

Minutes of SMP-17-006 Final Review from July 20th 2017

by Isabel Josa Mutuberría (ARC chair) and Philipp Pigard (for the authors)

Welcome to Sarah Eno as new PubCom co-chair from September.

Revision of Type B comments:

Several members from the PubCom:

Line 205: about the 4 GeV cut in the dilepton mass

Now L 209: --> to suppress the background from low mass hadrons.

Philippe:

L 144-146 Primary vertex definition (lines from the PubGuidelines) found to be confusing. Dick will contact Andrea Rizzi and experts to clarify and provide better wording.

Dick:

Somewhere around L30 add a sentence to make the point that signal is small and background is large.

Michael:

A lot of discussion about the message the word "optimized" conveys (in lines 281-286).

Authors will propose a sentence indicating what this "optimized" really means, how this optimization was done.

L 327: Sentence in the twiki found to be better than the sentence in the paper.

"The unitarity bound is determined using the VBFNLO framework [57] as the scattering energy m_{ZZ} at which the aQGC coupling strength set equal to the observed limit would result in a scattering amplitude that violates unitarity."

L 80-81: Remove sentence about calo jets.

L 116: Long discussion about WZZ and $t\bar{t}W$ backgrounds.

WZZ already mentioned in L 100. About $t\bar{t}W$, authors prefer not to mention it explicitly, nor in a generic $t\bar{t}V$ (including also $t\bar{t}Z$).

L 257 Remove the last part of the sentence ("only affects the overall yield predictions of the estimates on simulation"). Just state the luminosity uncertainty.

First paragraph of section 7.

Some confusion from m_{jj} and $\Delta(\eta_{jj})$ cuts.

Move "As an illustration from L267" (in fact Figure 2 shows the full distribution) to L 268, when Table 1 is referred (and these cuts are applied).

Add also "As an illustration" to caption of Table 1.

Steve:

L 8 Remove "also"

Check his comment on the twiki about ROOT and tick marks.

The paper was found ready to be submitted for publication.

The title, abstract, introduction and summary were read and some changes were agreed.

Title.-

...couplings in events with... --> ...couplings from events with...

Abstract.-

...couplings in events with... --> ...couplings from events with...

L6 remove (j)

Introduction.-

L2 to be changed to

Weak vector boson scattering (VBS) plays a central role in the standard model (SM) and is a key process to probe the non-Abelian gauge structure of the electroweak (EW) interaction.

L4 ...absence of any regularization mechanism,--> ... absence of any other contributions,

L 7-9 Remove commas after [3, 4] and [5]. Suggests --> provides evidence. Remove "also"

L 11 Substitute "diagrams" (when referring to interference) by "amplitudes"

L 13 allowing for --> permitting

L 14 cross sections of --> cross sections for

L 21 Changed to

At the LHC, VBS is initiated by quarks q from the colliding protons; both quarks radiate vector bosons ($V = W, Z$) which then interact.

L 24 remove parenthesis (j) --> j

L 30 signal and resulting --> signal, resulting

L 33 remove (pp)

L 34 cross sections of --> cross sections for

L 35 remains --> remained

have been --> are

L 38 due to --> and

L 44 remove the last part of the sentence ", which is the main interest in the investigation of EWSB."

Figure 1 caption:

Substitute "diagrams" by "amplitudes".

Summary.-

L 335 in the four-lepton final state --> in the four-lepton and two-jet final state (with a hyphen??)

L 339-340 was measured to be --> is

L 340 Be consistent everywhere in the paper, use the same notation than in the abstract, i.e. remove fid (subscript), put EW (subscript), include $pp \rightarrow ZZjj \rightarrow lll'jj$ in the expression.

Check also L 312 and be consistent also there.

Include the SM prediction, after a comma and in present tense.

Request from Sijin to use the short acknowledgements section as this is a Letter. To be checked with PubCom chair (Michael/Dick).