In-time vertexing with INTT (Final plots for ITTF)
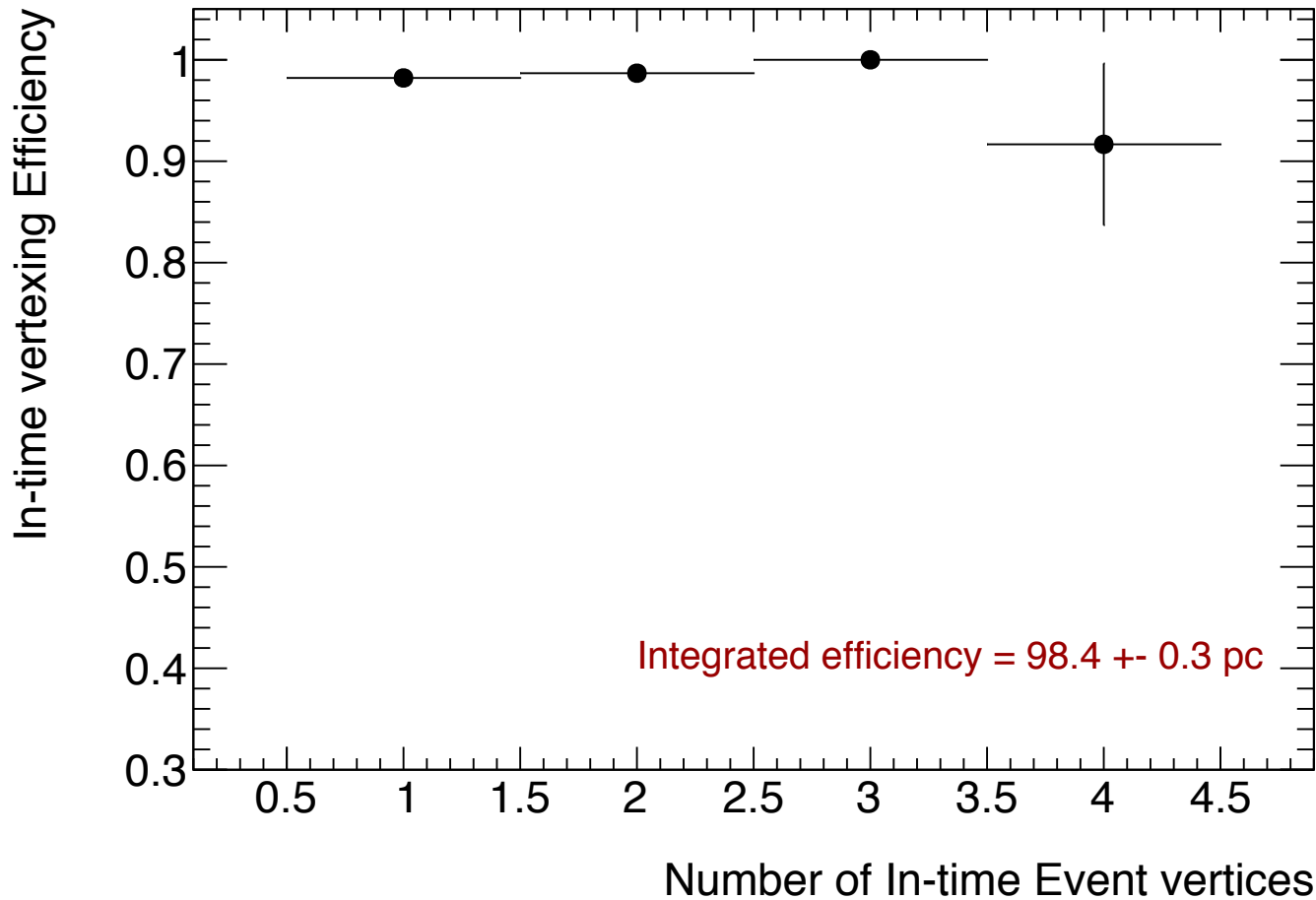
Sookhyun Lee (Iowa State University)

