Abstract

During research one will face the situation to review a scientific publication. Fortunately, many hints, tips, and checklists are available on the Internet. This document aims to provide a template that includes input from several instructions and is mainly using Matthias Rupp: Review Checklist, 2008. Which again is based on:

- Alan Meier: How to Review a Technical Paper, Energy and Buildings, 19(1):75–78, Elsevier, 1992.
- Dale Benos, Kevin Kirk, John Hall: How to Review a Paper, Advances in Physiology Education, 27(2):47–52, American Physiological Society, 2003.
- Philip Bourne, Alon Korngreen: Ten Simple Rules for Reviewers, PLOS Computational Biology, 2(9):e110, Public Library of Science, 2006.

General considerations

- Review the way you want to be reviewed yourself
- Write in a constructive, clear and explicit way
- Cite where necessary to backup your critique
- Do not enforce your own opinions/preferences
- If more brevity or detail is needed, say where
- If you can not assess something, e.g. significance of contribution, say so
- If you suspect fraud, plagiarism or duplicate publication, tell your editor about it immediately

Summary from the reviewers point of view

((todo: write a small abstract of the paper here. One sentence per chapter.))

1.1 Most Important Aspects

These are the most important questions that should be answered in the paper. If possible, they should be mentioned already in abstract and the introduction.

1. **What's the motivation?** ((todo))
2. **What's the approach?** ((todo))
3. **What's wrong with existing work?** ((todo))
4. **Which problem is addressed?** ((todo))
5. **Why is it non-trivial?** ((todo))
6. **How is it different/better/relates to other work?** ((todo))
7. **What are the key components?** ((todo))
8. **What are the main contributions?** ((todo))
9. **What's the plan of action?** ((todo))
10. **How have the results been validated?** ((todo))
11. **What's the structure of the paper?** ((todo))

1.2 General

12. **Is it an original/novel contribution? What is the contribution?** ((todo))
13. **Is it a significant contribution?** ((todo))
14. **Is it the right amount of work for one paper?** ((todo))
15. **Not too much overlap with authors' previous work?** ((todo))
16. **Is the approach appropriate for the problem?** ((todo))
17. **Does it consider current research?** ((todo))
18. **Is the structure (see below) ok?** ((todo))
19. **Is it written in correct, clear and concise English?** ((todo))
20. **Are abbreviations and symbols explained?** ((todo))
21. **Does it fit the scope of the journal?** ((todo))

1.3 Title

22. **Does it reflect the content of the paper?** ((todo))
23. **Is it specific?** ((todo))

1.4 Abstract

24. **Is it informative and comprehensive?** ((todo))
25. **Does it properly reflect the paper's content?** ((todo))
26. **Does it mention purpose/problem, methods, results, conclusions and significance?** ((todo))
27. **Is it brief and concise?** ((todo))

1.5 Introduction

28. **Is it long enough? Is it not too long?** ((todo))
29. **Does it fit the audience?** ((todo))
30. **Does it cite work by others than the authors?** ((todo))
31. **Does it motivate what follows?** ((todo))

1.6 Main text body

32. **Is the approach clearly and concisely described?** ((todo))
33. **Are there sufficient/not too many details?** ((todo))
34. **Can others reproduce the experiment?** ((todo))
35. **Are all parts necessary?** ((todo))

1.7 Conclusions

36. **Is no new material introduced?** ((todo))
37. **Is the focus only on the authors results?** ((todo))
38. **Do the results support the conclusions?** ((todo))

1.8 References

39. **Are recent references cited?** ((todo))
40. **Are references by others than the authors cited?** ((todo))
41. **Are important references cited?** ((todo))
42. **Are reference details correct?** ((todo))
43. **Do the references state what the authors claim?** ((todo))
44. **Are all references used in the text?** ((todo))

1.9 Figures and Tables

45. **Is each figure/table necessary?** ((todo))
46. **Is a figure/table the right choice?** ((todo))
47. **Are all captions present and appropriate?** ((todo))
48. **Is each figure/table referenced in the text?** ((todo))
49. **Are tables readable (clear layout, no leading zeros, only significant digits)?** ((todo))
50. **Is the quality of the figures good enough (sharpness, legend present, readable fonts, axes labelled)?** ((todo))

1.10 Editor review

51. **Importance of research question** ((todo))
52. **Originality/novelty of work** ((todo))
53. **Appropriateness and priority for publication** ((todo))
54. **Writing style, quality of figures/tables** ((todo))
55. **Strengths/weaknesses of approach, data and implementation** ((todo))
56. **Thoroughness** ((todo))
57. **Timeliness** ((todo))
58. **Constructive criticism backed by references** ((todo))
59. **Objectivity** ((todo))

1.11 Other Comments

60. **General** ((todo))
61. **Section I** ((todo))
62. **Section II** ((todo))
63. **Section III** ((todo))
64. **Section IV** ((todo))
65. **Section V** ((todo))
66. **Section VI** ((todo))
67. **Section VII** ((todo))
68. **References** ((todo))