ATLAS NOTE

GROUP-2016-XX

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Draft version 0.0

Kinematic studies

Supporting documentation for the search for new phenomena in diphoton events with the ATLAS detector at $\sqrt{s}$ = 13 TeV

T. Guillemin

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  - Red: Sherpa gamma-gamma
  - MC normalized to data in each plot

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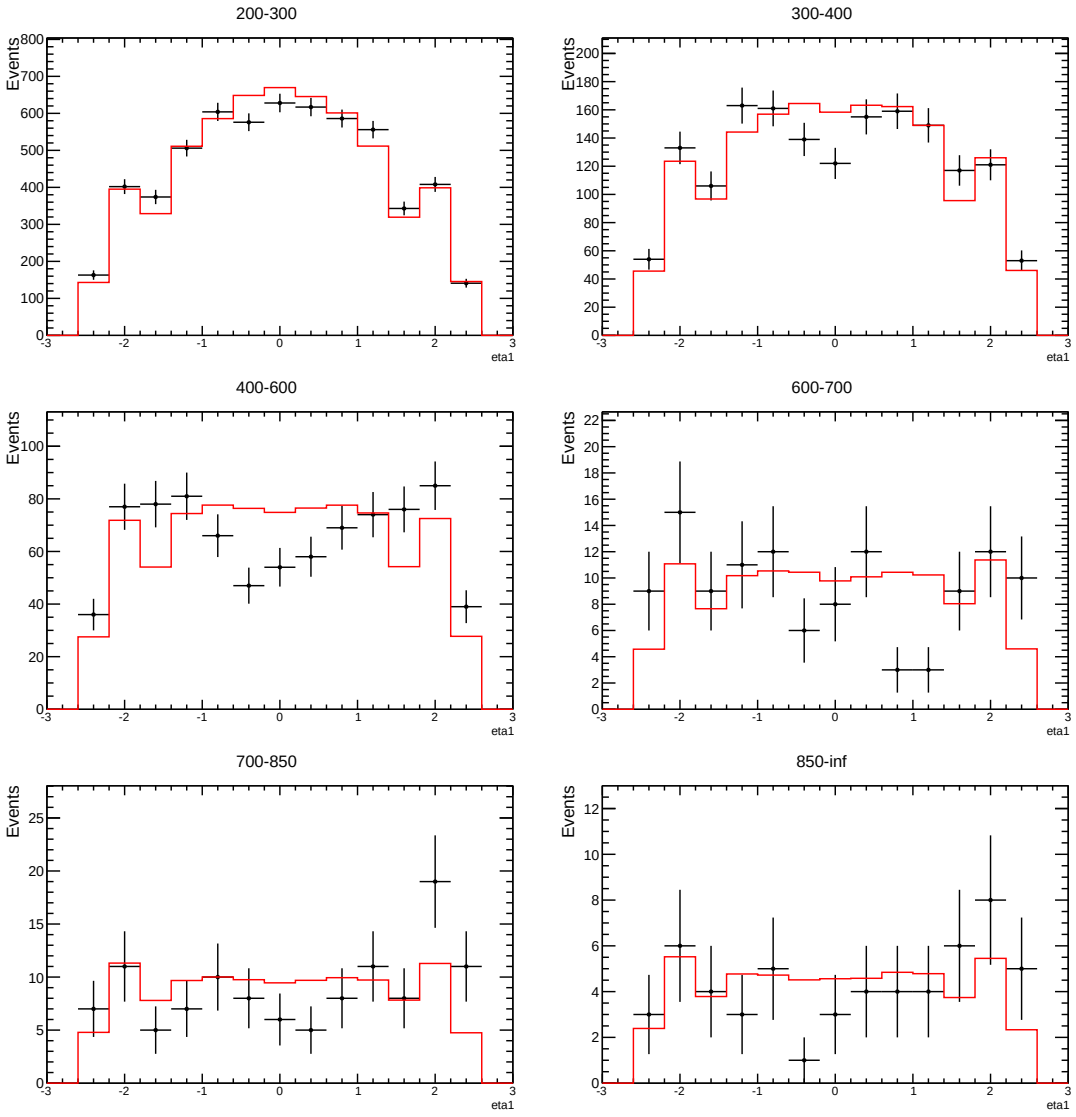
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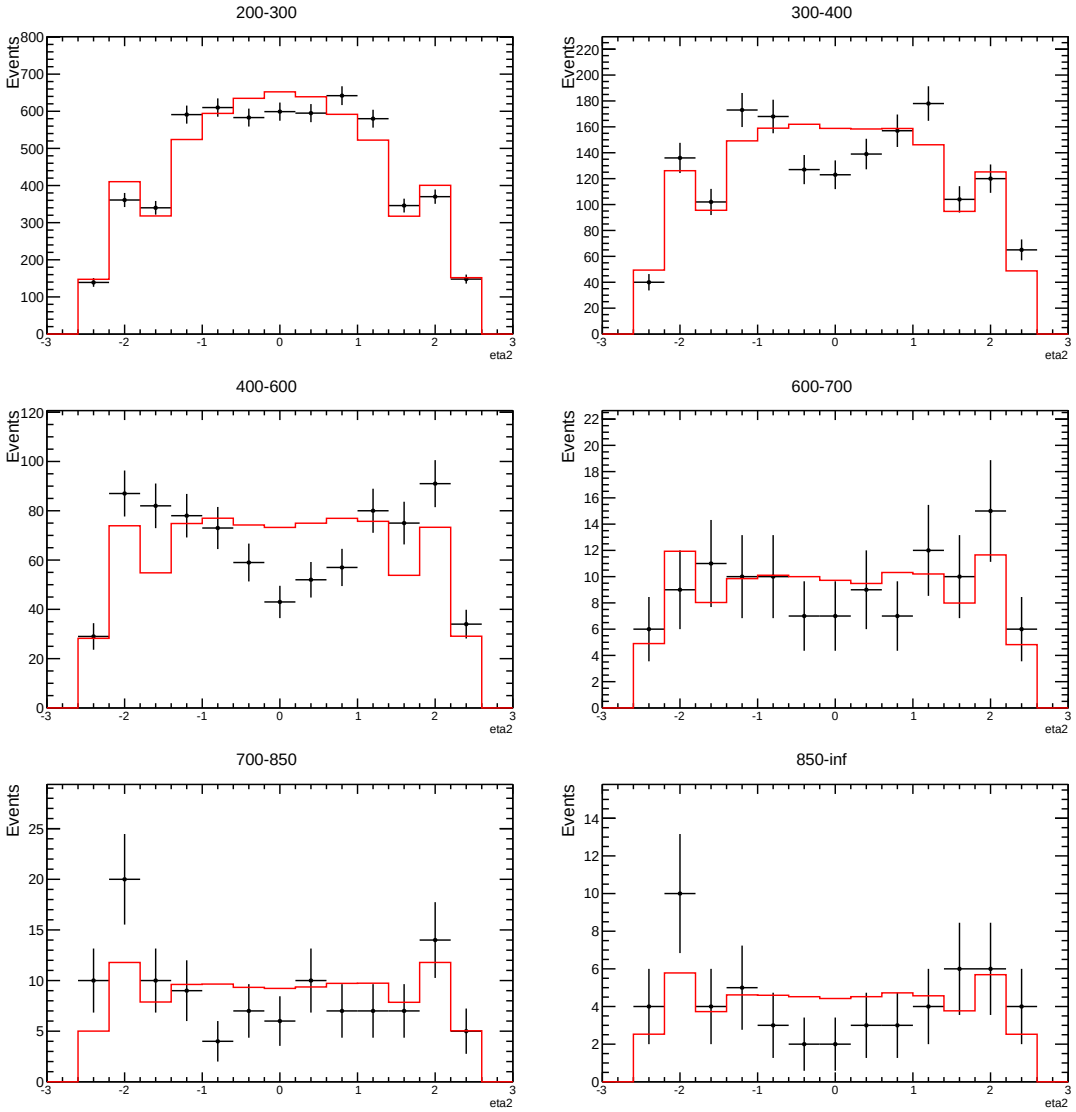
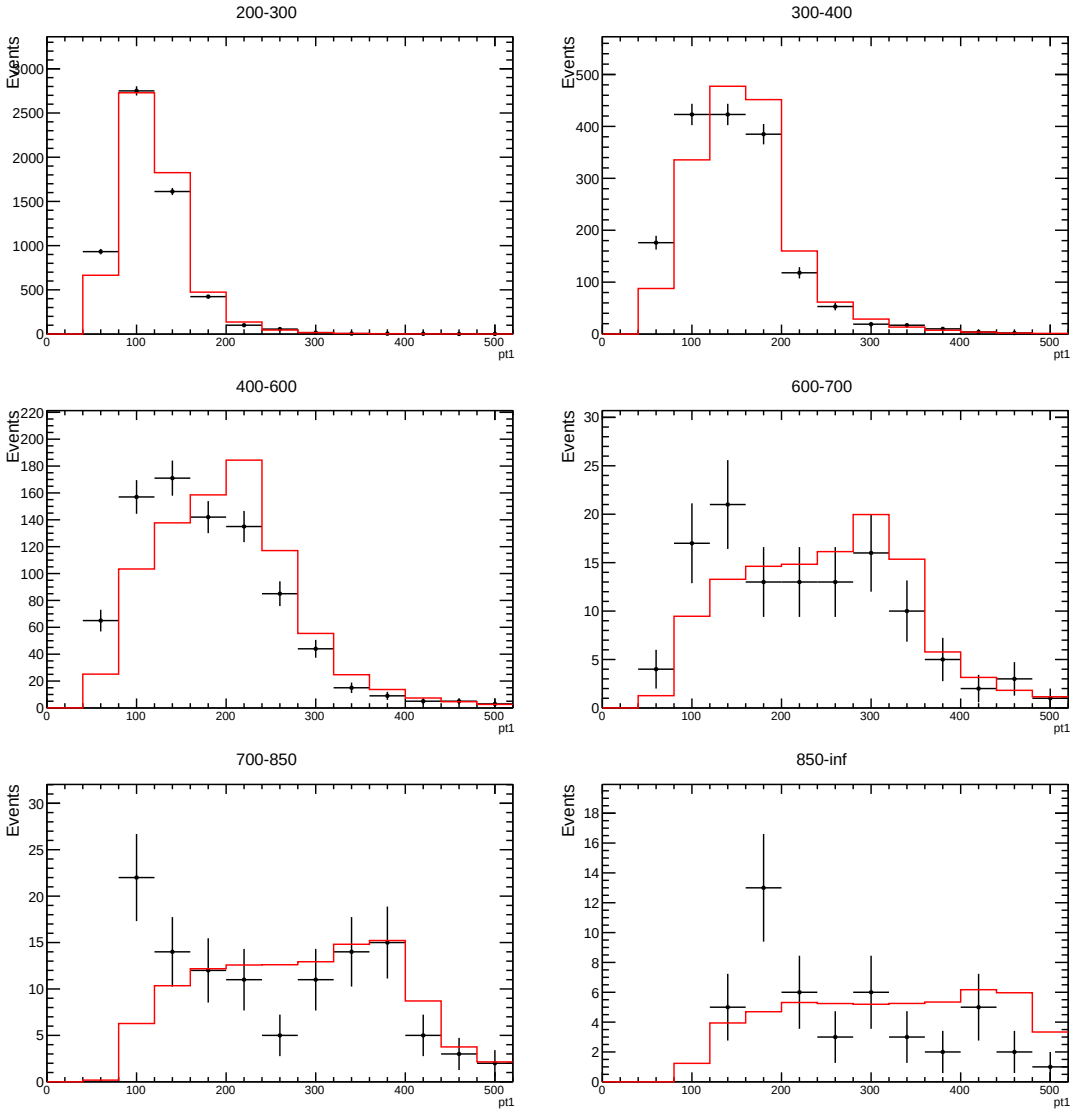