December 1, 2018
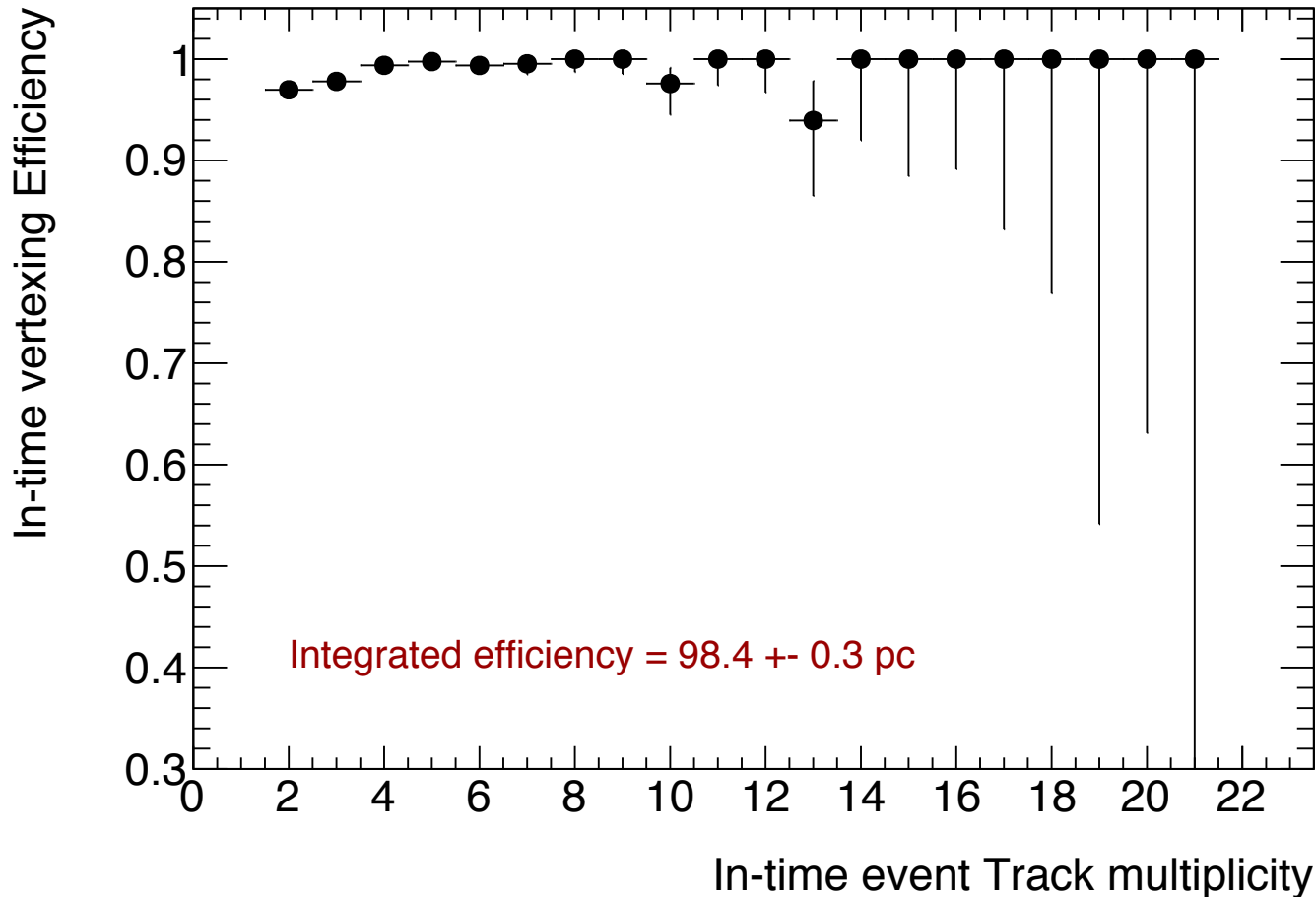
In-time vertex id Efficiency

