

Research Papers

ESEC/FSE 2023

Program Accepted Papers FAQ Call for Papers

Call for Papers

We invite high-quality submissions, from both industry and academia, describing original and unpublished results of theoretical, empirical, conceptual, and experimental software engineering research.

NEW THIS YEAR: *major revisions allowed!* The main novelty of this year's review process is that the initial output can be *accept, reject or major revision*. In case a paper is deemed publishable upon major revision, authors are granted **8 weeks** to perform major revisions, which might include additional experiments or new analyses of existing results; major rewriting of algorithms and explanations; clarifications, better scoping, and improved motivations. The same reviewers who requested major revisions will then assess whether the revised submission satisfies their requests adequately.

NEW THIS YEAR: *research methods declaration!* This year, in addition to declaring the topics which are relevant for their submissions, authors will be asked to declare the research methods employed in their submissions. This will enable us to ensure reviewer expertise both for research methods and topics. For full definitions of the research methods, see the [SIGSOFT Empirical Standards](#).

NEW THIS YEAR: *adoption of SIGSOFT Open Science Policy!* This year, ESEC/FSE has adopted the SIGSOFT Open Science Policy, and we encourage authors to provide a replication package. For authors, this means providing a supporting statement on the availability of a replication package (or lack thereof) in their submitted papers in a section named Data Availability after the Conclusion section. See more details [below](#).

Contributions should describe innovative and significant original research. Papers describing groundbreaking approaches to emerging problems are also welcome, as well as replication papers. Submissions that facilitate reproducibility by using available datasets or making the described tools and datasets publicly available are especially encouraged. For a list of specific topics of interest, please see the end of this call.

How to Submit

At the time of submission, all papers must conform to the [ESEC/FSE 2023 Format and Submission Guidelines](#), and must not exceed 10 pages for all text and figures plus 2 pages for references. All submissions must be in English and in PDF format. Submissions that do not comply with the above instructions will be desk rejected without review. Papers must be submitted electronically through the ESEC/FSE submission site:

<https://esecfse2023.hotcrp.com/>

Each submission will be reviewed by at least three members of the program committee. When the initial output of the three reviews is *major revision*, authors will have an opportunity to address the reviewers' requests during an 8 week major revision period. The revised submission must be accompanied by a **response letter**, where the authors explain how they addressed each concern expressed by the reviewers.

Submissions will be evaluated on the basis of originality, importance of contribution, soundness, evaluation (if relevant), quality of presentation, and appropriate comparison to related work. Some papers may have more than three reviews, as PC chairs may solicit additional reviews based on factors such as reviewer expertise and strong disagreement between reviewers. The program committee as a whole will make final decisions about which submissions to accept for presentation at the conference.

Double-Anonymous Review Process

In order to ensure the fairness of the reviewing process, the ESEC/FSE 2023 Research Papers Track will employ a **double-anonymous review process**, where external reviewers do not know the identity of authors, and authors do not know the identity of external reviewers. The papers submitted must not reveal the authors' identities in any way:

- Authors should leave out author names and affiliations from the body of their submission.
- Authors should ensure that any citation to related work by themselves is written in third person, that is, "the prior work of XYZ" as opposed to "our prior work".
- Authors should not include URLs to author-revealing sites (tools, datasets). Authors are still encouraged to follow open science principles and submit replication packages, see more details on the open science policy below.
- Authors should anonymize author-revealing company names but instead provide general characteristics of the organisations involved needed to understand the context of the paper.
- Authors should ensure that paper acknowledgements do not reveal the origin of their work.

The double-anonymous process used this year is "heavy", i.e., the paper anonymity will be maintained during all reviewing and discussion periods. In case of major revision, authors must therefore maintain anonymity in their response letter and must provide no additional information that could be author-revealing.

To facilitate double-anonymous reviewing, **we recommend the authors to postpone publishing their submitted work on arXiv or similar sites until after the notification**. If the authors have uploaded to arXiv or similar, they should avoid specifying that the manuscript was submitted to ESEC/FSE 2023.

Authors with further questions on double-anonymous reviewing are encouraged to contact the program chairs by email. Papers that do not comply with the double-anonymous review process will be desk-rejected.

Submission Policies

Papers submitted for consideration to ESEC/FSE should not have been already published elsewhere and should not be under review or submitted for review elsewhere during the reviewing period. Specifically, authors are required to adhere to the [ACM Policy and Procedures on Plagiarism](#) and the [ACM Policy on Prior Publication and Simultaneous Submissions](#).

