IEEE VR 2023 Message from the Program Chairs

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We are pleased to present the proceedings of the 30th IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR 2023), held March 25–29, 2023, in Shanghai, China, in hybrid format. These proceedings contain 69 of the 130 papers presented at IEEE VR 2023, with the other 61 papers being published in the IEEE VR 2023 special issue of the Transactions on Visualization and Computer Graphics. IEEE VR 2023 had 612 submissions for an acceptance rate of 21%.

This year IEEE VR transitioned from the two-track submission format, i.e., journal and conference papers, which it had since VR 2018, into a unified, single-track submission format. As program chairs, we were charged with the implementation of the unified submission format and the decision process that resulted in the 69 papers appearing here.

Paper reviews were overseen by the international program committee. Given the unified submission format, we expected a large number of submissions, and attempted to recruit a large program committee to reduce the reviewing load on our colleagues. This year's program committee consisted of 152 experts in the areas of virtual, augmented, and mixed reality, and 3D user interfaces, recruited from around the world. The review process would not have been possible without the earnest efforts of these 152 people, and we wholeheartedly thank them for their service to our community in reviewing and shepherding a large number of submissions on tight deadlines. Membership in the program committee was 22% women, leaving room to improve issues of representation on the committee.

Under the unified submission format, the decision as to whether a submission would be selected to appear in TVCG or as part of the conference proceedings was decided during the review period. The decision pipeline had several stages. Initially, each paper was assigned a primary and a secondary reviewer from the program committee. These assignments were based on a combination of bidding by program committee members and of expertise matching scores computed based on committee members' uploaded sample papers. Then, an initial assessment of the papers occurred during which some papers were desk-rejected due to a failure to follow the submission guidelines. The reasons for desk rejection were most often failure to anonymize the paper, failure to follow formatting guidelines, or being clearly out of scope for the conference.

Next, the primary and secondary reviewers assigned at least two external reviewers. The secondary and external reviewers performed extensive reviews of each assigned paper, resulting in at least three reviews per submission. After these reviews were completed, the primary led an online discussion in which the reviewers for each paper attempted to come to a consensus on an initial recommendation for that submission among four possibilities: conditionally accept, recommend as a major revision to TVCG with review continuity, conditionally accept as poster, or reject. Major revision papers are not presented at IEEE VR 2023, and are not included in the IEEE VR 2023 proceedings or in the special issue of TVCG. Note that in this phase of the review process, reviewers were not asked to decide whether a paper should be accepted as a conference paper or as a TVCG paper, just whether it should be accepted to the conference.

The second stage of the process commenced at the conclusion of the discussion phase. We had 200 papers that were recommended for conditional acceptance, reviewers could not form a consensus on, were recommended for a major revision, or were not recommended for conditional acceptance but had high reviewer scores. We asked a subset of the program committee, whom we called the Supercommittee, to help us finalize the conditional acceptance decisions based on this set of 200 papers. We extend our heartfelt thanks to the 10 members of the Supercommittee: Ferran Argelaguet Sanz, Mark Billinghurst, Gerd Bruder, Pablo Figeuroa, Bernd Froehlich, Victoria Interrante, Maud Marchal, Ryan P. McMahan, Amela Sadagic, and Frank Steinicke. Each of them was assigned 20 papers to review. We then convened in an online meeting and discussed the papers. The result of this process was a decision on whether these papers should be conditionally accepted as TVCG papers, conditionally accepted as conference papers, conditionally accepted as posters, or had another fate.

Papers that were conditionally accepted, either to TVCG or as a conference paper, were then shepherded through a minor revision cycle by the primary reviewer from the program committee. The primary reviewer eventually signed off on whether reviewer concerns were satisfactorily addressed in the final version. This year there were no papers that failed in the minor revision cycle. The program chairs then checked all papers one final time for completeness.

Camera-ready versions of both TVCG and conference publications were checked for compliance with the formatting guidelines by the IEEE VR 2023 publications chairs. Finally, primary reviewers shepherded the papers that were conditionally accepted into the two page poster format, and subsequently the IEEE VR 2023 posters chairs made a final check.

The excellent papers selected for presentation at IEEE VR 2023 cover a wide range of topics, including locomotion, tracking, cybersickness, avatars and agents, rendering, displays, interaction, perception, gestures, haptics, collaboration, and applications, to name a few. The program is original and novel, and it reflects the vibrancy of our field.

Many individuals contributed significant time and energy in putting together the technical program presented at the conference and published in the TVCG special issue and the conference proceedings. We would like to thank all the authors for the time and effort they put into the 612 submissions that were considered. IEEE

VR is competitive, and we hope that even if your work does not appear in the special issue or conference program, the feedback received from the review process is useful to you. We would like to thank the 760 external reviewers and again the 152 members of the program committee for their labor, for without them, nothing could have been accomplished. The program committee and reviewers are the backbone of any conference. The Supercommittee performed an invaluable service this year; the program chairs learned much from listening to the Supercommittee's wisdom. The Posters chairs and Publications chairs did an enormous amount of work in rounding out the program. We are also thankful to Klaus Mueller, the Editor-in-Chief of TVCG until December 2022, and to Han-Wei Shen, the current Editor-in-Chief, as well as to Doug Bowman, the Associate Editor-in-Chief, for making the special issue of TVCG possible. The special issue of TVCG for IEEE VR 2023 contains more journal articles than have ever appeared for IEEE VR before. Finally, we would like to thank the Virtual Reality Steering Committee for their valuable advice and leadership.