Integrated efficiency = 98.4 +- 0.3 pc

In-time vertexing Efficiency

Number of In-time Event vertices

1

$$\text{Efficiency} = \frac{\text{\# of vertices tagged as in–time\&\& }|\Delta\text{vertex}|<500\text{um}}{\text{\# of true in–time vertices within }[-20\text{ns},80\text{ns}]\text{ time window}}$$
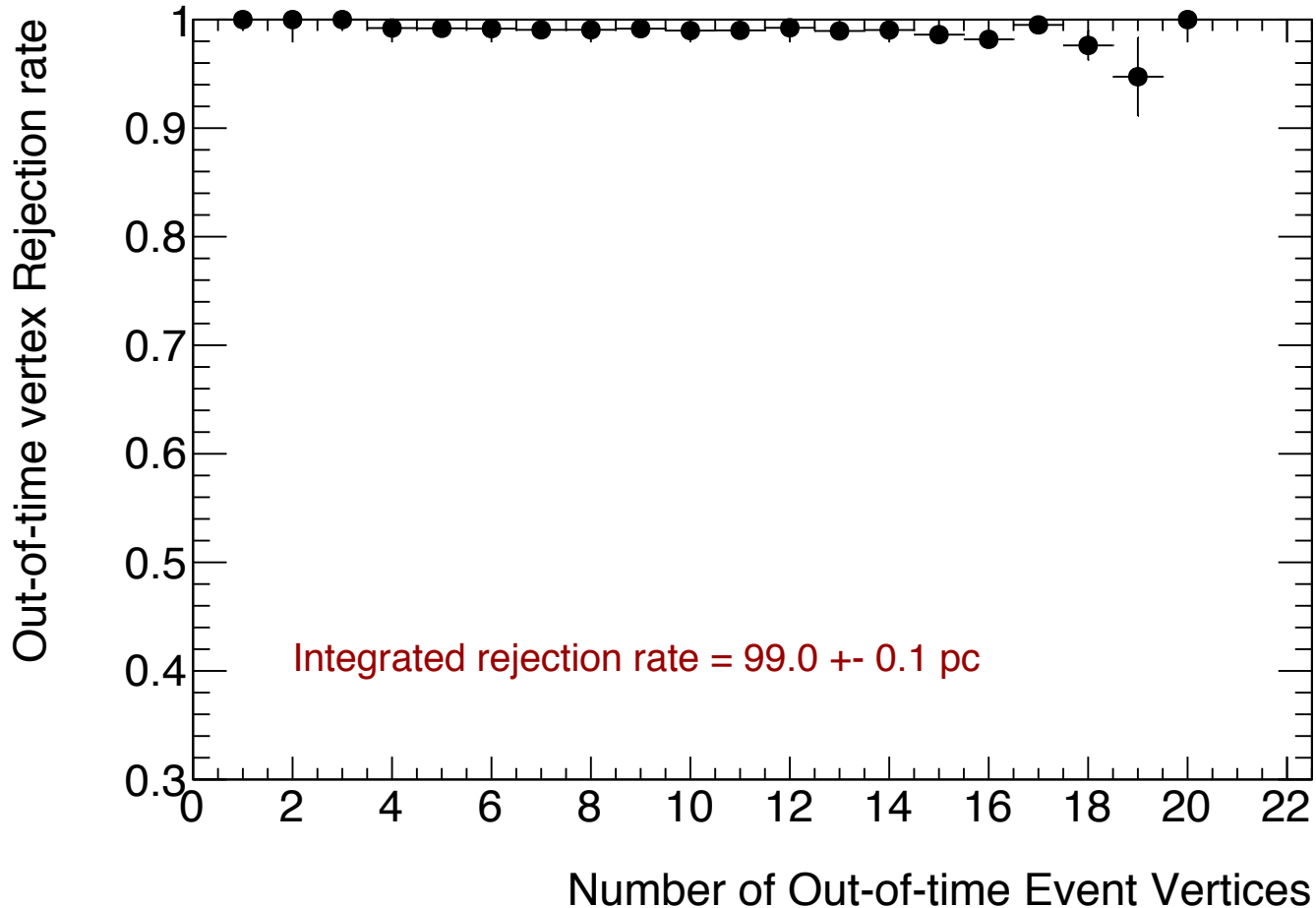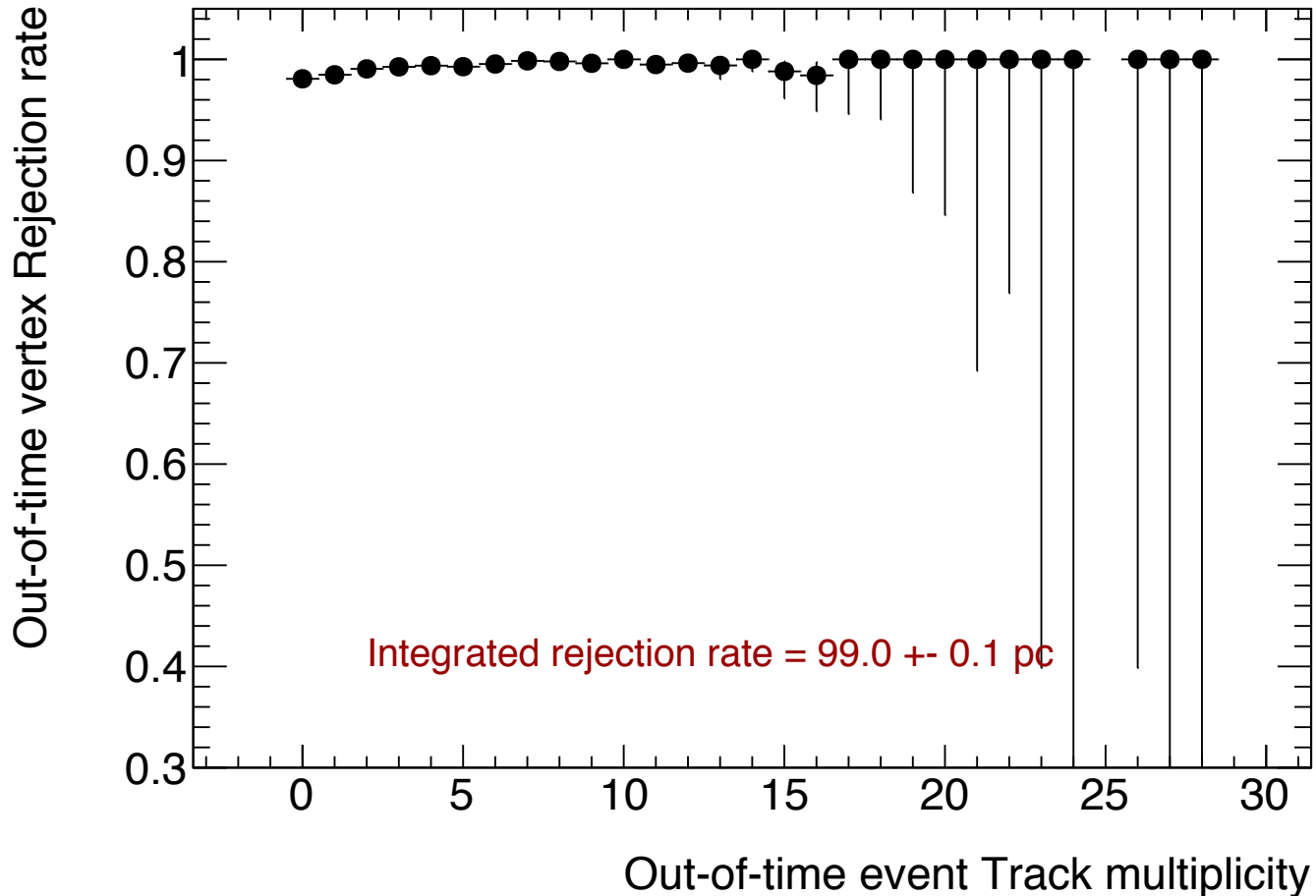
In-time vertex id Efficiency