2.1.3 Pt1



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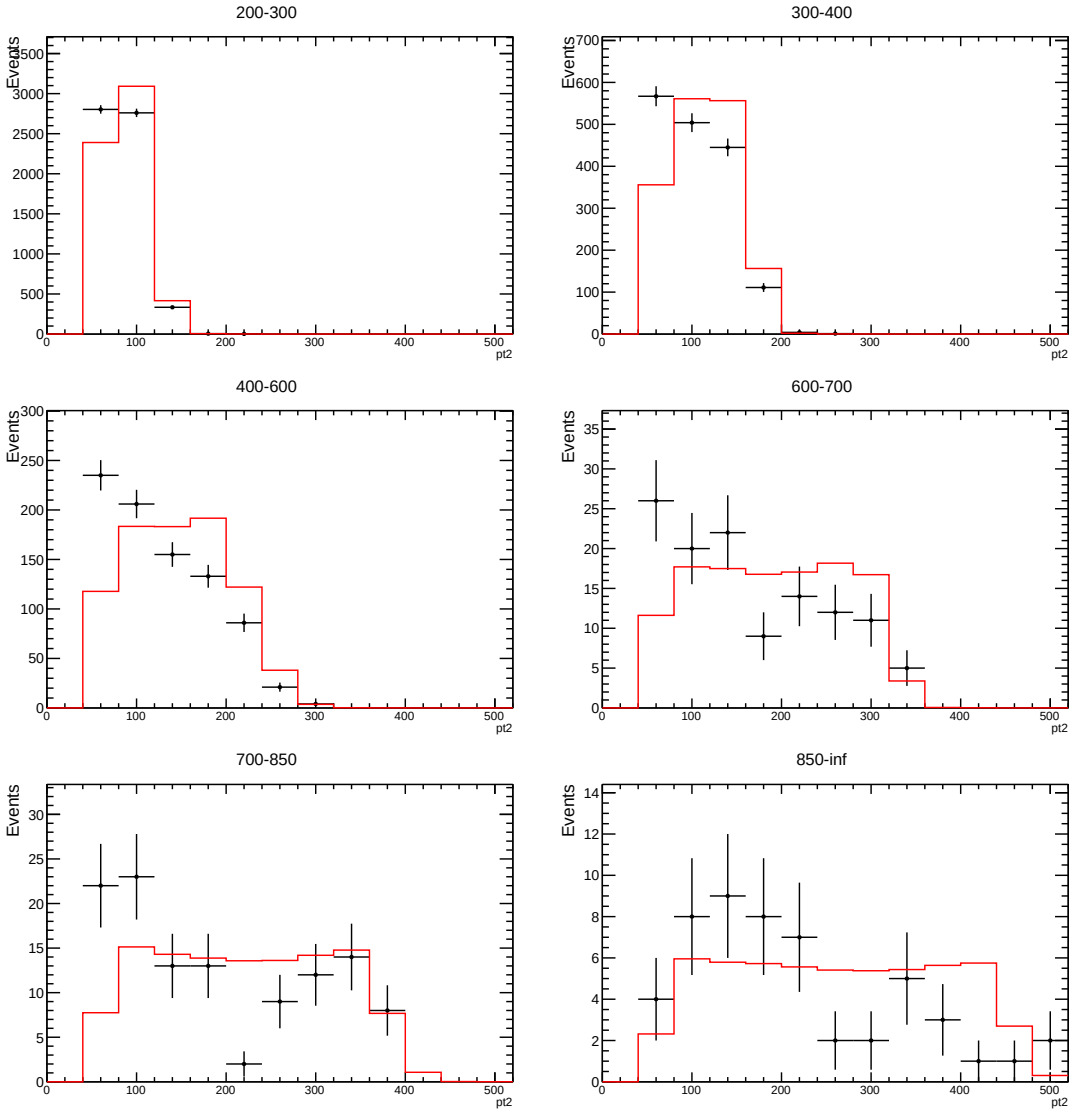
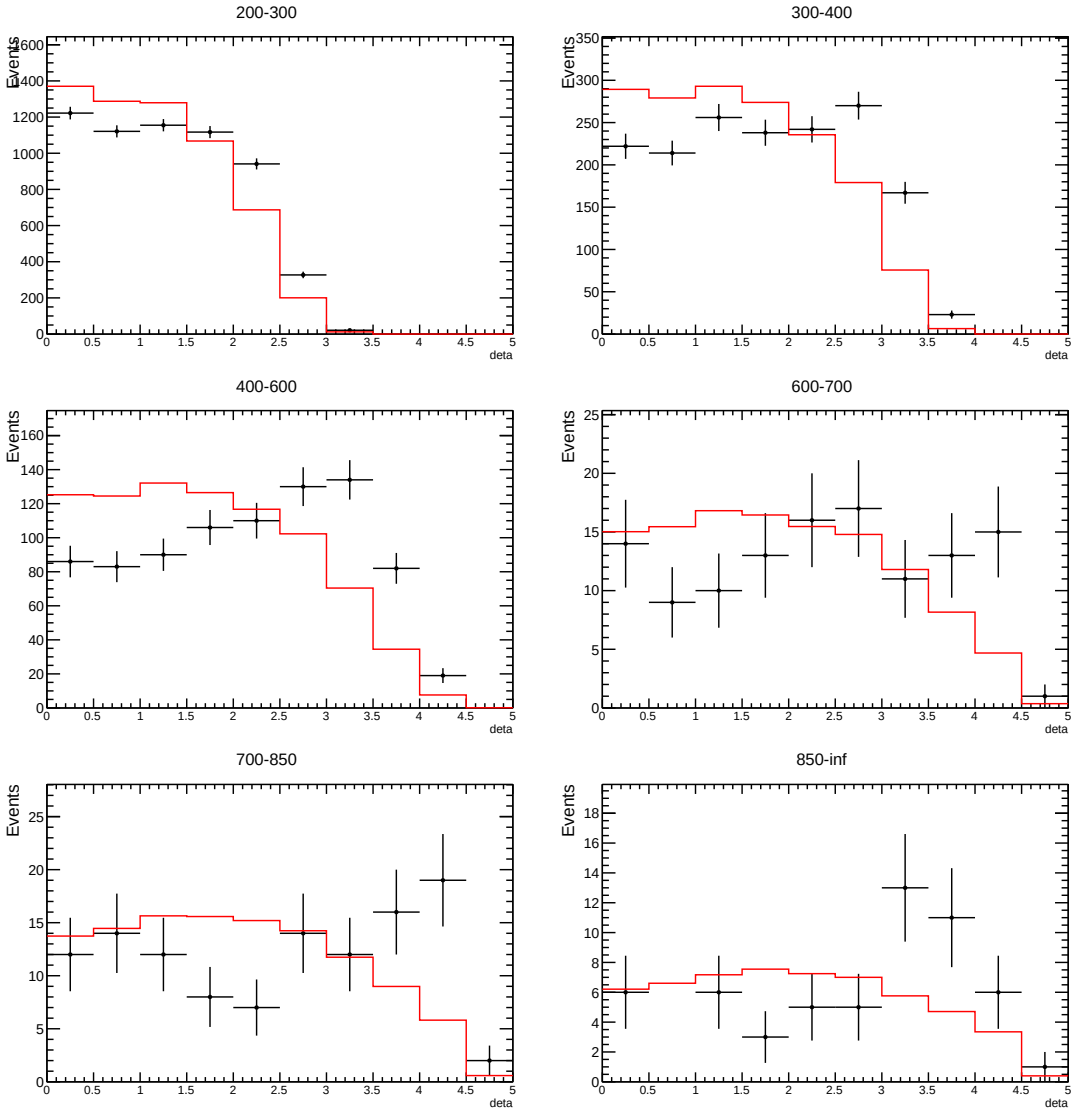


