Run 15 pp J/ψ Multiplicity Analysis

PHENIX HI PWG Meeting

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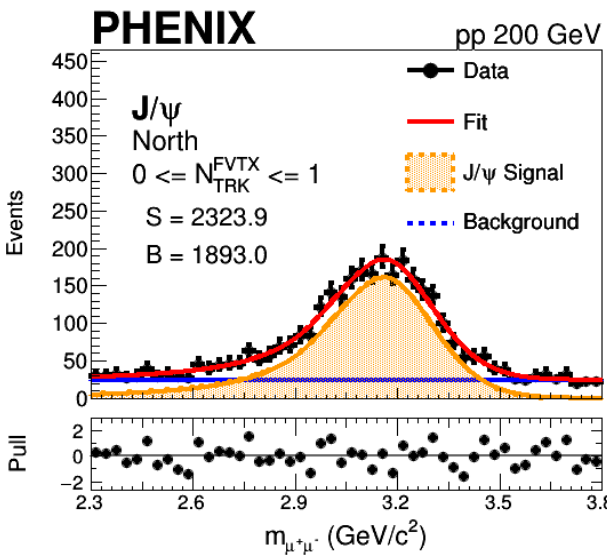
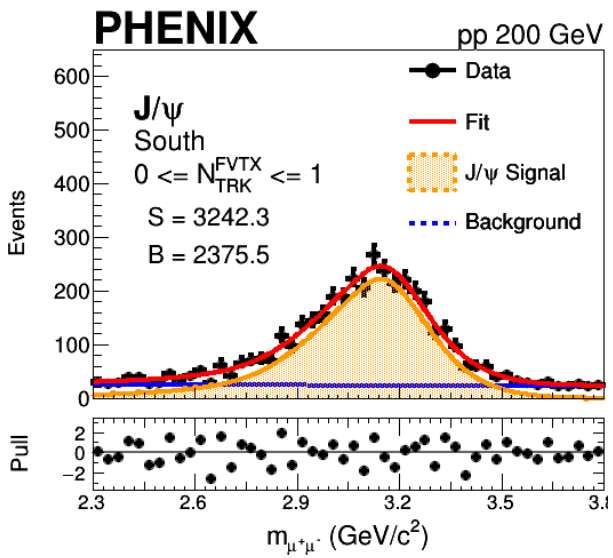
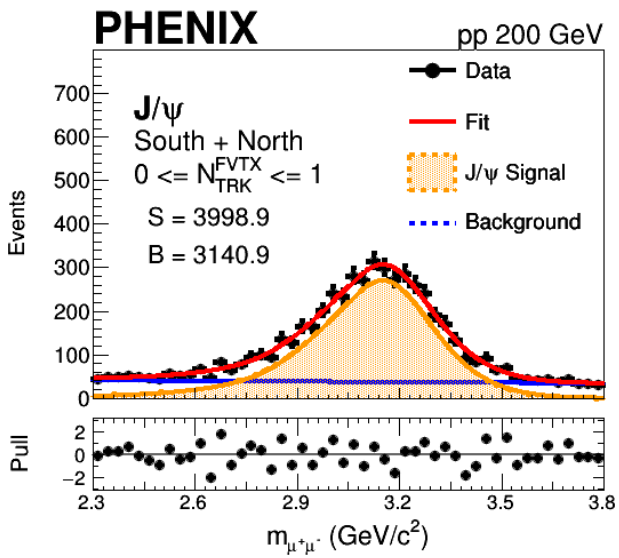
Fit Background to Exponential Function

