **CmdStanR** can be used if models are compiled at run time (like **brms**).

subset of predictors that achieves a predictive performance close to the larger reference model.

The R packages mentioned so far are all developed by or in collaboration with the **Stan** Development Team. However, there are also many packages developed by others that provide useful functions for fitting **Stan** models or working with **Stan** output in R. A few of the most popular are **tidybayes** (Kay, 2023), which provides functions for working with posterior distributions using a tidy data format; **bridgesampling** (Gronau et al., 2020), which estimates marginal likelihoods and Bayes factors; and prophet (Taylor and Letham, 2021), which uses **Stan** to forecast time series with seasonal effects. Many other packages include **Stan** models for a wide range of applications and can be found in CRAN's list of **RStan**'s reverse dependencies at https://cran.r-project.org/package=rstan. For help developing your own R package that runs **Stan**, the **Stan** Development Team also provides the **rstantools** package (Gabry et al., 2023) which can set up the necessary package structure for you.

Together, this suite of packages creates a workflow that we feel is useful and helpful for the applied Bayesian statistician. Our hope is that this brief summary of the packages, their designed use and interactions between can help the user to navigate this environment. Of course, the original package documentation provides additional detail on specific implementations, but we felt that a wide lens overview would be helpful.

References

Paul-Christian Bürkner. **brms**: An R package for Bayesian multilevel models using **Stan**. *Journal of Statistical Software*, 80(1):1–28, 2017. doi: 10.18637/jss.v080.i01.

Paul-Christian Bürkner, Jonah Gabry, Matthew Kay, and Aki Vehtari. **posterior**: Tools for working with posterior distributions, 2023. R package version 1.4.1. https://mc-stan.org/posterior/.

Winston Chang. *R6: Encapsulated Classes with Reference Semantics*, 2022. URL https://r6.r-lib.org.

Dirk Eddelbuettel and Romain François. **Rcpp**: Seamless R and C++ integration. *Journal of Statistical Software*, 40(8):1–18, 2011. doi: 10.18637/jss.v040.i08.

Jonah Gabry and Tristan Mahr. **bayesplot**: Plotting for Bayesian models, 2023. R package version 1.10.0. https://mc-stan.org/bayesplot/.

Jonah Gabry and Duco Veen. ***shinystan***: *Interactive Visual and Numerical Diagnostics and Posterior Analysis for Bayesian Models*, 2022. R package version 2.6.0. https://mc-stan.org/shinystan.

Jonah Gabry, Daniel Simpson, Aki Vehtari, Michael Betancourt, and Andrew Gelman. Visualization in Bayesian workflow. *Journal of the Royal Statistical Society A: Statistics in Society*, 182:389–402, 2019. doi: 10.1111/rssa.12378.

Jonah Gabry, Rok Češnovar, and Andrew Johnson. ***cmdstanr***: *R Interface to* ***CmdStan***, 2022. https://mc-stan.org/cmdstanr/.

Jonah Gabry, Ben Goodrich, Martin Lysy, and Andrew Johnson. ***rstantools***: *Tools for Developing R Packages Interfacing with* ***Stan***, 2023. R package version 2.3.1. https://mc-stan.org/rstantools/.

Ben Goodrich, Jonah Gabry, Imad Ali, and Sam Brilleman. **rstanarm**: Bayesian applied regression modeling via **Stan**., 2022. R package version 2.21.3. https://mc-stan.org/rstanarm/.

Quentin F. Gronau, Henrik Singmann, and Eric-Jan Wagenmakers. **bridgesampling**: An R package for estimating normalizing constants. *Journal of Statistical Software*, 92(10):1–29, 2020. doi: 10.18637/jss.v092.i10.

Matthew Kay. ***tidybayes***: *Tidy Data and Geoms for Bayesian Models*, 2023. URL http://mjskay.github.io/tidybayes/. R package version 3.0.4.

Juho Piironen, Markus Paasiniemi, Alejandro Catalina, Frank Weber, and Aki Vehtari. **projpred**: Projection predictive feature selection, 2022. R package version 2.2.2. https://mc-stan.org/projpred/.

R Core Team. *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing, Vienna, Austria, 2022. URL https://www.R-project.org/.