2.1.5 Deta



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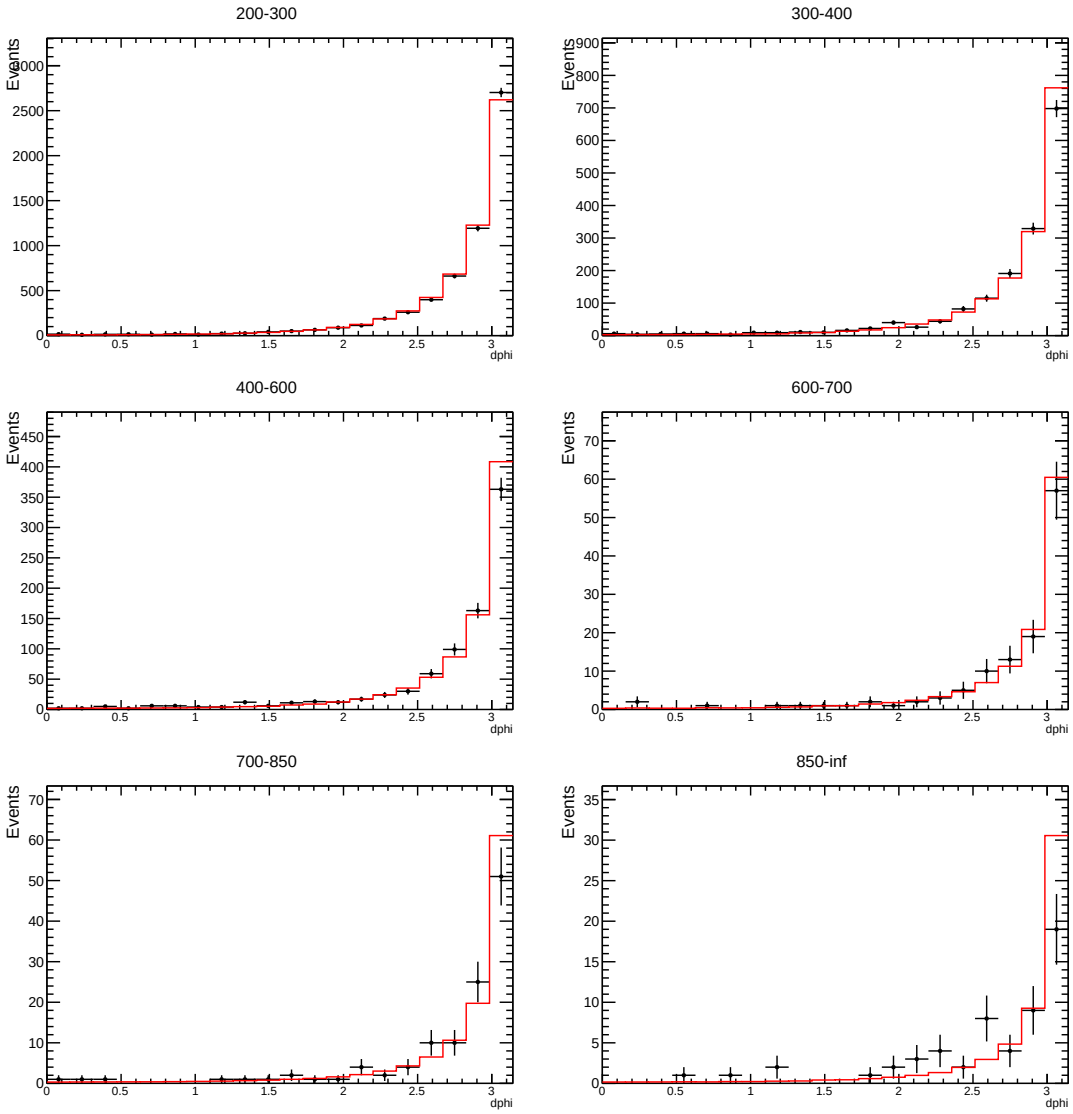
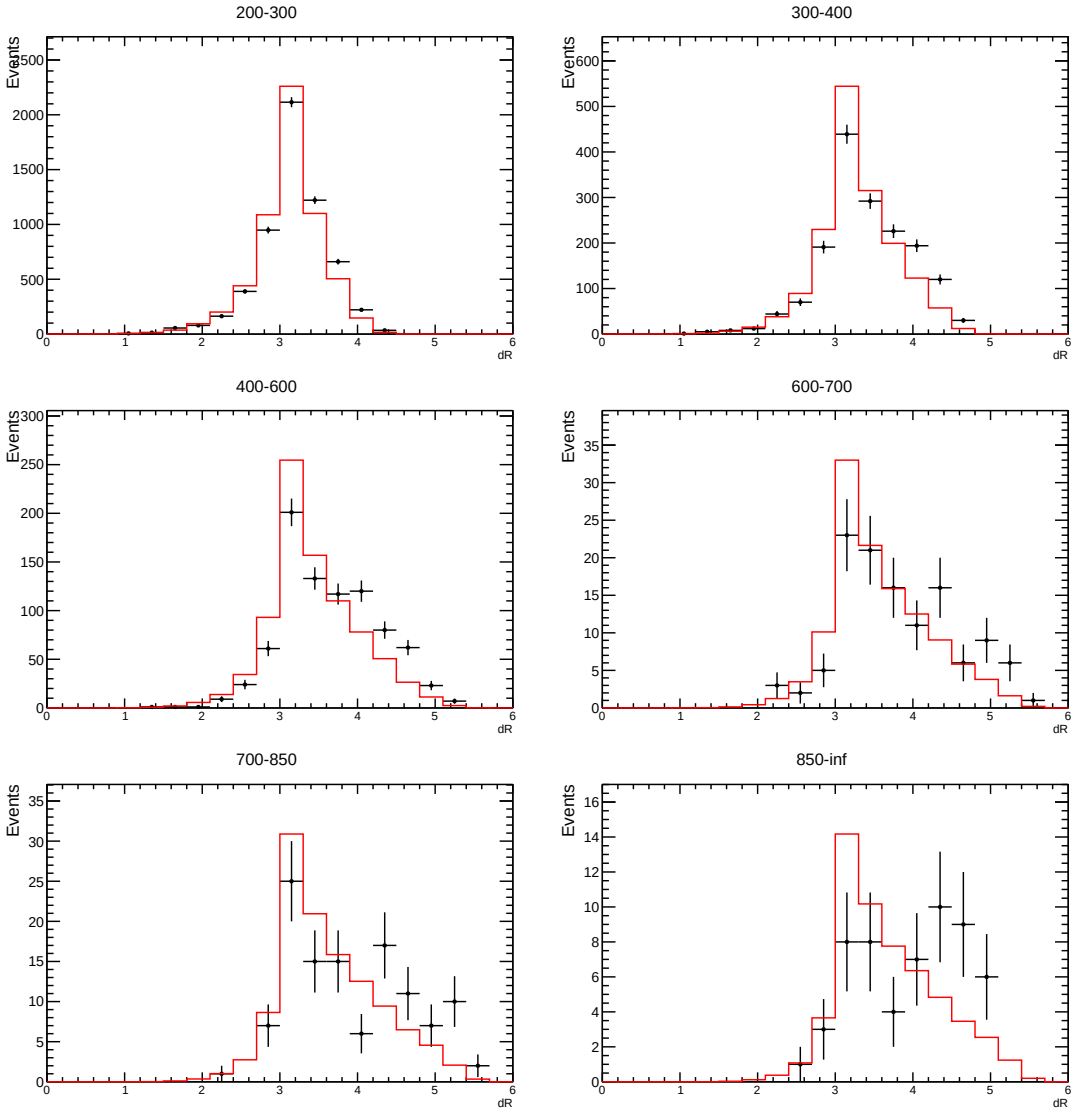
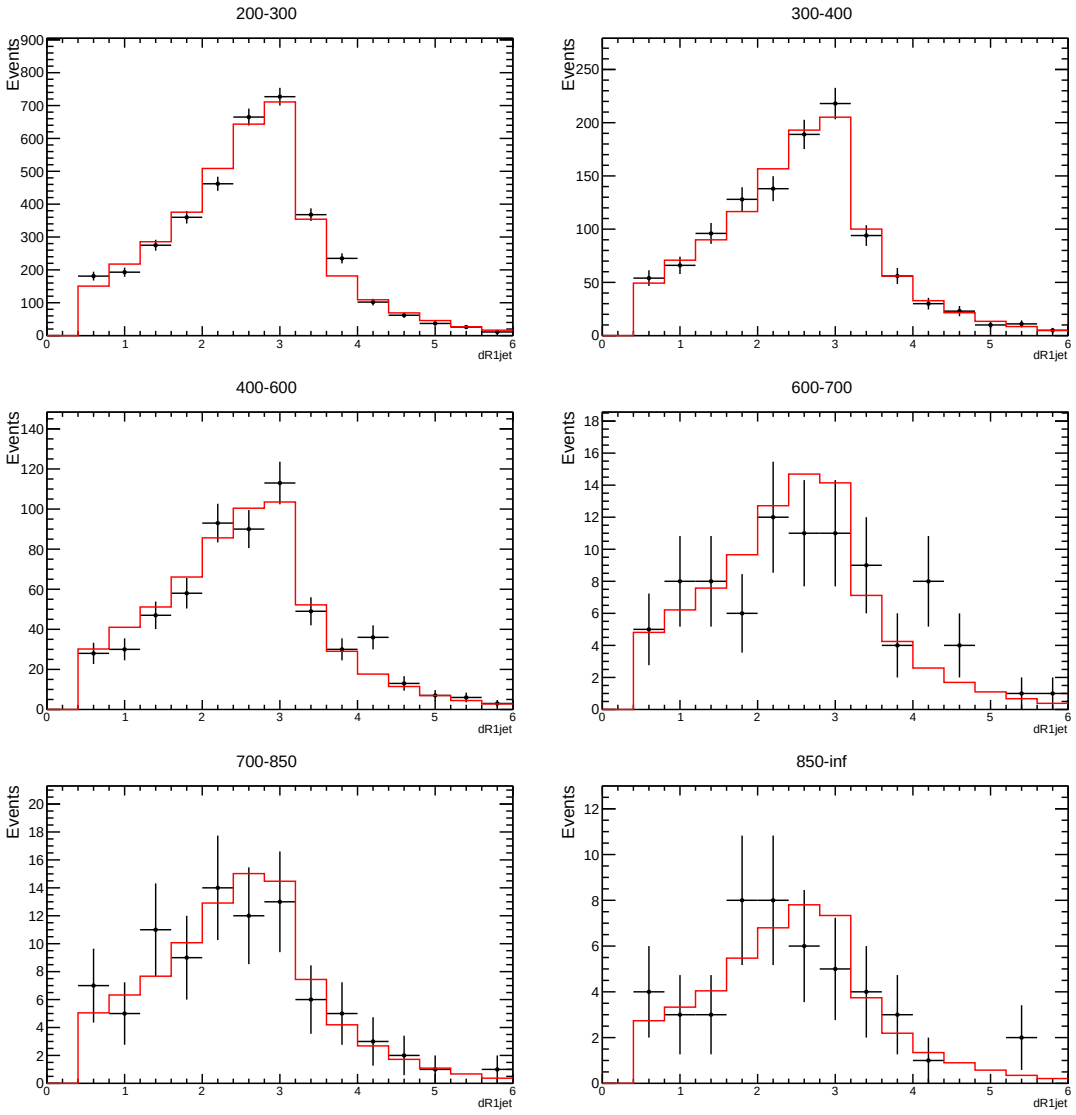


