

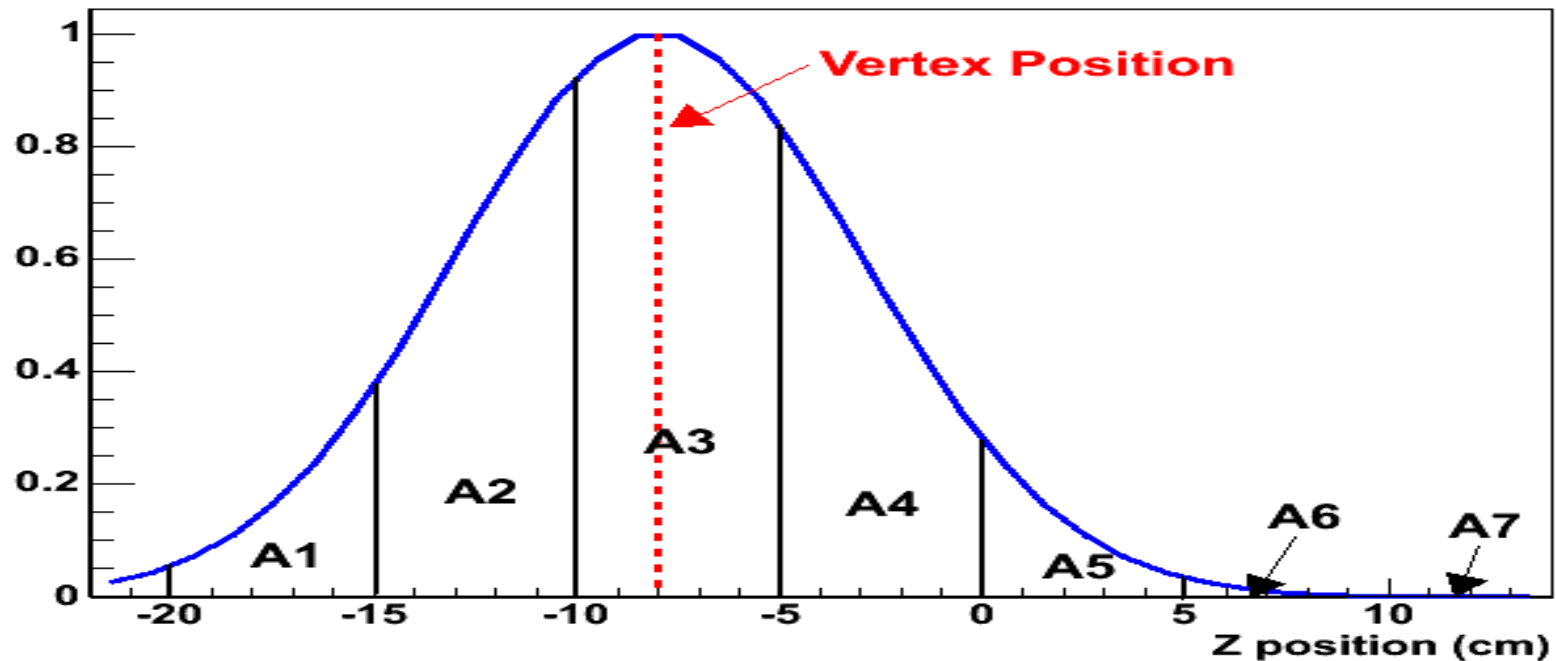
Acceptance weighting in dAu,pp at forward

Issues

- Acceptance correction (weighting) factor is a function of vtx z
- vtx z is known with a limited accuracy
 $\sigma(\text{bb}) < \sigma(\text{inel}) < \sigma(\text{track})$ at forward
- cannot avoid using wrong acceptance map due to wrong z

Proposal

- Assume z_{track} is “aligned” with z_{inel} and z_{bb}
- Start with event with FS track, then
 - 1) If there is a BB vtx at $z = x_{\text{cm}}$ in $-20\text{cm} < z_{\text{bb}} < 20\text{cm}$
acceptance weight = $\Sigma(\text{acc map} * \text{weight with } \sigma_{\text{bb}})$
 - 2) If no BB vertex, then use Inel vtx at $z = y_{\text{cm}}$ in $-20\text{cm} < z_{\text{inel}} < 20\text{cm}$
acceptance weight = $\Sigma(\text{acc map} * \text{weight with } \sigma_{\text{inel}})$
- Step 1) can be skipped



- Acc Weight =

$$\sum_{i=1}^8 [(\text{acc. weight from map})_i \bullet (\frac{A_i}{\sum A_i})]$$

($\sigma_{\text{inel}} < 4\sim 6 \cdot \sigma$ of beam distribution)