

Diversity, Equity and Inclusion Activities in Database Conferences: A 2023 Report

<https://dbdni.github.io>

Sihem Amer-Yahia, Divyakant Agrawal, Yael Amsterdamer, Sourav S. Bhowmick, Renata Borovica-Gajic, Jesús Camacho-Rodríguez, Jinli Cao, Barbara Catania, Panos K. Chrysanthis, Carlo Curino, Amr El Abbadi, Avriella Floratou, Juliana Freire, Stratos Idreos, Vana Kalogeraki, Sujaya Maiyya, Alexandra Meliou, Madhulika Mohanty, Fatma Özcan, Liat Peterfreund, Soror Sahri, Sana Sellami, Roei Shraga, Utku Sirin, Wang-Chiew Tan, Bhavani Thuraisingham, Yuanyuan Tian, Genoveva Vargas-Solar, Meihui Zhang, Wenjie Zhang

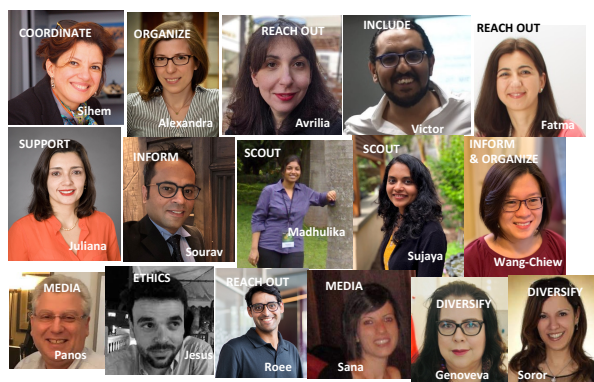


Figure 1: DEI@DB Core Members

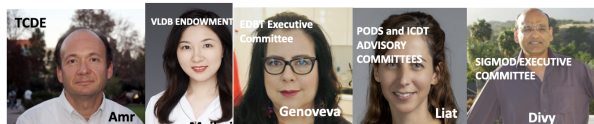


Figure 2: DEI@DB Liaisons Members

1. THE DEI@DB INITIATIVE

The Diversity, Equity and Inclusion (DEI) initiative started as the Diversity/Inclusion initiative in 2020 [4]. The current report summarizes our activities in 2023.

Our responsibility as a community is to ensure that attendees of DB conferences feel included, irrespective of their scientific perspective and personal background. In its leadership role, the DEI team advises DEI chairs at DB conferences, serving as a memory of DEI events at conferences, building an agreed-upon vision, and committing to working together for achieving DEI. That is pursued via actions led by our core members (Figure 1) and liaisons of individual executive bodies (Figure 2).

What did we achieve this year? The response from the DB community in various events in 2023 has been extremely positive. DBCARES¹ is now officially part of

¹<https://sigmod.org/sigmod-policies/>

the DEI initiative. We consolidated our Code of Ethics and created guidelines for DB conference organizers. Some of our venues continued to use CLOSET [5] towards fairer reviewer assignments. Several of our actions have become mainstream and will no longer be managed by the DEI initiative.

To ensure early financial planning of DEI activities at conferences, **SUPPORT** has become the responsibility of conference organizers. **INCLUDE**, **INFORM**, **ORGANIZE**, and **REACH OUT** are now under the direct responsibility of DEI chairs at each conference. **COORDINATE**, liaisons, and the DEI chairs), **SCOUT** (collating DEI efforts from other communities), **ETHICS** (establishing and promoting ethics guidelines for paper writing and paper reviewing) and **MEDIA** (preserving and disseminating the digital media produced by DEI@DB events [7]) will continue to be managed by the DEI initiative. We are introducing a new action **DIVERSIFY**.

The initiative will continue in January 2024 with a new set of members.

2023 DEI statistics. An important goal of DEI@DB is to understand our community so that we can identify issues that need to be addressed as well as assess the effectiveness of our activities. To this end, we ran surveys at EDBT/ICDT, ADBIS and SIGMOD with 61, 109, 984 participants, respectively. Unfortunately, SIGMOD used a custom survey, making it harder to present aggregate results across the three conferences. Hence, we present aggregate results for EDBT/ICDT and ADBIS and discuss SIGMOD separately. About 1/3 of the responders were females, and 3.1% were LGBTQ+, aligning with the findings in the previous years. The majority of the participants are either from academia (40.7%) or work in both academia and industry (34.9%), followed by students (18.2%), and industry-only participants (3%). Comparing the statistics in 2022 (mostly hybrid conferences) and 2023 (mostly in-person conferences), we observe similar low student and industry participation, which is concerning. This calls for actions to increase participation of these groups, in particular the number of students with or without a paper.



