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THE ISBA BULLETIN

OFFICIAL BULLETIN OF THE INTERNATIONAL SOCIETY FOR BAYESIAN ANALYSIS

MESSAGE FROM THE PRESIDENT

Aad van der Vaart
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I hope you had a good summer and are ready for the new academic year. As for many of you, my summer effectively started with the ISBA World Meeting, under the sun and surrounded by the water of historical Venice. It was a truly memorable event, for which we owe many thanks to the local organising team, chaired by Roberto Casarin, the program council, headed by Sinead Williamson and Sergios Agapiou, and of course all speakers and discussants. As is tradition, the meeting was concluded with a dinner, where many honours were bestowed: various prizes, and also newly elected ISBA fellows were announced. You can read more later in this bulletin.

Our next world meeting will be held in Nagoya, Japan, in 2026, in the usual week, surrounding July 1. We are very thankful to Kazuhiko Kakamu and his team for taking on the local organisation. As the Venice meeting, the Nagoya meeting will be an ordinary in-person meeting. In a special session at the Venice meeting, organised by Gertraud Malsiner-Walli and Guido Consonni, possible alternative schemes, which might be more environmentally friendly and more inclusive, were discussed - see further on in this bulletin. As opinions differ on the desirability and feasibility of such schemes, this will be an on-going discussion, which is also relevant to other ISBA activities, but for now the conclusion is that the advantages of meeting so many colleagues together in person, old friends and future collaborators, outweigh the negative aspects of travelling far. A call for organising the 2028 world meeting is open (see the call by the program council in this bulletin) and your ideas are welcome.

The Venice meeting was our 17th world meeting, when counted from the establishment of ISBA in 1992, although of course before that there were many Bayesian activities as well, and the famous Valencia meetings are often seen as precursors of the world meetings. The first meeting in 1993 had "nearly 200 participants, eight invited sessions, a cocktail party on Friday and a dinner on Saturday". The meeting in Venice still had one cocktail party and one dinner, but the other numbers have gone up steeply over the years, with now nearly 850 participants and 52 invited sessions, next to foundational lectures, keynote lectures, a named lecture, contributed sessions, short courses, and 300 posters. This increase has been more or less steady over the years.

IN THIS ISSUE

Our society is flourishing also in many other ways, as was clear from the reports of our nine sections and three of our chapters in the general assembly, or from the report on our journal Bayesian Analysis by Mark Steel. Bayesian Analysis is now in a steady state in terms of numbers of submissions, with a 20% acceptance rate, and counts among the best statistical journals, also if measured through impact numbers. Many thanks to Mark, his team of associate editors, and former editors for this achievement. I am happy to report that shortly after the world meeting, the ISBA council voted Igor Prünster in as the new editor, from January 2025.

Our society's finances are in good order as well, as was clear from the financial report to the general assembly, prepared by our treasurer Yanxun Xu. For the largest part this is a consequence of the fact that almost all work in ISBA is carried out by its members, free of charge, from editing this bulletin or our journal to maintaining the website to organising a conference. In addition generous sponsors allow us to allocate travel support to young researchers or subsidise child care during a conference. We feel that such special support, for members of our community with more need for funding and less access, is very valuable to ISBA. Thus we are looking into giving the ad-hoc sponsorship committee established for the Venice meeting, chaired by Antonio Canale, permanent status, so that know-how and experience can be carried forward. Also, based on this motivation and as proposed by the finance committee, the ISBA board has just decided to increase our yearly regular membership fee to 100 dollars. As ISBA has not increased the fee for some years, this new fee still compares favourably to the fees of other societies, and I hope you agree that the intended expenditure is worthy.

I wish you a happy new academic year.

FROM THE EDITOR

Francesco Denti
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Hello ISBA members! Welcome to the new issue in the ISBA bulletin, the third of this 2024.

I will be very brief, as this issue is already full of great news and reports from the wonderful scientific events of this past summer. Our society and its flagship journal, Bayesian Analysis, are in great shape, and new exciting events are already on their way - you can find more details in all the contributions below. Do not miss a beautiful piece from the Computation Section of ISBA, in which the authors discuss the major challenges of Bayesian computation. Also, check out the names of the candidates for the next ISBA elections. Finally, join us in celebrating the new ISBA fellows and all the awardees mentioned in this issue.

As usual, thanks to everyone who contributed! ISBA community, enjoy!

FROM THE PROGRAM COUNCIL

Sergios Agapiou
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The ISBA 2024 World Meeting at Venice gathered almost 850 participants, with an excellent lineup of talks and lively poster sessions. We sincerely thank the local organizing committee and the scientific committee for their tireless work in preparing this great event. We are also very thankful to the sponsorship committee and our generous sponsors, thanks to whom we were able to award around $85000 in travel support for students and young researchers.

Call for ISBA 2028 Proposals ISBA announces a call for pre-proposals for the ISBA World Meeting in 2028. We strongly encourage any interested members to contribute to the main scientific gathering of our society by submitting a pre-proposal. The deadline for submissions is October 31, 2024. Selected pre-proposals will be invited to submit a full proposal due in early 2025. Pre-proposals should provide as much detail as possible, including dates, conference venue, childcare options, estimated meeting expenses broken down by fixed costs and per-participant costs, suggested registration fee and expected participant costs (hotels, shuttles). Meetings should be planned to be revenue neutral. The pre-proposal should also indicate a local organizing committee and chair. This local organizing committee has primary responsibility for organizational tasks and seeking local funding. A scientific committee will be appointed by the ISBA Program Council and will have primary responsibility over the scientific program and seeking non-local funding. World Meetings are typically held in June or July at a time of year that helps maximize attendance, although timing may vary depending on the local circumstances of the chosen venue. The venue should be a location accessible to a large proportion of ISBA membership. Submissions and questions should be sent to the ISBA Program Council at program-council@bayesian.org. Pre-proposals are encouraged to follow the template available here and the budget template available here.

(Co-)Sponsorship/Endorsement Requests If you are planning a meeting and would like to request financial sponsorship (or co-sponsorship) or non-financial endorsement from ISBA, please submit your request to the program council at program-council@bayesian.org. Detailed information on how to submit a request for either sponsorship or endorsement can be found here.

UPDATES FROM BA

Mark Steel
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I hope you all had a great summer! I had the privilege to meet many of you in person at the wonderful ISBA World Meeting in Venice. At the gala dinner of this meeting we announced the winners of the **2022 Lindley Prize**, which are:

Gemma E. Moran, John P. Cunningham and David M. Blei

for their paper The Posterior Predictive Null, while

Daniel R. Kowal and Antonio Canale

were awarded an honorable mention in connection with the Lindley Prize for the paper Semiparametric Functional Factor Models with Bayesian Rank Selection.

