Advice on preparing TWEPP papers

This note is intended to provide a few hints on good practice gleaned from past submissions to TWEPP.

By definition, since the contribution is a conference paper, there should be something novel, original or interesting about the material; try to indicate what that is. Except for very original ideas, which are rare, TWEPP is to present results from work actually done, not speculations about the future. Space is limited so it is important to use it judiciously.

The abstract and conclusions are particularly important because many readers will consult them before deciding whether to read the rest of the paper.

Abstract

Aim to be short, concise, and interesting. The reader must be able to determine the major points presented by reading it. Include only major results, and indicate novelty or points of particular interest. Avoid acronyms, except well-known ones like LHC, and do not define them here. It might be easier to revise the abstract after the paper is completed, as it may be slightly different than the original submitted before the conference.

Introduction

The introduction should present the problem to be solved, what was done previously in the field and why the specific work presented had to be done. Your main contributions should be listed, mentioning in which sections of the paper they can be found.

Content

The TWEPP paper selection committee has a strong preference for papers which present results from measurements and not just designs, e.g. of ASICs, which include only simulation results. If the paper has been presented at TWEPP but has only simulation results, be sure to explain why they are credible and what is novel about them.

The subject of the conference is primarily electronics, therefore this should be emphasised. When results from, e.g., data taking in a large experiment are used, they should mainly convey the behaviour of the electronics, not the quality of the physics performance, although the two subjects are linked.

Try to be concise and to the point. Aim for clarity; it is better to be clear than try to cram too much information into the limited space. It is not a good idea to reduce figure sizes too much to make room for more text.

Try to view your paper from the perspective of an interested but general reader, not an expert on the material you are describing. Clearly you must assume a decent understanding of the background but much of this should be conveyed in the introduction.

Try to avoid the style of a technical note from your experiment or project, which usually assumes quite a lot of inside knowledge of the project. Similarly, papers in the style of an experiment status report are generally undesirable, especially when they focus on future work yet to be carried out. Chronological details which may be relevant to the experiment, such ASIC submission dates, fabrication planning and delays, are unnecessary for the general reader who will be more interested in results. Be careful in your use of acronyms, and be sure to define them on first occurrence. Avoid jargon, even if it is in common use by you and your colleagues.

Conclusions

Provide a brief summary of the purpose and results contained in the paper, including comments on any novel results or achievements. Do not repeat at length material you have included in the introduction or main text. Conversely, do not discuss results in the conclusion without having them described in the main chapters.

Figures

Make sure figures are readable, and not too small or poorly drawn.

Ensure captions contain sufficient relevant information to interpret the figure. Captions should also preferably allow the figure to be reasonably well understood without consulting the main text.

Avoid figures produced by graphics or spreadsheet programs with titles attempting to convey what should be in the caption. Often such titles are abbreviated, so are especially undesirable.

If you use photographs, ensure that captions describe what is in the photo, and the caption is not just "the test set-up" or "the XXX board" or "the YYY chip". Does the photo add anything if the content is not briefly described?

If you use images of oscilloscope displays, make sure the relevant information is in the caption; text on the image is rarely legible. Similarly for GUIs, and ask yourself why a screen shot of a GUI is interesting if it is illegible or incomprehensible to others.

Acknowledgements

Do not forget to acknowledge people who are not signatories of the paper but contributed in one way or another to the work described.

References

Previous works in the field, as well as relevant publications supporting your work, must be referenced. It is preferable to cite material that has also been peer reviewed but citation of internal notes of experiments is acceptable as long as they are publicly accessible. Try to avoid links to unpublished items on the web unless really appropriate, e.g. manufacturer's data sheets.
Make sure that every reference appearing in the text has a corresponding citation in the references section and that every citation in the references section is used in the text.

Language

Many authors are not native English speakers and the reviewers are reasonably tolerant, and not necessarily native speakers themselves. However, it is essential that the language is of sufficiently good quality. It is really important to try to have your paper read by a person with good English language skills, and certainly by all co-authors, who share this responsibility. It is not the job of the reviewers or editors to make major improvements to the language, yet we would like to aim for a high standard.

Other comments

In general papers which represent large collaborations should have been approved following the internal rules of the collaboration; this is clearly not always the case.
Content and revisions are the responsibility of all the authors of the paper, not just the lead author or person who made the conference presentation.

The journal provides a template for Word or Latex users; please use it.
Please ensure you switch on line numbering; this is immensely helpful for the reviewers.