Figure 3: DEI Chairs of 2023 DB Conferences

According to these surveys, people are most interested in research (finding topics, setting goals, determining success) followed by work-life balance and mentorship as the top-3 topics they want to discuss at DEI sessions. Regarding SIGMOD, 13.8% of the responders mentioned that their research addresses DEI. They also suggested improvements such as maintaining double-blind reviews, diversifying program committees, funding students and parents with infants, reducing conference registration fees, providing more mentorship opportunities for students and pursuing visa reforms to facilitate conference attendance.

2. DEI@DB CONFERENCES 2023

Overall conclusion: DEI@DB started as a joint ACM SIGMOD/pVLDB initiative. In 2020, we invited other conferences to join the effort and now, we have participation from 11 different conferences. We collaborate on developing activities, interventions, survey design, as well as in assessing the effectiveness of different activities. This report provides an overview of the activities carried out at the conferences. They provide evidence of both the interest and concrete action towards ensuring diversity and inclusiveness in our community. We plan to continue monitoring and sharing these activities.

DEI@CIDR. U. Sirin (Harvard U.), S. Idreos (Harvard U.), and Y. Tian (Gray Systems Lab at Microsoft) chaired DEI@CIDR. The co-chairs offered DEI guidance for paper writing, presentations and peer reviewing. The chairs organized a successful mentoring event, wherein they paired junior and senior attendees for 30-minute sessions. Each pair had the flexibility to determine the timing and format of their meetings. The co-chairs successfully recruited 17 students and 13 mentors, some of whom mentored more than one session.

DEI@EDBT/ICDT. P. K. Chrysantis (U. of Pittsburgh), L. Peterfreund (CNRS&The Hebrew U. of Jerusalem) and G. Vargas-Solar (CNRS) chaired DEI. The program included a panel on “DEI Perspectives Around the World”. Panelists involved in analogous educational

endeavours came from Brazil, Mexico, USA, and Italy. The discussion compared course material. Furthermore, Marie Plamondon from Open North, UK gave a keynote on “An Intersectional Approach to Data Governance.”

DEI events were organized in a hybrid format. Thanks to the support of the EDBT endowment and the organizing committee, 17 online and 7 on-site registrations were free. The DEI keynote and a 150-euro PhD workshop award were also sponsored.

DEI@ICDE. A. Meliou (UMass) chaired DEI@ICDE. The program focused on three efforts: (1) Affinity stickers were included in registration packages; one could attach stickers that denoted particular interests to their badge to serve as conversation starters. (2) A mentoring lunch round-table offered junior researchers the opportunity to interact with seniors. (3) A panel discussion on “Ethics in paper submissions and reviewing” with L. Chen (moderator), A. Bonifati, Y. Ioannidis, J. R. Haritsa and S. Roy. The panel addressed the following topics: **Reviewing quality:** How to incentivize reviewers to write more conscientious reviews? Should we penalize bad reviewers (e.g., bans from PC lists)? What organizational efforts can positively impact review quality? Are implicit biases affecting our reviewing processes, and how do we overcome them? **COIs:** Policies vary across venues. How do we settle as a community towards a consistent COI policy? What are the right limits and restrictions? **Ethics in COI declaration:** How do we address under-declared COIs (e.g., penalties, desk-rejection, or alternative mechanisms)? **Submission quality:** To increase publication counts, we see different submissions using the same approach to address different problems or an approach divided across multiple submissions. How should we address such challenges to the novelty bar? **Preempting future ethics challenges:** Will AI-assisted technologies like ChatGPT become factors in paper writing and reviewing? What should we monitor?

The panel triggered an ongoing Task Force on Review Processes, chaired by A. Meliou and S. S. Bhowmick, in which the chairs of database conferences are involved (EDBT, ICDT, VLDB, ICDE, ACM SIGMOD/PODS).

