

Study of influence of the beam background on the CDC tracking performance

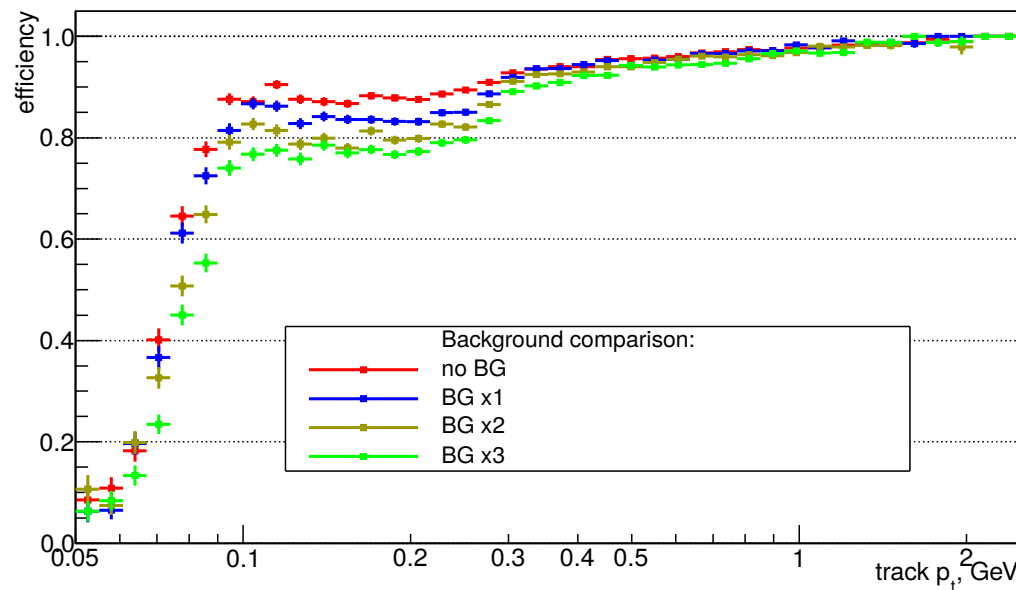
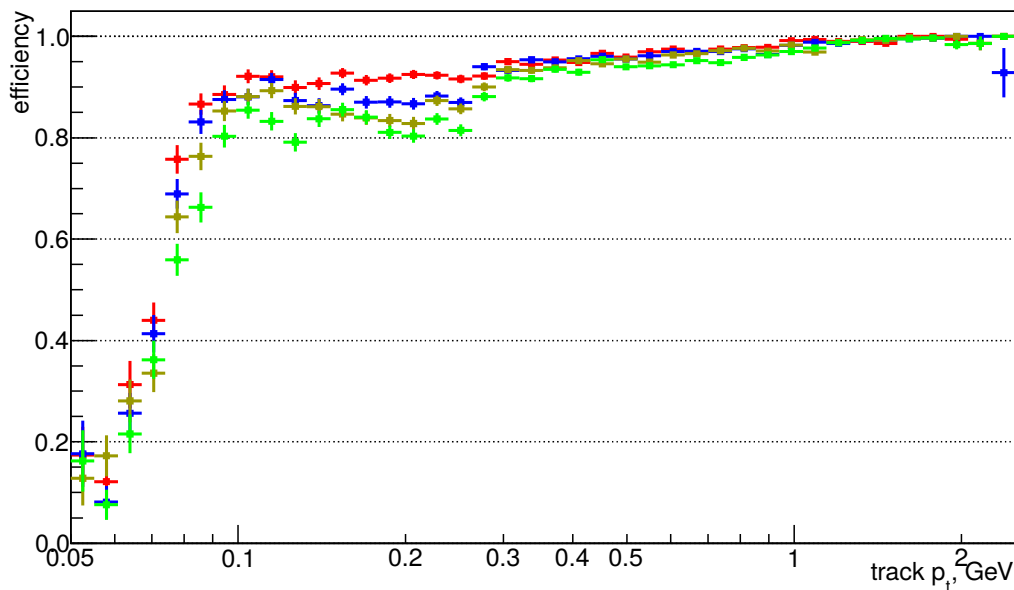
Introduction

- Generic $B\bar{B}$ simulation was used (10k events)
- Standard CDC tracking reconstruction was used
 - With BG suppression
 - Standard simulation path
 - Latest svn revision (with Oliver's patch)

