IEEE International Conference on Quantum Computing and Engineering (QCE)
Guidelines for Reviewing QCE24 Manuscripts — V37

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Opening remarks

QCE24 features seven Technical Paper Tracks: QALG, QAPP, QML, QNET, QPHO, QSYS, QTEM. The detailed rack topics can be found on the QCE24 conference website and EasyChair as follows:

https://qce.quantum.ieee.org/2024/call-for-technical-papers/
https://qce.quantum.ieee.org/2024/authors/conference-topics/
https://easychair.org/cfp/QCE24

QCE24 received a record number of 450+ technical paper manuscripts—an increase of 150+ compared to QCE23. At least three reviewers must review each manuscript, and each reviewer is expected to review 6-8 papers. Thus, we need 190+ reviewers in total for the QCE24 technical paper review process.

The number of papers submitted to each track varies. Before the papers are assigned to reviewers, the Technical Program Board Chairs will check whether each paper was submitted to the most relevant track and attempt to balance tracks with respect to the number of submissions to be reviewed.

We hope the following review guidelines will improve the quality of the reviewing experience and the authors' experience. A big thank you to all the QCE24 reviewers for their expertise, commitment, and timely completion of the reviews. Conferences, such as QCE24, are only sustainable with the strong and dedicated support of the reviewers.

QCE24 Paper Track Program Committees

Each Track Program Committee (TPC) will review the manuscripts submitted to their track under a **single-blind review process** as practiced over the past four years at QCE. Single-blind peer review is a conventional method of peer review in which the authors do not know who the reviewers are. However, the reviewers know who the authors are. In contrast, double-blind peer review is when neither authors nor reviewers know each other's names or affiliations. Papers and reviews that substantially deviate from the guidelines outlined on the QCE24 website might be desk-rejected or asked for a prompt resubmission.

QCE24 Review Process
Part 1: Bidding – starts Fri, April 26 and ends Fri, May 3
For the first time this year, we will employ **EasyChair's manuscript bidding feature** to facilitate the track chairs' paper assignment tasks. During the first few days of the review process, TPC members are asked to bid for papers they would like to review and for which they have expertise. The Technical Program Board Chairs will open the bidding for each track and invite TPC members to **bid for approximately 14-20 paper manuscripts.** Track chairs, please monitor the bidding and send reminders three days before the bidding deadline. TPC members, please complete the bidding by the bidding deadline.
For Track chairs, the bidding is enabled using the **Administration tab** in Easychair. Select Configure, search for Paper bidding, and **enable Paper bidding** button using the pencil on the right-hand side:

Paper bidding and assignment		
For paper assignment, do you use paper bidding or relevance detection?	paper bidding	✎
Is paper bidding enabled?	no	✎
Is viewing bids of PC members by chairs enabled?	yes	✎
Is assignment of submitted papers to the program committee enabled?	yes	✎
The number of reviewers per paper is	3	

If you have questions, please contact Yuri Alexeev <yuri@alcf.anl.gov>
After you have enabled Paper bidding, send an email to your PC members to encourage them to bid.

How to Bid for Papers using EasyChair – starts Fri, April 26 and ends Fri, May 3
TPC members log into their EasyChair account and then click on the **Bidding tab** to access the list of paper submissions in the track. They can then read the abstracts or full papers to decide which papers to review. For each paper, select one of the following options.

yes: I want to review this proposal (paper)
maybe: I can review it
no (default): I prefer not to review it
conflict: I have a conflict of interest

Please note the **conflict** option, which can be used to **declare any potential conflicts of interest.** Maintaining the integrity and fairness of the QCE24 review process is paramount, and it hinges significantly on our ability to manage conflicts transparently and effectively. Conflicts of interest include **personal relationships with authors, professional relationships, such as colleagues in the same department or institution, prior or current collaborations, including joint publications or research projects, or financial interests that the outcome of the review process might influence.**

Part 2: Paper assignments – starts Fri, May 3 and ends Tue, May 7
After the bidding process, the track chairs assign paper manuscripts to TPC members **using the bidding information received and the interactive assignment system on EasyChair**. The goal is to match paper manuscripts with reviewers who have expressed the most interest and expertise, thereby improving the quality of the review process.

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Track chairs use the **View bids** and the **Assignment tabs** to assign papers to reviewers. If the PC members have completed their bidding, track chairs can use the menu item **Automatic Assignment** to make a first pass on the review assignments. On the second pass, track chairs use the menu item **Interactive Assignment.** Having the **View bids page** open next to the **Interactive Assignment page** is very helpful. You have to **login to EasyChair twice** to have two EasyChair tabs open simultaneously.

Part 3: Paper Review by TPC members – starts Wed, May 8 and ends Sun, Jun 23
QCE24 Paper Manuscript Evaluation
Three TPC members must review each technical paper before it can be included in the IEEE Xplore digital library.

Please note that submitted manuscripts must **NOT** have appeared in or be under consideration for another conference, workshop, or journal (cf. IEEE Policies below).

