

Editorial

Bringing Back Science into Conferences: The Urgent Need to Redefine the Quality in Conference Abstracts and Free Paper Sessions

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In the modern-day research landscape, the proliferation of scientific gatherings poses significant challenges in upholding the traditional role of conferences in early knowledge dissemination, in line with networking among scholars, and stimulating discussion. Once primarily venues for sharing emerging data and eliciting peer feedback, conferences now occur in such large numbers across every discipline that the quality of their outputs demands reassessment. The expectation that a presentation at a conference equates to rigorous peer-reviewed dissemination is increasingly questionable, as reviewer time is limited, and selection thresholds vary significantly. Recent evidence shows that a sizable proportion of conference abstracts do not progress to full-length peer-reviewed publications [1-4]. These data indicate that many conference presentations may lack the methodological depth, reproducibility, or scrutiny afforded by journals. Along with these, the academic value assigned to conference outputs in institutional evaluations, treating them beside indexed journal articles, warrants serious scrutiny.

A major shortcoming lies in the abstract review and selection process of many conferences. Unlike journals, which typically implement structured blind peer review with documented criteria, many conferences accept abstracts on shorter, less transparent procedures. Some

organisers rely on minimal screening or topical relevance alone rather than methodological rigour and ethical concerns [5]. As a result, the scientific validity of individual contributions may be compromised. Furthermore, several studies have shown that the quality and completeness of data in conference abstracts often differ substantially from their corresponding full publications, raising concerns about their reliability and reproducibility [6,7]. Moreover, the archive and traceability of review reports and decisions are rarely maintained or made accessible, limiting the ability to audit or verify the selection process retrospectively.

Institutional evaluation systems that equate conference presentations with journal publications may inadvertently induce quantity over quality. When marks or credits for career advancement are assigned a value to conference abstracts irrespective of the underlying rigour, researchers may prioritise multiple submissions and attendance rather than developing robust full-scale studies. This can lead to fragmentation of research into multiple abstracts (salami-slicing) rather than substantive, reproducible papers [8-10]. Such practices have been criticised for promoting publication inflation without improving scientific quality [11]. To enhance the scientific integrity of knowledge

dissemination at conferences, several improvements are advisable.

1. Conference organisers should adopt transparent peer-review systems where abstracts are evaluated by at least two independent reviewers using clear criteria such as originality, methodological soundness, ethical concerns and relevance [12,13].
2. The review reports and decisions should be archived in a searchable repository, ensuring traceability of the selection process.
3. Conferences should publish proceedings with permanent identifiers (DOIs) and maintain sessions that clearly distinguish between high-quality research and less mature work, perhaps by defining a threshold and rejecting lower-level submissions.
4. Academic institutions, in turn, should differentiate the credit awarded to conference abstracts and journal

articles based on predefined standards, favouring those abstracts that meet rigorous review and archiving criteria.

5. Presenters should be encouraged to convert conference presentations into full journal manuscripts, and conference formats should include structured sessions for interactive comments and discussion rather than solely presentation slots [14,15].

In conclusion, while scientific conferences remain important platforms for exchanging ideas, their value as evidence of scientific contribution depends on the robustness of their review, archiving and selection systems. Strengthening these mechanisms will preserve the credibility of conference outputs and ensure that research dissemination truly advances knowledge rather than simply inflating metrics.

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