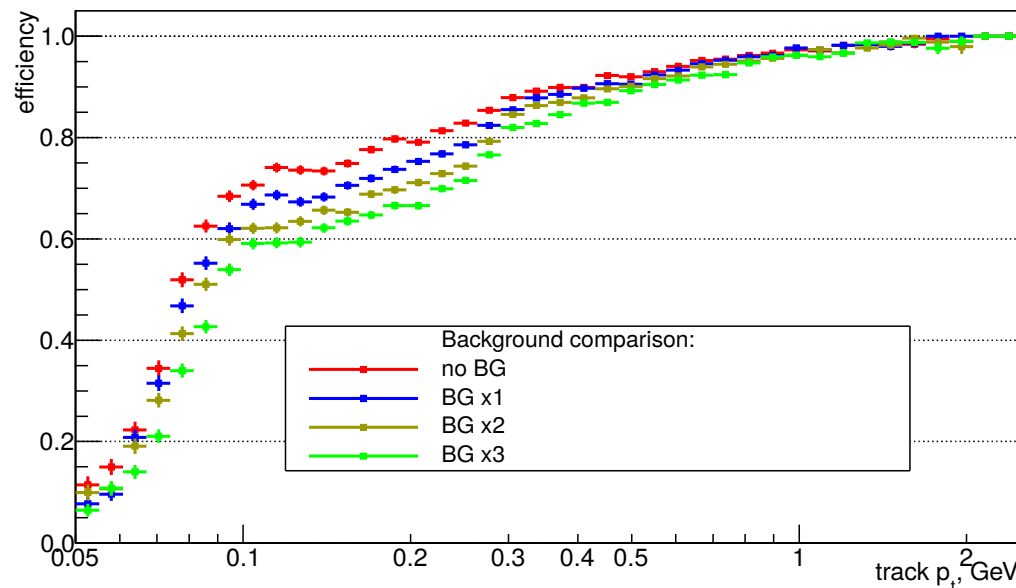
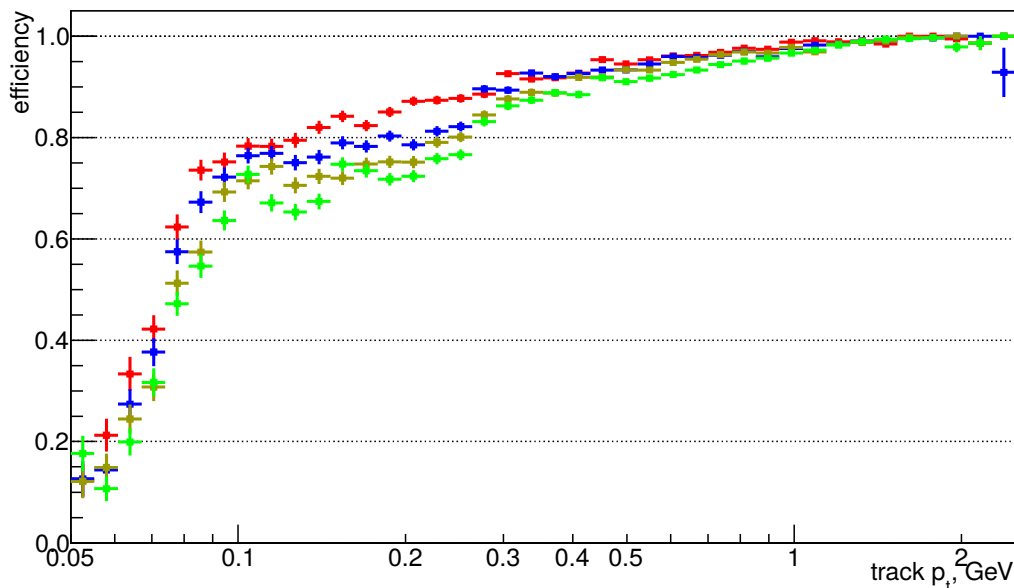
Efficiency in bins of event multiplicity

Number of tracks: (2, 12)

Number of tracks: (12, 30)



Prompt ($POCA < 1.0$ cm)