Review Criteria: Submissions will be assessed according to the following evaluation criteria: *interest and relevance, correctness and depth of technical content, originality and novelty, significance and potential impact, organization and quality of presentation, relevance, quality, currency, and diversity of references.*

Reviewer guidelines: As a reviewer for IEEE Quantum Week, your expertise plays a crucial role in upholding our conference's quality standards. We count on your thoughtful evaluations to maintain and enhance the rigor and reputation of the QCE proceedings. To ensure the effectiveness of the review process, please adhere to the following guidelines:
- **Review Length and Content**: Each review should be comprehensive yet concise, typically spanning a few paragraphs. Begin by summarizing the main ideas of the paper, ensuring that you capture the essence of the submission's contribution to the field of quantum technologies.
- **Strengths and Weaknesses**: Discuss at least a couple of the work's strengths and weaknesses. It is important that your critique is balanced—acknowledge the areas where the submission excels, as well as those that require improvement.
- **Constructive Feedback**: Always frame your comments constructively. Consider how your feedback can assist the authors in enhancing their manuscript. Suggestions for improvement should be specific and actionable, aimed at elevating the quality of the work.
- **Justification of Recommendation**: Based on your analysis of the submission, justify your recommendation (accept, revise, reject). Your rationale should be rooted in the paper's content and the conference's criteria.

The depth of your analysis is crucial for the decision-making process and the program's overall quality.

Part 4: Discussion – starts Mon, Jun 24 and ends Fri, Jun 28
The track chairs will start the discussion process, where the three reviewers of each paper can adjust their reviews and converge. Note that the authors will not have the opportunity to respond to reviews. More instructions to follow on the Discussion process.

Part 5: Final Decisions by Track Co-Chairs – starts Sat, Jun 29 and ends Sun, Jul 7
Track chairs mark each paper with **Accept/Reject**.

Part 7: Final Check and Decision by Technical Program Board Co-Chairs – starts Mon, July 8 and ends Sun, July 14
The Technical Program Board Co-Chairs will conduct the final assessment of the review results. Our general goal is to accept approximately 40-50% of submitted papers in total (the percentage of accepted papers per track can vary). Technical Program Board Co-Chairs reserve the right to change paper scores to achieve this goal.

Part 8: Technical Paper notification – Mon, July 15
Technical Paper Notifications (Accepts and Rejects) sent via EasyChair by Technical Program Board Co-Chairs to Manuscript Authors.

Part 9: Best Paper Selection by track Chairs – starts Mon, July 15 and ends Mon, July 29
Each track selects Best Paper (1), a first-runner-up (2), and a second-runner (3). During the QCE24 conference, the track chairs will announce the best papers and present certificates to the authors on stage before the daily keynotes.
IEEE Policies for Reviewing Papers

Reviewer Guidelines for IEEE Computer Society publications
https://www.computer.org/publications/reviewer-resources

Understand Your Peer Review
https://conferences.ieeeauthorcenter.ieee.org/understand-peer-review/

Ethics in Peer Review
https://conferences.ieeeauthorcenter.ieee.org/understand-peer-review/ethics-in-peer-review/

IEEE Technical Paper Policies
IEEE positions on submission and peer review policies are detailed here:
https://journals.ieeeauthorcenter.ieee.org/become-an-ieee-journal-author/publishing-ethics/guidelines-and-policies/submission-and-peer-review-policies
https://cis.ieee.org/publications/t-emerging-topics-in-ci/tetci-ieee-preprint-policy
https://www.ieee.org/content/dam/ieee-org/ieee/web/org/pubs/author_version_faq.pdf

arXiv Submission Policy
Having a paper on arXiv arXiv.org, TechRxiv.org, or any not-for-profit preprint server approved by the IEEE Publication Services and Products Board (PSPB) does not prohibit authors from submitting a paper to QCE24. arXiv papers are not peer-reviewed and not considered formal publications. Hence, arXiv papers do not count as prior work. Authors are not expected to compare their submission to an arXiv version of the paper – provided the paper has not appeared in a journal or workshop/conference proceedings.

IEEE Guidelines for Artificial Intelligence (AI)-Generated Text
The use of AI-generated content in an article (including but not limited to text, figures, images, and code) shall be disclosed in the acknowledgments section of any article submitted to an IEEE publication. The AI system used shall be identified, and specific sections of the article that use AI-generated content shall be identified and accompanied by a brief explanation regarding the level at which the AI system was used to generate the content. The use of AI systems for editing and grammar enhancement is common practice and, as such, is generally outside the intent of the above policy. In this case, disclosure as noted above is recommended.

Guidance on Text produced by Generative AI Tools
The QCE24 conference allows tools, such as ChatGPT, Copilot, Gemini, Perplexity, Grammarly, or other AI assistants, to help improve the paper submission text. We highly recommend reviewing your submission for language issues using these AI services. Of course, using these AI services is not required. As required by IEEE, the use of any AI-generated text shall be disclosed in the acknowledgments section. The sections of the paper that use AI-generated text shall have a citation to the AI system used to generate the text.