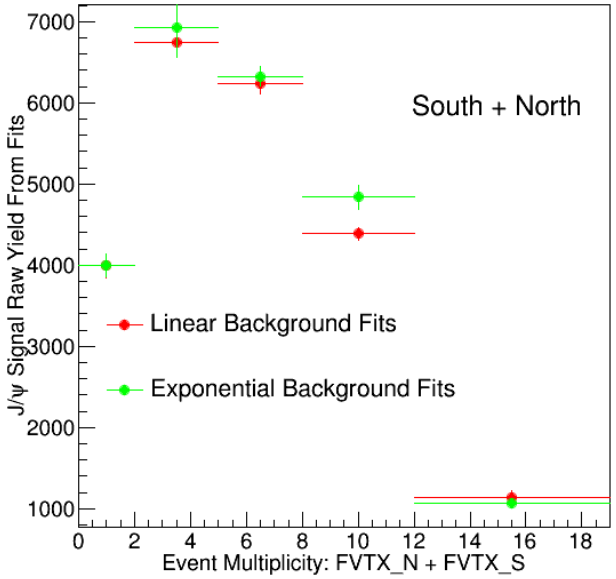


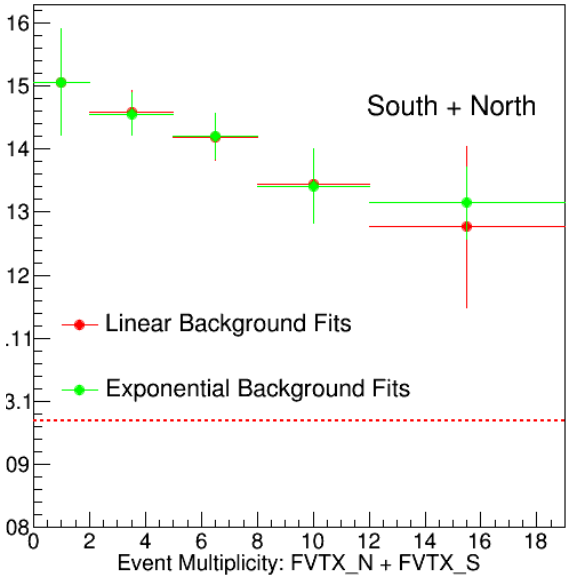


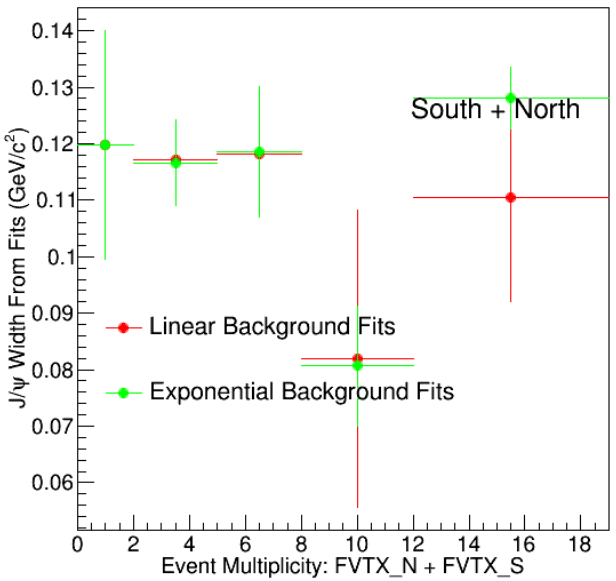


- Switch the background fit function from linear to exponential as suggested
- The fits look good for Inclusive, north, and south
- Compare fit parameters with linear background function