DEI@MDM. R. Borovica-Gajic (U. of Melbourne) and V. Kalogeraki (Athens U. of Economics and Business) chaired DEI intending to understand the meaning of DEI. The first action was to utilize the rich set of DEI material generated in past MDM, EDBT/ICDT and SIGMOD to prepare guidelines and examples of inclusive and discriminatory behavior and language, encouraging participants in papers and presentations. A on “Navigating the Social and Ethical Responsibilities of Computing” was delivered by G. Dobbie (U. of Auckland) who shed light on the multifaceted dimensions of the social and ethical responsibilities of computing and emphasized the urgent need for conscientious action. Her talk delved into the ethical considerations that emerge with the rapid progression of computing technologies, underlining the significance of fostering transparency, accountability, and inclusivity in the design and deployment of computing systems.

DEI@SIGMOD. The DEI chairs Y. Amsterdamer (Bar-Ilan U.) and C. Curino (Microsoft) organized: (1) *A special lunch* funded by Amazon and Microsoft, where a small group of ~40 participants were invited, putting a special emphasis on students, newcomers along with long-time conference participants and organizers. The participants were randomly seated at small tables in a restaurant where they could have a quiet conversation.

The second event was a keynote by S. Sadiq (U. of Queensland) who described challenges arising from diverse student populations and from changes in learning delivery modes. She also shared strategies for incorporating DEI in Information Technology education.

The third event was a *birds-of-a-feather* and introduced the main activities undertaken by the DEI initiative. Participants were invited to propose and discuss selected topics in small groups. The ideas and insights were summarized in a concluding forum. The event was very well received by 30+ people. The discussion was broad and lively, and heated at times, demonstrating a good level of passion for DEI topics. This type of event is key to making our own DEI efforts more inclusive and more representative of a broader audience and to increasing our community commitment to DEI.

SIGMOD added to the review form a yes/no question on whether a submission under review is compliant with the DEI guidelines on the SIGMOD Website, and an open question for reviewers to enter their comments.

DEI@VLDB. This year's DEI efforts at VLDB included a mentoring session and a keynote. The mentoring session gave mentees (students and researchers of any stage in their career) a chance to gain first-hand guidance and inspiration on grand challenges and future research opportunities from experienced researchers. The event was organized in thematic tables based on broad areas of research within the VLDB community: Data Mining, Machine Learning and AI (mentor: C. Mohan); Data Security and Privacy, Blockchain Data Management (mentor: E. Bertino); Novel Infrastructures and Techniques for Big Data and Large Language Models (mentor: A. Halevy); Information Integration, Retrieval and Visualization (mentor: R. Miller); Data Integrity, Quality and Provenance (mentor: W. Tan); Diversity, Equity and Inclusion Issues (mentor: G. Koutrika).

The DEI keynote "On the Cusp: Computing Thrills and Perils and Professional Awakening" by N. Milic-Frayling (Intact Digital Ltd. and QCRI) discussed the perils of generative AI. She pointed out that this should be a turning point in our professional awakening.

DEI@ADBIS. B. Catania (U. of Genoa) and G. Vargas-Solar (CNRS) served as co-chairs. The DEI events featured a hybrid panel on "Practices and methodologies for crafting data science research through feminist and decolonial lenses." The program showcased a keynote on "Building a Computational Social Sciences program emphasizing openness and reproducibility" by M. Crosas (Barcelona Supercomputing Center).

A joint initiative between the DEI and the Doctoral Consortium was coordinated. This included a hands-on data science session on "DEI Perspectives in data-driven experiments," led by B. Catania and two of her students.

To facilitate discussions among PhD students and peers about navigating their careers, a panel on "Plethora of Excellent Career Profiles, Wellbeing, and Meritocracy" was organized with panelists from academia and industry. The discussion centered on "Balancing productivity and meaningful research: How can one achieve it all without overextending oneself?".

DEI@WISE. DEI@WISE integrated four pivotal perspectives: (1) *Double-Blind Reviewing*; (2) *Best DEI Paper Award* aiming to recognize and reward exemplary integration of DEI principles in research contributions. Authors were surveyed and encouraged to delineate how their work incorporates DEI elements—such as inclusive language, unbiased data sets, and accessibility in visuals—for comprehensive and equitable representation. A response rate of 84% was received; (3) *Invited DEI Talk*: J. Kou (U. of Melbourne) delivered a talk on "Enable, Empower and Encourage Research on DEI"; (4) *Accessibility Services*: The conference provided wheelchair accessibility; (5) *Diverse Representation*: Two of the three keynote speakers were women. The 212-member PC hailed from 28 countries, including Argentina, Bangladesh, Cyprus, Finland, and India.

