

Subject: CDR chapter 3 comments
Date: Fri, Nov 17, 2017 at 8:14 AM
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Dear Joao, here are some comments about chapter 3 of the CDR. Note that the document should be revised by an English speaker. I found a typo even in the first line of Chapter 3. I will have more detailed comments when I read all chapters.
Best wishes daniela

Comments

The description of the baseline detector is missing 3.3.1

designed to collider electron and positron => designed to collide electron and positron

While for W and Z operations, independent RF cavities are used, and 5220 and 10900 bunches, respectively, are spreading in equal distance over the full ring. => Independent RF cavities are used for W (Z) operation resulting in 5220 (10900) bunches spread in equal distance over the full ring.

They give rise to both primary and secondary particles to enter the detector. They can cause radiation damage, increase the detector and degrade the detector performance. ->They give rise to both primary and secondary particles entering the detector, causing radiation damage and degrading the detector performance.

Synchrotron radiation, as often considered one of the most critical backgrounds at circular machines, are being evaluated, preliminary results turns out promising though. -> The effect of synchrotron radiation, one of the most critical backgrounds at a circular machine, is being evaluated. Preliminary results indicate such background is manageable.

For the machine operation at Higgs, => For the machine operation at the ZH threshold,

The annual TID and NIEL at the inner most detector layer are around 2.5 MRad and 1012 1MeV neq/cm2, respectively. In this case I would continue the previous sentence -> For the machine operation at the ZH threshold, the maximum hit density at the first vertex detector layer is estimated to be 2.5 hits/cm2·BX while the annual TID and NIEL are...

Safety factors of 10 are always applied. => A safety factor of 10 is applied to all these estimates

Pi0 the zero should be a superscript not a subscript

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