Both papers were published in the December 2023 issue of *Bayesian Analysis* (BA). Once again, many congratulations!

The Venice meeting also allowed me to share some good news concerning BA with the participants. If you were not present, I can summarize it as follows: in terms of the journal impact factor (JIF, which is a very commonly used measure of the impact of a journal), BA is now ranked 6th out of 168 journals in Statistics and Probability. The 2023 JIF of BA is 4.9, which ranks it above excellent outlets such as Statistical Science, Annals of Statistics, JRSS B, JASA and Biometrika! Of course, there are other possible ways of measuring impact, but the above is a wonderful reflection on the current standing of our journal within the profession. It is a testament to the hard work of the current and previous editorial teams. Many thanks to them and to all of you for sending us your wonderful papers!

Further, I would like to remind you of the 2024 Lindley Prize and an upcoming discussion paper (both with a slightly **extended closing date** for submissions).

As previously announced, the Prize Committee of ISBA welcomes submissions for the **2024 Lindley Prize**. The 2024 Lindley Prize will be awarded for innovative research in Bayesian statistics that is accepted for publication in *Bayesian Analysis* and was presented (invited or contributed, oral or poster) at the ISBA 2024 World Meeting in Venice. The prize includes a check for $1000 and a certificate, with the winner(s) announced at the ISBA World Meeting in 2026. We have now extended the closing date for submissions to **October 31, 2024**. Submissions should be made when submitting your paper at this link. Simply indicate in the comments to the Editor or in the submission cover letter that you wish your paper to be considered for the 2024 Lindley Prize. Also, please include the identification number of the session in which the work was presented. Authors should prepare their manuscripts using the BA macros. Papers that are eligible contenders for the Lindley Prize will be published in the December 2025 issue of BA. Further details on the Lindley Prize can be found here. Please direct any queries to the Lindley Prize Committee, at m.steel@warwick.ac.uk. The committee looks forward to seeing many interesting submissions for this prestigious prize.

As you know, Bayesian Analysis regularly publishes papers with discussion. We now welcome contributed discussions of the manuscript: Sparse Bayesian factor analysis when the number of factors is unknown by Sylvia Frühwirth-Schnatter, Darjus Hosszejni and Hedibert Freitas Lopes. Please note that the contributions should be no more than two pages in length (excluding references), using the BA LaTeX style. The discussions should be submitted to the journal using the journal submission page by **October 20, 2024**. Please choose "contributed discussion" as manuscript type and clearly indicate your discussion refers to paper BA1423 when submitting your contribution. I very much hope to see many interesting and thoughtful contributions appear in the journal.

Finally, the discussion around the paper by Harlan Campbell and Paul Gustafson, entitled Defining a Credible Interval Is Not Always Possible with "Point-Null" Priors: A Lesser-Known Correlate of the Jeffreys-Lindley Paradox (soon to appear in the journal) will be the topic of a webinar on **October 2** (at 15:00 UTC). It will shortly be advertised more in detail by email and social media. Please tune in!

NEW ISBA FELLOWS

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The ISBA fellowship recognizes members who have made outstanding contributions in some aspect of statistical work (publication, teaching, and service, including service to the society). New fellows are elected by an eight person committee of past Fellows on a bi-annual basis from nominations obtained in an open procedure. Maria De Iorio, Sylvia Frühwirth-Schnatter, Michele Guindani, Antonio Lijoi, Steven MacEachern, Raquel Prado, Sylvia Richardson and Aad van der Vaart served on the ISBA Fellows committee this year.

Twelve new fellows were elected in 2024. Their names, together with a short citation, were announced at the world meeting in Venice and appear below. Congratulations to all new fellows!

Guido Consonni: In recognition of his commitment to mentoring junior statisticians, his significant methodological and theoretical contributions, particularly in objective Bayes and graphical modeling, and his leadership and service to the Bayesian community, particularly within Italy.

Francesca Dominici: For her methodological contributions to Bayesian statistics, via advanced hierarchical modeling for studying health effects of air pollution and innovative approaches to causal inference; for her service to ISBA via top-tier scientific leadership; for her far-reaching personal and

scientific mentorship of students and junior researchers.

Paul Fearnhead: For his outstanding contributions to computational Bayesian statistics, particularly to particle filtering, sequential Monte Carlo, semi-automatic ABC and continuous-time Monte Carlo methods; for significantly advocating Bayesian methodology in genetics and in health science; for his exceptional service to statistics through editorship of Biometrika; and for his inspirational leadership within the UK statistics community, including the training of a large number of junior Bayesian researchers.

Alessandra Guglielmi: For her unwavering dedication to the advancement and broadening of Bayesian analysis across various domains, including health care and gender gaps; for her contributions to the foundational aspects of Bayesian nonparametrics and especially to the theoretical underpinnings of random partition models; for her service to ISBA in many roles; and for her exemplary dedication to scientific rigor and to mentoring junior researchers in Bayesian statistics.

Alejandro Jara: For outstanding contributions to theoretical foundations and statistical computation in the field of Bayesian Nonparametrics, for exceptional service to ISBA, for the masterful organization of Bayesian scientific events and for meaningful statistical outreach and impact across society at large, including critical assistance to the Chilean Ministry of Health in the handling of the Covid-19 pandemic.

Rosangela Loschi: In recognition of her outstanding leadership and dedication to promoting Bayesian ideas, especially within Brazil and Latin America, her methodological and theoretical contributions, particularly in random partition models, change point problems, and multivariate analysis, and her commitment to mentoring junior statisticians.

Li Ma: For his highly innovative and elegant contributions to theory and methods in Bayesian nonparametric inference; for his outstanding contributions to biomedical sciences in developing statistical approaches for microbiome data; for his exceptional service to ISBA; and for generously devoting time to valuable service to the broader scientific community.

Giovanni Parmigiani: For his outstanding contributions to principled Bayesian statistics with a decision theoretic flavor, and for his transformative work in risk prediction within oncology; for his impact in advancing the use and understanding of Bayesian statistics in the medical community; for his service to ISBA; and for his mentorship of students and young researchers.

Adrian Raftery: In recognition of a sustained record of high-impact research in Bayesian methodology and applications in multiple fields, pioneering work in probabilistic forecasting in meteorology and climatology, and major leadership contributions to Bayesian statistics in sociology and allied areas of the social sciences, particularly in demography.