DEI@SoCC. J. Giceva (TU Munich) chaired DEI@SoCC and made sure that DEI guidelines were provided for (1) authors when preparing their submissions and presentations and (2) reviewers who assessed them.

SoCC was made more inclusive and diverse with the following actions. First, Microsoft sponsored registration and travel expenses for students from underrepresented groups. Second, a lunch was organized for mentors and young researchers to discuss: (1) Career paths: how to choose between academia and/or industry and what options are there in-between?; (2) Choosing research topics, and writing a research proposal?; and (3) Mentorship: how to work with your advisor, supervise students or get the most out of networking events.

Overall, SoCC had a well-balanced program and organization committees, and W. Tan from Facebook AI delivered one of the keynotes.

DEI@DASFAA. Gender and geospatial diversity was extensively discussed among the steering committee members and the organizing committee members of DASFAA 2023. Statistics were gathered on female PC members and female organizing committee members. Suggestions and a list of female researchers as potential organising committee members were provided. S. Amer-Yahia and A. Bonifati delivered keynotes.

DEI@MEDES. MEDES joined DEI this year. S. Sellami (Aix Marseille U.) and P. Fatourou (U. of Crete and FORTH) organized a DEI plenary session. E. Ntoutsis (Bundeswehr U.) delivered a talk on *How to make AI more fair and unbiased*. She discussed the discriminative impact of AI-driven decision-making and presented research on discrimination for multiple protected attributes, discrimination under class imbalance and multi-task discrimination. P. Fatourou closed the session with a talk in which she invited participants to integrate related DEI aspects in their research and careers.

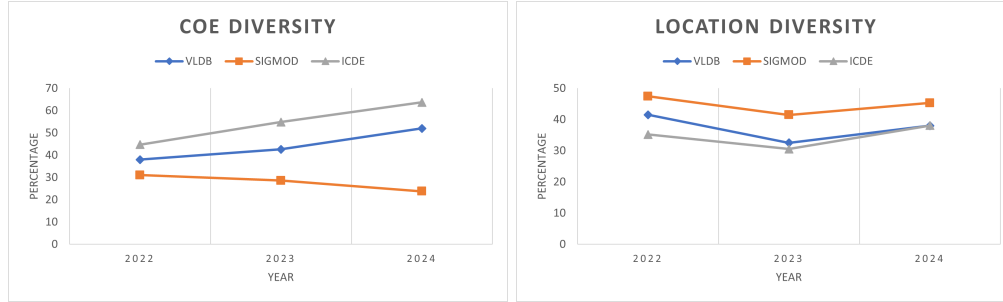


Figure 4: Location and COE diversity trends in SIGMOD, VLDB, and ICDE for the years 2022-2024. The Y-axis represents the percentage of PC members (excludes associate editors/meta-reviewers) in the largest group.

3. UNDECLARED COIS

Automated check for COIs is now standard practice in SIGMOD, EDBT and VLDB who requested in 2023 to leverage CLOSET [5] for managing COIs. VLDB 2023 experimented with a pre-generated list of coauthorship-based COIs that is periodically made available to all authors to aid COI declaration in CMT. Undeclared COIs still introduced further delays to the review process.

ICDE was an early adopters of CLOSET in 2020. While CLOSET was used to check for COIs for each submission cycle in 2022 and *post-facto* for all cycles in 2021, it was only used post-facto for only the third cycle in 2023. CLOSET detected a significant number of undeclared COIs for all cycles it was deployed in.

4. DIVERSITY OF PC

Since a diverse group of individuals tends to surface different perspectives, the PC of a venue should have good diversity w.r.t. various dimensions such as topic, location, institution, ethnicity, and gender. While our venues typically ensure that subject areas of interest and institutional diversity are adequately represented in a PC, diversity w.r.t. other dimensions may not receive the same degree of attention during PC formation. We report our observations w.r.t. location and ethnicity diversity. By location, we mean the country where a PC member is located at the time of serving for a venue. Since ethnicity may not be publicly available, we use *country of tertiary/secondary education (COE)* as a proxy for ethnicity. Specifically, it represents the country where a PC member undertook his or her high school or undergraduate education. Such information is often available in a PC member's homepage or *LinkedIn*.