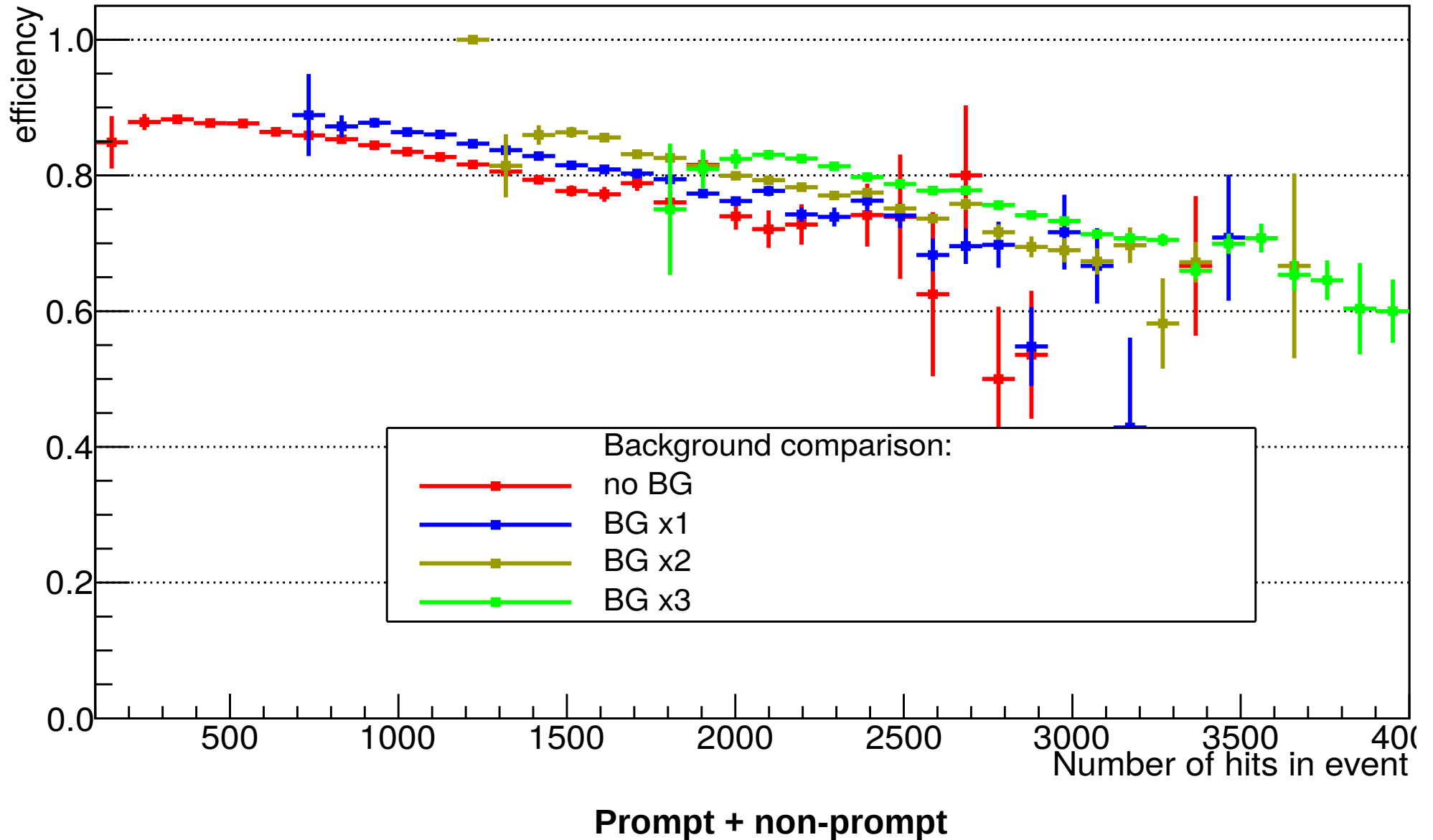


Prompt + non-prompt

17.03.16

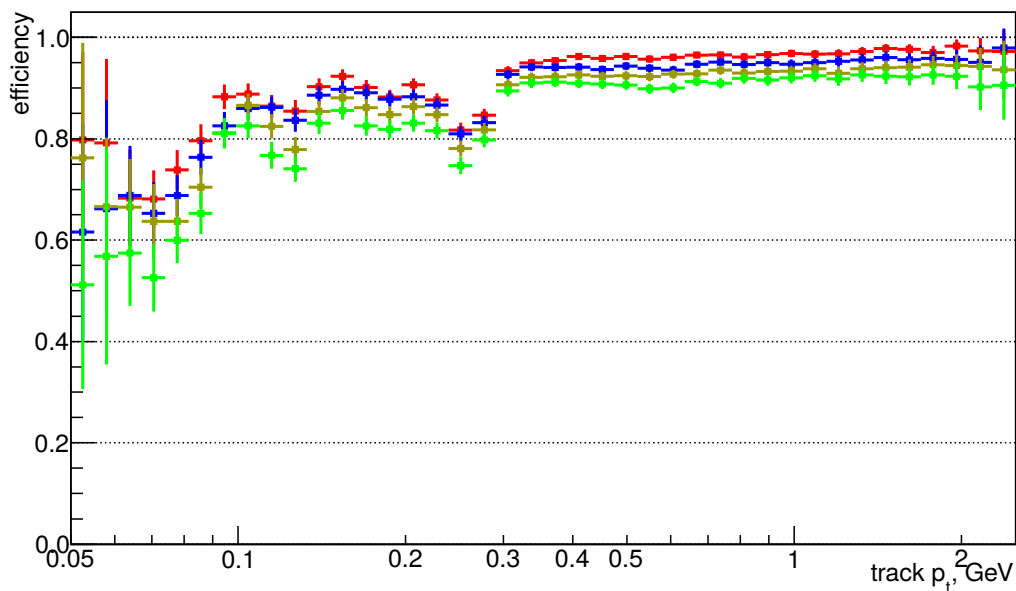
3

Efficiency (dependence on number of hits)

