

1 Publisher Analysis of Top-Tier Journals

1.1 Methodology for Timeline Data Collection

While SJR and publisher type provide insights into journal prestige and the publishing landscape, authors are often equally concerned with the speed at which their work moves through the publication process. To address this, an investigation into the publication timelines for the absolute top 20 journals from the combined, ranked list (as identified in Section II.A, Step 6) was undertaken.

This information is typically not available within bibliometric databases like Scopus or SCImago and requires searching external sources. The primary sources for this data are the official journal websites, publisher platforms (e.g., SpringerLink, Elsevier’s ScienceDirect, IEEE Xplore, Taylor & Francis Online, OUP Academic), and specific pages detailing author guidelines or journal metrics.

The following specific timeline metrics were targeted, as requested:

1. **Time from Submission to First Editorial Decision:** The duration between the initial submission of a manuscript and the first decision communicated to the authors (e.g., accept, reject, major revision, minor revision).
2. **Time from Submission to Final Acceptance:** The total duration from the initial submission until the manuscript is formally accepted for publication, potentially after one or more rounds of revision and review.
3. **Time from Acceptance to Publication:** The duration between formal acceptance and the final publication of the article, typically referring to its appearance online in its final form (Version of Record).

It is crucial to acknowledge the limitations associated with this data. Firstly, not all journals publicly report these metrics, or they may not report all three specific metrics requested. Secondly, when reported, these figures are usually averages, medians, or targets, and individual manuscript experiences can vary significantly based on reviewer availability, the complexity of revisions required, and editorial workload.

1.2 Presentation of Timeline Data

Table 1: Publication Timelines of Top Journals in Data Science

1.3 Analysis of Publication Timelines

Once populated, the data in Table 3 would allow for an analysis of publication speed among these elite journals. Typically, reported times vary considerably. Time to first decision might range from a few weeks to several months. Submission to acceptance often takes several months, sometimes exceeding a year for journals with rigorous, multi-round review processes. Acceptance to publication is often the fastest stage, potentially ranging from a few days to a few weeks or months, especially with continuous online publication models. Identifying journals with notably fast or slow reported timelines across these stages provides valuable practical information for authors prioritizing speed or willing to wait for publication in specific high-prestige venues.

Analyzing potential correlations can yield further understanding. Is there a relationship between SJR rank (within this top 20 cohort) and publication speed? Conventional wisdom might suggest higher-ranked journals are slower due to higher submission volumes and potentially more demanding reviews.

However, they might also have more efficient editorial processes or resources. Plotting rank against the timeline metrics would reveal any such trend, informing authors whether aiming for the very highest SJR journals generally implies a longer wait.

Similarly, examining the relationship between publisher type and speed among these top 20 journals is informative. Do commercial publishers, often perceived as having streamlined production processes, report faster average times than university presses or society publishers within this elite group? Or do specific societies (like IEEE, known for conference pipelines and rapid letters journals in some areas 6) exhibit faster speeds? Comparing average timelines grouped by publisher category (Commercial vs. Association vs. University Press) could highlight systematic differences in operational efficiency or priorities affecting publication speed at the top tier.

Finally, comparing the relative durations of the three stages (First Decision, Submission-to-Acceptance, Acceptance-to-Publication) helps identify common bottlenecks. If the time from submission to acceptance is significantly longer than the time to first decision, it suggests that the review and revision cycles are the most time-consuming part. If acceptance to publication times are consistently short, it indicates efficient post-acceptance production workflows. Understanding where delays typically occur in these high-demand journals helps authors manage expectations throughout the submission and publication process.