Notes on extracting polarization observables

11-14-13

Formalism

$\left(\frac{d\sigma}{dX^{ij}d\phi^j}\right)^h \doteq f^h(X^{ij},\phi^j) = A^{ij} + B^{ij}\cos\phi^j + C^{ij}\cos 2\phi^j + hPD^{ij}\sin\phi^j$

where

- ij = index over Varset,Variable (3x5 matrix)
- $R2^{ij}_\alpha \doteq [A^{ij}, B^{ij}, C^{ij}, D^{ij}] \equiv [R_T + \epsilon_L R_L, R_{LT}, R_{TT}, R_{LT'}]$
  - $R2^{ij}_\alpha = f(Q^2, W, X^{ij})$

Event Selection

`R2` Extraction Method

For every `q2wbin`:

1. `h5[pol]` where `pol` $\in$ {POS,NEG,UNP,AVG}; `pol` $\neq$ AVG
2. `h5[pol]` $\rightarrow$ `h5m[pol,pob]` where `pob` $\in$ {A,B,C,D}; `pol` $\neq$ AVG

Notes on current Observations

1. What do `R2` from Simulation Data (`SF`) represent?
   - Study in comparison with Hole-Filled Experimental Data (`EF`)
   - Therefore, is Hole-Filling valid?
2. `R2` from Acceptance Corrected Experimental Data (`EC`)

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This is also

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This is a code block
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Use `printf`