

Report on the PhD Symposium at CIKM 2023

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Abstract

The PhD Symposium was held successfully at the 32nd ACM International Conference on Information and Knowledge Management (CIKM 2023). A total of 22 people attended online or in person at the whole day event, which included two chairs, six mentors, nine students, and five panelists. Five people attended online, and 17 people attended in person. The sessions contain Chairs' opening and closing addresses, student talks, a panel session, and mentoring sessions. The feedback was very positive, especially about the lively discussion and the quality of work.

Date: 21 October 2023.

Website: <https://uobevents.eventsair.com/cikm2023/phd-symposium-programme---saturday-21st-october>.

1 Introduction

The CIKM 2023 PhD Symposium took place on the 21st of October 2023 as part of the 'pre-conference' of the 32nd ACM International Conference on Information and Knowledge Management (CIKM 2023) at the campus of the University of Birmingham, United Kingdom. The symposium was organized in a hybrid manner. In this report, we summarize the insights shared by the participants of the symposium.

2 Organization and Structure

Table 1 provides an overview of the full-day program. We started the program with a welcome. We introduced the participating students and mentors and provided an overview of the day's program. We had three sessions with students' presentations. Each student had a time slot of 20 minutes, of which 10 minutes were for the presentation and the other 10 minutes were available for questions and feedback. Each student had two dedicated mentors. Besides the mentors' feedback, the floor was open for everyone to ask questions.

In the afternoon, we reserved time for one-to-one mentoring. Some mentors met their mentees individually; others met their 3 mentees as a group (thus, a one-to-three mentoring session).

At the end of the day, we opened the space for general feedback and advice from the panel of mentors. This resulted in a vivid discussion with many specific questions by participants and mentors willing to share their personal stories.

Finally, we wrapped up the PhD Symposium by encouraging exchange, endurance, and celebrating also small successes.

Table 1. Program

Time	Program item
09:30–09:50	Welcome and introductions
09:50–10:30	Session 1 with presentations Mingkun Xu: Exploiting homeostatic synaptic modulation in spiking neural networks for semi-supervised graph learning [Xu, 2023] Kuang-Da Wang: Enhancing badminton player performance via a closed-loop AI approach: imitation, simulation, optimization, and execution [Wang, 2023]
10:30–11:00	Coffee break
11:00–12:20	Session 2 with presentations Omid Shokrollahi: Intersectional bias mitigation in pre-trained language models: A quantum-inspired approach [Shokrollahi, 2023] Grigor Bezirganyan: Data and decision fusion with uncertainty quantification for ML-based healthcare decision systems [Bezirganyan, 2023] Praveen Acharya: Towards effective modeling and exploitation of search and user context in conversational information retrieval [Acharya, 2023] Abdelghani Azri: Improve the accuracy of the recommendation systems and optimize them to reduce the cost of computation [Azri, 2023]
12:20–12:30	Instructions concerning one-to-one mentoring sessions
12:30–14:00	Lunch break
14:00–15:00	Session 3 with presentations Dongqi Fu: Investigating natural and artificial dynamics in graph data mining and machine learning [Fu, 2023] Kislay Raj: A neuro-symbolic approach to enhance interpretability of graph neural network through the integration of external knowledge [Raj, 2023] Alberto Veneri: Explaining learning to rank methods to improve them [Veneri, 2023]
15:00–16:30	One-to-one mentoring session (including coffee break)
16:30–17:15	General feedback and advice from mentors
17:15–17:30	Wrap-up

3 Accepted Contribution and Participants

The PhD Symposium received 16 submissions, which were reviewed by a Program Committee (PC). The 15 members of the PC contributed with a total of 34 reviews. Nine submissions

were accepted for presentation at the PhD Symposium and were included in the CIKM 2023 proceedings [Frommholz et al., 2023]. For details on the accepted contributions, see Table 1.

In total, 22 people attended online or in person, including two chairs, six mentors, nine students, and five panelists. Overall, five people attended online, and 17 people attended in person.

4 Student Feedback

We carried out a feedback session during the closing session. Below are the key findings for us to reflect on:

The good news is that the students enjoyed the symposium and think the symposium is helpful for their PhD study and their career development. The students learn about the other students' research through the student talks. The students feel the one-to-one mentoring sessions were very helpful to their current research development. The students find the panel session inspiring for their career choices. They liked the balanced panel with panelists from both academia and industry based in different countries. One student officially declared their professor dream in the feedback, which is very encouraging to see.

