

Bernoulli-IMS 10th World Congress in Probability and Statistics
Report by the Program Committee Chair, Siva Athreya

Bernoulli-IMS 10th World Congress in Probability and Statistics, jointly sponsored by the Bernoulli Society (BS) and the Institute of Mathematical Statistics (IMS), took place virtually at the Seoul National University, Korea from July 13 to 19, 2021.

The Program Committee (PC), consisting of 25 members, was chaired by myself, Siva Athreya. The local organization of the meeting was conducted by the Department of Statistics at the Seoul National University, Korea. The chair of the Local Organizing Committee was Hee-Seok Oh. (The members of the Program Committee, the Local Organizing Committee and the Local Advisory Committee are listed at the end of this report.)

The 10th World Congress was originally scheduled to be held during August 2020 but was postponed by a year due to COVID-19 pandemic. In March 2021 it was then decided to host it virtually and <https://wc2021.info/> was set up as the virtual host site for all talks (videos/slides) alongside <https://www.wc2020.org/> the original site of the congress.

The program featured 15 main speakers. Nine of these were named lectures sponsored by the two societies. They were – Kolmogorov Lecture: Persi Diaconis (Stanford University); Bernoulli Lecture: Alison Etheridge (University of Oxford); Levy Lecture: Massimiliano Gubinelli (University of Bonn); Laplace Lecture: Tony Cai (University of Pennsylvania); Tukey Lecture: Sara van de Geer (ETH Zurich); Wald Lecture: Martin Barlow (University of British Columbia); Blackwell Lecture: Gabor Lugosi (ICREA & Pompeu Fabra University); Doob Lecture: Nicolas Curien (Paris-Saclay University); Schramm Lecture: Omer Angel (University of British Columbia). There were five IMS Medallion Lectures. These were given by: Gerard Ben Arous (New York University); Andrea Montanari (Stanford University); Elchanan Mossel (MIT); Laurent Saloff-Coste (Cornell University); Daniela Witten (University of Washington). There was one public lecture and it was delivered by Young-Han Kim (UCSD and Gauss Labs Inc). Susan Murphy (Past president of IMS) gave the IMS presidential address. Claudia Klüppelberg (Past President of the Bernoulli Society) gave the closing remarks in the last session of the congress.

There were 41 invited sessions, out of which 36 were done by individual session organizers, two sessions organized by Korean Statistical Society, two sessions devoted to young researchers namely: Bernoulli Society New Researcher Award Session and IMS Lawrence D. Brown Ph.D. Student Award Session sessions, and Bernoulli Paper Prize Session. In addition to these, there were 30 organized contributed sessions, 35 individual contributed talk sessions, 5 Poster sessions.

There were 755 registered participants from 41 countries. All invited sessions, contributed sessions and contributed talk speakers pre-recorded their talks and provided slides which were updated to the website. Further the videos of the live sessions and also the 15 named and live lectures given by the speakers were also uploaded to the website. The live sessions were well attended and there were over 11,000 views of the videos on the conference website (counting multiplicities) making it a very successful meeting. These we will hope will be valuable resource as they will be hosted on the website for another year

The purpose of this report is to summarize, for the assistance of future program chairs, how the program for the 10th World Congress came together and all the steps taken by the Program Committee. To begin with each congress shall retain its own identity and therefore this report should be treated as a guideline only.

Beginnings

It all started when I got an email from Alison Etheridge (President IMS) and Susan Murphy (President BS) on the 7th of October 2017. Post my acceptance the work towards making of the program began. The primary tasks designated to me and the committee were:

1. In consultation with the IMS Program Secretary (Judith Rousseau- at that time), the Bernoulli Society Scientific Secretary (Byeong Park- at that time), and the chair of the local organising committee (Hee-Seok Oh), appoint the Program Committee. To advise the Presidents of IMS and Bernoulli before finalizing the committee membership.
2. In consultation with the Bernoulli Society Scientific Secretary and the Bernoulli Society President, appoint a subcommittee to select the Bernoulli Society named invited lectures [Kolmogorov Lecture, Bernoulli Lecture, Levy Lecture, Laplace Lecture, Tukey Lecture]. The IMS named [Wald Lecture, Blackwell Lecture] and Medallion lectures are selected by the IMS Committee on Special Lectures. The BS/IMS joint named lectures [Schramm Lecture, Doob Lecture] are selected by the BS/IMS Joint Committee on Special Lectures. We were encouraged to have an overlap between the Program Committee and the IMS Committee.
3. Select topics and organizers for the invited sessions, and Society named lectures.
4. Work with the local organizers to develop an appropriate schedule for the meeting.

