

Charges for Compton Review

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Minutes for Compton Review Meeting on July 21, 2009

Present: D. Dale, D. Sober, Rory, Stanley, Aron, Maggie, Victor, Pawel, Yelena, Dmitry, Ilya, Ashot, Liping, Mahbub, Mark

(1) Comments to Yelena's Compton presentation:

- (a) For forward production, the reconstructed z vertex may not be the optimized kinematic parameter to extract the yield, particularly for 12C target where the z resolution is largely smeared by multiple scattering in the target.
- (b) The cross section result for low energy region needs more work. One needs better understanding of the detector responses at these energies (HyCal trigger efficiency and tagger).
- (c) The Tagging ratio stability is over estimated by using the entire period of π^0 data taking process. It should be estimated within one Compton running period only.
- (d) The differential cross sections are needed for the publication.

(2) Comments to Pawel's Compton presentation:

- (a) Recommend to finish differential cross section (other than differential cross sections in the HyCal solid angle).
- (b) recommended to have the same for the beryllium target.

(3) Comments to Ilya's Compton presentation:

- (a) Suggested to try other kinematic parameter other than z vertex for the yield extraction.
- (b) Recommended to have diff. cross sections.

(4) General discussion on how to finish and publish the Compton results:

- (a) We need to publish the Compton results by the end of this summer.
- (b) We will include in this publication only the higher energy (~ 5 GeV) part only. The low energy part will be sent for publication separately after finishing the requested additional analysis for that region.
- (c) The publication should include: (1) the total cross section; (2) the differential cross sections and/or (3) the cross section within the HyCal (crystal) solid angles. These have to be done for 12C and for Be if statistics is enough.
- (d) Each group should provide three plots for each target with an updated analysis note by the end of August.
- (e) The Committee for the Compton paper includes: Pawel, Yelena, Ilya, Liping (chair) and Ashot.
- (f) Liping will draft the Compton paper by the end of August.
- (g) Special meetings will be arranged later in next weeks to discuss how to extract the differential cross section (if needed).

Charges for Review Committee

- Where we are now?
- Evaluate the process of events selection
- Evaluate the process of cross section extraction
- Verify the physics results and error budget
- Make recommendation to the collaboration for publication