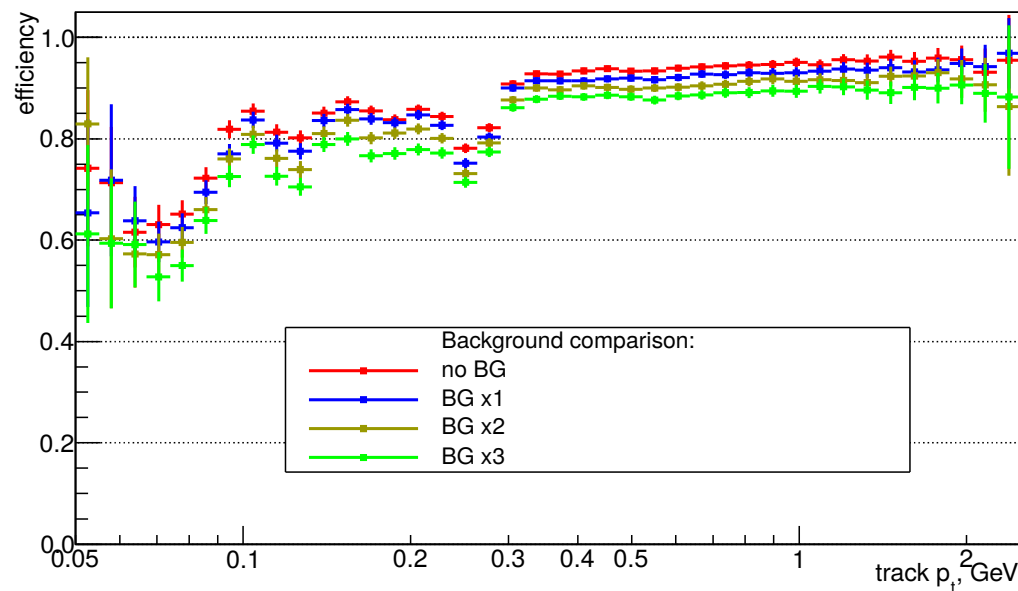


Hits' efficiency (fraction of "true" MC hits in PR track)

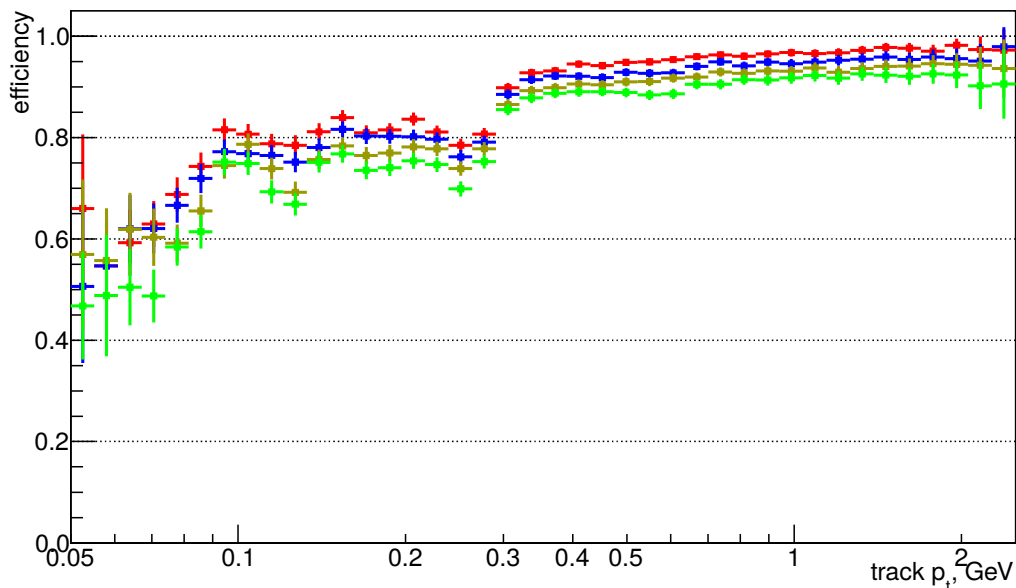
Number of tracks: (2, 12)



Number of tracks: (12, 30)

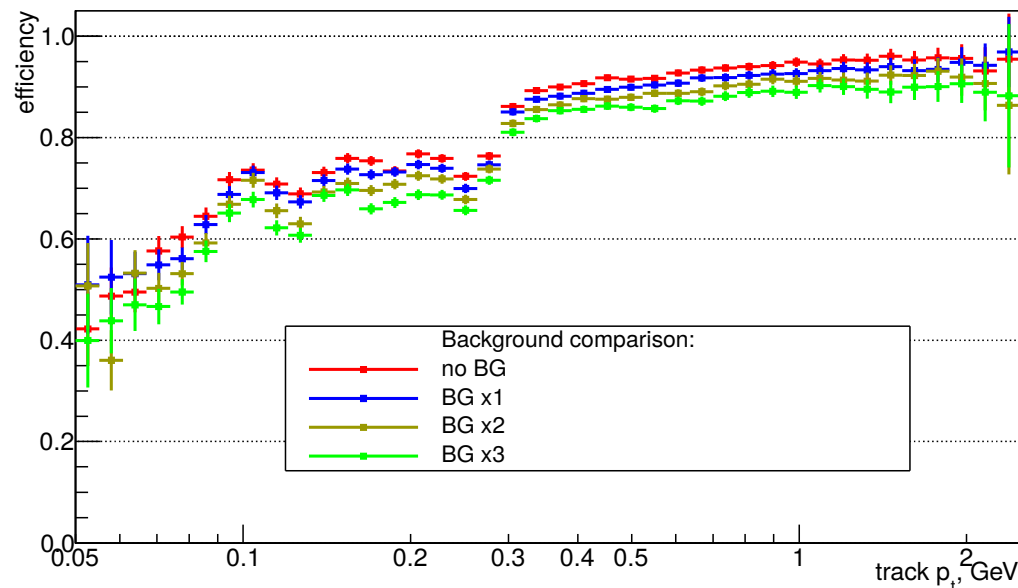


Prompt ($POCA < 1.0$ cm)