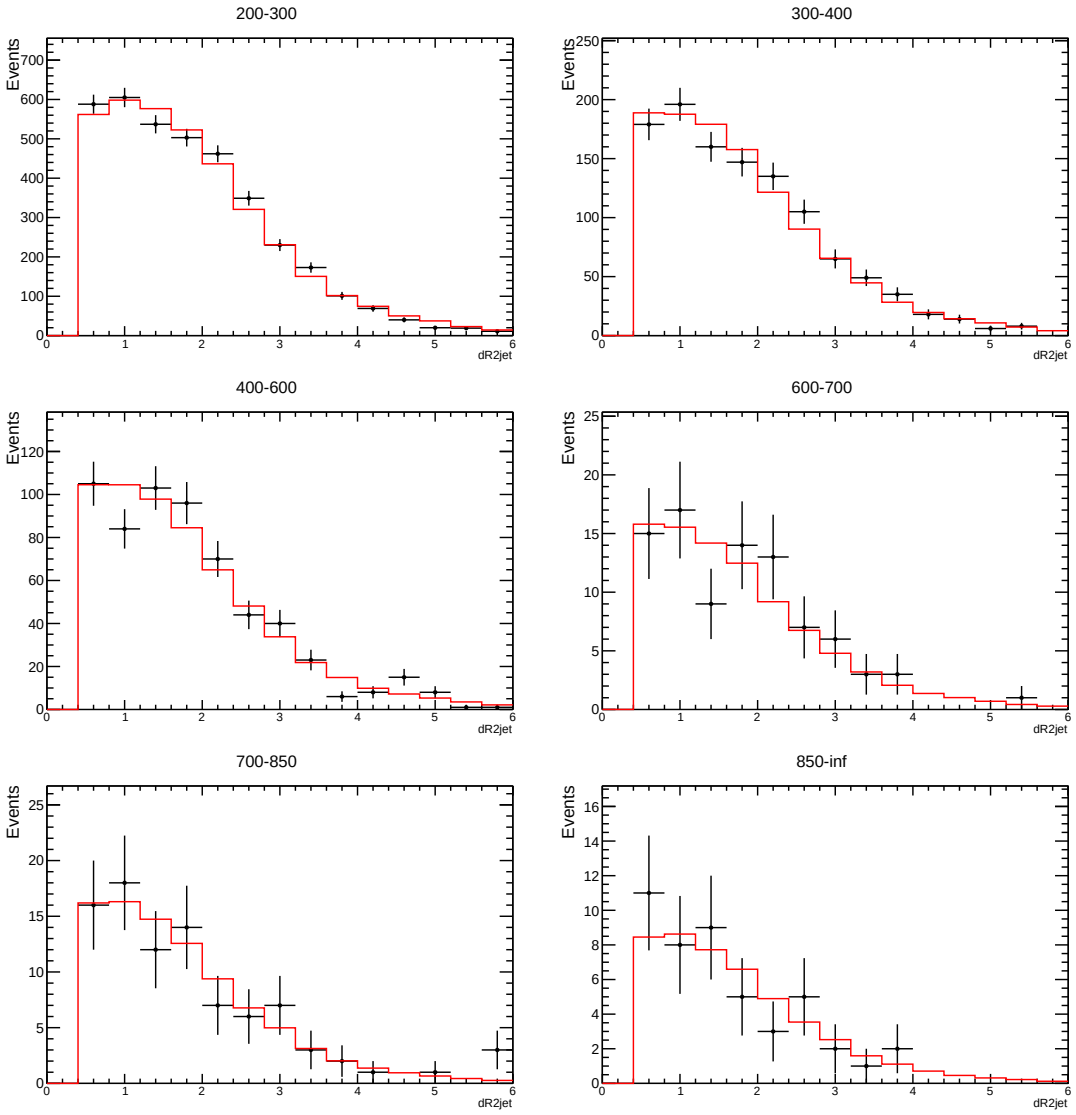
2.1.7 DR



2.1.8 DR1jet



2.1.9 DR2jet



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