Reviewing research paper

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Topics for Discussions

- What are the tasks of the referee?
- How to read / evaluate a paper?
- How to write a referee report?
What are the tasks of the referee?

- Have you ever been a referee?
- What do you think the tasks of the referee are?
- If the referee is over critical of research?
- If the referee is insufficiently critical?
What are the tasks of the referee?

- Have you ever been a referee?
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- If the referee is insufficiently critical?

Tasks:

- Evaluating the interests of the results.
- Summarizing the paper's strengths and weaknesses.
- Articulating the reasons for their recommendations.
How to read / evaluate a paper?

- What is the Purpose of the Paper?
- Is This Paper appropriate fit for the venue?
- Is the goal of this paper significant?
- Is the method of approach valid?
- Is the actual execution of the research correct?
- Are the correct conclusions being drawn from the results?
How to read / evaluate a paper?

- What is the Purpose of the Paper?
- Is This Paper appropriate fit for the venue?
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Reading a paper for the purpose of refereeing is closer to what a teacher or professor does in grading a paper than what a scientist or engineer does in reading a published paper.
How to write a referee report?

OBJECTIVE

- Avoid bias
  - Famous people
  - Native English speaker
  - Certain groups
How to write a referee report?

- Overall recommendation: positive / negative, how good is it

  1. Major results - very significant. (fewer than 1% of all papers written.)
  2. Good, solid, interesting work; a definite contribution. (fewer than 10% of the papers you will see.)
  3. Minor, but positive, contribution to knowledge. (perhaps 10% to 30% of the papers submitted.)
  4. Elegant and technically correct but useless. This category includes sophisticated analyses of flying pigs, as mentioned above.
  5. Neither elegant nor useful, but not actually wrong.
  6. Wrong and misleading.
  7. The paper is so badly written that a technical evaluation is impossible.
How to write a referee report?

- Overall recommendation: positive / negative, how good is it
- Summary of the paper’s work

  summarize the point of the paper in 1-5 sentences, both for the use of the editor, and to ensure that the referee actually understand the point of the paper.
How to write a referee report?

- Overall recommendation: positive / negative, how good is it
- Summary of the paper’s work
  summarize the point of the paper in 1-5 sentences, both for the use of the editor, and to ensure that the referee actually understand the point of the paper.
- Evaluation in details:
  the goal of the work both with respect to its validity and to its significance.
  the quality of the work (methodology, techniques, accuracy, errors, presentation).
How peer review affects the progress of a field

“We portray peer review to the public as a quasi-sacred process that helps to make science our most objective truth teller. But we know that the system of peer review is biased, unjust, unaccountable, incomplete, ..., often insulting, usually arrogant, occasionally foolish, and frequently wrong.”


“... peer review makes the ability to publish susceptible to control by elites and to personal jealousy. ... If you do not belong to this tight fraternity it becomes extremely difficult to gain a hearing for your work.”


“... reviewers tend to be especially critical of contributions that conflict with their own views and lenient towards those that match. The difference in perspective with the established experts are more likely to see problems.”

paraphrasing Thomas Kuhn
References

1. The Task of the Referee
2. Talk by Mihir Bellare 2014: IACR Distinguished Lecture: Caught in Between Theory and Practice