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Prompt + non-prompt

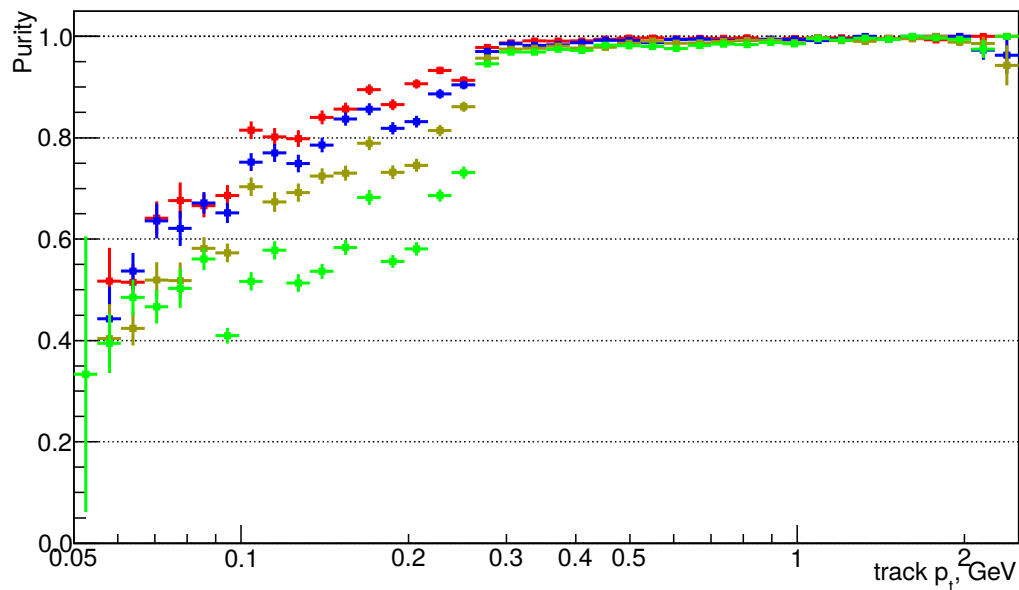


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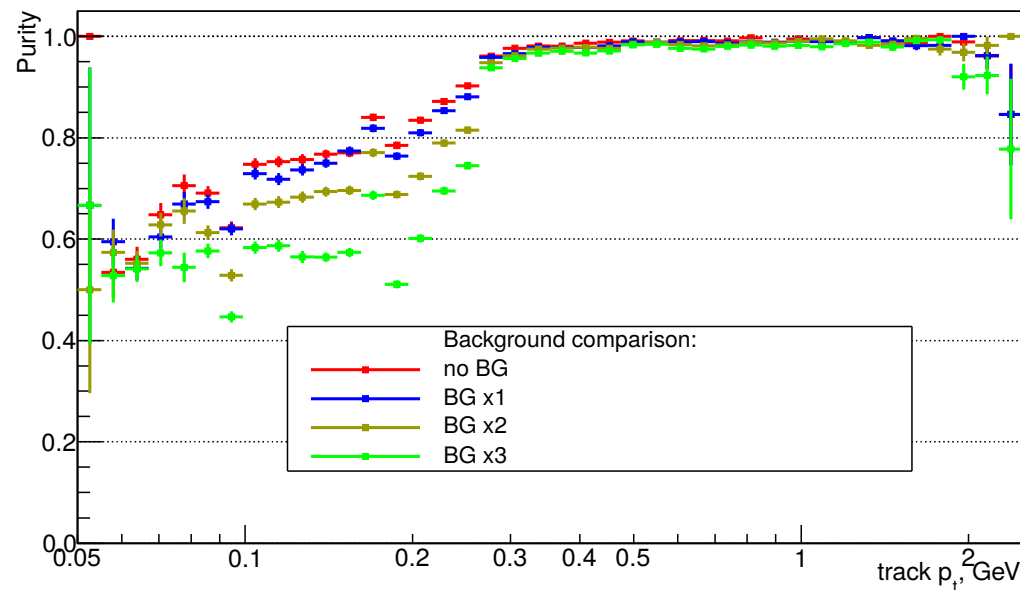
Purity

