ISBA

INTERNATIONAL SOCIETY FOR BAYESIAN ANALYSIS

THE ISBA BULLETIN

OFFICIAL BULLETIN OF THE INTERNATIONAL SOCIETY FOR BAYESIAN ANALYSIS

MESSAGE FROM THE PRESIDENT

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In my email to ISBA members on January 05, 2022, I conveyed my optimism that 2022 will be the year that sees the end of the COVID-19 pandemic. While I continue to remain optimistic, at the time of writing several parts of the world continue to grapple with the effects of the pandemic. And I watch with grave concern how our world has been thrown into disarray with the geopolitical upheaval evolving in Ukraine. Irrespective of our individual political beliefs, I believe all of us at ISBA are united in decrying military aggression and war. We are deeply anguished and appalled by the heartbreaking devastation being inflicted upon the people of Ukraine. I extend my heartfelt sympathies and best wishes to all our members with ties to the affected regions. Such events also greatly hamper the intellectual pursuits and global synergies our society aims to foster and support across the world. We, at ISBA, hope that this conflict ends with the restoration of peace and order as soon as possible.

In spite of the continuing uncertainties surrounding us, I look to the coming months with optimism and hope. I feel truly honored to be presiding over ISBA this year, having absorbed much from the remarkable leaderships of 2020 President Sylvia Frühwirth-Schnatter and 2021 President Igor Pruenster. It has been a privilege serving with them in 2021 in the Executive Committee and I am truly grateful for Igor's continuing role as Past President and as Chair of the Finance Committee. I am very fortunate to have an im-

mensely capable team of individuals who, apart from Igor and myself, comprise the 2022 ISBA Executive Committee: Amy Herring (President-Elect), Donatello Telesca (Executive Secretary) and Marian Farah (Treasurer). The transition of these officers into their current roles was greatly facilitated by outgoing Executive Secretary Feng Liang whose superb guidance and attention to details are much appreciated.

I am deeply grateful for the incredible dedication of the ISBA Program Council consisting of Matthias Katzfuss (Chair), Botond Szabo (Past-Chair) and newly appointed Vice-Chair Sinead Williamson. Past Program Council Chair Athanasiosis Kottas was instrumental in ensuring a smooth transition for this committee and certainly deserves our appreciation. One of the most important tasks currently occupying the ISBA leadership is the upcoming World Meeting scheduled to be held on site, and fully in-person, in Montreal, Canada, from June 26 until July 1, 2022, at the Hotel Bonaventure Montreal, Canada.

The ISBA World Meetings (https://bayesian.org/events/world-meetings/) stand out as among the most vibrant and engaging conferences in the profession of statistics. They are also widely regarded as the flagship international conferences on Bayesian statistical methods. In this regard, I want to give a special shout-out to Alexandra Schmidt (Chair of the Organizing Committee) and her team for navigating through unprecedented uncertainties in organizing the ISBA 2022 World Meeting. Confirmed participants and prospective attendees are encouraged to register early to avail of the early bird registration rates before 11:59pm GMT on April, 14, 2022. A direct link for registration is available by clicking here, ISBA 2022 World Meeting Registration, or from the conference website https://isbawebmaster.github.io/ISBA2022/ Current ISBA members should log into their member account (log-in link is on the top right corner of the registration page) and then register to avail of the member discount. Those who are currently not members have the opportunity to join or renew their ISBA membership at the following link: https://bayesian.org/membership/joinrenew/ and then proceed to register in order to avail of member rates. All presentations and poster sessions will be conducted on site and all attendees are expected to be present in person at the conference venue.

In spite of significant inflationary pressures and high expenses amid global economic uncertainties, the ISBA leadership has decided on significantly reduced registration rates for most categories from the last on-site World Meeting in 2018. It is, however, imperative for ISBA's financial health that we actively engage with our professional partners to seek sponsorship and funds to help defray the costs of the World Meeting. The ISBA Leadership and the Local Organizing Committee are currently actively reaching out to potential sponsors for the World Meeting. Funds from our sponsors are used to provide travel support to graduate students and junior researchers. Junior researchers are the lifeblood of our society and we are fully engaged in acquiring travel awards for them. Sponsors are recognized on both the conference website and program. I encourage members of ISBA to help attract sponsorship for the upcoming World Meeting by reaching out to their employers, organizations and colleagues and informing them about the 2022 World Meeting.