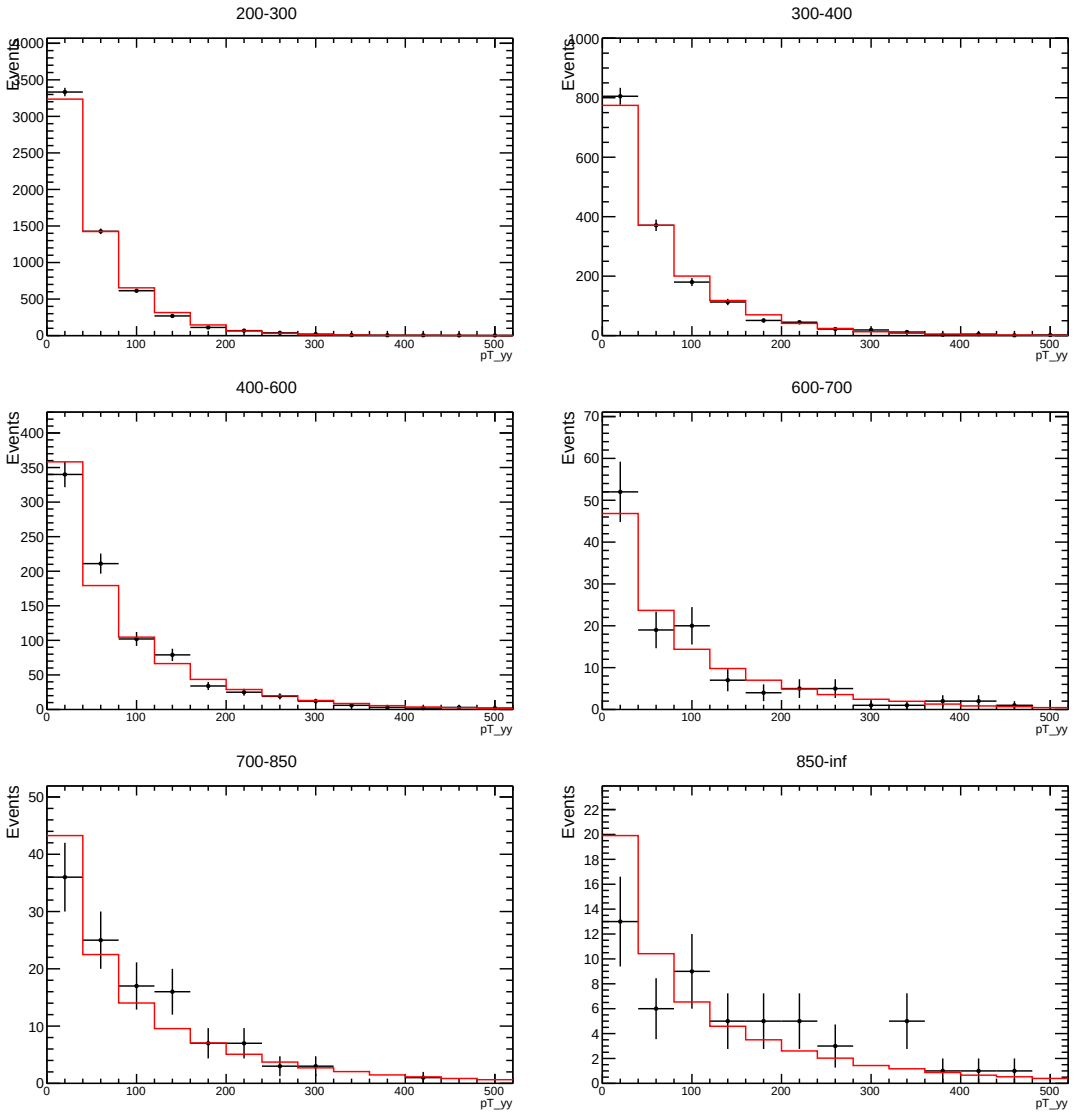
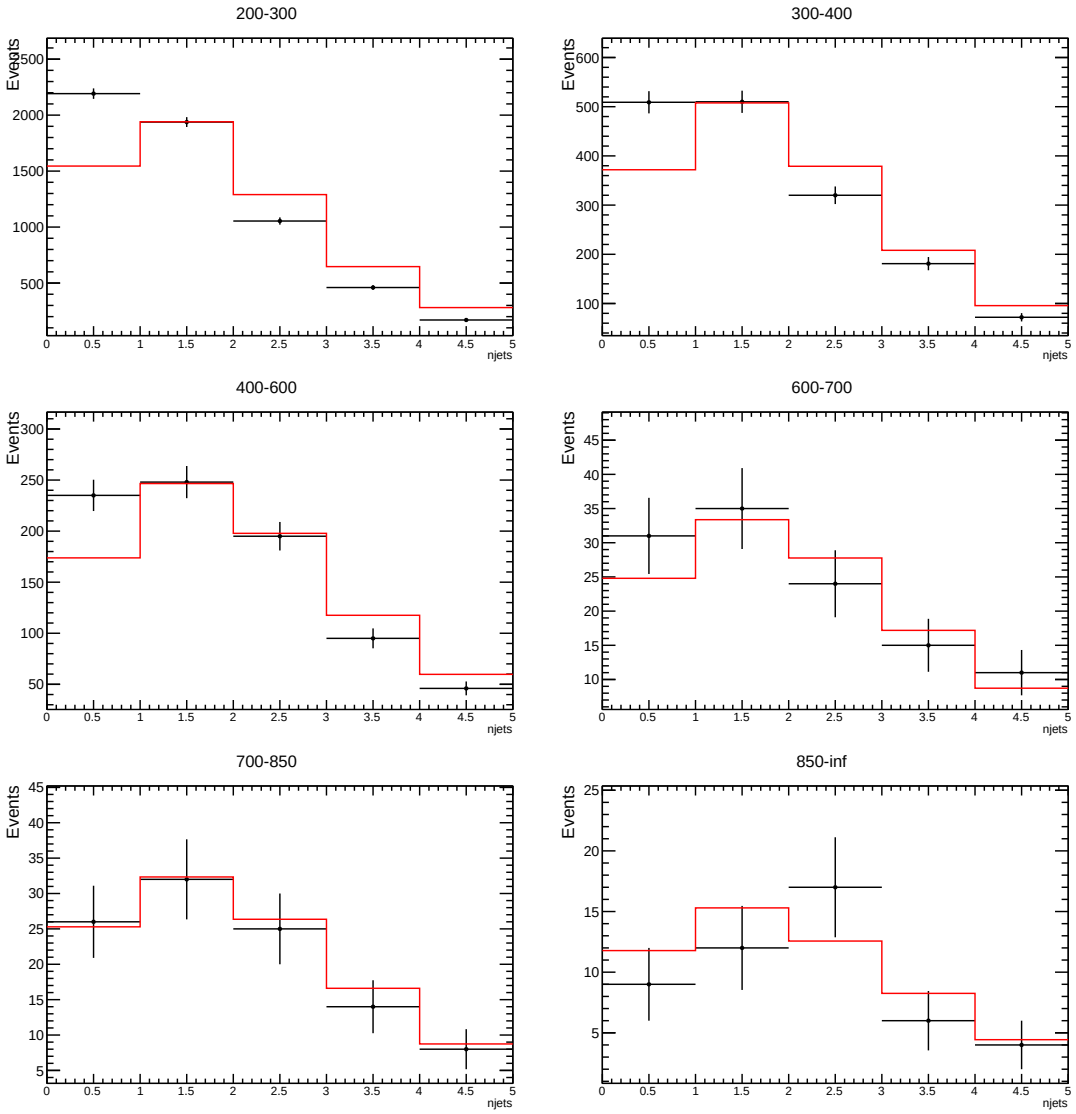
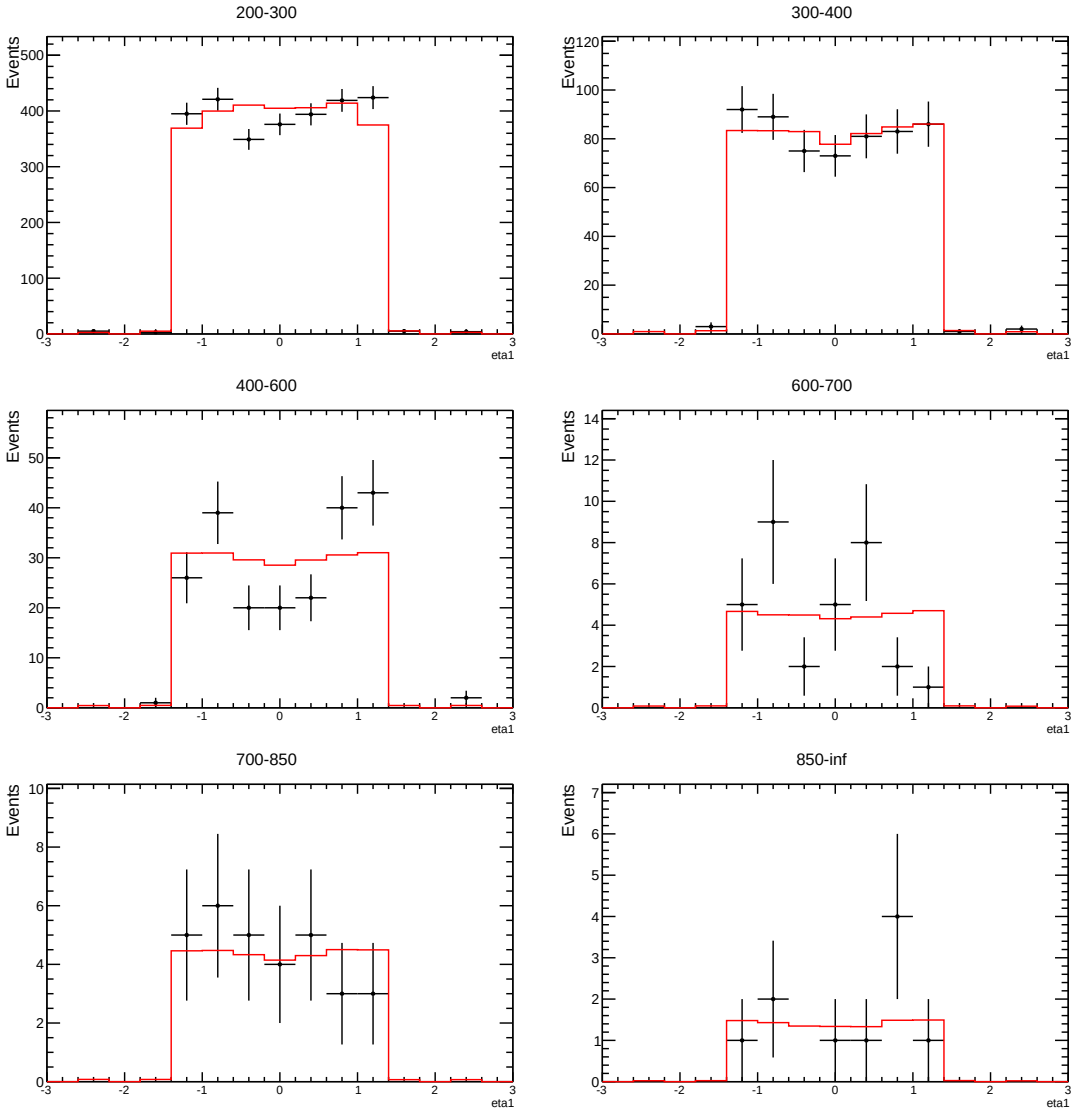


