October 28–November 1, 2024 Melbourne, VIC, Australia



Association for Computing Machinery

Advancing Computing as a Science & Profession

MM '24

Proceedings of the 32nd ACM International Conference on Multimedia

Sponsored by: ACM SIGMM

General Chairs: Jianfei Cai, Mohan Kankanhalli, Balakrishnan Prabhakarana, and Susanne Boll

Program Co-ordinator:

Dong Xu

Technical Program Chairs: Ramanathan Subramanian, Vivek K. Singh, Lexing Xie, Pablo Cesar, and Liang Zheng

Publication Chairs: Yadan Luo, Toan Do, and Yan Yan

Message from Program Chairs and Coordinator

It is our great pleasure to invite you to the ACM Multimedia 2024 program! This message provides us with the opportunity to take you through the process that we adopted to compile this year's fabulous conference program. Commensurate with its stature as a marquee conference in Multimedia and more generally in the Computer Science domain, MM2024 attracted a record total of 4385 valid submissions (following desk rejects), which represents a 42.74% increase over the 2023 edition that received 3072 valid submissions.

The MM'24 review process included many 'firsts'. To begin with, cutting-edge research findings were solicited for regular papers under five multimedia-specific themes instead of four in prior years: (1) User Engagement with Multimedia, (2) Multimedia Experience, (3) Multimedia Systems, (4) Understanding Multimedia Content and (5) a brand-new theme titled Multimedia in the Generative AI Era, to reflect the life and times that we live in. These themes were further divided into multiple focus areas: the *Engagement* theme was subdivided into (a) Emotional and Social Signals, (b) Multimedia Search and Recommendation, and (c) Summarization, Analytics, and Storytelling; *Experience* into (a) Interactions and Quality of Experience, (b) Art and Culture, and (c) Multimedia Applications; *Systems* into (a) Systems and Middleware, (b) Transport and Delivery, and (c) Data

Systems Management and Indexing; *Content Understanding* into (a) Multimodal Fusion, (b) Vision and Language and (c) Multimedia Interpretation, and *Generative AI* into (a) Multimedia Foundation Models, (b) Generative Multimedia and (c) Social Aspects of Generative AI.



Another significant 'first' implemented during this year's review process was the explicit codification and promotion of *multimedia/multimodal* research

papers throughout the review process with the inclusion of a question in the submission form asking authors *"How does your work contribute to multimedia/multimodal processing?"* This is consistent with the *raison d'etre* of our community. These responses, along with Reviewer, Area Chair, and Senior Area Chair impressions were utilized to favor multimedia/multimodal papers in the program.

A highly rigorous review process was adopted to score and rank submissions and every paper received at least three reviews (59.5% papers received at least four reviews) despite the huge number of submissions, thanks to the stupendous efforts of the Technical Program Committee (TPC). 1150 papers were accepted, denoting an overall acceptance rate of 26.2%. The theme-wise breakdown of accepted papers is: 97 (Engagement), 287 (Experience), 34 (Systems), 542 (Content Understanding) and 190 (Generative AI). With careful curation, involving inputs from the Area Chairs, Senior Area Chairs, and the Program Chairs, 174 accepted papers were selected for *Oral* presentations (4% of total submissions), while the rest were chosen as *Poster* presentations. The theme-wise breakdown for Oral presentations is: 23 (Engagement), 51 (Experience), 7 (Systems), 66 (Content Understanding) and 27 (Generative AI). The theme-wise acceptance statistics mirror the proportion of submissions across themes; the challenge for future TPCs is to make a strong push for high-quality submissions across all themes.

A summary of the other notable MM24 'firsts' is as follows¹:

- (1) Every valid paper submission was assigned to a minimum of four reviewers. To manage the huge number of submissions, the Program Chairs recruited a record number of 4370 reviewers (vis-à-vis 2774 in 2023), 284 Area Chairs (vs 200 in '23) and 21 Senior Area Chairs, who coordinated with the Area Chairs to finalize paper decisions. This significantly large TPC ensured that (a) all TPC members were assigned manageable workloads, (b) both the first-round reviews and final decisions were communicated to authors by or before designated deadlines, (c) every submission received a minimum of three reviews, and a meta-review by the decision deadline.
- (2) A novel mechanism to enable real-time tracking of the paper review status was developed, so that every Area Chair (AC) could track the *number of reviews* completed per reviewer, plus the *number of words per*

¹ Already implementing a few SIGMM Advisory board recommendations: https://records.sigmm.org/2024/08/28/sigmm-strike-teams-activity-report-april-2024/

review, which helped ACs request for more informative comments from reviewers. Likewise, each Senior Area Chair (SAC) could track the progress of every AC, and this design helped the committee find timely replacements for ACs and reviewers where needed. This framework substantially also helped to improve the quality of reviews, critical for authors to optimally showcase their research findings.

- (3) To minimize the chances of author-reviewer cliques, reviewer bidding for papers was done away with, and *OpenReview*'s affinity-based paper matching system was relied on to make reviewer-to-paper, AC-to-reviewer, and SAC-to-AC assignments. Conflicts-of-interest were determined based on publication records over the past five years.
- (4) To ensure optimal decision-making, each SAC discussed all borderline papers with ACs. An Author's Advocate (AA) also oversaw the review process and directed ACs to take corrective action on papers involving author grievances owing to unfair evaluation. To ensure that the AA had enough time to determine worthy requests, authors were able to notify the AA at rebuttal time via a Google form.
- (5) To our knowledge, this year marks the first time that reviews for all accepted papers were made publicly accessible via *OpenReview*. This initiative was undertaken to enhance transparency and to showcase the commitment of our community to responsibly evaluating research findings and providing constructive feedback to authors.
- (6) To make sure that all stakeholders in the review process (authors, reviewers and ACs) are given due credit for their contributions to the community, the Program Chairs upon discussion with the General Chairs will (a) nominate 20-25 papers as 'best paper candidates', from which winners will be chosen by the conference Award Committee. Nominations for high-performing reviewers and ACs will also be sought, and such nominees will be presented with certificates of recognition during MM24. Finally, to go with the traditional AC dinner, an AC workshop will be held this year. This workshop will provide an opportunity to discuss and deliberate on the review process, identify potential areas for improvement, and allow both rising and established researchers who served as ACs to showcase their work.

It gives us immense pleasure to share the exciting MM24 Program, where 174 Oral presentations have been grouped into 29 Oral Sessions (Brave New Ideas introduced in a separate session), and all accepted papers will be presented as posters over the main conference days. We hope you enjoy the MM24 Program as much as we enjoyed curating it!

Ram Subramanian MM'24 Program Chair University of Canberra & IIT Ropar, Australia

Pablo Cesar MM'24 Program Chair Centrum Wiskunde & Informatica, Netherlands **Liang Zheng** MM'24 Program Chair Australian National University, Australia

Lexing Xie MM'24 Program Chair Australian National University, Australia Vivek K. Singh MM'24 Program Chair Rutgers University, USA

Dong Xu MM'24 Program Coordinator University of Hong Kong, Hong Kong