Turning to a few matters of governance, I wish to take this opportunity to thank the services of many officers and volunteers who keep ISBA functioning smoothly so that it continues to serve our profession effectively. I want to thank our past ISBA Board members Eduardo Gutiérrez-Peña, Beatrix Jones, Ioanna Manolopoulou, and Nancy Reid for their splendid services to the ISBA Board and welcome our newly elected board members Julyan Arbel, Thais Fonseca, Li Ma and Sara Wade. I also thank Pierre Jacob (Professional Conduct Committee), Dan Kowal (Finance Committee), Vanja Dukic and Hedibert Lopes (Prize Committee) and Anonietta Mira (Continuing Education Committee) for their dedicated services and welcome our incoming officers Bruno Sanso (Professional Conduct Committee), Anirban Bhattacharya (Finance Committee), Sergios Agapiou and Xiaojing Wang (Prize Committee), Sinead Williamson (Program Council) and Dootika Vats (Continuing Education Committee) for agreeing to serve ISBA with their valuable time and efforts.

Our profession is greatly indebted to Michele Guindani who completed his term as Editor-in-Chief of Bayesian Analysis, the flagship journal of ISBA, at the end of 2021. Michele and his editorial team have contributed immensely to the growth of the journal and its increasing impact on scientific research. We are also very fortunate that Mark Steel has assumed the role of the new Editor-in-Chief for Bayesian Analysis from this year and I have no doubt that the journal will continue to grow and expand its reach under Mark's stewardship. And let us also take a moment to recognize and appreciate Gregor Kastner (Editor of this Bulletin), Tony Pourmohamad (Web Editor) and Tommaso Rigon (Social Media Manager) for their role in ISBA's publications.

Finally, allow me to remind you to renew your membership and also encourage your students, collaborators and colleagues to join ISBA. ISBA is a truly special association that has served our profession admirably since its inception in 1992 and has witnessed the massive growth of Bayesian statistics over the years. I especially encourage you to join and participate in the different Sections of ISBA listed under https://bayesian.org/. The vitality of these Sections ensures the growth and expansion of the synergistic scholarly activities that our Society strives to achieve. The link to renew your membership and join the Sections is available at https://bayesian.org/membership/joinrenew.

FROM THE EDITOR

Gregor Kastner

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March is coming to an end, and just in time the new Bulletin is out. On top of our usual features, enjoy the revived *Bayes in Action* column, compiled by Anton Westveld, which spotlights how Bayesian methods are used to make a difference: Carolyn Rutter and Jonathan Ozik took the time to inform us how they model health policy while taking uncertainty seriously. Also, read about the 2021 Savage finalists in the *Awards* section; hear the latest from *Bayesian Analysis* by our new Editor-in-Chief Mark Steel; inform yourself about *j-ISBA* where Cecilia Balocchi took over as Secretary; catch up about updates *From the Program Council* with Matthias Katzfuss as new Chair; and, of course, get the latest *News from the World* by Francesco Denti!

BAYES IN ACTION

BAYESIAN ESTIMATION TO UNDERSTAND UNCERTAINTY IN HEALTH POLICY MODELS

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Health policy models are used to predict the impact of policy on the outcomes they are meant to change. Policy models are used to span gaps in our knowledge and are useful when we have some key pieces of information but are unable to make comparisons needed to inform policy empirically, either because required studies would be unethical or infeasible. You should care about policy models, including how they are developed and deployed, because of their impact. For example, in recent years, the United States Preventive Services Task Force (USPSTF) has used policy models to inform their guidelines for breast, cervical, colorectal, and lung cancer screening. For each of these cancers, the USPSTF considered predicted outcomes under different policy scenarios from not just one model, but from a set of models that are part of the National Cancer Institute's Cancer Intervention and Surveillance Modeling Network, known as "CISNET" (see cisnet.cancer.gov).

Our work has focused on colorectal cancer, using the "CRC-SPIN" model to predict both the benefits and harms of different screening regimens. The benefits of screening include reductions in cancer incidence and mortality, but we often focus on life years gained as an overall measure of benefit, that is, the average number of years gained because of screening compared to no screening. Harms can include overdiagnosis of cancer, the number of colonoscopies performed in the screened population, and costs, which generally include health care costs but could also include costs due to loss of work. A common goal is to identify policies that result in the greatest predicted benefit for the least predicted harm.

