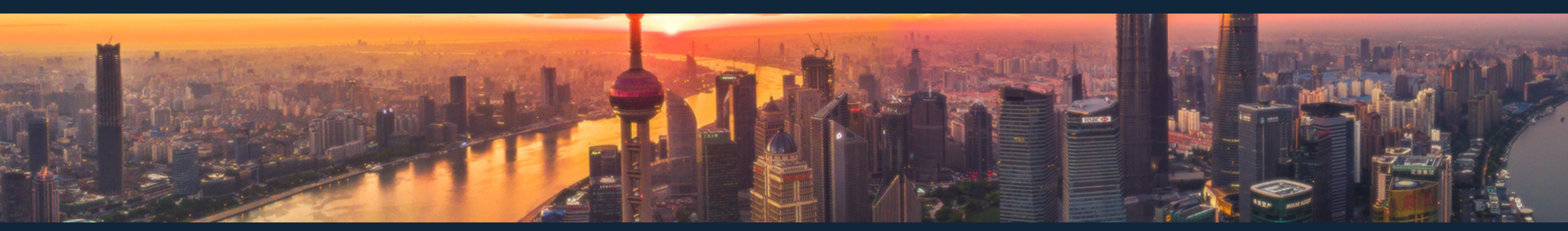

MULTI-ARMED BANDITS FOR KNOWLEDGE DISCOVERY WORKSHOP (MAB-KD 23)

In conjunction with IEEE ICDM'23, Dec 4, 2023, Shanghai, China

Shameem A Puthiya Parambath [1] Christos Anagnostopoulos [1] Sanjay Chawla [2]

[1]University of Glasgow [2]Qatar Computing Research Institute

About

Multi-Armed Bandit (MAB) problem is a class of sequential decision-making problems concerned with choosing one or more actions among several alternatives. The classical MAB problems are paradigms of the fundamental trade-off between exploitation and exploration that can be observed in many knowledge-discovery tasks. MAB algorithms have been used in many applications like e-commerce, online advertisement, news recommendation, and next-query prediction, among many others, in light of knowledge acquisition and decision-making. Due to its simplicity and applicability in many real-world problems, there is a surge in the domains where MAB algorithms are considered, including Outlier Detection, Conversational AI, IoT, Transportation Systems, and Dynamic Assignment.

The MAB-KD 2023 Workshop, in conjunction with the 23^{rd} IEEE International Conference on Data Mining 2023, Dec 4, 2023, in Shanghai, China, aims to provide a forum for disseminating late-breaking research ideas, paradigms, and results related to the adoption and current developments of MAB systems in machine learning and data mining in a variety of application domains, bringing together researchers from academia and industry. The MAB-KD workshop welcomes the submission of late-breaking and preliminary research results, opinions, and position papers.

Call for Papers

Topics of Interest

The workshop is aimed at bringing together researchers and practitioners from the areas of machine learning and data mining. We expect to encourage an exchange of ideas and perceptions through the workshop, focused on MAB and sequential/online learning at large. The workshop aims to be a platform to discuss novel problem settings and solutions for sequential prediction problems associated with knowledge discovery in big-data systems. Submitted papers will be evaluated based on criteria such as technical originality, creativity, and applicability. The topics are concentrated on, but are not limited to, the following research areas:

- Foundations and Theoretical Aspects of MAB
- MAB Learning Paradigms in Distributed Systems, IoT, Conversational AI, Dynamic Assignment
- MAB Algorithms for Problems with Structured Infinite Arms
- MAB Algorithms for Pure-Exploration with Infinite Arms
- Problem Settings and Algorithms for Arms with Switching Costs
- MAB-led Knowledge Discovery and Decision-Making
- Deep MAB for Dynamic Optimization
- Application of MABs in, e.g., Intelligent Transportation Systems, Dynamic Assignment, and Smart Cities

SUBMISSION & PUBLICATION

Paper submissions should be limited to max 8 pages plus 2 extra pages (for references, appendix, etc.) and follow the IEEE ICDM format. More detailed information is available on the IEEE ICDM 2023 submission guidelines page at `https://www.cloud-conf.net/icdm2023/call-for-papers.html`. All submissions will be reviewed by the Program Committee based on technical quality, relevance to the scope of the workshop, originality, significance, and clarity. Please submit your papers via the submission link `https://wi-lab.com/cyberchair/2023/icdm23/index.php` and select the *Paper Submission under the PhD/Demo/Workshops* column. Alternatively, authors can directly use the link at `https://wi-lab.com/cyberchair/2023/icdm23/scripts/submit.php?subarea=S08&undisplay_detail=1&wh=/cyberchair/2023/icdm23/scripts/ws_submit.php`

By the unique ICDM tradition, all accepted workshop papers will be published in the dedicated ICDM'23 Workshop Proceedings published by the IEEE Computer Society Press. Therefore, papers must not have been accepted for publication elsewhere or be under review for another workshop, conference, or journal. All accepted papers, including workshops, must have at least one "FULL" registration. A full registration is either a "member" or "non-member" registration. Student registrations are not considered full registrations. All authors are required to register by **Oct 15, 2023** through the link `https:link/registration.html`. For registration queries, please contact: `registration@computer.org`

Important Dates

- All times are at 11:59 PM Beijing Time
- Paper Submission: September 8, 2023
- Author Notification: October 8, 2023
- Workshop Day: December 4, 2023

Workshop Organization

Workshop Chairs

- Shameem A Puthiya Parambath, University of Glasgow, UK
- Christos Anagnostopoulos, University of Glasgow, UK
- Sanjay Chawla, Qatar Computing Research Institute, Qatar

Program Committee

- Yves Grandvalet, Heudiasyc Lab, CNRS, France
- Kostas Kolomvatsos, University of Thessaly, Greece
- Fani Deligianni, University of Glasgow, UK
- Zoi Kaoudi, IT University of Copenhagen, Denmark
- Francesca Bugiotti CentraleSupélec, France
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- Ibrahim Alghamdi, Al Baha University, SA
- Jordi Vilaplana, University of Lleida, Spain
- Katie Aleksandrova, Microsoft, UK
- Natascha Weber, BMW Research Group, Germany
- Ekaterina Gilman, University of Oulu, Finland

Contact Us

Shameem A Puthiya Parambath
G132, 18 Lillybank Gardens, School of Computing Science
University of Glasgow, Glasgow, G129DP, UK
`sham.puthiya@glasgow.ac.uk`

Christos Anagnostopoulos
S114, Sir Alwyn Williams Building, School of Computing Science
University of Glasgow, G12 8QQG, UK
`christos.anagnostopoulos@glasgow.ac.uk`

Sanjay Chawla
Research Director, Qatar Computing Research Institute
HBKU Research Complex, Doha, Qatar
`chawsanj@gmail.com`

Further Information

Submission Info

Workshop Info