Message from the ISMAR 2017 Science and Technology Program Chairs and Guest Editors

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In this special issue of IEEE Transactions on Visualization and Computer Graphics (TVCG), we are pleased to present the TVCG papers from the 16th IEEE International Symposium on Mixed and Augmented Reality (ISMAR 2017), held October 9-13 in Nantes, France.

There are 14 papers in this special issue, which were selected from 113 reviewed submissions, for an acceptance rate of 12.4 percent.

As program chairs we strove to maintain the ISMAR tradition of applying the highest possible reviewing standards, and to conduct a decision process that came to final decisions in a fair, rigorous, and transparent way. This year, we implemented a number of procedures, primarily motivated by successful examples from other conferences, with the goal of improving the ISMAR process. In particular:

1. Paper length was changed to be 4–10 pages of text, plus as many pages of references as needed (although the number of references had to be justified by the work presented in the paper). This policy meant that references did not have to be removed to make a paper fit into the page limit, and hopefully will enhance indices based on reference counting.

2. The senior author of each submitted paper was asked to volunteer to review 3 additional ISMAR papers. The goal was to widen the pool of experienced reviewers, and hopefully has resulted in a larger number of high quality reviews.

3. Papers where a consensus was reached quickly received 3 external reviews, while remaining papers received an additional review from a PC committee member. In addition, decisions for papers with a quick consensus were made before the PC meeting. Therefore, there was more time during the PC meeting to discuss edge-case papers; our goal was better outcomes for these papers. The program chairs' opinion is that this goal was at least partially met: we believe that more edge-case papers were accepted into the conference than would have happened under ISMAR’s previous reviewing procedures. We also believe that the quality of these additionally-accepted papers is equal to that of the papers for which consensus was achieved more quickly. In addition, for those edge-case papers that were not accepted, there is an additional review, and there was additional time for the discussion to be summarized in the meta-review, which we hope results in more useful author feedback.

4. There was not an author rebuttal phase, because the multiple review phases before the PC meeting took up the time that a rebuttal phase would have occupied, and, because edge-case papers received extra reviews, it would not have been possible for authors to see all reviews when rebutting.

All papers were reviewed by the Science and Technology Program Committee (PC), which comprised 15 internationally renowned experts from the Asia-Pacific region, the Americas, and Europe. The program chairs also voted on paper decisions, so the PC had 18 voting members in total. Recruitment for the PC began with an open call for PC volunteers, which was posted on the ISMAR 2017 website and distributed to various ISMAR-related mailing lists. In addition to these volunteers, we relied on a database of former PC members, minus any who had served in each of the four consecutive prior years, and with additional nominations needed to cover missing ISMAR technical areas. After an initial round of closed voting, in which each program chair was allocated a fixed number of votes to award, we held a live virtual meeting, in which we discussed all of the candidates who had received multiple votes and came to a consensus on whom to invite. The PC was complemented by the addition of several very experienced ISMAR Steering Committee members.

There was a single paper submission category, papers from 4 to 10 pages in length, plus as many pages of references as needed. For each paper submission, the authors were asked to identify one of their number as the senior author, and that person was asked to register as a reviewer, and to volunteer to review at least 3 other ISMAR papers. The senior author review request was limited to 3 papers, regardless of the number of submissions on which the author appeared.

All submissions underwent a review process that encompassed four reviewing cycles, overseen by a coordinator from the PC. After PC members had declared their conflicts and provided their preferences, the program chairs assigned coordinators. For every PC member, as well as the program chairs, for every paper where they had a conflict of interest, both the reviewer assignments and reviewer names were hidden. In addition, it was possible to submit papers for either single-blind or double-blind reviewing; in the case of double-blind reviewing, the external reviewers were not aware of the identity of the authors.
Before the reviewing began, coordinators had the option of recommending a desk rejection, which was then approved by the program chairs. The desk rejection process was consistent with the policies of IEEE Transactions on Visualization and Computer Graphics (TVCG).

During the first review cycle, each submission received at least three external reviews, from experts identified by the coordinator. After the reviewing period, there was a 5-day window during which the reviewers of each submission, under the guidance of the coordinator, anonymously discussed the submission and attempted to reach a consensus decision. 5 papers were conditionally accepted to TVCG, 27 were rejected, and 81 were passed to the second review cycle.

In the second review cycle, the program chairs assigned an additional reviewer from the PC. Therefore, these 81 papers received four reviews. Next, there was a second discussion phase, during which the PC members and the external reviewers attempted to reach a consensus decision. After the second review cycle, 2 additional papers were conditionally accepted to TVCG, and 34 papers were passed to the PC meeting.

The entire PC then convened for a two-day meeting, to discuss the submissions, and for each one come to a final decision. This meeting was held at the University of Otago, New Zealand for the Asia-Pacific region; Mississippi State University, USA for the American region; and Ilmenau University of Technology, Germany for the European region. The entire PC met simultaneously over a 3-way video link. Before this meeting, every paper flagged for discussion was read by at least one of the program chairs. Therefore, for every paper discussed during this meeting, at least three participants were intimately familiar with it: the coordinator, the PC member who did the second cycle review, and one of the program chairs. The coordinator summarized the paper and the online discussion for the rest of the committee, and led the joint discussion. When any paper with a conflict of interest came up for discussion, the conflicted person left the room. The final decision for each paper was determined by a majority vote of all remaining members of the PC. From the 34 papers discussed at the PC meeting 4 were conditionally accepted as TVCG papers. In addition, after additional discussions, 3 papers, originally conditionally accepted as conference papers, were upgraded to be conditionally accepted as TVCG papers.

All conditionally accepted submissions were subject to a final reviewing cycle. In addition to the decision, during the meeting the PC determined the modifications that were deemed necessary for conditionally accepted papers to be accepted for publication. The set of papers recommended for conditional acceptance into TVCG was further approved by the TVCG board. For all conditionally accepted papers, the program chairs assigned a shepherd from the PC, either the paper’s original coordinator or the secondary reviewer from the PC, to oversee the refinement process. The shepherd then checked whether the changes made were sufficient to warrant final acceptance. Based on this input, the program chairs made the final acceptance decisions.

The final acceptance of the TVCG papers was further approved by the TVCG board. All of the 14 conditionally accepted TVCG papers were ultimately accepted.

Many individuals have contributed a great deal of time and energy towards making the technical program of ISMAR 2017 a success. We would like to thank the authors of all submitted papers, the 15 members of the program committee, as well as the 178 external reviewers, for their many hours of hard work. We also wish to acknowledge James Stewart for his outstanding and timely support of the PCS review system. The program chairs are indebted to the Publications Chair Veronica Teichrieb, for collecting materials and assisting in the production of this special issue. We warmly thank the members of the ISMAR Steering Committee for their continuing active support. We also thank Dieter Schmalstieg, the TVCG liaison for ISMAR, for support and advice with the TVCG papers. We express our gratitude to the ISMAR 2017 General Chairs, Guillaume Moreau and Anatole Lécuyer, for their strong support throughout the entire process. Finally, our ISMAR 2017 conference would not exist without the enormous amount of time and effort volunteered by a large cast of our community members.

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