Conference Reports Column

by

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Conference report on DISC 2025

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Abstract

Dear readers, this is my first time as the editor of this conference reports column. I would like to thank Stefan for this opportunity. I'll write the first report myself, and it will be about DISC 2025. However, I will not be able to write all future reports alone — I will need your contributions!

As I worked on this report, I realized the challenge of this task. Should the focus be on the broader BEATCS readership, or specifically on the colleagues from my community who were unable to attend? Should you focus on the fun facts that we like to read, or on the science, that we should like to read? I'll try to do a bit of everything. If you are willing to write a report in the future, you will choose what you prefer.

What is DISC? DISC is a well-established conference whose topic is distributed computing, mostly of theoretical flavor. It is the flagship conference for this topic in Europe, and is sponsored by the EATCS.[1] It was established in 1985, shortly after its ACM counterpart, PODC. If you want to know more, read the story of DISC in the previous bulletin [1]!

The venue The conference took place in Harnack house in Berlin. It is actually quite far from central Berlin, but close to a large park, and remains easily accessible by public transport. You may find yourself visiting the venue in the future as Harnack House has previously hosted other TCS conferences, including SoCG 2022.

Harnack house was a major place for physics in early 20th century, and is sometimes referred to as the "German Oxford". Its grand lobby features portraits of well-known figures who once worked or visited there, including Lise Meitner, Max Planck, and Albert Einstein. It is a very fancy building, with a nice park though we couldn't enjoy it much because of the unfriendly weather..

[1] Conferences need not be EATCS-sponsored to be featured in this BEATCS column!

Figure 1: Harnack house, where DISC took place.

The science I had planned to write about quite a few talks, but I realized that I would either focus only on topics closely tied to my research or spend hours to decipher my notebook. So let me just say a few words about the invited talks.

Moni Naor gave a talk on his 1985 paper with Larry Stockmeyer, *What can be computed locally?* [2], which was awarded the Dijkstra award this year. The Dijkstra Prize is the most prestigious award in the PODC/DISC community. This paper introduced the notion of *locally checkable language*, a framework for problems whose solutions can be verified locally—such as graph coloring. This concept has been a very important for distributed graph algorithms in recent years. Moni shared an interesting backstory: the paper's origins trace back to a talk he attended on Ehrenfeucht-Fraïssé games — a tool from model theory for proving limits of first-order logic! Then the project went in a different direction, but it's nice to see that back in the days, track A and track B were so close. The awarded paper was co-authored by Larry Stockmeyer, who passed away in 2004. Stockmeyer had already been awarded a posthumous Dijkstra award in 2007, for his work on partial synchrony with Dwork and Lynch, and you might also know him for introducing the polynomial hierarchy.

François Le Gall gave an invited talk on quantum distributed algorithms. This is a theme that was quite strong at DISC, with a survey in a workshop, a paper in the main program and this invited talk. François told us about the centralized quantum algorithms, and then moved to distributed. One insight was that, while reducing communication through entanglement seems natural, the challenge was to have a purely local problem that would show quantum advantage even when the complexity measure is just the locality. This was achieved only very recently.

Ittai Abraham gave a talk called *Open Questions and Future Challenges in Fault Tolerant Distributed Computing*. The talk was both entertaining and thought-provoking, built around 10 claims — some bold, others more nuanced — explor-

ing the future of distributed computing, its research community, trust, AI, the role of formal proofs... I guess giving some bits of it here would not do justice to the talk, so I'd better refer you to the nice blog of Ittai for similar nice content: https://decentralizedthoughts.github.io/.

Business meeting and discussions Now, let's turn to the business meeting which was chaired by the steering committee chair, Hagit Attiya. I'll go into more detail here, because I like the conference design discussions, and also it is interesting to a broader audience.

The local organizers, Stefan Schmid and Joel Rybicki told us about what happened behind the scene and shared the usual statistics. here were significantly more participants than in previous years — 160, instead of 100-120. Maybe because Berlin is more central, easier to reach, or because the communication was better? It was not because registration was cheaper: people noted a clear increase in registration costs. Perhaps this is the trade-off for hosting the conference in a building where Meitner and Einstein have given talks.

Darek Kowalski, the PC chair, then gave us many insights about the selection process, and changes he had made.

