

Bogdan 9/27

There are several suggestions to this paper.

- 1) The title could be more specific. The counting DAQ is also includes the standard system at HRS. In PVDIS the system is a scaler-based. Title could be: A Scaler-based ...
- 2) The abstract does not present results and achieved parameters. It states the requirement. However, the paper is about results! The main result is the high rate capability with low systematic uncertainty for the PV asymmetry. Presenting key achievements in the abstract is very useful.
- 3) The paper has many details, so need a paragraph about the paper structure at the end of introduction.
- 4) The line 60 and line 219 have different  $A^m$  and  $A_m$  - Is it a typo?
- 5) The line 224 reference to NIM paper should not be used, because in the HRS standard analysis the Gas Cherenkov data used off-line. The rejection factor by GC needs more discussion.
- 6) Fig.4 titles need improvement. The plots present the shower-based pion rejection factors. It is not clear from the caption and plots that Gas Cherenkov rejection is not included.
- 7) In the summary will be useful to tell that demonstrated low systematics allows to perform even more accurate experiment with such type configuration of DAQ.

Bob - 9/27/2012

Ok, that's pretty good. You gave more details of what A4 and G0 did, but kept it brief.

I think there's one more ref for A4 which you are missing.

S. Baunack *et al.*, Phys. Rev. Lett. **102** (2009) 151803.

Your G0 refs are for NIM articles (a good thing), but perhaps we also want to cite the physics articles.

D.H. Beck, Phys. Rev. D **39** (1989) 3248;

D.S. Armstrong *et al.*, Phys. Rev. Lett. **95** (2005) 092001;

D. Androic *et al.*, Phys. Rev. Lett. **104** (2010) 012001.

And in general, where there's both an arXiv article and a publication (e.g. refs 13 - 16) you want to drop the arXiv citation and only cite the peer-reviewed journal publication. At least, that's what's been drilled into me.