SIGARCH/TCCA's Recommended Best Practices
for ISCA Program Chairs

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This is a set of best practices recommended for the ISCA Program Committee (PC) Chair. They supplement existing ACM/IEEE policies (e.g., such as those on plagiarism or confidentiality) and are provided as guidance to future PC Chairs as they engage in committee selection, steer the reviewing process, and run the PC meeting. In general, PC Chairs may want to try new ideas in future conferences in order to continue to improve ISCA. However, process changes that significantly deviate from these recommendations should be discussed with and approved by the ISCA Steering Committee and the SIGARCH/TCCA Executive Committees, and their outcome will inform future revisions of this document.

The SIGARCH and TCCA executive committees recommend that Program Chairs for all SIGARCH-sponsored and TCCA-sponsored conferences follow these 'Best Practices for ISCA Program Chairs.'

1. Size and Composition of the Program Committee

The recommendation in both size and composition of the PC is to trust the judgment of the PC Chair, as a technical leader in our community. The PC Chair should strive for recruiting high-quality and broadly diverse PC members (e.g., by ethnicity, gender, seniority, geographical location, institutional membership, etc.), covering as many active research areas as possible. The resulting PC should be representative of both academic and industry communities. The PC Chair should strive for keeping the PC member review load at acceptable levels while ensuring that a sufficient number of PC members can review and speak authoritatively about any given submission.

The PC Chair must share the list of the potential PC members with the Steering Committee for review at least a week before sending any invitations for the PC. To protect the committee's members and the integrity of the process, the SC may recommend, on a case-by-case basis, against having a candidate on the PC when credible allegations of misconduct emerge or while an investigation is in progress. It is critical that the PC Chair makes sure no potential PC member is under sanctions that prevent them from participating, and both ACM and IEEE should be consulted to "clear" the list of potential PC members before finalizing it.

2. The Reviewing Process

Reviewer assignment is one of the key tasks of the PC Chair. It is their ultimate responsibility (and one that should directly impact their reputation in the community) to ensure a fair assignment of reviewers to papers. The PC Chair and their designees should assign all the PC reviewers, except for papers in which they have a conflict.

Papers for which the PC Chair has a conflict should be handled by another PC member, who should select the reviewers, handle the reviews, and moderate the paper discussion at the PC meeting.

The PC Chair can make use of an External Review Committee (ERC) to facilitate non-PC assignments. This will generally ensure a high quality of reviewers – as well as reduce the load on the PC members. The PC Chair should assign the papers to the External Review Committee. Note that each member of the ERC must also be vetted for sanctions by the ACM and IEEE.

The PC Chair is responsible for securing, for as many submissions as possible, at least five good-quality reviews

that PC members can present and defend at the PC meeting. At least three of these should be PC reviews. The PC Chair can choose between a single-round or a multi-round review process. In the latter case, for a paper to be rejected in an early round, it should have at least two PC reviews, and at least three reviews in total, with a strong bias toward rejection (e.g., all three reviewers recommend rejection).

After all of the reviews are finalized, they should be made available for the authors to respond to. The response can be in the form of a rebuttal and/or a revision. For rebuttals, the response period should be at least four business days. For revision, the response period should be at least ten business days. The PC Chair should communicate the dates for the response period in advance so that authors can plan accordingly. After the response period, papers should be (re-)graded by all reviewers. For this step, reviewers should be able to see, for each paper they are grading, the authors' response and all the other reviews for that paper. This grade or final score should be one of the main guiding parameters used for classifying/ranking papers for discussion at the PC meeting.

During the grading period, the PC Chair should strongly encourage online discussion among the reviewers of each paper, with the goal of seeking consensus when possible before the PC meeting, as this would save precious time at the meeting.

At the end of the online discussion period, reviewers for each paper should converge on a recommendation for online-accept, discuss at the PC meeting, or online-reject. As a general rule, it is preferable (but not required) that the contribution of every paper recommended for online-accept be at least quickly summarized at the PC meeting.