Alexandra Schmidt: In recognition of her exemplary leadership and extensive service to ISBA and the Bayesian community, her pioneering contributions in advancing statistical models for spatial and spatio-temporal processes, and her dedicated commitment to educating and training the next generation of Bayesian statisticians.

Scott Sisson: For his outstanding contributions to research in Bayesian computation, for the promotion of Bayesian research and for his sustained leadership of the Australian Bayesian community, including the dedicated mentoring and supervision of a large number of junior Bayesian researchers.

Refik Soyer: In recognition of his outstanding leadership and dedication to promoting and disseminating Bayesian ideas in industry and business; for his profound contributions to Bayesian inference at the intersection of statistics, operations research, decision and management science and for his dedicated service to ISBA in particular as founder and driving force of the Section on Industrial Statistics.

AWARDS

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This year, the ISBA Awards Ceremony was held in Venice, Italy during 2024 ISBA World Meeting from 1 July to 7 July 2024, at the Department of Economics - Ca' Foscari University of Venice, in San Giobbe Economics Campus. The ISBA Awards announced at the ISBA banquet on July 6th. The event was attended by more than hundreds of colleagues, who celebrated the different achievements of young and not so young statisticians in our Bayesian community.

On behalf of ISBA prize committee, we want to acknowledge all the intense work for our award sub-committee members. Without their hard work and dedication of their personal time, our committee work would have not been completed so smoothly. Thus, we want to thank them again for their great contribution to our community.

Regarding the awards bestowed during the Award Ceremony, we would like to congratulate the following awardees:

2023 Savage Award in the Category of Theory and Methods

Winner: **Jeremias Knoblauch** for his thesis entitled "Optimization-centric Generalizations of Bayesian Inference" (Supervisor: Theo Damoulas).

Honorable Mention: **Jeffrey Negrea** for his thesis entitled "Approximations and Scaling Limits of Markov Chains with Applications to MCMC and Approximate Inference" (Supervisor: Daniel Roy and Jeff Rosenthal).

On behalf of the ISBA Prize Committee, we are very grateful to Matteo Ruggiero, who chaired the 2023 Savage Award sub-committee for Theory and Methods, and all colleagues who were a part of it: Trevor Campbell, François Caron, Pierre Jacob, Jaeyong Lee, Fan Li, Meng Li, Xenia Miscouridou, Luis Nieto-Barajas, Peter Orbanz, Johannes Schmidt-Hieber, Giacomo Zanella and Mingyuan Zhou.

2023 Savage Award in the Category of Applied Methodology

Winner: **Wei Jin** for his thesis entitled "Novel Bayesian Methods for Precision Medicine in HIV" (Supervisor: Yanxun Xu).

Honorable Mentions: **Raquel Barata** for her thesis entitled "Flexible Dynamic Quantile Linear Models" (Supervisor: Raquel Prado and Bruno Sansó); **Matteo Pedone** for his thesis entitled "Covariate-dependent Bayesian Models for Heterogeneous Populations" (Supervisor: Francesco C. Stingo and Raffaele Argiento); **Annie E. Sauer** for her thesis entitled "Deep Gaussian Process Surrogates for Computer Experiments" (Supervisor: Robert B. Gramacy).

On behalf of the ISBA Prize Committee, we are very grateful to Radu Craiu, who chaired the 2023 Savage Award sub-committee for Applied Methodology, and all colleagues who were a part of it: Veronica Berrocal, Marta Blangiardo, Jim Griffin, Paul Gustafson, Kerrie Mengersen, Jason Roy, Aretha Teckentrup.

2023 Mitchell Prize

Winner: **Sirio Legramanti, Tommaso Rigon, Daniele Durante** and **David B. Dunson** for their paper in the Annals of Applied Statistics entitled "Extended Stoch Block Models with Application to Criminal Networks".

Honorable Mentions: **Pierfrancesco Alaimo Di Loro, Marco Mingione, Jonah Lipsitt, Christina M. Batteate, Michael Jerrett**, and **Sudipto Banerjee** for their paper published in Annals of Applied Statistics entitled "Bayesian Hierarchical Modeling and Analysis for Actigraph Data from Wearable Devices"; **George Nicholson, Brieuc Lehmann, Tullia Padellini, Koen B. Pouwels, Radka Jersakova, James Lomax, Ruairidh E. King, Ann-Marie Mallon, Peter J. Diggle, Sylvia Richardson, Marta Blangiardo** and **Chris Holmes** for their paper published in Nature Microbiology entitled "Improving Local Prevalence Estimtes of SARS-CoV-2 Infections Using a Causal Debiasing Framework".

On behalf of the ISBA Prize Committee, we are very grateful to Abhra Sarkar, who chaired the 2023 Mitchell Prize sub-committee, and all colleagues who were a part of it: Gianluca Baio, Oskana Chkrebtii, Radu Craiu and Kerrie Mengersen.

2023 DeGroot Prize

Winner: **Richard McElreath** for his book published in 2020 by CRC Press entitled "Statistical Rethinking A Bayesian Course with Examples in R and Stan (Second Edition)". On behalf of the ISBA Prize Committee, we are very grateful to Omiros Papaspiliopoulos, who chaired the 2023 DeGroot Prize sub-committee, and all colleagues who were a part of it: Sergios Agapiou and Tommaso Rigon.

2024 Zellner Medal

Winner: **Sylvia Frühwirth-Schnatter** for her fundamental innovative research in simulation-based Bayesian inference for dynamic models with substantial practical implication for forecasting, for true leadership in training talented young researchers with a high-quality classic textbook, for throughout her career championing Bayesian methods in econometrics, and for her leadership as ISBA president during the COVID-19 pandemic.

Winner: **Yasuhiro Omori** for his outstanding and leading roles in the formation and development of ISBA, especially in East Asia, including the organization of the first ISBA world meeting in East Asia in Kyoto in 2012, for his role as one off the co-founders of the ISBA/Eastern Asia Chapter, and for his contributions in Bayesian time series analysis.

On behalf of the ISBA Prize Committee, we are very grateful to Peter Müller, who chaired the 2024 Zellner Medal sub-committee, and all colleagues who were a part of it: Igor Prünster and Kerrie Mengersen.

JUNIOR ISBA

Beatrice Franzolini
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Dear ISBA community,

It was wonderful to see so many of you in Venice at BAYSM and the ISBA World Meeting. In case you missed them, below you'll find the names of the amazing early-career researchers who were recognized with awards for their presentations at ISBA and BAYSM — keep an eye on them!