2.1.11 Njets



2.2 BB

2.2.1 Eta1



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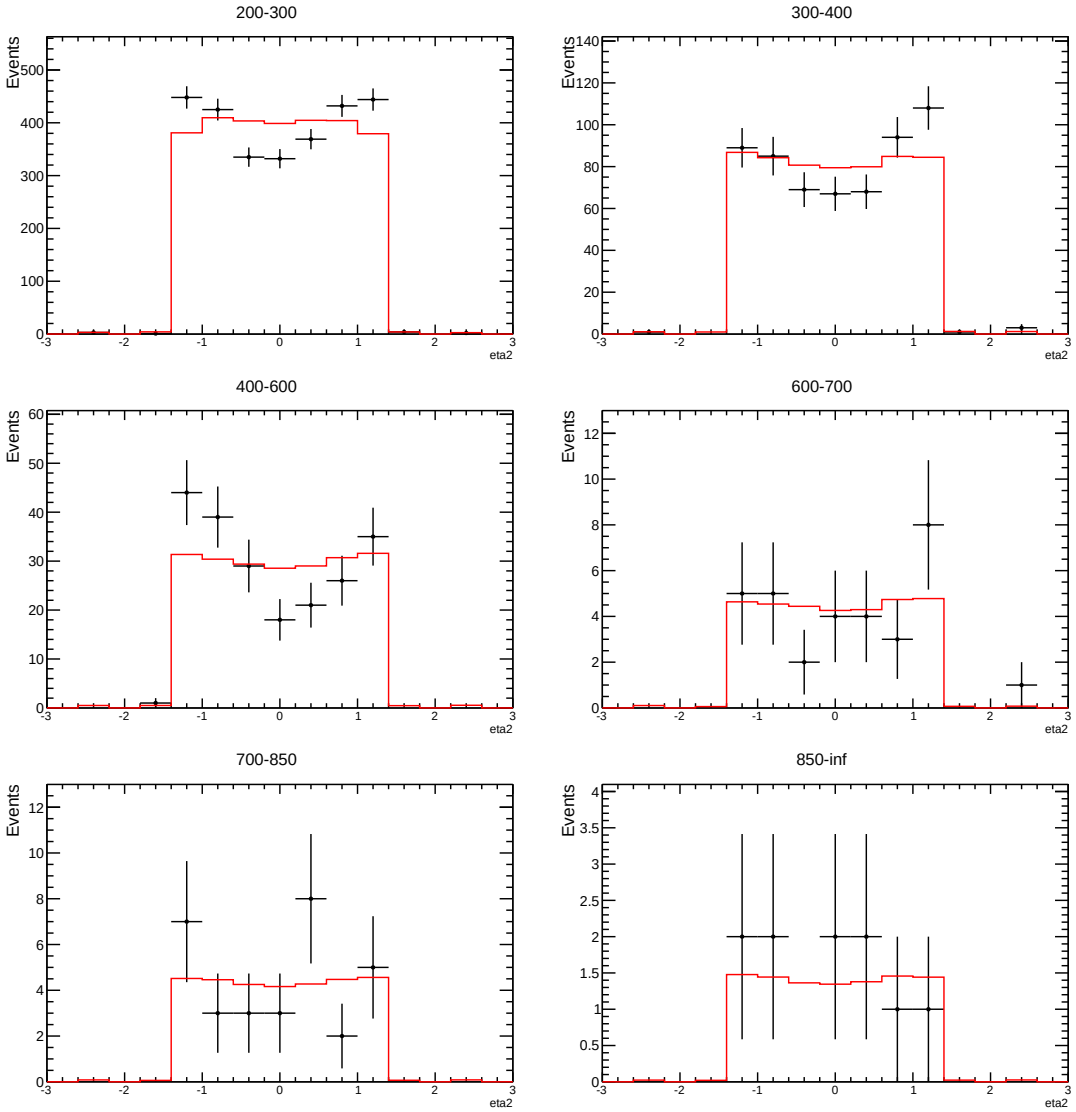

