

Normalization of two-particle correlation observables

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To account for the acceptance effect of two-particle correlations, a normalization is performed in pioneer work. We propose a normalization scheme based on an independent particle assumption to improve the background estimation. Choosing per-trigger yield calculated by CGC as an example, a comparison of the background proposed in this paper with that in pioneer work is made. The differences between the two backgrounds are demonstrated to be small. However, the resulting per-trigger yield normalized by the two backgrounds show qualitative differences, i.e. different trends as a function of Δy . The one normalized by the background of this paper shows better agreements with data. The normalization does not affect the yield as a function of $\Delta\phi$ and thus the agreement of the per-trigger yield as a function of $\Delta\phi$ with the experimental data is maintained.

Primary author: Mr ZHANG, Donghai (CCNU)

Presenter: Mr ZHANG, Donghai (CCNU)

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