Preparation

Before I began the above tasks, I had several discussions with Ruth Williams (7th Program Committee Chair), Alison Etheridge (9th Program Committee Chair) and with Arnoldo Frigessi (10th Program Committee Chair). I also read the very helpful reports of the previous chairs starting from that of Wilfred Kendall (6th Program Committee Chair). All these reports are available on the IMS website.

From the above, I obtained several useful suggestions, samples of emails to be written (non-confidential) to invite Program committee members, sub-committee members, named speakers, invited session organizers. These were very valuable and provided a futuristic view for me and helped me plan the congress.

Program Committee Formation

This was one of the first and primary task that I took up in earnest. To begin with I asked Runze Li to assist me in forming the committee. This was done in consultation with the IMS Program Secretary (Judith Rousseau- at that time), the Bernoulli Society Scientific Secretary (Byeong Park- at that time), and the chair of the local organising committee (Hee-Seok Oh). We tried and largely succeeded to ensure that there was diversity in science (fields across Probability and Statistics), geography and gender in the Program Committee. This process began in November of 2017 and was completed in February 2018.

Named Lectures

From the program committee, in consultation with Susan Murphy (BS President), I formed a subcommittee to select the named speakers. The subcommittee then choose the named speakers for the congress. I supplied the committee with the following information:

- the past prize winners at:

<http://www.bernoulli-society.org/index.php/history/53-general/202-history-of-the-bernoulli-society-world-congress>

- and description of the lectures at: <http://www.bernoulli-society.org/index.php/prizes>

The committee concluded its work and the named lectures were submitted to the Bernoulli Council for approval by November 2018.

There was a distinguished speaker to be invited to give a public lecture at the meeting. This is left to the discretion of the local organizing committee and Hee-Seok Oh as the local organizing committee chair directed this effort. It was delivered by Young-Han Kim (UCSD and Gauss Labs Inc).

Invited Sessions

The process of selecting the invited sessions began in December 2018 and was completed after four rounds of voting/discussions by April 2019. The email discussions were very constructive and really useful. I asked each member of the committee to provide four titles/fields for the sessions and possible nominees for each of them. I then made a web interface form where folks could provide specific feedback on the sessions and slowly whittled down the 120 odd suggestions to a set of 36 sessions and a set of nominees to be invited as session organizers.

Some things that were useful was that the committee had knowledge of most of the named speakers while deciding on invited sessions. This helped in bringing together a cohesive program around them.

The website

This was launched in May 2019 with the list of all main speakers.

Around this time, I began inviting potential organizers. Given the list of alternates for each session, I was able to manage to complete this process, largely, by June 2019. In making invitations, I told the session organizers their basic tasks (3 speakers, to try to ensure diversity in geography, gender and science as well) and also gave them a list of Session titles and a short description of the session as envisaged by the Program Committee.

I allowed the independence of Session organizers to choose the 3-speakers, as I believed it should reflect their view of what a session should be. Nevertheless, I requested the following be kept in mind:

- (i) Strongly prefer that Session organizers do not speak in their session (unless there is a last-minute drop out)
- (ii) No duplication of speaker across sessions. They should let each invited speaker know that they should speak in only one session.
- (iii) Strongly stress diversity: Gender, Geography, and Science (in session area).
- (iv) No prescription on Seniority but the speaker should be regarded well in the area (aligning with their view of the field). The diversity here would also be welcome.

This process was completed by September 2019 and the website was updated.

Site Visit and Program Schedule

I visited Seoul, during November 24th-28th, 2019. I had been working with Hee-Seok Oh very closely by email for about a year and a half. This site visit was absolutely very necessary. It established a personal rapport with other members of the Local Organizing Committee. We went through each dimension of the congress in detail and it also helped with a detailed overview of what the facilities and logistics would be like. We visited the local cafes that would serve food at the Congress and also visited several lecture halls/rooms. We drafted an outline of the program as well and when I left Seoul, I knew the congress was on strong ground.

Contributed Session and Posters

The local organizing committee took charge of handling and arranging into sessions all of the contributed papers and posters. The local organizers also arranged for the session chairs, except in circumstances where the organizers of invited sessions would chair their sessions or had arranged for chairs.

Pandemic in 2019-20 and the Online program

Alas, the COVID-19 Pandemic hit in January 2020 throwing the entire effort out of sync. We first postponed the meeting to a physical meeting in July 2021 and then switched to an online format during July 19-23 2021. This was really a very hard compromise to make for all of us involved in the organization of the Congress, especially to the local organizing committee.

Still, they plugged on. In February 2021, it was decided that it will be an online version of the meeting. The local organizing committee did a lot of work setting up the online effort. They still had to have a registration fee to make up for the cost of the physical booking/hiring. The community responded tremendously well. I was in touch throughout this period with the named lectures and the session organizers/speakers.