Looking forward, we're excited to share updates on upcoming events and opportunities that continue to unite our early-career researchers' community, such as the upcoming BAYSM in April 2025, the new peer mentoring scheme by j-ISBA, and the upcoming elections.

As always, don't miss the j-Author Spotlight section below, where you can read short summaries of recent research works from j-ISBA members.

Upcoming events

- **IDWSDS** International Day of Women in Statistics and Data Science Conference
  Date and location: October 8, 2024, Online
  This is a fully online and free event!
  j-ISBA is sponsoring the session "Recent advances in Bayesian methods for covariance estimation and network data" with the following amazing speakers: Elizabeth Bersson (MIT), Deborah Sulem (USI), and Martina Amongero (UNITO).
  Find more info at https://www.idwsds.org/

- **CMStatistics** Computational and Methodological Statistics Conference
  Date and location: December 14-16 , 2024, London
  j-ISBA is sponsoring the session "j-ISBA session on recent advances in Bayesian statistics" where you can hear about the interesting work of Luke Travis (Imperial), Louise Alamichel (Inria Grenoble), and Yichen Zhu (Bocconi).
  Find more info at https://www.cmstatistics.org/CFECMStatistics2024

- **BAYSM 2025** Bayesian Young Statisticians Meeting
  Date and location: April 7-11, 2025, Online
  This is a fully online event!
  Mark your calendars for the highly anticipated BAYSM 2025, the official conference of j-ISBA. Keep an eye on the website https://baysm2025.github.io/ for updates on keynote speaker announcements, abstract submissions, and registration opening. This is a great platform for young researchers to share their work and engage with peers and established professors in the Bayesian community.

Peer mentoring

The peer mentoring program is now ready to start! Peer mentoring is an opportunity for you to be paired online with another young researcher in the field, providing a friendly and secure place to seek support and guidance.

Peer mentors are j-ISBA members who have volunteered to join the program. Based on their experiences, they will be able to offer you advice on how to navigate the uncertainties and difficulties that may arise during your early years in research.

Accessing peer mentoring is extremely simple! Just look through the list of available peer mentors here https://j-isba.github.io/peer-mentoring.html for the one that may best match your needs, and contact them via email to ask to schedule a first virtual meeting with them.

j-ISBA Elections

Elections are coming up soon and we are delighted to introduce the candidates for the two soon-to-be vacant positions:

- **Chair-elect**: Jonathan Owen (*Postdoctoral Research Fellow, University of Leeds*), and Francesca Panero (*Assistant Professor, Sapienza University*).
- **Treasurer**: Alice Giampino (*Postdoctoral Research Fellow, University of Milano-Bicocca*), Alexander Mozdzen (*PhD Candidate, University of Klagenfurt and A*STAR*), and Alessandro Zito (*Postdoctoral Research Fellow, Harvard*).

BAYSM best talks, BAYSM best posters, and ISBA posters awards

The winners of the **BAYSM 2024 Best Talk Award** are Dennis Christensen and Emma Kopp.
The winners of the **BAYSM 2024 Best Poster Award** are Benedetta Bruni, Max Hird, and Stephanie Wu.
The winners of the **ISBA 2024 Best Poster Award** are Davide Agnoletto, Louise Alamichel, Maximilian Autenrieth, Elena Bortolato, Alessandro Carminati, Irena Chen, Yunnan Chen, Roberto Demartino, Vaidehi Dixit, Nina Fischer, Alice Giampino, Yong Goh, Yiwei Gong, Adeline Guthrie, Blake Hansen, Peter Knaus, Emma Landry, Changwoo Lee, Aihua Li, Francesco Mascari, Carson McKee, Emmanuel Mikel, Thomas Newman, Paolo Onorati, Jonathan Owen, Michael Pearce, Antonio Peruzzi, Anna Elizabeth Riha, Paul Rosa, Elena Sabbioni, Damilya Saduakhas, Braden Scherting, Christine Shen, Mattia Stival, Federica Stolf, Deborah Sulem, Nikola Surjanovic, Tomas Taborda, Giovanni Toto, Cecilia Viscardi, Qing Wang, Ganchao Wei.

A big thanks goes to the award committees!
BAYSM 2024 best talk and poster committee: Emanuele Aliverti, Cecilia Balocchi, Jordan Bryan, Xenia Miscouridou, and Tommaso Rigon.
ISBA 2024 best poster committee: Sally Paganin, Massimiliano Russo, and Shane Jensen.

j-Author Spotlight: recent research highlights from junior researchers

Finally, the best part of the j-ISBA updates: here are the recent research works from j-ISBA members that you won't want to miss out on.

- **Bayesian Active Learning in the Presence of Nuisance Parameters** by Sabina Sloman.
  (authors: Sabina J. Sloman, Ayush Bharti, Julien Martinelli, Samuel Kaski)
  Summary: In many settings, such as scientific inference, optimization, and transfer learning, the learner has a well-defined objective, which can be treated as estimation of a target parameter, and no intrinsic interest in characterizing the entire data-generating process. Usually, the learner must also contend with additional sources of uncertainty or variables — with nuisance parameters. Bayesian active learning, or sequential optimal experimental design, can straightforwardly accommodate the presence of nuisance parameters, and so is a natural active learning framework for such problems. However, the introduction of nuisance parameters can lead to bias in the Bayesian learner's estimate of the target parameters, a phenomenon we refer to as negative interference. We characterize the threat of negative interference and how it fundamentally changes the nature of the Bayesian active learner's task. We show that the extent

of negative interference can be extremely large, and that accurate estimation of the nuisance parameters is critical to reducing it. The Bayesian active learner is confronted with a dilemma: whether to spend a finite acquisition budget in pursuit of estimation of the target or of the nuisance parameters. Our setting encompasses Bayesian transfer learning as a special case, and our results shed light on the phenomenon of negative transfer between learning environments.
Read the full paper at: https://arxiv.org/abs/2310.14968

- **Uniform ergodicity of parallel tempering with efficient local exploration** by Nikola Surjanovic.
(authors: Nikola Surjanovic, Saifuddin Syed, Alexandre Bouchard-Côté, Trevor Campbell)
Summary: Non-reversible parallel tempering (NRPT) is an effective algorithm for sampling from target distributions with complex geometry, such as those arising from posterior distributions of weakly identifiable and high-dimensional Bayesian models. In this work we establish the uniform (geometric) ergodicity of NRPT under a model of efficient local exploration. The uniform ergodicity log rates are inversely proportional to an easily-estimable divergence, the global communication barrier (GCB), which was recently introduced in the literature. We obtain analogous ergodicity results for classical reversible parallel tempering, providing new evidence that NRPT dominates its reversible counterpart. Our results are based on an analysis of the hitting time of a continuous-time persistent random walk, which is also of independent interest. The rates that we obtain reflect real experiments well for distributions where global exploration is not possible without parallel tempering.
Read the full paper at: https://arxiv.org/abs/2405.11384

