

CONSENT FORM

IMPROVING PEER REVIEW WITH EMPIRICAL STANDARDS

You are invited to take part in a research study being conducted by Professors Paul Ralph (Faculty of Computer Science, Dalhousie University) and Teresa Baldassarre (Department of Informatics, University of Bari). The purpose of this research is to assess the impact of using empirical standards on peer review. To do this, we will randomly divide the program committee into two groups, ask one group to use a prototype reviewing tool based on empirical standards, and ask the other group to write free-text reviews in the traditional way. Each submitted manuscript will then receive four reviews: two from each group.

Anyone can submit a manuscript. To join the program committee, you need an earned PhD in software engineering or a related discipline and one of the following: (1) you served on the EASE PC in the past five years; (2) you (co-)authored two or more papers accepted at EASE in the past 5 years; (3) an invitation from the program chairs.

If you choose to participate in this research (as a PC member) you will be asked to:

- 1. Attend a 30-minute training session (or watch the video of the session if the time is inconvenient).
- 2. Enter conflicts of interest and bid for papers you want to review.
- 3. Personally review approximately five papers (depending on the number of PC members and submissions). These reviews cannot be delegated.
- 4. Potentially discuss controversial papers.
- 5. Complete a debrief questionnaire after the review period is over.

If you choose to participate in this research (as an author), you will be asked to:

1. Complete a debrief questionnaire after paper notifications have gone out (note: completing or ignoring this questionnaire will **not** affect paper decisions).

Your participation in this research is entirely your choice. You do not have join the program committee or submit a paper to the conference. You can withdraw from the study at any time, by resigning from the PC (PC members) or withdrawing your manuscript (authors). You do not have to answer any questions you do not want to answer (you can skip the question or choose options like "prefer not to answer") and you are welcome to stop the survey at any time if you no longer want to participate. All you need to do is close your browser. However, once you have submitted a review or questionnaire, we will not be able to remove the information you provided. If you want to amend one of your questionnaire answers after submitting, please email the program chairs and we will accommodate your change to the best of our ability.

Participation in this study is **not** anonymous. Who is on the program committee is public information (and will be posted on the conference website). Similarly, the identities of authors of accepted manuscripts are public information (published on the conference website and in



the conference proceedings). Each PC member will be able to see who wrote what reviews, unless they have a conflict of interest (e.g., if Professor Xe is both an author and reviewer, Prof. Xe can't see the identities of the reviewers of Prof. Xe's own manuscript). Although we use what is called a "double-anonymous" review process, authors and reviewers can sometimes guess each other's identities.

However, only the primary investigators will know the identities of all of the PC members and authors, and be able to link questionnaire responses to individuals. The primary investigators will de-identify the data before sharing it with research assistants for analysis. Only irreversibly anonymized data will be published.

During the study, identifying information will be held on EasyChair and Opinio (survey software licenced by Dalhousie University). After the study, all identifying information will be transferred to encrypted cloud storage managed by Dalhousie University.

We will describe and share general findings of this research at the EASE conference, and in one or more articles in scientific journals, conference proceedings, or edited books. An irreversibly anonymized dataset will be archived indefinitely on a public research database called *Zenodo*, where it may be used to advance knowledge. All other data will be held on OneDrive, as described above, for 10 years and then irreversibly deleted.

The risks associated with this study are like those of joining any other PC or submitting a manuscript to any other conference. In addition, if we make a mistake in the de-identification process, or if our raw data is hacked or leaked, you could be embarrassed (e.g. by harsh comments on your manuscript, or your questionnaire answers). We mitigate these risks by encrypting the data, using strong passwords and two-factor authentication where available.

There are no financial incentives to participate in this research. However, many academics are dissatisfied with peer review, and the results of this research may help us improve future peer review processes in which you may participate. We aim to make peer review more reliable, fair, predictable, and efficient from both authors' and reviewers' perspectives.

You should discuss any questions you have about this study with Profs. Paul Ralph <<u>paulralph@dal.ca</u>> or Teresa Baldassarre <<u>mariateresa.baldassarre@uniba.it</u>>. Please ask as many questions as you like before or after participating.

If you have any ethical concerns about your participation in this research, you may contact Research Ethics, Dalhousie University at (902) 494-3423, or email ethics@dal.ca (and reference REB file # 2022-6200)."

By joining the program committee or submitting a paper you consent to participate in this study.