J/ψ Fit Parameters - Inclusive

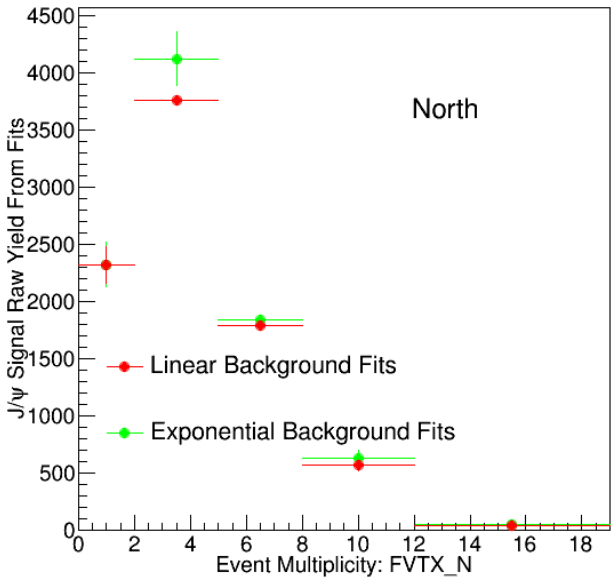


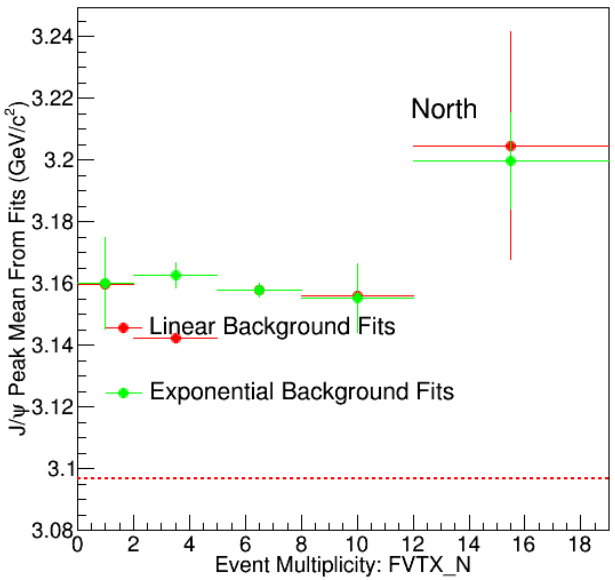


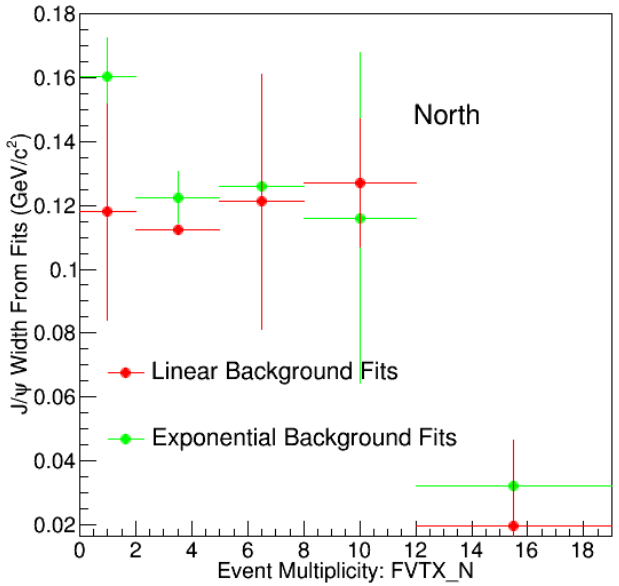


- There are some slight difference between the J/ψ signal raw yields from the linear function to the exponential function
- The difference could be treated as systematic uncertainties
- The mean and width are overall consistent with each other

J/ψ Fit Parameters - North

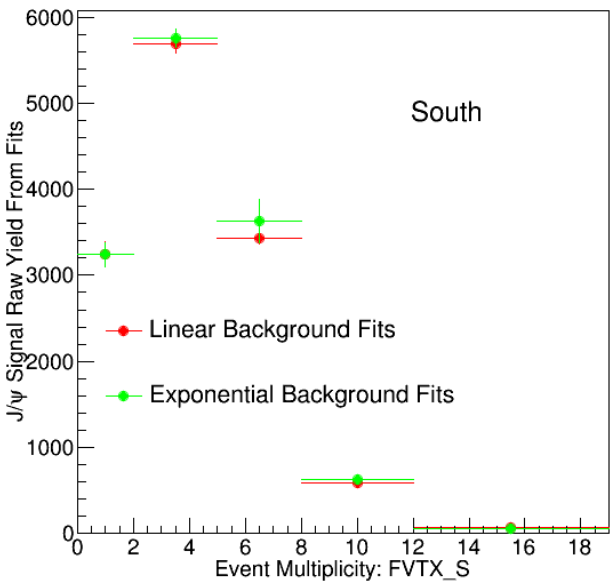


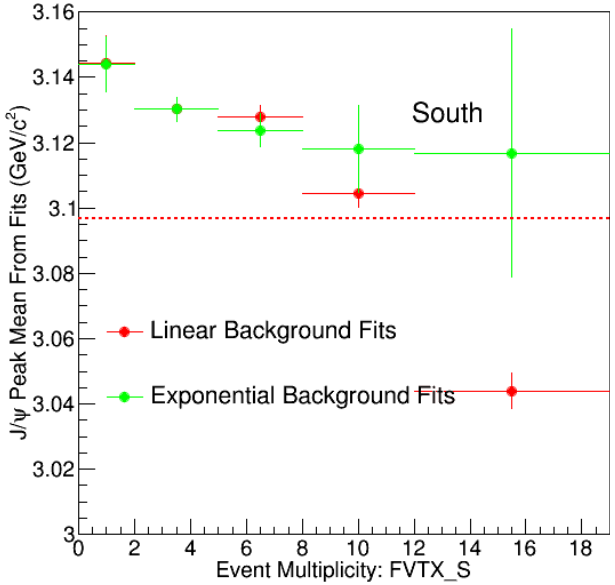


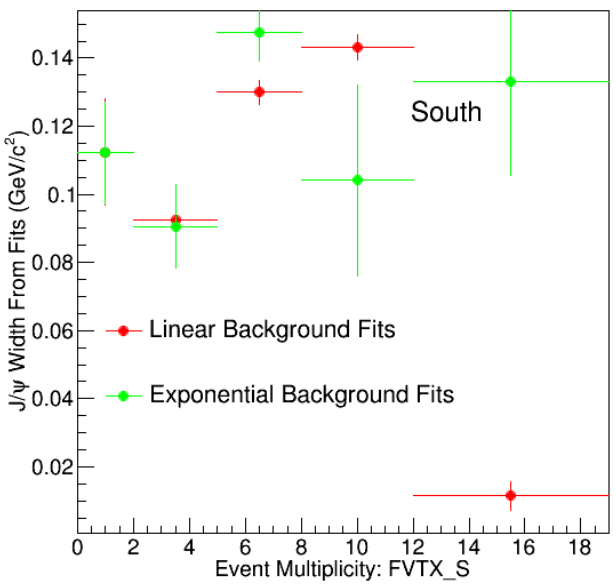


- The results for the north arm is similar to the inclusive ones
- There are some slight difference between the J/ψ signal raw yields from the linear function to the exponential function
- The difference could be treated as systematic uncertainties
- The mean and width are overall consistent with each other except the 2 – 4 bin where the exponential background fits are better than the linear fits

J/ψ Fit Parameters - South







- The results for the southarm is similar to the inclusive ones
- There are some slight difference between the J/ψ signal raw yields from the linear function to the exponential function
- The difference could be treated as systematic uncertainties
- The mean and width are overall consistent with each other