- **Learning and Forecasting of Age-Specific Period Mortality via B-Spline Processes with Locally-Adaptive Dynamic Coefficients** by Federico Pavone.
(authors: Federico Pavone, Sirio Legramanti, Daniele Durante)
Summary: Although the analysis of human mortality has a long history, the attempt to accurately forecast future death–rate patterns still attracts active research. We propose a novel statistical model which outperforms state–of–the–art forecasting strategies by incorporating the core structures of period mortality within an interpretable formulation. This is obtained by modeling the age–specific death counts via a Poisson log–normal model parameterized through a linear combination of B–spline bases with dynamic coefficients that characterize the temporal dynamics via suitably defined stochastic differential equations. As illustrated in the applications, the proposed model outperforms state–of–the–art alternative methods both in point forecasts and probabilistic coverage.
Read the full paper at: https://tinyurl.com/24pyz4ma

Are you a j-ISBA member who would like to showcase their work in the j-Author Spotlight section of the next bulletin? Please fill out the Google Form with information about your work at this link.

FEATURES

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This section aims at highlight relevant discussions and applications of Bayesian methodology and theory, as well as software.
To discuss a potential contribution, please contact anton.westveld@anu.edu.au.

Communications from the Sections

Grand Challenges in Bayesian Computation

by Anirban Bhattacharya, Antonio Linero, and Chris. J. Oates
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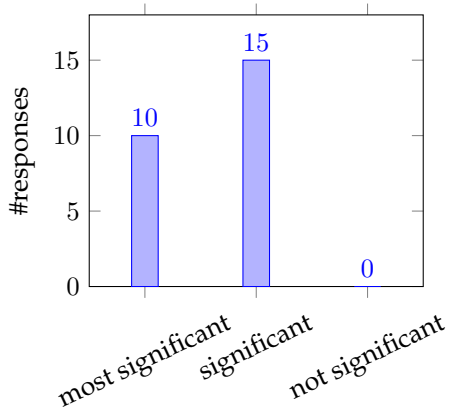
Computation is arguably one of the fastest evolving subfields of Bayesian statistics at the moment, driven by a combination of democratised access to computing technologies (such as automatic differentiation) and recent algorithmic advancement. While the many successes of Bayesian computation are well-publicised at conferences and in journals, the open questions and problems of pressing importance are not so frequently discussed.

Almost a decade ago, Green et al. (2015) summarised the state-of-the-art in Bayesian computation, focusing primarily on algorithmic advances in Markov chain Monte Carlo, approximate Bayesian computation, and proximal gradient methods. To shed some light on the current situation, we polled the current membership of the Computation section of ISBA. Here we present both a summary of these results, together with our own view of the current "grand challenges" for Bayesian computation in 2024.

As an opening gambit, participants were asked "How significant is the challenge of computation in the context of Bayesian statistics?". All responders agreed that computation is a significant challenge, while it was interesting that 60% of responders viewed computation as not the most significant challenge in Bayesian statistics at the moment. This may reflect the success of the community to-date in developing computational solutions to facilitate Bayesian analyses, but may also reflect the other well-known challenges in the Bayesian workflow (Gelman et al., 2020; Gelman and Yao, 2020).

Next, participants were asked "What do you see as being the most important class of computational methods for facilitating Bayesian statistics in 5 years' time?". An overwhelming 44% of responders identified sampling methods (i.e. based on Monte Carlo) as most important, with amortised posterior approximation methods second on 24%, and nonparametric variational approximations third on 12%. The preference for sampling methods may in part be due to their current widespread usage and existing software support, while it was interesting to see the nascent areas of amortised and nonparametric variational approximation enjoying perceived potential. Outside of these methods, one respondent noted some overlap between these different strategies, and one pointed to exact sampling methods as having potential.

How significant is the challenge of computation in the context of Bayesian statistics?



Given the rapid advances in Machine Learning and Artificial Intelligence (AI), we asked how these are "likely to interplay with Bayesian statistics in the next 5 years". While responses were diverse, a common theme was the application of flexible distribution approximation methods, such as diffusion models and normalising flows, to the posterior approximation task. Another common theme was the use of AI in the Bayesian workflow, from using chatbots for prior elicitation from experts, to the use of AI assistants for conducting the statistical analysis itself. Some responders also partly objected to the question, arguing instead for an increased role of Bayesian statistics in Machine Learning and AI! Overall, roughly two thirds of respondents expressed positive sentiments about the role of AI in Bayesian computation, with almost

all other respondents expressing uncertainty. Exemplar positive and unsure comments are (positive):

> *Without a doubt machine learning algorithms will play an important role in advancing the field of Bayesian computation. This is already happening with neural networks being used in MCMC algorithms and posterior inference with denoising diffusion models as just two examples. There were quite a few talks at the ISBA conference this year which also illustrated these connections between machine learning and Bayesian statistics. Going forward for the next 5 years, I think we will see Bayesian statisticians increasingly using machine learning algorithms. But hopefully, Statisticians will be able to contribute some novelty to this intersecting field and not just become users of these techniques. For example, there's a lot of missing theoretical understanding in machine learning and this is an opportunity for Statisticians to play a role in filling-in that theoretical gap.*

and (unsure):

> *The interplay will be significant in certain areas of application and much smaller in others. It is paramount that the community doesn't place all eggs in one basket and continues to work on new directions, more divorced from hype.*

The final question we asked was "What algorithms or features would you like to see being incorporated into new or existing off-the-shelf software for Bayesian computation?". This free-form question delivered the most diverse response set, from which we pick three examples to highlight: software support for the full Bayesian workflow, ability to automatically differentiate through marginal likelihood, and improved software support for sequential Monte Carlo.

This brings us to the issue of *grand challenges* for Bayesian computation. Section members were asked to identify grand challenges in free text, and responses from the community were predictably diverse, covering scalability of methods to large models and datasets, better leveraging of automatic differentiation and GPU acceleration, better sampling of complex/multimodal distributions, accurate computation of model evidence, among many others topics. Taking inspiration from these responses, we have identified three specific grand challenges for Bayesian computation, applicable to the field as it stands in 2024. These challenges below are the views of the authors and should not be interpreted as the views of the section as a whole.