Figure 4 reports some stats. The largest COE groups for SIGMOD 2023, VLDB 2023, and ICDE 2023 represent around 29%, 43%, and 55% of the PC, respectively. We can observe two key trends here. First, in contrast to SIGMOD, the COE diversity is getting more skewed for VLDB and ICDE. Second, the location diversity trend is similar and relatively stable across all venues.

5. GOING FORWARD

Job descriptions. We are working with the ACM to ensure the job descriptions of DEI members and chairs are aligned with the ACM policies.

COIs. Although major venues use CLOSET, several others still depend on conference management tools. We are working on a consistent COI policy across all venues.

Code of Ethics and additional committees. From now on, DEI chairs will ensure the CoE is clearly displayed on conference websites and on site. We look forward to introducing new committees [1, 2]—such as the Accessibility Committee, Family Committee, and Sustainability Committee. We will also promote conference websites to use Accessibility Menus as in [3].

MEDIA action. We have established a **DEI-DB-MEDIA** YouTube channel² where we organized recordings of DEI events from our conferences into talks, briefs, panel discussions and workshops by conference and by year.

ETHICS action. We are working on establishing and promoting ethics guidelines for publications, similar to other efforts [6]. This involves creating a living document specifying major ethics aspects that authors and reviewers should consider. To enhance inclusion, we plan to compile a set of guidelines for session chairs, presenters, and participants for handling panels and Q&A.

DIVERSIFY action. DEI extends beyond merely tallying the number of male and female participants. The DIVERSIFY action will ensure regular data collection from: *Responses to demographic questions* required by authors, reviewers, and attendees before (via registration forms) and after conferences. This allows to understand community diversity. *Observations from the staff or volunteers*, who can document cases of diversity during the conference (e.g. assessing accessibility and noting incidents). DEI members can provide guidelines. *Feedback mechanisms*: online feedback can be provided to report diversity-related issues. Social Media monitoring can be used for discussions and feedback related to diversity. *PhD workshops* should incorporate activities that raise awareness about DEI in both the formulation of research projects and dissemination of findings. The assessment of presentations for paper awards can help estimate how PhD students apply DEI principles and determine which areas require discussion.

Finally, additional actions such as **sustainability** will be discussed in the future.

²<https://tinyurl.com/2v4ed98n>

6. REFERENCES

- [1] NeurIPS 2021. 2021 organizing committee. <https://nips.cc/Conferences/2021/Committees>.
- [2] CHI 2022. Equity, justice, and access commitments. <https://chi2022.acm.org/2021/06/23/equity-justice-and-access-commitments>.
- [3] EACL 2023. The 17th conference of the european chapter of the association for computational linguistics may 2-6, 2023. <https://2023.eacl.org/>.
- [4] Sihem Amer-Yahia, Yael Amsterdamer, Sourav S. Bhowmick, Angela Bonifati, Philippe Bonnet, Renata Borovica-Gajic, Barbara Catania, Tania Cerquitelli, Silvia Chiusano, Panos K. Chrysanthis, Carlo Curino, Jérôme Darmont, Amr El Abbadi, Avriella Floratou, Juliana Freire, Alekh Jindal, Vana Kalogeraki, Georgia Koutrika, Arun Kumar, Sujaya Maiyya, Alexandra Meliou, Madhulika Mohanty, Felix Naumann, Nele Sina Noack, Fatma Özcan, Liat Peterfreund, Wenny Rahayu, Wang-Chiew Tan, Yuanyuan Tian, Pinar Tözün, Genoveva Vargas-Solar, Neeraja J. Yadwadkar, and Meihui Zhang. Diversity and inclusion activities in database conferences: A 2021 report. *SIGMOD Rec.*, 51(2):69–73, 2022.
- [5] Sourav S. Bhowmick. CLOSET: data-driven COI detection and management in peer-review venues. *Commun. ACM*, 66(7):70–71, 2023.
- [6] NeurIPS Foundation. Ethics guidelines. <https://nips.cc/public/EthicsGuidelines>.
- [7] DB DEI Initiative. DB DEI Materials. <https://dbdni.github.io/#materials>.