Purity in bins of event multiplicity

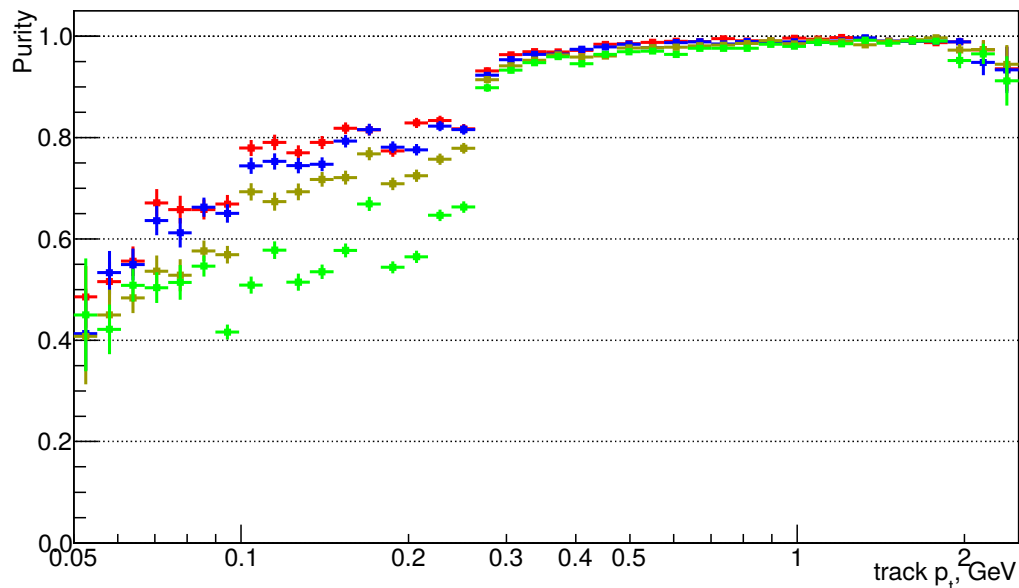
Number of tracks: (2, 12)



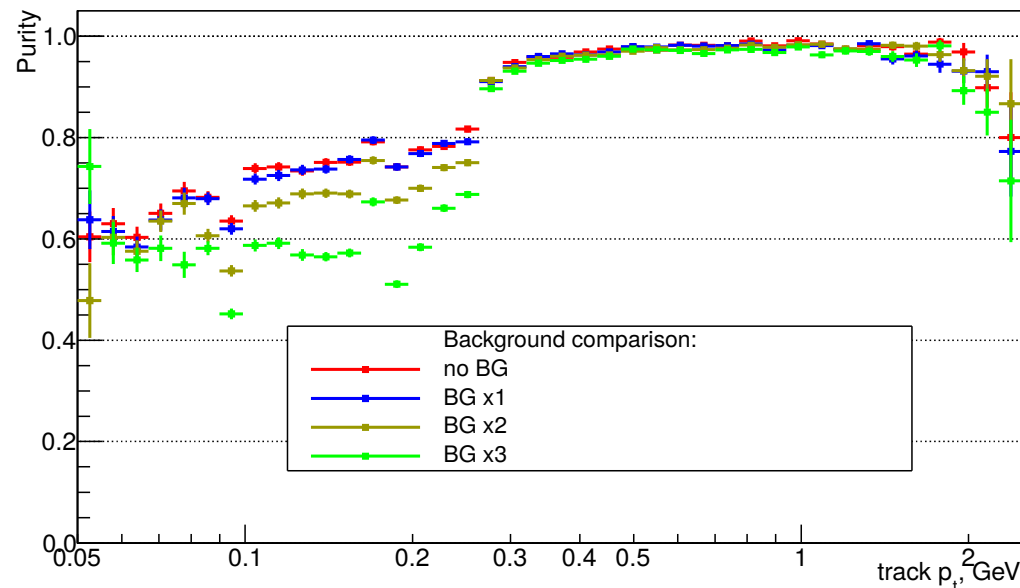
Number of tracks: (12, 30)



Prompt ($POCA < 1.0$ cm)