To predict benefits and harms of screening, we begin by predicting outcomes in the absence of screening using a natural history model that simulates outcomes of individuals in the absence of screening: the occurrence and growth of precursor lesions, transition of precursor lesions to colorectal cancer, and survival from colorectal cancer. Once the natural history model is developed, it can be used to inform policy decisions, by simulating the harms and benefits under different screening policies applied to the simulated population. But writing "once the model is developed" skips over a lot of interesting work and opportunities for statistical thinking.

Model development includes first defining a basic model structure, the underlying stochastic pro-

cesses that describe how disease progresses in the absence of intervention. The model structure may constrain simulated disease progress, but it is intended to be flexible. The structure includes unknown model parameters that are selected so that the model can accurately predict a set of observed targets. These targets, which are generally summary statistics from randomized and observational studies, are chosen to inform the various components of the simulated disease process. For example, we use targets that describe the prevalence of precursor lesions, their size when detected, rates of screen detected colorectal cancer, and cancer incidence in the absence of screening. The process of selecting parameters and the targets the model needs to 'hit' is referred to as *model calibration*. Model calibration can be thought of as synthesizing information across the targets.

Model calibration can be quite difficult, and often takes far longer than developing the model structure itself. We have found that Bayesian approaches are a natural solution to the issues faced during model calibration. Because policy models are used in contexts when information may be incomplete, a Bayesian approach allows us to incorporate expert opinion through specification of prior distributions of model parameters. We can also use simulated draws from the posterior distribution to understand both the uncertainty of model parameters and model predictions, by simulating the distribution of model predictions given draws from the posterior distribution.

Getting these draws is conceptually simple, thanks to Approximate Bayesian Computation (ABC). ABC is based on an idea that can be traced back to a 1984 paper by Don Rubin that describes how to use simulation to estimate the posterior distribution of model parameters. Let X be the calibration targets, the data that inform our model parameters. The model for the targets is given by $f(X|\theta)\pi(\theta)$ where $\pi(\theta)$ is the prior distribution of model parameters. In the context of microsimulation modeling, $f(X|\theta)$ is generally a complex and unknown function of θ. As Rubin writes, estimation of the posterior distribution, $f(\theta|X)$, is possible through simulation. There are three steps:

1. Simulate M values of θ drawn from $\pi(\theta)$: $\theta_1, \ldots, \theta_M$

2. Simulate M values of X, with x_i drawn from $f(X|\theta_i)$

3. Keep θ_i's with corresponding x_i's that match the observed targets. These accepted θ_i's are a sample from $f(\theta|X)$.

This is the essence of the basic ABC accept/reject algorithm. A major advantage of this algorithm is that it only requires that we be able to simulate x_i given θ_i; it does not require that we know the functional form of $f(X|\theta_i)$. The basic ABC algorithm can fail for a variety of reasons. One issue is the rules for acceptance of θ_i's. The ABC algorithm accepts θ_i if $\|x_i - X\| < \epsilon$. Simulation from the posterior is exact when $\epsilon = 0$, but this is generally not possible, especially as the dimension of X increases. The approximation to the posterior distribution becomes less precise as ϵ increases. Another issue is alignment of the prior and posterior distributions. ABC can fail when $\pi(\theta)$ and $f(\theta|X)$ are not well aligned, because the algorithm is not "looking" in the right part of the parameter space. ABC can also fail in high dimensions, as more targets are needed to inform θ and it becomes more difficult to simultaneously match all targets. Many varieties of ABC have emerged to address these issues.

We developed an incremental mixture ABC (IMABC) algorithm to calibrate the CRC-SPIN model (see https://doi.org/10.1214/19-AOAS1279 and the associated R package imabc). IMABC builds from Raftery and Bao's incremental mixture importance sampling method. The idea is simple. We start with the basic ABC algorithm and build up our sample by adding points near the θ_i that produce x_i nearest to targets, by sampling from a multivariate normal distribution centered at θ_i. This results in a sample drawn from a mixture distribution that is incrementally built up. Once we have obtained the desired number of θ_i, we use weights to account for sampling from this mixture distribution rather than $\pi(\theta)$. We can make this adjustment either by weighting the accepted θ_i or by drawing a sample from the accepted points, with probability of selection proportional to the importance weights.