Stan Development Team. **Stan** modeling language users guide and reference manual, v2.32.0, 2023. https://mc-stan.org.

Sean Taylor and Ben Letham. ***prophet**: Automatic Forecasting Procedure*, 2021. URL https://CRAN.R-project.org/package=prophet. R package version 1.0.

Aki Vehtari, Andrew Gelman, and Jonah Gabry. Practical Bayesian model evaluation using leave-one-out cross-validation and WAIC. *Statistics and Computing*, 27:1413–1432, 2017. doi: 10.1007/s11222-016-9696-4.

Aki Vehtari, Jonah Gabry, Mans Magnusson, Yuling Yao, Paul-Christian Bürkner, Topi Paananen, and Andrew Gelman. **loo**: Efficient leave-one-out cross-validation and WAIC for Bayesian models, 2023. R package version 2.6.0. https://mc-stan.org/loo/.

Hadley Wickham. ***ggplot2**: Elegant Graphics for Data Analysis*. Springer-Verlag, New York, 2016. ISBN 978-3-319-24277-4. URL https://ggplot2.tidyverse.org.

FROM THE PROGRAM COUNCIL

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ISBA 2024 World Meeting

Planning for the ISBA 2024 World Meeting continues apace. We look forward to welcoming you to Venice, Italy from July 1-7 2024! The conference will be on the beautiful campus of Ca' Foscari University of Venice. As you might imagine, Venice in the summer is quite a popular destination! If you are planning on attending, we encourage you to book accommodation early. The Local Organizing Committee are putting together a selection of accommodation options (including low-cost options for junior researchers) – look out for an email in the coming months with details.

Keynote and Foundational Lectures The Scientific Committee has selected eight excellent Keynote and Foundational Lectures for the 2024 program. Look forward to Keynote Lectures from Antonietta Mira, Omiros Papaspiliopoulos, Alexandra Schmidt, and Johannes Schmidt-Hieber, and Foundational Lectures from Dani Gamerman, Andrew Gelman, Kerrie Mengersen, and Marina Vannucci.

Short Courses The ISBA 2024 Scientific Committee invite you to submit proposals for short courses on topics of interest to the ISBA membership. We also would like to gather feedback from ISBA members regarding topics of interest, so we can ensure the short course program best serves the ISBA membership. If you would like to propose a short course, provide feedback/suggestions, or both, please fill out this survey by July 15, 2023.

Invited Sessions We invite the submission of Invited Session proposals for the ISBA 2024 World Meeting. Invited sessions will be 90 minutes long and feature three speakers and a session chair, plus an optional discussant. Please submit your proposal using this form, by August 16, 2023. The results will be announced by the end of September 2023, and after that there will be a call for individual contributed oral presentations and posters.

Announcing ISBA 2026 World Meeting

We are excited to announce that the 2026 World Meeting will be held in Nagoya, Japan! The tentative dates are June 28–July 3, 2026. The Local Organizing Committee will be headed by Professor Kazuhiko Kakamu.

Endorsement Requests

If you are planning a meeting and would like to request non-financial endorsement from ISBA, please submit your request to the program council at program-council@bayesian.org. Detailed information on how to submit requests for endorsement can be found here.

Upcoming ISBA-Sponsored/Endorsed Events

- Annual JAGS Workshop: Bayesian Modeling for Cognitive Science, July 10–14, 2023, Amsterdam, Netherlands/Online.
- Theory and Practice of Bayesian Hypothesis Testing: A Hybrid JASP Workshop, July 15–16, 2023, Amsterdam, Netherlands/Online.
- 7th EAC ISBA Conference, July 23–25, 2023, Qingdao, China/Online.
- EnviBayes Workshop on Complex Environmental Data, September 18–20 2023, Fort Collins, Colorado, USA.
- BAYSM 2023, November 13–17, 2023, Virtual Meeting.
- Monash ISBA-BNP Networking Workshop, December 4–8 2023, Melbourne, Australia.

