

JRERE PUBLICATION GUIDELINES

11 April 2024

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Background

The HEART Society represents a community of scientists, researchers, engineers, program managers, and others involved in radiation-hardened technologies across the DoD, DoE, and Defense Industrial Base (DIB). As such, this community is engaged in important and impactful work toward the national interests. Each member of this community shares in the responsibility of the whole in maintaining ethics and standards of behavior of the highest degree in the profession. This shared responsibility is built on mutual trust and honest interactions.

The purpose of this document is to outline minimal expectations of standards of professional behavior related to the HEART society activities.

Research Results

The primary purpose of HEART is the dissemination of research results, thereby increasing the knowledge of the community while supporting national defense. Therefore, it is of primary importance that high-quality research be performed and that the results of this research be recorded and retained for a reasonable period. Additionally, although there are many reasons that the results of this research may not be releasable to the wider community (i.e. classified materials, patent concerns, or company-funded research), as much data as possible should be made available for review and analysis.

Data manipulation with the intention to deceive, data fabrication, or theft is never acceptable and is a violation of HEART policy.

Peer Review

The Journal of Radiation Effects: Research and Engineering (JRERE) is considered a peer reviewed publication. Peer review is a key aspect of the scientific process. The Guest Editors, with help from the publication chair, will identify at least 2 reviewers for each submission. The peer reviewers selected for each submission should be familiar with the general technical topic of the submission.

Responsibility of peer reviewers include:

- Disclose to the publication Editor any conflict of interest or potential for perceived bias, either positive or negative, toward a manuscript under review assigned to them
- Adhere to the timeline for the review process developed by the editors and publication chair
- Provide objective, fair evaluations of the submission
- Maintain confidentiality of their review as well as the information obtained through the peer review process
- Decline to review manuscripts on which they appear as authors, manuscripts from their own institutions, or manuscripts on which close technical colleagues appear as authors.
 - Loose or indirect associations between reviewer and authors should be assessed on a case-by-case basis, with Editor input, toward a goal of avoiding both real and perceived conflict of interest.
 - Exceptions to review a manuscript from the same institution may be made sparingly with the permission of the Senior Guest Editor and a notification of a possible conflict of interest given the HEART Steering Committee Publications Chair

Conflicts of Interest

As with any scientific endeavor, objectivity must be maintained. Therefore, any conflicts of interest due to public or private associations, actions, or interests should be carefully considered. It is expected that co-authors will disclose any possible conflict of interest with their primary author who will, in turn, discuss this issue with the presentation Technical Chair or publication Editor. Similarly, peer reviewers are expected to disclose any possible conflicts of interest with the publication Editor when accepting a paper for review.

Publication and Authorship Practices

Authorships and Co-authorships

Publication authorships should be limited to those who have made a significant intellectual contribution to the manuscript. This could include concept development, background research, simulation practice, design of experiments, experimental practice, data analysis, interpretation of results, or reduction to prose. Further guidance on authorships include:

- Supervisory authorships are acceptable if tangible and explicit – i.e. guidance, mentorship, or advisory activities related to the manuscript content.
- “Honorary” authorships are not acceptable.
- Tangential or indirect support contributions should be acknowledged, but not identified with authorships.
- Financial sponsorship of the work should be disclosed, but sponsors should not be included as authors unless they also contributed intellectually to the work.

Plagiarism and Redundant Content

Publication in JREERE constitutes a peer reviewed publication, and, as such, implies that reasonable practices for plagiarism and redundant content be followed. Reasonable practices in this case indicate that any article submitted for publication should be based on original research that has not been published elsewhere, and the manuscript should not be submitted to any other publication during the review process. Submissions should not contain substantial duplicate content (wording, figures) as previously published results.

It is unethical and unacceptable to plagiarize or self-plagiarize in any submission to JRERE. HEART adopts the same definition of plagiarism as IEEE: “IEEE defines plagiarism as the use of another’s ideas, processes, results, or words without explicitly acknowledging the original author and source.” (<https://journals.ieeeauthorcenter.ieee.org/become-an-ieee-journal-author/publishing-ethics/ethical-requirements/>). Any submission found to be in violation of the redundant content or plagiarism guideline will not be accepted for publication.

Conflicts of Interest Best Practices

Conflicts of interest can take many forms and span a wide range of impact. As such, it is important for authors, co-authors, contributors, and peer-reviewers to maintain vigilance against undue influence and loss of objectivity due to these conflicts.

- Authors are encouraged to discuss any possible conflicts of interest with each other before and during the writing process. If discretion is desired, authors should contact the publication Editor or presentation Technical Chair to discuss their concerns.
- Any professional associations or activities which may reasonably be construed as a conflict of interest should be declared to the publication Editor as soon as they are realized.
- Neglecting to disclose a significant conflict regarding a publication or presentation submission by any author is a violation of HEART policy.
- See Peer Review section above for conflicts of interest associated with Peer Review.

Data Sharing

The HEART Society encourages sharing of results and data with others within the community, as appropriate based on the level of information. Data sharing is to be managed by authors; the HEART Society does not have a role in assisting with this process.

Intellectual Property

Management of intellectual property falls on the authors. The HEART Society does not request a copyright nor take ownership of any submission to the conference or JRERE.

Citations and References

Citation of one's peers and predecessors is the bedrock of scientific advancement. Proper citation is critically important to any publication. Therefore, proper referencing and citations is expected in all HEART publications. Failure to do so is considered a violation of HEART policy. Minimum expectations include:

- Antecedent research should be cited.
- Authors should make every effort to avoid inadvertent plagiarism through an improperly attributed or cited sub-reference.
- In general, original reference material should be cited, rather than an implicit citation through a sub-reference. For example, the citing of a review paper rather than the original source described in the review, is discouraged.

Use of AI

Artificial Intelligence (AI) is a powerful tool that can be applied to research in a positive way. However, AI, when used inappropriately, represents a threat to ethical research and publication. The use of AI in the activity of presenting and/or publishing scientific work should be tightly controlled, monitored, and transparent. In much the same way as potentially deadly chemicals – when handled with great care and control – are used to create integrated circuits for the betterment of mankind; AI should likewise be carefully monitored and controlled when applied to the activities of science.

Minimal standards for the use of AI in HEART conference and publication activities include:

- Any AI activity should be transparently disclosed.
- Any AI prose should be quoted and cited, just as any other reference.
- Authors should be extremely aware of, and make every attempt to identify and avoid, “hierarchical or implicit plagiarism” – the act of inadvertent plagiarism through an improperly attributed or cited sub-reference. Authors should attempt to trace any AI

sourcing material to the original citations, and assure the AI search has properly cited sources.

- In general, the citation guidelines outlined in “*Citations and References*” section above should be applied to any AI activities.