The first change was that there was no PC meeting this year. (For those unfamiliar, a PC meeting typically occurs just before notifications, where the committee gathers for a 10-hour Zoom session to decide the fate of the remaining ~10 out of ~30 papers that are neither accepted nor rejected.) Instead, the process relied on extended online discussions via the submission platform, with papers grouped by topic for more focused discussions. I'm not a big fan of PC meetings, so I liked the idea. The downside, however, is that this approach required more time for discussions, pushing part of the PC work into the summer vacation period. This likely explains why Darek mentioned that recruiting strong PC members was more challenging this year.

The PC was sufficiently large that each member was responsible for only about 12 papers. Again, this looks good to me: I recently served on a PC with a much heavier load, and keeping track of all those papers exceeded my limited working memory!

A recurring topic at DISC/PODC is the rebuttal process: Should authors be given the chance to respond to reviews, even if it extends the timeline? Does it actually change something? This year, there was a rebuttal phase, and Darek said it changed the fate of four papers. Not a huge number, but not insignificant either. It also likely improved review quality, as there were fewer complaints about poorly written reviews."

Darek also decided to slightly increase the acceptance rate. Every year, there are strong papers that all relevant PC members appreciate but cannot accept due

to space constraints, so I see this as a positive change. The rationale behind this decision was that when the acceptance rate is low on year n, then there are less submission on year $n + 1$, which is unfortunate.

Finally, Darek chose to select a few papers that were labeled as *highlights*, in addition to the usual best papers, and that were presented in separate sessions. I heard positive and negative opinions about this idea. On the plus side, it is something nice to put on a CV, a way to draw researchers from topic A to attend a few talks about topic B, and anyway these papers would have been distinguished by being invited to the special issue. On the minus side, I heard "Ok, but what about the other papers, like *my* paper, are they leftovers?".

Looking ahead now: DISC 2026 will take place in Rome, and the PC will be chaired by Keren Censor-Hillel.

For DISC 2027, two strong bids were submitted for Lisbon and Wroclaw, and the conference will likely be held in one of these cities. There were discussions about the carbon footprint of these locations, a topic that has gained importance at DISC in recent years. While both cities are in Western Europe, where much of the community is based, neither is easily accessible by train for most attendees. (In particular I was surprised to learn that traveling from Madrid to Lisbon by train already takes 10 hours!)

There were also two more exploratory bids. One bid came from our group in Lyon and Mikael Rabie's group in Paris, proposing to host the conference in either city. That bid included a condition: allowing a portion of the talks to be presented online to help reduce the conference's carbon footprint. The other bid was for Kathmandu — a less conventional location for a TCS conference. However, it successfully hosted SSS last year, and attendees provided positive feedback.

Random bits and corridor chats Let me finish with a list of random topics:

- At the lunch breaks, many of us discovered the concept of butter machine (a.k.a. butter dispenser), which seems to be standard in Germany: a device where you place a plate or slice of bread in a designated spot, and it dispenses a dose of butter!

- Tijn de Vos really wanted to have question for his talk at the ADGA workshop. So every slide would start with a question, and Tijn would not continue until someone in the audience had asked that question. It worked extremely well!

- The name tags were printed on both sides, which was great to avoid asking people to turn their tags around to see their names.

- There were multiple discussions about chatbots: how they were introduced in the STOC submission process, how they can or cannot help with research, how they could help formalization of proofs (in Lean and such).
- Someone used the "ϒ" Greek letter in a talk, possibly the only Greek letter I'd never encountered in a scientific context before!

Many thanks to organizing team I almost forgot to thank the organizing team! I guess this is because the conference was perfectly seamless: you even forget that there are organizers! More seriously, many thanks to Stefan and Joel, and the rest of the organizing team: Yannic Maus (workshop chair), William K. Moses Jr. (publicity Chair), Birgit Hohmeier-Touré, Samar Khaksar, Darya Melnyk, Tijana Milentijevic, Julien Dallot, Dorian Gutschenreiter, Jakob Solnerzik, Olivier Stietel, Robin Vacus, and Yaroslav Verbitsky.

References

[1] Michel Raynal and Nicola Santoro: A Scientific Story (1985-2025) from WDAG to DISC *Bull. EATCS*, 147, 2025. URL: https://bulletin.eatcs.org/index.php/beatcs/article/view/860

[2] Moni Naor and Larry J. Stockmeyer: What Can be Computed Locally? *SIAM J. Comput.*, 24(6):1259–1277, 1995. DOI: https://doi.org/10.1137/S0097539793254571