The resulting sample from the posterior distribution can be used to learn about relationships among parameters, parameter identifiability and uncertainty, and uncertainty in model predictions. Uncertainty in model predictions often goes unacknowledged, not because we believe the models are precise, but because of computational expense. For example, in 2021 the USPSTF released new colorectal cancer screening guidelines, recommending that screening begin at age 45. CRC-SPIN was one of three CISNET colorectal cancer models used to provide information to the USPSTF. Each of the models predicted the cost (based on number of colonoscopies) and effectiveness (based on life years gained) of over 200 screening regimens. Each of the three models predicted outcomes using one 'best' set of parameter values. The CRC-SPIN model used parameters set to posterior means estimated using the IMABC algorithm. Even though there was interest in understanding the uncertainty of model predictions, this type of analysis was not feasible; in part because predictions using a single parameter based on a simulation of a screening in a population of 10 million were already computationally intensive.

Computing invariably becomes more accessible over time, making computationally intensive analyses more feasible. Rather than turning away from methods that are computationally intensive, the CISNET colorectal cancer group has formed partnerships with high-performance computing (HPC) researchers and is applying HPC workflow approaches (see `https://emews.github.io`) to utilize Department of Energy supercomputing resources to enable more computationally ambitious analyses. These resources are available, for example, via awards from the Advanced Scientific Computing Research (ASCR) Leadership Computing Challenge (ALCC, see: `https://science.osti.gov/ascr/Facilities/Accessing-ASCR-Facilities/ALCC`). Planned analyses include value of information analysis, which is used to identify the most important gaps in knowledge, and robust decision making, which uses modeling to identify the policies that are most robust in the face of uncertainty. These analyses can directly contribute to an improved understanding of how confidence in recommendations can be quantified when developing screening guidelines. We can begin thinking now about how to summarize these more holistic accountings of uncertainties in our communications with policymakers.

AWARDS

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Two years ago the course of our lives changed radically due to the COVID pandemic and the situation was not any different for the scientific community and, in particular, for ISBA. Our community has been resilient and has adapted in many different manners, from online seminars with a worldwide reach to hybrid conferences and a number of initiatives to encourage young researchers to pursue their academic careers. The ISBA Prize Committee and sub-committees have continued with their important task within ISBA and if the traveling situation prevails as of today, in our World Meeting in Montreal next June, we will have a joint ceremony for all ISBA Awards in the editions 2019, 2020 and 2021.

In this issue of the Bulletin, we would like to draw your attention to the 2021 Savage Finalists as well as the 2022 Call for the Savage Award and the Mitchell Prize.

Savage 2021 Award Finalists in the category Applied Methodology

Cecilia Balocchi for her thesis entitled "Bayesian nonparametric analysis of spatial variation with discontinuities" (Supervisors: Edward I. George and Shane T. Jensen).

Augusto Fasano for his thesis entitled "Advances in Bayesian inference for binary and categorical

data" (Supervisors: Daniele Durante and Igor Prünster)

Neil Marchant for his thesis entitled "Statistical approaches for entity resolution under uncertainty" (Supervisors: Ben Rubinstein and Rebecca C. Steorts).

Valerio Perrone for his thesis entitled "Bayesian models for scalable machine learning" (Supervisors: Dario Spanò, Paul Jenkins and Yee Whye Teh)

Savage 2021 Award Finalists in the category Theory and Methods

Marta Catalano for her thesis entitled "On complex dependence structures in Bayesian nonparametrics: a distance-based approach" (Supervisors: Antonio Lijoi and Igor Prünster).

Aritra Guha for his thesis entitled "Inference and Interpretability in Latent variable modeling " (Supervisor: Long Nguyen).

Aditi Shenvi for her thesis entitled "Non-stratified chain event graphs: dynamic variants, inference and applications" (Supervisor: Jim Q. Smith).

John O'Leary for his thesis entitled "Coupling and Parallelization in Statistical Inference" (Supervisor: Pierre E. Jacob).

The Savage Award 2021 sub-committees integrated by Veronica Berrocal, Yang Ni, David Nott, Julia Palacios, Raquel Prado (**Chair**), Henry Scharf, Ting Zhang, for the category of Applied Methodology, and by Felipe Barrientos, Minwoo Chae, David Dahl (**Chair**), Juhee Lee, Li Ma, Garritt Page, Stéphanie van der Pas, Debdeep Pati, for the category of Theory and Methods were very impressed with the high quality of submissions this year and congratulate all applicants on their fine contributions to Bayesian statistics.