UPDATES FROM BA

Mark Steel
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I hope you all are well. I am now roughly at half-way of my tenure as Editor-in-Chief of Bayesian Analysis (how time flies…!) and am very grateful for the continued support from the excellent Editorial Board, comprised of 10 co-editors and 49 Associate Editors, whose names can be found at https://www.e-publications.org/ims/submission/BA/help/about/. I continue to be very impressed with their tremendous contributions to the quality and the smooth running of the journal.

On June 13, we had a wonderful webinar presentation on the paper "Causal Inference Under Mis-Specification: Adjustment Based on the Propensity Score" by David A. Stephens, Widemberg S. Nobre, Erica E. M. Moodie and Alexandra M. Schmidt with stimulating inviting discussions by Pierre

Jacob and Christian Robert, and by Richard Hahn and Andrew Herren. The paper will soon be published in the journal and can be found at https://doi.org/10.1214/22-BA1322. In case you missed it, the recording of the webinar is at https://www.youtube.com/watch?v=pOJFTMRxDl8.

I would like to remind you that we now welcome contributed discussions of the manuscript: "Data Augmentation for Bayesian Deep Learning" by Yuexi Wang, Nicholas Polson and Vadim O. Sokolov, which can be found in the Advance publication section of the journal or at https://doi.org/10.1214/22-BA1331.

Please note that contributions should be no more than two pages in length, using the BA LaTeX style. The discussions should be submitted to the journal using the journal submission page (https://www.e-publications.org/ims/submission/BA/author) by **September 30, 2023**. Please choose "contributed discussion" as manuscript type and clearly indicate which Discussion Paper your discussion refers to when submitting your contribution. Your contributions will be sent to the authors, who will get the opportunity to respond in a rejoinder. I look forward to receiving your contributions.

JUNIOR ISBA

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Blackwell-Rosenbluth Award

We are excited to share that we have opened the call for the 2023 edition of the Blackwell-Rosenbluth Award! The deadline for submitting a nomination this year is **July 2, 2023**.

Ph.D. students or early-career researchers who obtained their PhD **after January 1, 2018** are eligible for nomination. A nomination may come from any ISBA member, including the candidate themself. Candidates who were nominated in previous years may be nominated again if they received their Ph.D. after January 1, 2018. In exceptional cases, applicants who are more than five years past their Ph.D. may still be considered if they experienced a significant career break within five years of earning their degree (such as breaks due to illness, caring for a sick family member, pregnancy-related leave, or parental leave).

The Blackwell-Rosenbluth Award was established in 2021 to celebrate contributions made by early-career Bayesian statisticians. Six winners are selected each year, three awarded to researchers based in time zones UTC+0 to UTC+13 and three to those based in UTC-12 to UTC-1. The award is named after David H. Blackwell and Arianna W. Rosenbluth for their groundbreaking works that lie at the foundation of modern Bayesian statistical theory and computation. They are important role models for new researchers in Bayesian statistics.

For more information about the award, eligibility, nomination link and required materials, please check out the official webpage at https://j-isba.github.io/blackwell-rosenbluth.html.

Upcoming activities, conferences, and workshops

- We will have a special j-ISBA session with three past Blackwell-Rosenbluth Award winners at the upcoming ISI World Statistics Congress in Ottawa, Canada, from July 16 to 20. The three speakers are: Sharmistha Guha, Trevor Campbell and Daniel R. Kowal.
- We are pleased to announce that there will be a BaYSM this year! BaYSM:O 2023 will be a virtual conference, spanning from Nov 13 to 17. **Participation is free with j-ISBA membership.**

Please stay tuned for more information!

- We will continue to organize more workshops and activities throughout the rest of the year. The "Updating your (prior) beliefs" panel will return, along with new profesional development workshops to prepare you for the job market.

Don't forget to renew your j-ISBA membership (**$5 USD/year only**) to stay connected with the community!

Special announcements

The j-ISBA board will need **three new members** to fill in the positions of **Chair-Elect**, **Program Chair**, and **Secretary** for the years 2024-2025. We welcome all interested PhD students, postdocs and early-career researchers to reach out to us at jisba.section@gmail.com by **July 17, 2023**. Please include your CV and a short motivation letter about the position you wish to apply for.