3. Running the PC Meeting

PC members are required to attend the PC meeting in a way that allows them to be fully engaged in the discussions. Such requirements and the date of the PC meeting should be communicated to the PC members at the point of the invitation. Traditionally, this has been accomplished by requiring all PC members to be physically present. Teleconferencing technology that achieves the same goals without requiring traveling is equally acceptable.

The time available for the PC meeting is short for the task at hand. Hence, the PC Chair should carefully plan how to run the meeting in the most productive manner. The structure of the meeting should be shared with the PC beforehand, so that little time is spent during the meeting describing it.

The PC Chair should establish a cutoff criterion for what papers will be discussed during the meeting, and share this information with the PC in advance. Still, the PC Chair must allow any PC member to "rescue" any paper they have reviewed that is below the cutoff line and bring it up for discussion at the meeting.

There are many ways of ordering the papers for discussion. It is often helpful to discuss at least a few top-ranked papers first, since it helps calibrate the PC and sets a positive tone from the start, but ultimately this is up to the PC Chair. At an all-virtual meeting, time zone constraints may trump other considerations. It is critical to adhere to a strict maximum time for discussion for each paper, particularly early in the meeting when there is less time pressure.

The PC Chair should strive to foster a positive attitude in the discussions, and err on the side of accepting as many good papers as possible. The PC Chair should also remind the PC to not to be concerned during the PC meeting about the number of papers accepted thus far, as focusing on this may influence the discussion of and cause bias in papers that are still scheduled to be discussed later in the meeting.

At the time a paper comes up for discussion, the conflicted PC members (potentially including the PC Chair) are first asked to leave the discussion room (physical or online). Only when they all have left the room can the paper number and the title be revealed. The PC Chair can minimize time wasted in asking PC members in and out of the room by making small adjustments to the order of discussion.

Each paper to be discussed must have a pre-assigned discussion lead among the PC members who read the paper. In general, the lead should be the PC reviewer who is the most positive toward the paper. The discussion starts with the lead, who summarizes the paper and presents their opinion. The external reviewers' position should be explicitly

presented by the PC reviewers.

The outcome of each paper should be primarily decided by a vote among the PC members who reviewed the paper. Other PC members are encouraged to opine and ask questions before the vote. If the vote is inconclusive, a PC-wide vote decides the outcome. The PC Chair must specify the rules for tie-breakers at the start of the PC meeting.

The PC Chair should be wary of statements that dismiss a paper solely on the basis of not fitting the conference. A rule to apply when deciding whether a paper is appropriate is to ask whether: (1) the conference attendees would appreciate the paper and (2) our reviewers could judge the paper's merits. Similarly, no quotas should be set for areas or segments of the community. Both the quality of the ideas and the thoroughness of the evaluation should be taken into account. Papers with a higher degree of novelty should be valued by the committee even when their quantitative evaluation is not as thorough as in a paper in a more established area.

General and PC Chair cannot submit papers. PC papers are evaluated with the same standards as non-PC ones.

If at all possible, a paper's outcome should be decided when the paper is first brought up for discussion. The PC Chair should try to avoid tabling a paper or creating a maybe-accept list, as by the time the committee returns to consider these papers, it is often late in the day, some members have already left, and the ones remaining struggle to recall the particulars of the papers in question.

It is acceptable to assign PC members as shepherds to papers that are deemed to require certain fixes in order to be accepted. The shepherd has the authority to recommend the rejection of a paper when the authors fail to make the required changes. A shepherd makes their recommendation to the PC Chair, who decides on the final fate of the paper (if the PC Chair has a conflict, a designated non-conflicted PC member makes the call).

During the PC meeting, the accept/reject outcome of a paper is not made available to the conflicted PC members. Only after the PC meeting is over can this information be made available. After the PC meeting, PC members must keep the outcome of the papers confidential.

All papers, reviews, and rebuttals provided to the PC members, and discussions before and during the PC meeting are confidential. After the meeting, PC members must destroy any record (electronic or otherwise) of such information, and not disclose (or use) it in any way. The same applies to external reviewers.