Integrated efficiency = 98.4 +- 0.3 pc

In-time event Track multiplicity

Rejection factor $= \dfrac{\text{\# of vertices tagged as out-of-time}}{\text{\# of true out-of-time vertices outside [-20ns,80ns] time window}}$

Out-of-time vertex rejection factor

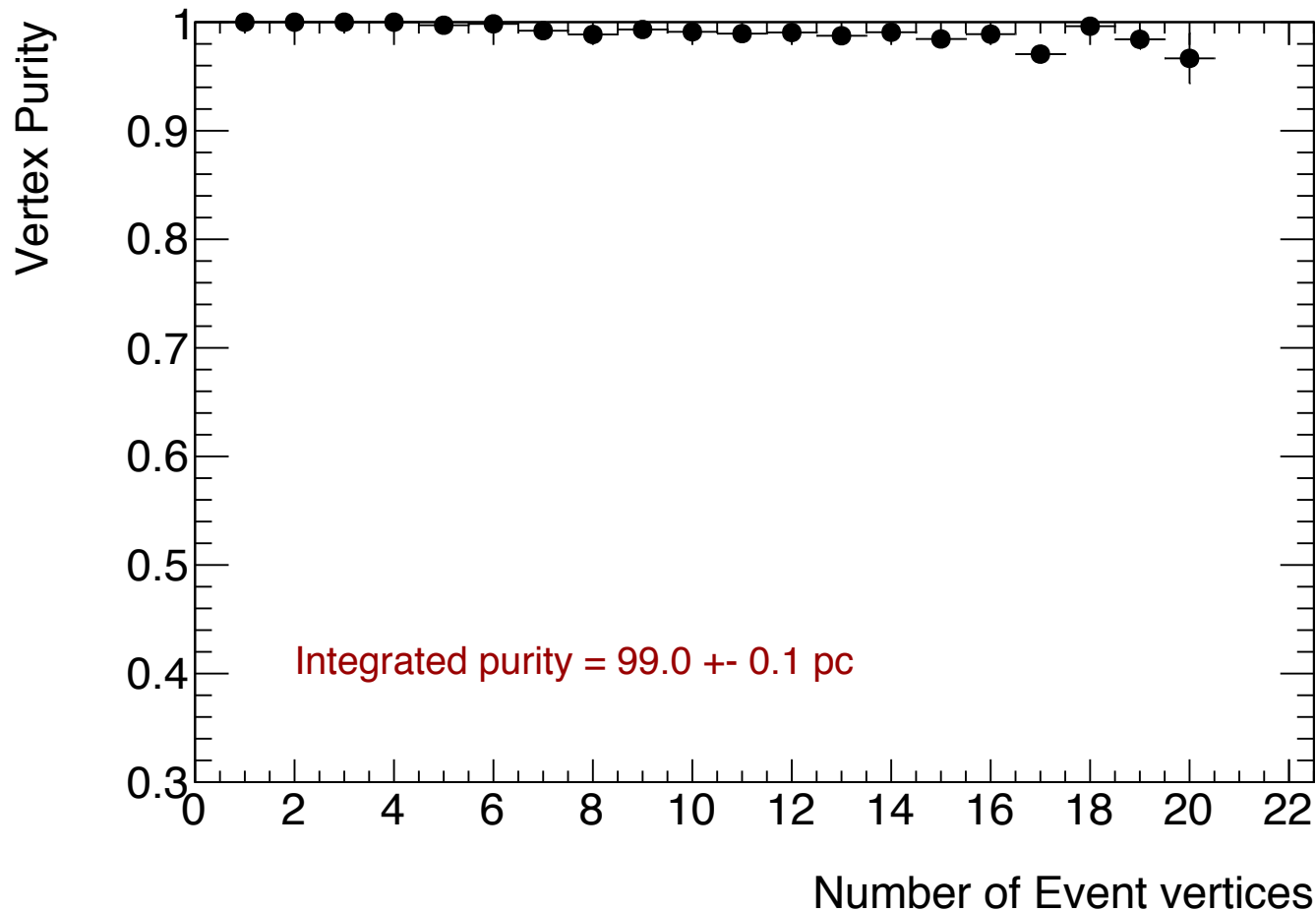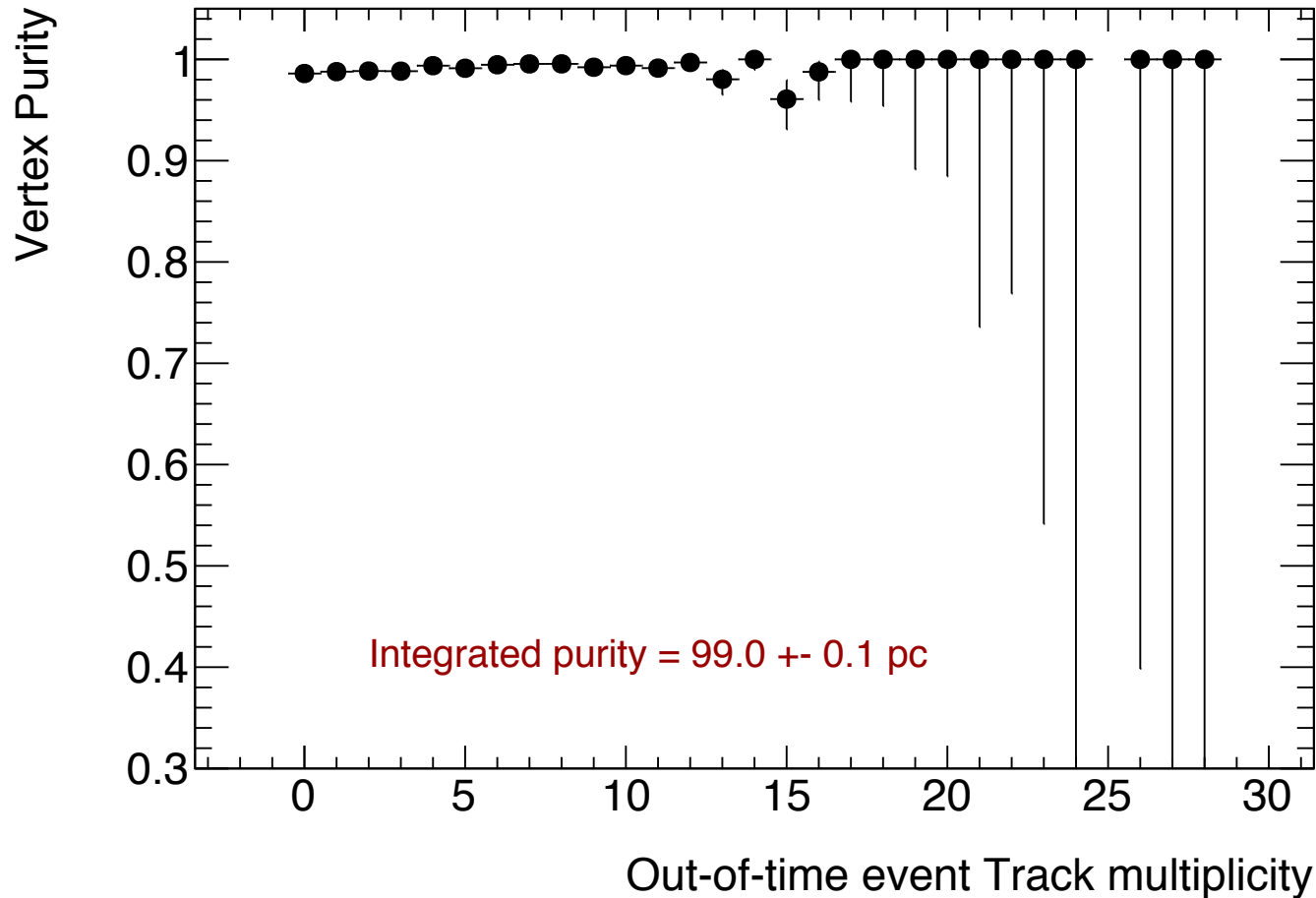Integrated rejection rate = 99.0 +- 0.1 pc

Out-of-time vertex Rejection rate

Number of Out-of-time Event Vertices

Out-of-time vertex rejection factor

Vertex timing purity

Integrated purity = 99.0 +- 0.1 pc

Vertex timing purity

Integrated purity = 99.0 +- 0.1 pc

Vertex Purity

Out-of-time event Track multiplicity

Number of event vertices

Number of Event vertices