To prevent double submissions, the chairs might compare the submissions with related conferences that have overlapping review periods. The double submission restriction applies only to refereed journals and conferences, not to unrefereed forums (e.g. [arXiv.org](#)). To check for plagiarism issues, the chairs might use external plagiarism detection software.

All publications are subject to the [ACM Author Representations policy](#).

By submitting your article to an ACM Publication, you are hereby acknowledging that you and your co-authors are subject to all [ACM Publications Policies](#), including ACM's new [Publications Policy on Research Involving Human Participants and Subjects](#).

Alleged violations to any of the above policies will be reported to ACM for further investigation and may result in a full retraction of your paper, in addition to other potential penalties, as per the [ACM Publications Policies](#).











Important Dates AoE (UTC-12h)

Thu 24 Aug 2023 Camera ready
Thu 27 Jul 2023 Final notification for major revisions
Thu 29 Jun 2023 Revised manuscript submissions (major revisions only)
Thu 4 May 2023 Initial notification
Thu 2 Feb 2023 Full paper submission
Thu 26 Jan 2023 Paper registration

Submission Link

<https://esecfse2023.hotcrp.com/>

Program Committee

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Jonathan Bell		

Please ensure that you and your co-authors obtain an ORCID ID, so you can complete the publishing process if your paper is accepted. ACM has been involved in ORCID from the start and they have recently made a commitment to collect ORCID IDs from all of published authors. The collection process has started and will roll out as a requirement throughout 2022. ACM is committed to improve author discoverability, ensure proper attribution and contribute to ongoing community efforts around name normalization; your ORCID ID will help in these efforts.

Important Dates

All dates are 23:59:59 AoE (UTC-12h)

- Paper registration: 26 January, 2023 (to register a paper, only the paper title, author list and some additional metadata are required)
- Full paper submission: 2 February, 2023
- Initial notification: 4 May, 2023
- Revised manuscript submissions (major revisions only): 29 June, 2023
- Final notification for major revisions: 27 July, 2023
- Camera ready: 24 August, 2023

NOTE: The official publication date is the date the proceedings are made available in the ACM Digital Library. This date may be up to two weeks prior to the first day of the conference. The official publication date affects the deadline for any patent filings related to published work.

Open Science Policy

The research track of ESEC/FSE has introduced an open science policy. Openness in science is key to fostering scientific progress via transparency, reproducibility, and replicability. The steering principle is that all research results should be accessible to the public, if possible, and that empirical studies should be reproducible. In particular, we actively support the adoption of open data and open source principles and encourage all contributing authors to disclose (anonymized and curated) data to increase reproducibility and replicability.

Upon submission to the research track, authors are asked **to make a replication package available** to the program committee (via upload of supplemental material or a link to a private or public repository) **or to comment on why this is not possible or desirable**. Furthermore, authors are asked to indicate whether they intend to make their data publicly available upon acceptance. We ask authors to provide a supporting statement on the availability of a replication package (or lack thereof) in their submitted papers in a section named Data Availability after the Conclusion section. Be careful that such statements continue to maintain author anonymity. For more details, see the [ESEC/FSE open science policy](#).

Authors of accepted papers will be given an opportunity (and encouragement) to submit their data and tools to the separate ESEC/FSE'23 artefact evaluation committee.

Topics of Interest

Topics of interest include, but are not limited to:

- Artificial intelligence and machine learning for software engineering
- Autonomic computing
- Debugging and fault localization
- Dependability, safety, and reliability
- Distributed and collaborative software engineering
- Embedded software, safety-critical systems, and cyber-physical systems
- Empirical software engineering
- Human aspects of software engineering
- Human-computer interaction
- Mining software repositories
- Mobile development
- Model checking
- Model-driven engineering
- Parallel, distributed, and concurrent systems
- Performance engineering
- Program analysis
- Program comprehension
- Program repair
- Program synthesis
- Programming languages
- Recommendation systems
- Requirements engineering
- Search-based software engineering
- Services, components, and cloud
- Software architectures
- Software engineering education
- Software engineering for machine learning and artificial intelligence
- Software evolution
- Software processes
- Software security
- Software testing
- Software traceability
- Symbolic execution
- Tools and environments



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



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
































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




























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