NEWS FROM THE WORLD

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Reports from important events and conferences

Bayes Comp 2023

by Lassi Roininen

Bayes Comp 2023 was organized in Levi, Finland, on 15-17 March. The conference was preceded by three satellite events on 12-14 March: Bayesian Inference of Epidemics; Bayesian computing without exact likelihoods; Uncertainty quantification and inverse problems. The main event attracted a great number of invited session proposals (51), and over 150 contributed talk and poster proposals. Finally, we had three keynotes, 28 invited sessions, 15 contributed talks, and around 100 posters. In addition, there were tens of contributions to the satellites. Travel grants for early career researchers were given (net worth around $15,000). Hence, the meeting was a success, with around 200 participants in the satellites and 330 in the Bayes Comp main event.

It is my pleasure to share thoughts about the meeting from the organization's point of view. First of all, we had great scientific and local organizing committees. Having good active people is extremely important. We booked the Hotel Levi Panorama 1.5 years before the event – this was also extremely important as a later booking would not have been possible.

Originally we planned Bayes Comp 2023 to be a 3-day conference with 150-200 participants, with 25% of them being students. This idea was rapidly extended by including three satellites from Sunday evening to Tuesday, and the main conference had to accommodate double the number of participants. We also included student fees for some postdocs; roughly 50 percent paid the student/reduced fees in the final figures. These changes meant that scaling and budgeting needed to adapt – we managed to go nearly plus-minus zero at the end.

We invited three young-ish keynote speakers, and all accepted straightaway in the summer of 2022, which was nice. The selection of the speakers was based on a scientific committee discussion. We did not use voting; the argument was that voting always favors more established candidates – and we wanted to have young talents.

We received a massive amount of contributions, and it was difficult to select the talks and invited sessions – for selecting, we used a voting system. The Scientific Committee (SC) played the leading role here. The SC emphasized selecting on a fair basis, and this did take quite a while. We could have chosen more talks, but then we would have divided the sessions into many parallels, and we wanted none of the sessions to have a single-digit audience. This plan worked out well – and finally, we had max four sessions with a good number of participants in each session.

For the participation fees, we also included lunches and coffee, which enabled everyone to stay in the conference hotel all day. We also included child care free of charge to support all the participants to have the possibility to participate without worrying about the kids.

For travel grants, we established a travel grant committee and distributed the grants to those in need. We also gave the grants to a wide audience in order to have many people acknowledge that their presence was appreciated.

I thank everyone involved in organizing and participating in Bayes Comp 2023. I hope to see you at Bayes Comp 2025.

Upcoming meetings, conferences, and workshops

The **Bayesian autumn school** will be held at CIRM, Marseille, France, within the beautiful Parc National des Calanques, from October 30 to November 3, 2023. This autumn school aims to provide a comprehensive overview of Bayesian methods for complex settings: modeling techniques, computational advances, theoretical guarantees, and practical implementation. It is particularly targeted at early career researchers, such as Ph.D. students and postdocs, but all are welcome to attend.

Please pre-register directly on the CIRM website. As the capacity of CIRM is limited, there is a cap on the number of attendees, and we cannot guarantee that all scientists who pre-register will be able to participate. You will soon be informed if your application has been selected. Otherwise, you will be added to the waiting list and contacted if a slot opens. Details are available on the conference website.

And don't forget:

- Don't miss the **series of monthly webinars** organized by the Bayesian nonparametric section of ISBA (**BNP-ISBA**). Check this link for more details.
- **MaxEnt2023**, the 42nd **International Workshop on Bayesian Inference and Maximum Entropy Methods in Science and Engineering** will be in Garching, from July 3 to July 7, 2023. More information can be found at this page.
- The **Joint Statistical Meetings** (JSM) is the largest gathering of statisticians and data scientists held in North America. The 2023 JSM will be held in Toronto, CA. The conference is scheduled for August 5-10, 2023. More info at this link.
- The **European Seminar on Bayesian Econometrics** 2023 will be hosted by the Adam Smith Business School in September 2023 at the University of Glasgow. Stay updated following this link.
- The second **Bayesian Nonparametrics Networking workshop** will take place on 4-8 December 2023 at Monash University in Melbourne, Australia. Note that early bird registrations close on August 1, 2023. For more information, please visit the workshop event page.