The online format changed a lot of things. Time zones and other logistical issues with the online format made us change things a bit. We decided to hold the congress in two time slots (Time zone 1== 08:30-12:00 KST) and Time zone 2== 19:00-23:00 KST). We sacrificed several items and events that would go with a physical conference. We had a very short opening ceremony + IMS presidential address (time zone: 1) and a closing ceremony + BS- Presentation of the Inaugural Willem van Zwet Medal and information about the 11th WC.

The invited session organizers uploaded videos of the talk and slides. They held live question/answer sessions scheduled according to the time zones. The named lectures gave talks live with schedules arranged according to their time zones. The entire scheduling was arranged by the local organizing committee, and they did a terrific job.

A separate website was created to archive all the talk videos and slides. All registered participants can view it on the website for up to one calendar year and perhaps more.

Conclusion.

Overall, there has been very positive feedback about the 10th World Congress. The success was due to the unified efforts of many towards the common goal of having a sound scientific program. I am very grateful to the members of the Program Committee (and of the subcommittee). The advice, suggestions, and feedback that I received were tremendously helpful. The main speakers, and the session organizers and speakers for the invited sessions are owed a lot. Along with all the participants they contributed to the strong scientific program on display. Given the pandemic and varying schedules, everyone involved readily contributed to giving online talks, uploading videos and slides. I would also like to take this opportunity to thank the BS and IMS, leadership, executives, and staffs (Elyse Gustafson, in particular) who helped whenever asked.

Last but not least, I would like to express my deepest thanks to the local organizing committee for braving through the moving goal post framework and delivering an online version. It was a superlative effort of the local organizers in hosting the 10th World Congress.

I would like to thank the Bernoulli Society and the IMS for inviting me to Chair the Program Committee for the 10th World Congress in Probability and Statistics. I was tremendously honored to do so and found it a very interesting and worthwhile experience.

Sincerely,
Siva Athreya
Professor, Indian Statistical Institute, Bangalore, India.

Scientific Program Committee

- -Siva Athreya (Indian Statistical Institute, India) Chair
- -Ellen Baake (Bielefeld University, Germany)
- -Nicolas Curien (University of Paris-Sud, France)
- -Ioana Dumitriu (University of Washington, USA)
- -Steven Evans (UC Berkeley, USA)
- -Ayalvadi Ganesh (University of Bristol, UK)
- -Martin Hairer (Imperial College London, UK)
- -Tailen Hsing (University of Michigan, USA)
- -Ingrid van Keilegom (KU Leuven, Belgium)
- -Takashi Kumagai (Kyoto University, Japan)
- -Runze Li (Pennsylvania State University, USA)
- -Enno Mammen (Heidelberg University, Germany)
- -Kerrie Mengersen (Queensland University of Technology, Australia)
- -Thomas Mikosch (University of Copenhagen, Denmark)
- -Hans-Georg Müller (UC Davis, USA)
- -Hee-Seok Oh (Seoul National University, South Korea)
- -Byeong Uk Park (past Bernoulli Society Scientific Secretary, South Korea)
- -Judith Rousseau (University of Oxford, UK)
- -Qi-Man Shao (Chinese University of Hong Kong, China)
- -Dylan Small (University of Pennsylvania, USA)
- -Masashi Sugiyama (The University of Tokyo, Japan)
- -Béatrice de Tilière (University Paris Est Creteil, France)
- -Alexandre Tsybakov (CREST, ENSAE, IP Paris, France)
- -Maria Eulália Vares (Federal University of Rio de Janeiro, Brazil)
- -Ming Yuan (Columbia University, USA)

Local Advisory Committee

- -Jongwoo Jeon (Seoul National University)
- -Young-Won Kim (past President of the Korean Statistical Society)
- -Byeong Uk Park (President of the Korean Statistical Society)

Local Organizing Committee

- -Hwan Chung (Korea University)
- -Woncheol Jang (Seoul National University)
- -Yongho Jeon (Yonsei University)
- -Panki Kim (Seoul National University)
- -Eun Ryung Lee (Sungkyunkwan University)
- -Woojoo Lee (Seoul National University)
- -Young Kyung Lee (Kangwon National University)
- -Chae Young Lim (Seoul National University)
- -Johan Lim (Seoul National University)
- -Hee-Seok Oh (Seoul National University) Chair
- -Insuk Seo (Seoul National University)
- -Seung Jun Shin (Korea University)
- -Joong-Ho Won (Seoul National University)
- -Jae Keun Yoo (Ewha Womans University)
- -Kysang Yu (Konkuk University)