Special thanks go to Raquel Prado, David Dahl and both Savage Award sub-committees members for their professionalism and impartiality in the evaluation process.

2022 Mitchell Prize and Savage Award Call

The Prize Committee of ISBA is pleased to open the call for submissions for the 2022 Mitchell Prize and Savage Award. The deadline for submission is May 31, 2022.

The Mitchell Prize is given in recognition of an outstanding paper that describes how Bayesian analysis has solved an important applied problem. The prize includes a check for $1000 and a plaque; the winner(s) will be announced at the Joint Statistical Meeting in Toronto, Ontario, Canada, in 2023. For details on the Mitchell Prize, including names of past winners, eligibility details, and submission information, please visit https://bayesian.org/project/mitchell-prize/.

The Savage Award, named in honor of Leonard J. "Jimmie" Savage, is bestowed each year to two outstanding doctoral dissertations in Bayesian econometrics and statistics, one each in Theory & Methods and Applied Methodology. Up to two awards of $750 will be awarded. Finalists will be notified by January 2023 and invited to present their dissertation research at a special contributed session at the Joint Statistical Meeting in Toronto, Ontario, Canada in 2023. The winners will also be announced at the same meeting. For details on the Savage Award, including names of past winners, eligibility details, and submission information, please visit https://bayesian.org/project/savage-award/. Nominations for the Mitchell Prize and Savage Award may be made by any ISBA or SBSS member. To join ISBA please go to https://bayesian.org/membership/joinrenew/.

Questions regarding any of the Prizes or Awards may be sent to the ISBA Prize Committee at prize-committee@bayesian.org.

UPDATES FROM BA

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I am delighted and honoured to be the new Editor-in-Chief of *Bayesian Analysis*. It is a wonderful opportunity to be part of the exciting and rapid development of our journal which has made a real difference in our community and has also impacted substantively on the wider statistical profession and across a range of fields of application. Since its inception in 2004, the journal has steadily increased its prestige and influence in the community (the 2020 Journal Impact Factor is 3.728 which ranks it 14th out of 125 journals in Statistics and Probability) and has grown a lot in recent years (over 300 submissions in 2021). Of course, this is due to the hard work of the six previous Editors-in-Chief and their Editorial Boards. In particular, I want to thank the past Editor-in-Chief, Michele Guindani, who has promoted multiple initiatives to increase the visibility and reach of the journal and has also been very generous with his time and patience in supporting me to find my feet in this role.

One of the traditions of the journal is that an incoming Editor-in-Chief reviews the composition of the Editorial Board, to make sure it continues to reflect the breadth of topics at the research frontier and the diversity of the readership. In fact, the policy of the journal is that all Editorial appointments end with the term of the Editor-in-Chief. That also gives members of the Board a natural opportunity to step down after (often many) years of continued service. The current Editorial Board of *Bayesian Analysis* comprises 10 co-Editors and 50 Associate Editors from across the globe and covering a very wide array of areas of expertise. I would like to convey my thanks to the outgoing co-Editors for their many years of dedicated and excellent service to the journal: Maria Delorio, Adrian Dobra, Mike Evans, Lurdes Inoue and Dan Spitzner. As new co-Editors, I welcome Gonzalo García-Donato, Eduardo Gutierrez-Peña, Raquel Prado, Fernando Quintana and Judith Rousseau. In addition, I would also like to thank all the outgoing Associate Editors, who have been so instrumental in achieving a rapid turnaround of high-quality publications and welcome the newly added Associate Editors. As there are 19 outgoing and 20 incoming Associate Editors, length considerations preclude mentioning all of them here, but you can see the full new Editorial Board on the website at https://www.e-publications.org/ims/submission/BA/help/about/.

As you know, *Bayesian Analysis* is an open access journal with the generous support of ISBA which contributes to the payment of its publication fees. These fees are charged per page, and are used to cover all the costs associated with the publishing process, such as the management of the editorial system, the production and editing of the accepted manuscripts, the website and file storage. Please, consider contributing to these publication charges, when you renew your ISBA membership or when one of your papers is accepted in the journal. This will ensure the long-term economic viability of the journal and the continued dissemination of novel Bayesian ideas.