Grand Challenge 1: Understanding the Role of Parametrisation At the start of the decade, the strong generalisation performance often observed in deep learning was mainly attributed to the implicit regularisation afforded by stochastic gradient descent, and considerable research effort was devoted to improving stochastic optimisation algorithms and understanding their inductive biases. However, a relatively recent paradigm shift has occurred, with favourable inductive biases now mainly attributed to how the neural architecture is parametrised. That is, the loss landscape induced by a particular parametrisation strongly determines the local minima found by *any* stochastic optimisation method, and the generalisation performance of the associated solution, motivating research into understanding the implications of how a neural network is parametrised. It is interesting to observe that a wide range of tasks in Machine Learning are now tackled with variations of the same transformer architecture (Goldblum et al., 2024), supporting this viewpoint. Our conjecture is that a similar paradigm shift is needed in Bayesian computation; the community has been prioritising the development of new algorithms over understanding when existing algorithms work well, and how their performance can be improved through more careful consideration of how the statistical model is parametrised. Indeed, many of our survey participants cited the development of improved algorithms as a grand challenge, and it is common to read research reporting that an algorithm was found to perform well or poorly on a particular posterior approximation task without consideration that performance can depend on how the posterior is parametrised. A promising line of research could be to identify pairings of model parametrisations and algorithms for which the posterior approximation

works well; the accumulation of these data would enable identification of broad guidelines or principles to inform how a model should be parametrised. Examples of work in this direction include Van Dyk and Meng (2001) on the impact of data augmentation strategies on the EM algorithm/Gibbs sampler, and Papaspiliopoulos et al. (2007); Yu and Meng (2011); Betancourt and Girolami (2015) on the role of centred versus non-centred parameterisations in hierarchical models for the purpose of boosting the performance of MCMC.

Grand Challenge 2: Community Benchmarks Bayesian computation has historically lacked a systematic approach to comparing different algorithms, with test problems often being cherry-picked to demonstrate the effectiveness of a proposed method (Chopin and Ridgway, 2017). Our view is that this practice betrays the evidence-based reasoning that we would as statisticians seek to promote in an applied context, hinders the identification of promising research directions, and falls short in respect of scientific rigour in comparison to related fields such as Machine Learning. Indeed, Green et al. (2015) anticipated "a threat that the whole field turns into a library of machine-learning techniques, with limited validation on reference learning sets and a quick turnover of methods, which would both impoverish the field and fail to reach a general audience of practitioners". Though we do not share the same attitude toward Machine Learning, we are equally supportive of recent attempts to develop community benchmarks, such as the `posteriordb` benchmark developed by Magnusson et al. (2024). The availability of a common set of test problems, together with a gold-standard ground truth, is an essential prerequisite to comparing the performance of the litany of different algorithms that are now available. However, there is still much work to be done in this respect. Notably, identifying test problems for which a high quality ground truth is available is difficult (e.g. `posteriordb` relies on an extended run of the No U-Turn Sampler), and instabilities in automatic differentiation currently preclude the plug-and-play use of such benchmarks without additional engineering work. The broader adoption and critical discussion of benchmark test problems by the community (e.g. Heaton et al., 2019) would surely catalyse further development of valuable community benchmarks.

Grand Challenge 3: Reliable Assessment of Posterior Approximations A recurring theme in survey responses was the need for better tools — both theoretical and practical — for assessing whether or not a particular approximation of the posterior distribution is fit for use. This includes creating diagnostic tools both for quickly and accurately measuring the quality of approximations of posterior distributions (Vehtari et al., 2021; Yao and Domke, 2024) but also establishing theoretical guarantees on (for example) variational approximations when used for specific purposes (Wang and Blei, 2019; Yang et al., 2020 for parameter estimation; Zhang and Yang, 2024; Ray and Szabó, 2022 for model selection consistency). On the theoretical side, important subproblems include (i) providing tight, computable, bounds on approximation error of approximate posteriors (as in Huggins et al., 2020) with either finite sample or asymptotic guarantees, and (ii) establishing that approximate posteriors, while possibly deficient as approximations to the true posterior, may nevertheless possess properties that make them reliable for specific problems such as model selection or uncertainty quantification for low-dimensional functionals of interest. We believe part of the reason sampling methods enjoy popularity over alternatives is because the guarantees they possess are better understood, more trusted, and (asymptotically) stronger than those that exist for non-sampling methods; narrowing this gap, either in terms of the approximation error for the full posterior or in terms of specific quantities like marginal likelihood approximations or other marginals of interest, would therefore make it easier to sell non-sampling methods to users who are interested in reliable uncertainty quantification.

It is of course not possible to summarise the challenges of Bayesian computation in terms of a small number of well-posed problems, as the wide range of responses to our survey testified. Nevertheless, we feel it is valuable to highlight these three particular challenges for discussion, in the hope that new ideas and techniques can be developed that in turn will help to advance our field.

The authors wish to thank all of the members of the Computational section of ISBA who voluntarily took part in this survey.

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NEWS FROM THE WORLD

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Q&A: what do you ~~believe~~ think?

What is your first motivation as a researcher?

Isadora Antoniano Villalobos (Università Ca' Foscari Venezia)
In a word, curiosity. I lost my way for a while, in the critical years after the PhD, without a permanent position, which made research much harder for me (I'm sure some of the readers can relate). But feeling safe again, curiosity is back. Sometimes it's what we often call a real-life question, from a practitioner trying to understand a particular phenomenon or aspect of our world. Others, it's theoretical concepts that, in my mind at least, seem to have some connection I don't quite understand yet. In every single case, it stems from someone else's work and if I have the chance to talk to others and learn from them, then it's even better. So I guess human contact is another great motivator for me.

David Frazier (Monash University)
Bayesian statisticians now have a plethora of methods to update prior beliefs into posterior beliefs. For some time I have been fascinated by approximate and generalized Bayesian methods and my primary motivation is to try and understand the reliability and applicability of these alternative Bayesian methods from a rigorous statistical standpoint.

Roberta De Vito (Brown University)
My primary motivation as a researcher stems from a deep curiosity and passion for statistics and cancer research. I am particularly driven by the potential to uncover the underlying causes of diseases like cancer using advanced Bayesian methods and models. By advancing knowledge in biostatistics, I aim to contribute to improving human health. From the early stages of my academic journey, I have been fascinated by the impact of various factors—such as environmental health and nutrition—on our lives. This fascination continues to inspire me to explore, discover, and contribute meaningful insights to the scientific community.

What would you change in the current scientific ecosystem?