The overall feedback on the organization of the PhD symposium is very positive. We appreciate the positive acknowledgment. In addition to the positive note on the amazing experiences of PhD symposium participants, we have also received some suggestions for improvement below:

1. Many students may not know about the existence of such an event, although it would be very helpful. The participants suggest promoting the event better and encouraging more PhD students to attend the symposium.
2. Early-stage PhD students will benefit more from the PhD Symposium than late-stage PhD students. Clarifying this in the call for papers may be a good idea.
3. It would be helpful for students to communicate with the assigned mentors before the symposium.
4. More opportunities for student-to-student discussions would also be helpful.
5. It would also be valuable to have feedback not only on the research topics but also on the presentation to improve presentation skills because, for many students, the PhD Symposium is the first time to give a presentation at an international conference.

We thank all participants for their valuable feedback.

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References

- Praveen Acharya. Towards effective modeling and exploitation of search and user context in conversational information retrieval. In *Proceedings of the 32nd ACM International Conference on Information and Knowledge Management*, CIKM '23, pages 5161–5164, New York, NY, USA, 2023. Association for Computing Machinery. ISBN 9798400701245. doi: 10.1145/3583780.3616005.
- Abdelghani Azri. Towards improving accuracy and computation cost optimization of recommendation systems. In *Proceedings of the 32nd ACM International Conference on Information and Knowledge Management*, CIKM '23, pages 5165–5168, New York, NY, USA, 2023. Association for Computing Machinery. ISBN 9798400701245. doi: 10.1145/3583780.3616006.
- Grigor Bezirganyan. Data and decision fusion with uncertainty quantification for ML-based health-care decision systems. In *Proceedings of the 32nd ACM International Conference on Information and Knowledge Management*, CIKM '23, pages 5169–5172, New York, NY, USA, 2023. Association for Computing Machinery. ISBN 9798400701245. doi: 10.1145/3583780.3616004.
- Ingo Frommholz, Frank Hopfgartner and Mark Lee, Michael Oakes, Mounia Lalmas, Min Zhang, and Rodrygo Santos, editors. *CIKM '23: Proceedings of the 32nd ACM International Conference on Information and Knowledge Management*, New York, NY, USA, 2023. Association for Computing Machinery. ISBN 9798400701245.
- Dongqi Fu. Investigating natural and artificial dynamics in graph data mining and machine learning. In *Proceedings of the 32nd ACM International Conference on Information and Knowledge Management*, CIKM '23, pages 5173–5176, New York, NY, USA, 2023. Association for Computing Machinery. ISBN 9798400701245. doi: 10.1145/3583780.3616007.
- Kislay Raj. A neuro-symbolic approach to enhance interpretability of graph neural network through the integration of external knowledge. In *Proceedings of the 32nd ACM International Conference on Information and Knowledge Management*, CIKM '23, pages 5177–5180, New York, NY, USA, 2023. Association for Computing Machinery. ISBN 9798400701245. doi: 10.1145/3583780.3616008.
- Omid Shokrollahi. Intersectional bias mitigation in pre-trained language models: A quantum-inspired approach. In *Proceedings of the 32nd ACM International Conference on Information and Knowledge Management*, CIKM '23, pages 5181–5184, New York, NY, USA, 2023. Association for Computing Machinery. ISBN 9798400701245. doi: 10.1145/3583780.3616003.
- Alberto Veneri. Explaining learning to rank methods to improve them. In *Proceedings of the 32nd ACM International Conference on Information and Knowledge Management*, CIKM '23, pages 5185–5188, New York, NY, USA, 2023. Association for Computing Machinery. ISBN 9798400701245. doi: 10.1145/3583780.3616002.
- Kuang-Da Wang. Enhancing badminton player performance via a closed-loop AI approach: Imitation, simulation, optimization, and execution. In *Proceedings of the 32nd ACM International Conference on Information and Knowledge Management*, CIKM '23, pages 5189–5192,

New York, NY, USA, 2023. Association for Computing Machinery. ISBN 9798400701245. doi: 10.1145/3583780.3616001.

Mingkun Xu. Exploiting homeostatic synaptic modulation in spiking neural networks for semi-supervised graph learning. In *Proceedings of the 32nd ACM International Conference on Information and Knowledge Management, CIKM '23*, pages 5193–5195, New York, NY, USA, 2023. Association for Computing Machinery. ISBN 9798400701245. doi: 10.1145/3583780.3616000.