Bayesian Analysis enhances visibility of the published research via regular announcements through the ISBA mailing list, the ISBA Bulletin (you are reading one now), and social media, as well as invited sessions at the ISBA World Meeting and the JSM, discussion papers and the Lindley Prize, awarded for innovative research presented at an ISBA World Meeting and accepted for publication in the journal. Recently, we have also initiated webinars where discussion papers are presented with the invited discussions and a rejoinder. On January 26, we had the paper "Multilevel linear models, Gibbs samplers and multigrid decompositions" by Giacomo Zanella and Gareth Roberts with insightful discussions by Quan Zhou and Shuang Zhou, James Flegal and Xiaodong Yang and Jun Liu. The video can be viewed at https://www.youtube.com/watch?v=srfWsSKAc4E. On February 9, John Lewis, Steve MacEachern and Yoonkyung Lee presented their paper on "Bayesian restricted likelihood methods: Conditioning on insufficient statistics in Bayesian regression" with thoughtful discussion by Bertrand Clarke, Christian Robert and Fabrizio Ruggeri; the video of the webinar can be found at https://www.youtube.com/watch?v=mXI-Ic27Kdw. Both papers will soon appear in the

journal with additional contributed discussion. These discussion papers and their associated webinars are highly recommended and we will have the next one on April 20, when Brian Kidd and Matthias Katzfuss present their paper "Bayesian nonstationary and nonparametric covariance estimation for large spatial data" with discussion from Bo Li and Lyndsay Shand, and from Sudipto Banerjee and Michele Peruzzi. The webinar will start at 15:00 GMT and details will follow; please tune in!

I am very much looking forward to further contributing to the journal's excellence and relevance in both theoretical and applied statistics and I will do my best to fully exploit the opportunities that my new appointment provides. If you have any suggestions about how to make *Bayesian Analysis* even more relevant or influential, please do let me know.

JUNIOR ISBA

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j-ISBA Elections

Dear ISBA community, I would like to introduce Alejandra Avalos-Pacheco as the new Chair-Elect, Fan Bu as the new Program Chair and myself as the new Secretary. We are all very excited to contribute to the new generation of Bayesians researchers and more generally to the ISBA community. Thanks to everyone who took part in the ISBA elections. And special thanks to Roberta De Vito, Akihiko Nishimura and Willem van den Boom for their hard work in the past years. Their contributions have greatly strengthened the j-ISBA section. Let's present the board members of j-ISBA for 2022:

Xenia Miscouridou (Chair): Xenia is a Junior Research Fellow at the Department of Computer Science, University of Oxford and Wolfson College. She will soon join the Department of Mathematics at Imperial College London as a Lecturer in Statistics within the I-X initiative. Previously she was a postdoctoral researcher at Imperial College Mathematics Department, and she obtained her PhD in Statistical Machine Learning from the University of Oxford supervised by Francois Caron and Yee Whye Teh. Xenia's research interests cover Nonparametric Bayesian methods, random graphs and network modeling, deep generative models and spatiotemporal applications.

Alejandra Avalos (Chair-Elect): Alejandra is a Research Fellow at the University of Florence in the Department of Statistics; and an Affiliated Member at Harvard University in the Harvard-MIT Center for Regulatory Science. Previously she was a postdoctoral fellow in Statistics at Harvard Medical School, and she received her PhD in Statistics in the joint program between the University of Warwick and the University of Oxford (OxWASP), supervised by David Rossell and Richard Savage. Her main research interests include high-dimensional inference, applied Bayesian statistical modeling, dimensionality reduction, data integration, graphical models and clinical trials.

Sally Paganin (Treasurer): Sally is a Postdoctoral Research fellow in the Department of Biostatistics at Harvard T.H. Chan School of Public Health. Previously, she was Postdoctoral Researcher at UC Berkeley, where she was also part of the core team developing NIMBLE. She is originally from Italy, where she obtained her PhD in Statistical Sciences at University of Padova in 2019. Her research focuses on Bayesian nonparametrics and latent variable models, along with the development of statistical software and algorithms.

Fan Bu (Program Chair): Fan is a Postdoctoral Research Fellow at University of California, Los Angeles, and she has been actively involved in the Observational Health Data Sciences and Informatics (OHDSI) research network. She completed her PhD in Statistics at Duke University under Dr. Alexander Volfovsky. Her research has focused on large-scale observational health data, dynamic

processes with complex dependency structures, infectious disease transmission, social network analysis, and sports analytics.