Isadora Antoniano Villalobos (Università Ca' Foscari Venezia)
I believe that, just as our planet, our economy, our society, the scientific ecosystem is suffering from a sustainability crisis. And in the later case we, the researchers, are the non-renewable resource at risk. I do not have a solution to help us live more balanced lives with better mental and physical health standards, encouraging younger generations to keep the work going. But I think it would help us to slow down and change the way we evaluate our work, allowing (specially the younger generations) to thrive, without worrying about survival. It is healthy to remember, despite internal and external pressure to perform, that more is rarely better and that the quality of the questions we ask, as well as the answers we provide is more important than the volume and speed of publication. I would be happy to see institutions shift the focus from competitive to collaborative when evaluating candidates for a position, promotion or grant; nurturing people's capacity to work together, as opposed to dissecting individual contributions in each research project. While it is important and fair to recognize everyone's effort, when a team works together towards a common goal, the lines of who did what are often blurred and, in my experience, that's when the magic of science really happens.

David Frazier (Monash University)
If I could change one thing about the existing scientific ecosystem, it would be to update the revision/submission process for journal publications. The current peer review system is largely unchanged from its inception in the 1970s. Many things have changed since then, and in my opinion the current system does not make good enough use of the digital environment in which we all live and operate. Revising this process to inspire a more collaborative (collegiate?) engagement between the referees and the authors would only be helpful for the field of Bayesian analysis.

Roberta De Vito (Brown University)
If I could change one aspect of the current scientific ecosystem, it would be the accessibility, openness, and reproducibility of scientific research. The current system often faces challenges such as paywalls, high publication fees, and restricted access, which can limit the dissemination and impact of new discoveries. Additionally, a significant issue is the lack of reproducibility of scientific findings, particularly when it comes to the availability and transparency of research code and data.
To address these challenges, I would advocate for the broader adoption of open-access publishing models and increased support for initiatives that promote data sharing, transparent research practices, and the open availability of code used in analyses. Ensuring that code and data are easily accessible and well-documented is crucial for reproducibility, allowing other researchers to validate, replicate, and build upon existing work. This would not only enhance trust in scientific findings but also foster a collaborative environment where knowledge is freely available to all.
Moreover, I would push for reforms in the funding and reward structures that currently prioritize the quantity of publications over quality, reproducibility, and real-world impact. By valuing rigorous, reproducible research and providing proper incentives for sharing code and data, we can create a more reliable and inclusive scientific community that accelerates progress and democratizes access to knowledge.

Awards and Achievements beyond ISBA

This section aims at recognising research achievements for Bayesian work. If you would like an award or recognition to be advertised here, please send your contribution at deborah.sulem@usi.ch.

- Konstantinos Bourazas, Frédéric Sobas, and Panagiotis Tsiamyrtzis received the **2024 Brumbaugh Award** for their paper "Predictive Ratio CUSUM (PRC): A Bayesian Approach in Online Change Point Detection of Short Runs" published in the Journal of Quality Technology.
  The Brumbaugh Award has been presented annually since 1949 by the American Society for Quality, the world's largest publisher of quality-related content, to the paper that has made the most significant contribution to industrial quality control applications The 2024 marks the first year this prestigious award has been granted for a Bayesian work. The paper by Konstantinos Bourazas, Frédéric Sobas, and Panagiotis Tsiamyrtzis presents a novel Bayesian control charting framework in identifying persistent quality issues of small magnitude, with even low volumes of data and is capable to deal with all the distributions in the regular exponential family.

Reports from Important Events and Conferences

ISBA 2024 Venice: A Resounding Success

by Roberto Casarin and Stefano Tonellato

The International Society for Bayesian Analysis (ISBA) held its biennial World Meeting from July 1st to 6th, 2024, in the enchanting city of Venice, Italy. The conference, themed "Bayesian Statistics and Modeling", attracted a diverse and enthusiastic audience of 822 participants, including 300 students, from around the globe. This remarkable turnout underscores the growing interest and relevance of Bayesian methods in addressing complex problems across various scientific disciplines.

The conference program was rich and varied, featuring keynote lectures, foundation lectures, invited and contributed sessions, and poster presentations. The keynote lectures provided insightful overviews of cutting-edge research, while the foundation lectures offered comprehensive introductions to fundamental Bayesian concepts and methods. The invited and contributed sessions covered a wide range of topics, showcasing the latest developments in Bayesian methodology and applications. The poster sessions provided a lively forum for in-depth discussions and exchange of ideas.

Scientific Highlights

(a) (b)

The scientific program of ISBA2024 Venice was a testament to the versatility and power of Bayesian statistics in tackling real-world challenges. The conference showcased a diverse range of topics (see figure (a)), including:

- Causal inference: Several sessions explored novel Bayesian methods for causal inference, addressing issues such as unmeasured confounding, interference, and heterogeneity of treatment effects. Applications ranged from environmental health to clinical trials.
- Data integration: The conference highlighted innovative approaches to integrating multiple data sources in a Bayesian framework, with applications in fields such as genomics, epidemiology, and ecology.
- Bayesian deep learning: A growing area of interest, Bayesian deep learning combines the flexibility of deep neural networks with the rigor of Bayesian inference. Sessions explored topics such as model selection, uncertainty quantification, and interpretability.

- Spatial and spatiotemporal statistics: The conference showcased recent advances in Bayesian methods for spatial and spatiotemporal data, with applications in fields such as environmental science, epidemiology, and ecology.
- Bayesian computation: Several sessions focused on new computational methods for Bayesian inference, addressing issues such as scalability, efficiency, and robustness.
- Bayesian applications: The conference featured a wide range of applied Bayesian research, with applications in fields such as finance, economics, social sciences, and environmental science.

The poster sessions were a vibrant hub of activity, featuring a diverse array of research topics (see figure (b)). Some highlights included:

- Bayesian methods for extreme value analysis and their applications in various fields, including hydrology and finance.
- Development of innovative Bayesian models for urban transit predictions, with insights from studies on the Beijing Metro system.
- Exploration of Bayesian community detection algorithms for network analysis, with applications ranging from social networks to biological systems.
- Development of geospatial Bayesian methods for disaster impact estimation, contributing to improved disaster response and relief efforts.
- Novel Bayesian approaches for modeling the spread of infectious diseases and evaluating the effectiveness of interventions.

Special Events

In addition to the main conference program, ISBA 2024 Venice featured a sponsored session on "Bayes in Finance and Insurance", highlighting the growing importance of Bayesian methods in these sectors. Furthermore, a satellite event titled "Artificial Intelligence, Data Sharing, and Regulation" explored the complex interplay between AI, data governance, and regulatory frameworks, fostering discussions on the ethical and societal implications of these technologies.