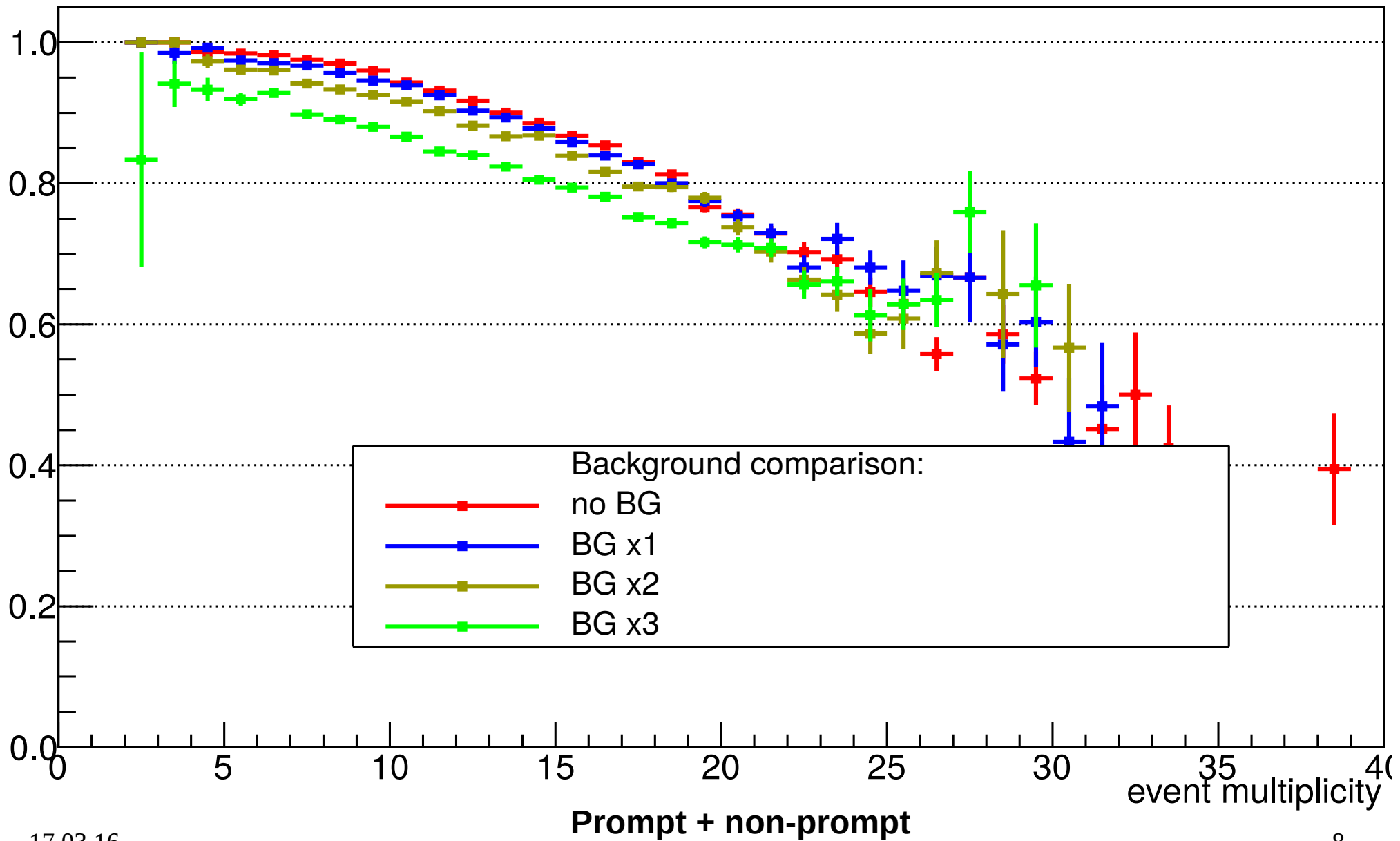


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Prompt + non-prompt

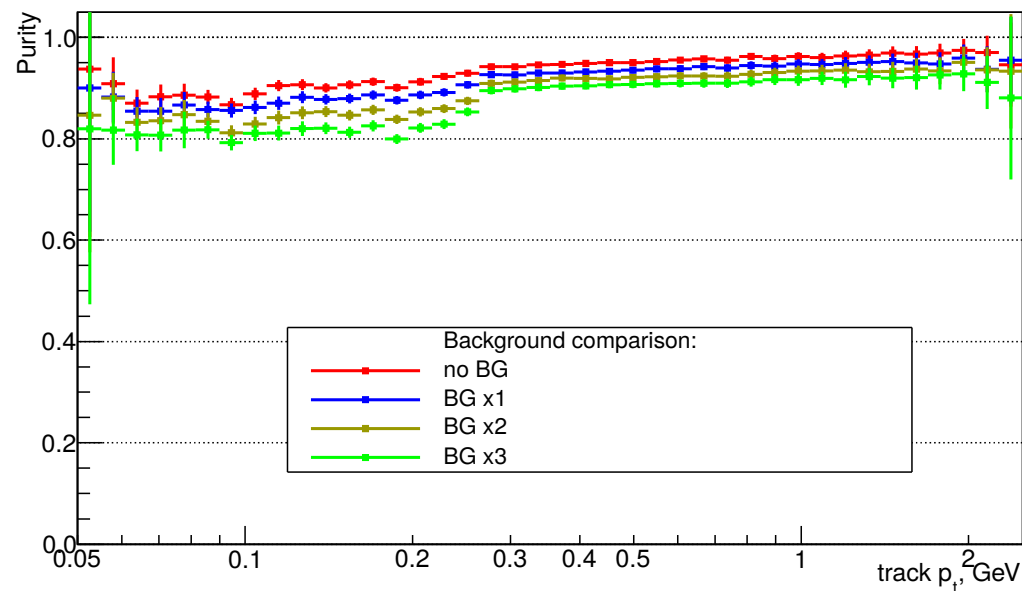
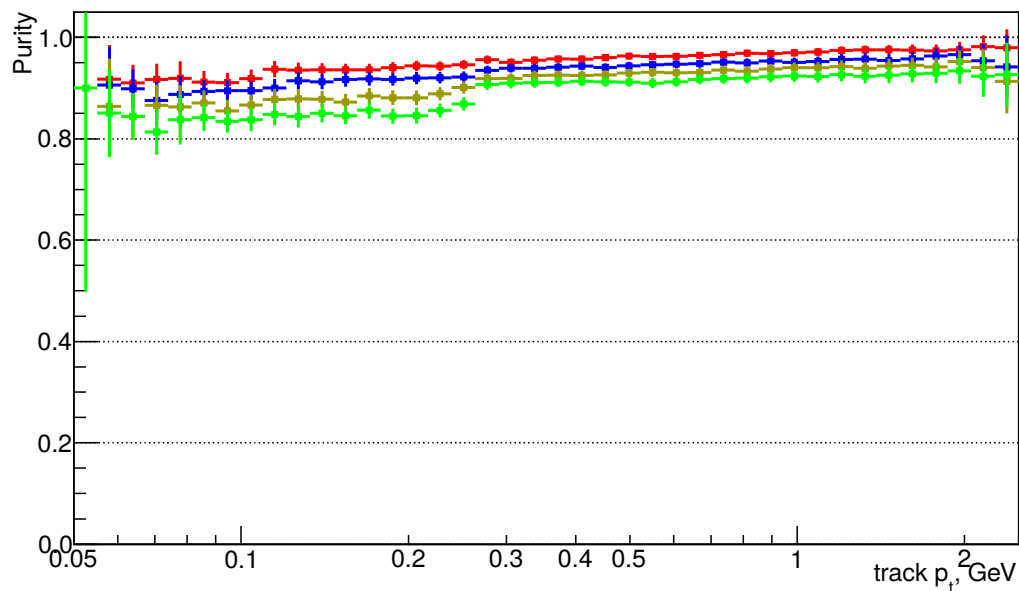
Purity