Cecilia Balocchi (Secretary): Cecilia is a Postdoctoral Research fellow at the University of Torino in the Department of Economics and Statistics. She will soon join the School of Mathematics at the University of Edinburgh as a Lecturer in Statistics. She obtained her PhD in Statistics at the University of Pennsylvania, supervised by Shane Jensen and Ed George. Her research interests span topics in Bayesian nonparametrics, hierarchical modeling and spatial methods, with a focus on modeling data organized in discrete structures.

j-ISBA Community

We want to encourage all Bayesian students and junior researchers (within 5 years of their PhD) to renew their subscription to j-ISBA. Now it's even easier thanks to the newly reduced membership fees; ISBA fees are 5 USD/year for students and 30 USD/year for early career researchers, and j-ISBA fees are only 5 USD/year.

We are pleased to share that there will be an exciting year of activities within the j-ISBA section. Some highlights:

- Our forthcoming BaYSM 2022 conference (https://events.stat.uconn.edu/BAYSM2022/) will be held on June 22-23 2022 in Montréal. The call for abstracts has been open and we look forward to seeing many of you there!

- After last year's success, the newly-established *Blackwell-Rosenbluth Award* by j-ISBA will be assigned again this year; we encourage all junior researchers to apply (more information coming in the next months).

- We are also planning some new community-support activities, with a special focus on inclusivity, challenges faced by junior researchers and mental health — stay tuned for more information!

FROM THE PROGRAM COUNCIL

Matthias Katzfuss
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Welcome New Member Sinead Williamson has joined the Program Council as the new Vice Chair. We are very grateful to our departing member Athanasios Kottas for his dedication and exceptional service in the past three years. Athanasios will continue serving on the Scientific Committee of the ISBA 2022 World Meeting, working in close collaboration with the Program Council. Thank you, Athanasios, and welcome, Sinead!

ISBA World Meeting 2022 The ISBA 2022 World Meeting is scheduled to be held in Montreal, Canada, from June 26 to July 1, 2022. The Scientific Committee has created an outstanding program, with over 200 speakers and hundreds of poster presentations. We have also received a large number of sponsorship commitments, which have allowed us to provide a record number of travel awards to junior researchers. 2022 also marks the 30-year anniversary of ISBA, and so we look forward to finally seeing the Bayesian statistics community in person again. Registration and hotel reservations

are now open, with Early Bird rates for both available before April 14, 2022. Details about the meeting can be found at `https://bayesian.org/isba2022/`.

(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 at `https://bayesian.org/events/request-sponsorshipendorsement/`.

Upcoming ISBA-Sponsored/Endorsed Events

1. First BNP Networking event, April 25-29, 2022, Nicosia, Cyprus.

2. Bayesian Young Statisticians Meeting (BAYSM), June 22-23, 2022, Montreal, Canada.

3. ISBA 2022 World Meeting, June 25-July 1, 2022, Montreal, Canada.

4. NSF-CBMS Conference on Bayesian Forecasting and Dynamic Models at University of California, Santa Cruz, CA, USA. Summer 2022.

5. O'Bayes 2022, September 7-10, 2022, University of California, Santa Cruz, CA, USA.

6. BNP 13, October 24-28, 2022, Puerto Varas, Chile.

NEWS FROM THE WORLD

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Upcoming Meetings, Conferences, and Workshops

- The **Bayesian Young Statisticians Meeting (BaYSM 2022)** will take place in Montreal (Canada) on June 22-23, 2022, right before ISBA 2022.

  BaYSM is the official conference of j-ISBA, the junior section of the International Society for Bayesian Analysis. It is intended for early-career researchers working in the field of Bayesian statistics, providing an opportunity to connect with the Bayesian community at large. Senior discussants will be present at each session, providing participants with hints, suggestions, and comments on their work. Distinguished professors of the Bayesian community will also participate as keynote speakers, making an altogether exciting program. More info can be found at the conference website.

- The **24th International Conference on Computational Statistics (COMPSTAT 2022)** will take place at the University of Bologna, Italy, 23-26 August 2022. The conference is sponsored by the European Regional Section of the IASC, and is hosted and organized by the Department of Statistical Sciences of the University of Bologna. Due to the COVID-19 pandemic, the conference will be hybrid. The conference aims to bring together researchers and practitioners to discuss recent developments in computational statistics, methodology for data analysis, and applications. All topics within the broad interface of Computing & Statistics will be considered for oral and poster presentation. See all the details at this link.