Closing Remarks

The Local Organizing Committee expresses its sincere gratitude to all participants for their contributions to the success of ISBA 2024 Venice. The conference provided a stimulating and enriching environment for the exchange of ideas, fostering collaboration and innovation in the field of Bayesian statistics. We look forward to welcoming the Bayesian community to the next ISBA World Meeting in Japan in 2026.

ISBA 2024 Invited panel discussion "Which future for ISBA conferences?"

by Guido Consonni and Gertraud Malsiner-Walli

During the ISBA 2024 World Meeting in Venice, an invited panel discussion titled *"Which Future for ISBA Conferences?"* was held on the afternoon of July 4 in the Aula Magna. Organized by Gertraud Malsiner-Walli (Vienna University of Business and Economics) and Guido Consonni (Università Cattolica, Milan), the panel aimed to address the future direction of ISBA conferences.

As Guido noted in his introduction, while conferences are cherished for bringing colleagues and friends together, we must consider how to make them more environmentally sustainable, affordable, and inclusive. Though this is a complex and multi-faceted issue, it is essential to begin a serious

conversation with the aim of raising awareness among ISBA members and ultimately implementing practical solutions. Gertraud briefly discussed the environmental impact of conferences, pointing out that the rising global temperature is largely driven by CO2 emissions. She emphasized that scientists, especially statisticians, should be aware of the carbon footprint associated with their conferences, particularly air travel. Moreover, the infrastructure needed to host these events—ranging from accommodations and conference venues to catering and single-use waste—often consumes significant energy. Gertraud called for innovative approaches to organize scientific meetings in a more sustainable manner.

Ron Wasserstein, the Executive Director of the American Statistical Association, highlighted the multiple purposes served by conferences organized by large societies. These events not only increase the visibility of organizations and boost membership but also often serve as a key source of revenue to support other underfunded social and scientific initiatives. Ron emphasized the many benefits conferences offer to attendees, such as networking, sharing and receiving feedback on research, and professional development opportunities. He concluded that, when looking for sustainable alternatives, the diverse roles that conferences play must be acknowledged in order to achieve a balanced solution.

Kate Lee (University of Auckland, New Zealand) shared the perspective of a young academic from a region distant from the typical location of large international conferences. While recognizing the value of academic meetings for exchanging ideas and discussing research, she pointed out that in-person conferences can unintentionally exclude certain groups due to factors like geographical isolation, financial constraints, limited accessibility, and language barriers. She advocated for initiatives aimed at improving accessibility, diversity, and inclusion to broaden participation in these events.

Christian Robert (Université Paris Dauphine and University of Warwick) drew on his personal experience in organizing "mirror meetings"—local events replicating the main conference—beginning during the pandemic. He observed that an ensemble of mirror meetings can produce more than the sum of their parts: for instance, interest-based discussion groups can easily be formed at local gatherings. Christian advocated for extending mirror meetings to all ISBA-backed conferences, which would allow for greater diversity of attendees without requiring long-distance travel. He also suggested that by using trains instead of planes to reach nearby mirror locations, where feasible, the environmental impact of conferences could be significantly reduced.

Despite the competition from other parallel sessions, the panel attracted a significant audience, including ISBA President Aad van der Vaart. A lively discussion followed, with questions focusing on the practical challenges of implementing mirror meetings, particularly when dealing with time zone differences and necessary technology. While some participants expressed reservations about changing the traditional conference format, others were more supportive. Ultimately, the panel marked a promising start in raising awareness of how conferences can become more environmentally friendly and inclusive. The hope is that these discussions will continue, leading to actionable ideas and implementations.

ISBA 2024 Satellite event in Lugano

by Antonietta Mira

The workshop was run at USI, Lugano, from June 25 to June 28, 2024. The event included a poster session and outreach activities.

The Scientific Exchange enabled discussion between participants from different communities that usually have limited interaction. For example, it enabled interaction between researchers from the Flatiron Institute who work on the statistical software Stan, and academics from Europe and the

Asia-Pacific region. A large proportion of attendees were young researchers who actively participated in the workshop, either as speakers or as poster presenters. There were several discussions following talks, especially vibrant ones on topics including the computational and modelling aspects of large networks; the theory on algorithms in high dimensions; and the theory for high-dimensional Bayesian approaches.

A highlight of the Scientific Exchange was the panel discussion that included representatives from industry in Europe. Several attendees commented that it was interesting to be exposed to different points of view, and also pointed out that the debate between artificial intelligence and statistics appears to be more advanced in Europe than overseas.

Upcoming Meetings, Conferences, and Workshops

- Advances in High/Infinite-Dimensional Inference (AHIDI 2024) Workshop, 7-8 November 2024, University of Verona, Verona, Italy. The registration to this workshop is free. Abstract submission for early-career researchers and registration are open until October 6.
- 18th International Joint Conference CFE-CMStatistics 2024, 14-16 December 2024, King's College London, UK. This joint conference invites oral and poster presentations containing computational or financial econometric components. Papers containing strong computational, statistical, or econometric elements or substantive data-analytic components can be submitted for publication either in the CSDA Annals of Statistical Data Sciences or Econometrics and Statistics.
- 2024 IMS International Conference on Statistics and Data Science (ICSDS), 16-19 December 2024, Nice, France. The objective of ICSDS is to bring together researchers in statistics and data science from academia, industry, and government in a stimulating setting to exchange ideas on the developments of modern statistics, machine learning, and broadly defined theory, methods, and applications in data science. The deadline for submitting abstracts is October 25 and for applying to Junior Researcher Travel Support is October 30.
- Bayes Comp 2025, 16-20 June 2025, National University of Singapore, Singapore. This biennial meeting is organized by the Bayesian Computation Section of ISBA. Bayes Comp 2025 is the fourth conference in the series and gives a snapshot of the current state of the diverse and exciting field of Bayesian computation. The deadline for submitting Satellite Workshop and Invited Sessions proposals is 31st October 2024.
- 14th International Conference on Bayesian Nonparametrics, 23-27 June 2025, UCLA, Los Angeles, US. This conference is a bi-annual international meeting bringing together leading experts and talented young researchers working on applications and theory of nonparametric Bayesian statistics. The conference will be followed by the first-ever BioPharm Section Meeting.

And don't forget:

- Bayesian methods for Social Sciences II workshop, 16-18 October 2024, Amsterdam, The Netherlands. This 3-day event will gather statisticians, mathematicians and social scientists around the theme of Bayesian statistical methods for the social sciences.

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