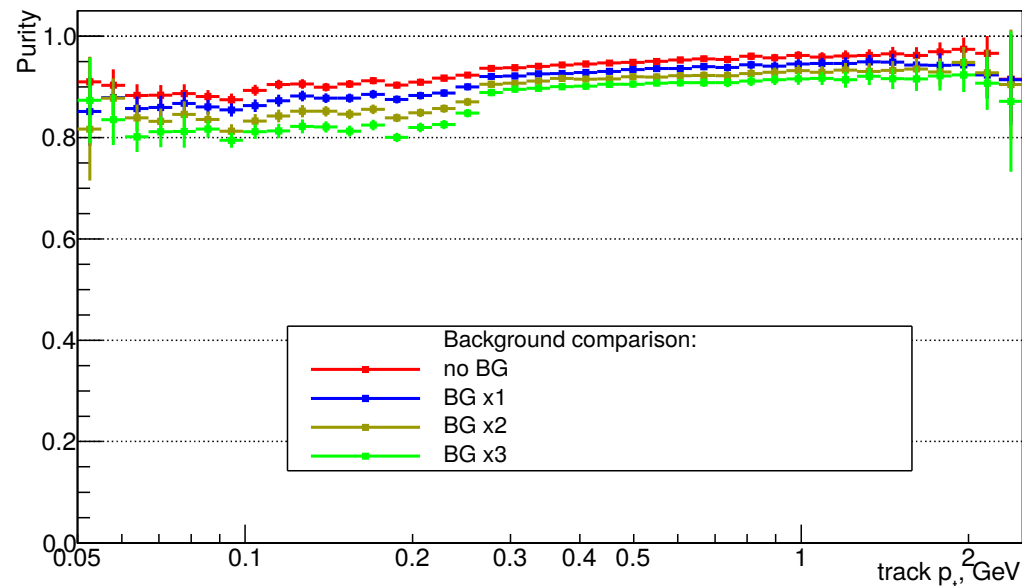
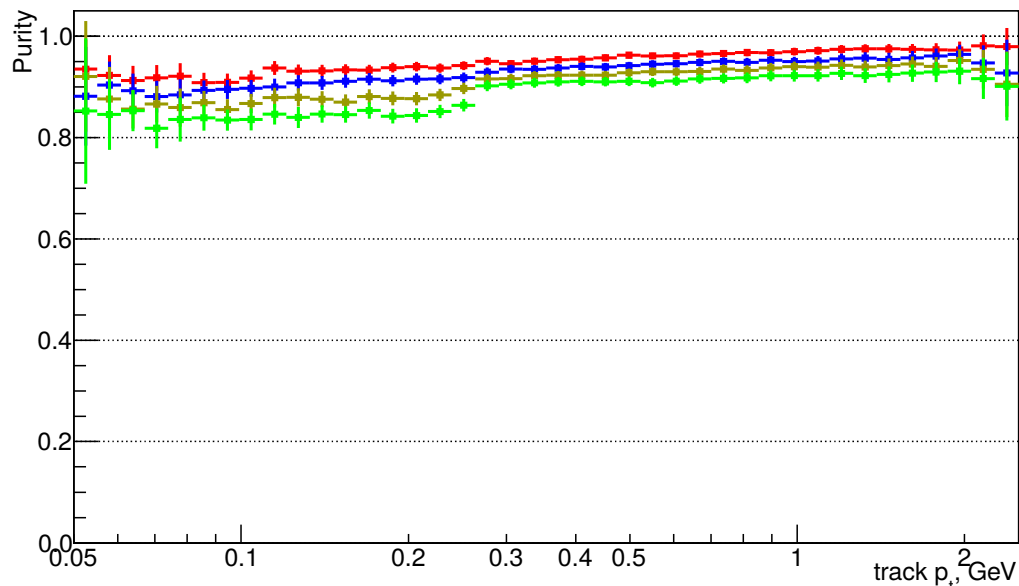
Hits' purity (fraction of correct hits)

Number of tracks: (2, 12)

Number of tracks: (12, 30)



Prompt ($POCA < 1.0$ cm)



Prompt + non-prompt

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