- The **biennial meeting of the Objective Bayes section (O'Bayes 2022)** of the International Society for Bayesian Analysis will be held at the University of California - Santa Cruz on September 6-10, 2022.

  O'Bayes is dedicated to facilitating the exchange of recent research developments in objective Bayes theory, methodology and applications, and related topics, providing opportunities for new researchers, and establishing new collaborations and partnerships. In this conference, we will be celebrating the 70th birthday of Luis Pericchi, an extraordinary person who has been very influential in the successful development of O'Bayesian ideas. More details can be found at this link.

- The **12th European Seminar on Bayesian Econometrics (ESOBE)** will be hosted by the University of Salzburg, Austria on September 8-9, 2022. ESOBE is one of the major conferences in econometrics worldwide and the primary event on Bayesian econometrics in Europe. In the 2022 edition, Herman van Dijk is honored for his contributions to Bayesian econometrics by organizing a special session. Papers presented at the conference may be submitted for publication in a special issue of Studies in Nonlinear Dynamics and Econometrics in honor of Herman K. van Dijk. Submissions from all fields of Bayesian econometrics (macro, micro and financial), as well as papers on statistical methodology, machine learning and computing are welcome. More info can be found at this link.

- The **Bocconi Summer School in Advanced Statistics and Probability** is hosted by the Lake Como School of Advanced Studies at Villa del Grumello, on the shores of the Lake of Como. The 2022 edition (July 11-21, 2022) is organized and offered by Università Bocconi in collaboration with the University of Oxford and Imperial College London within the EPSRC CDT (Centre for Doctoral Training) in Modern Statistics and Statistical Machine Learning. The topic of the 2022 edition is Random structures and combinational statistics, and the main instructors are Luc Devroye (McGill University, Montreal) – Gabor Lugosi (Universitat Pompeu Fabra, Barcelona). More info at this link.

- The **first Bayesian Nonparametrics Networking workshop** is scheduled on 25-29 April 2022 in Nicosia (Cyprus), and it will take place in presence.

  In the first iteration of this new series of BNP events, there will be mini-courses delivered, invited sessions on different topics in BNP, and contributed sessions. In each invited session, there will be a blend of both junior and established researchers. In addition, there will also be mentoring sessions for junior researchers and a poster session. The venue is the University of Cyprus, located in the capital of Cyprus, Nicosia. More info is available at this link.

- The Barcelona School of Economics will be offering on May 3-6, 2022, a course on **Bayesian Learning and Applications for the Social Sciences**.

  The course will be delivered both online and on-campus, and will focus on problems where one wishes to obtain statistically valid inference on parameters, hypotheses, or probabilistic forecasts, rather than on purely point predictions. The course will discuss Bayesian methodology as a natural probabilistic machine learning framework for such tasks, and their interplay with complementary penalized likelihood and conformal inference methods. More info can be found at this link.

And don't forget:

- The next **ISBA world meeting** will take place in Montreal (Canada) between June 26 and July 1, 2022.

  The meeting aims to bring together the diverse international community of investigators in statistics who develop and use Bayesian methods to share recent findings and present new and challenging problems. Early bird registration is open until April 14, 2022. Find more info at this link.

- The **13th International Conference on Bayesian Nonparametrics (BNP13)** will be held in Puerto Varas, Chile, from October 24 to October 28, 2022. Important information about the conference is available at this link.

- The **Joint Statistical Meetings** (JSM) is the largest gathering of statisticians and data scientists held in North America. The 2022 JSM will be held in Washington, DC. The conference is scheduled for August 6-11, 2022.

  Presentations may be given on any topic of statistical interest; however, authors are encouraged to submit papers on the theme set by 2022 ASA President Kathy Ensor, "Statistics: A Foundation for Innovation." Additionally, abstracts with a primary focus on statistical applications are encouraged. More info at this link.

- The **CBMS Regional Conference in the Mathematical Sciences** is tentatively scheduled for Summer 2022 and will take place at the University of California Santa Cruz.

  The topic of the conference is *Bayesian Forecasting and Dynamic Models*. Please note that financial support (including registration fees, lodging and meals, and travel) is available for some participants. Priority will be given to graduate students, postdocs, junior researchers, and members of under-represented groups. More details can be found at this link.

- Don't miss the **series of monthly webinars** organized by the Bayesian nonparametric section of ISBA (**BNP-ISBA**). The next webinar will be on April 6, 2022. Check this link for more details.