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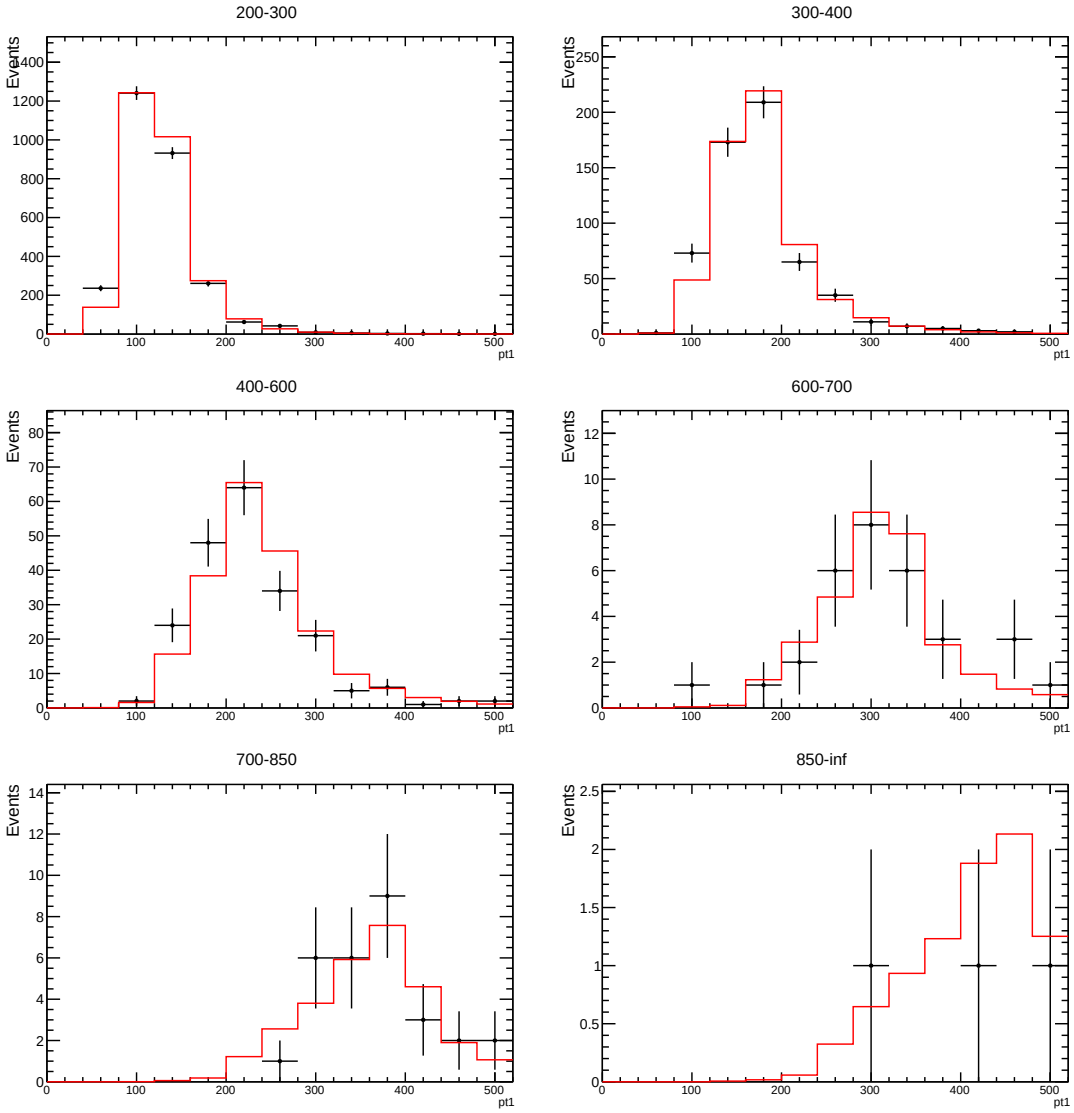

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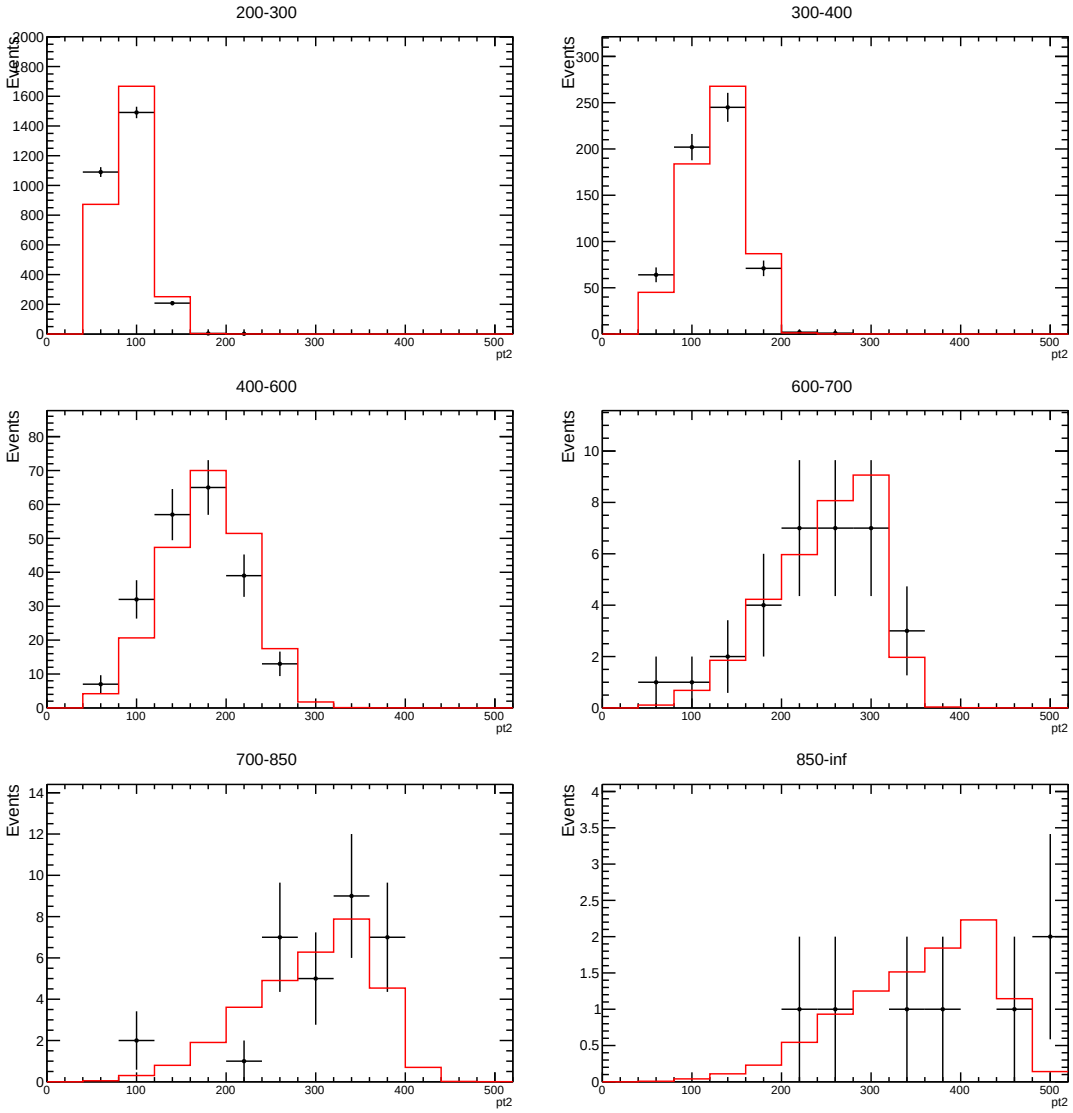

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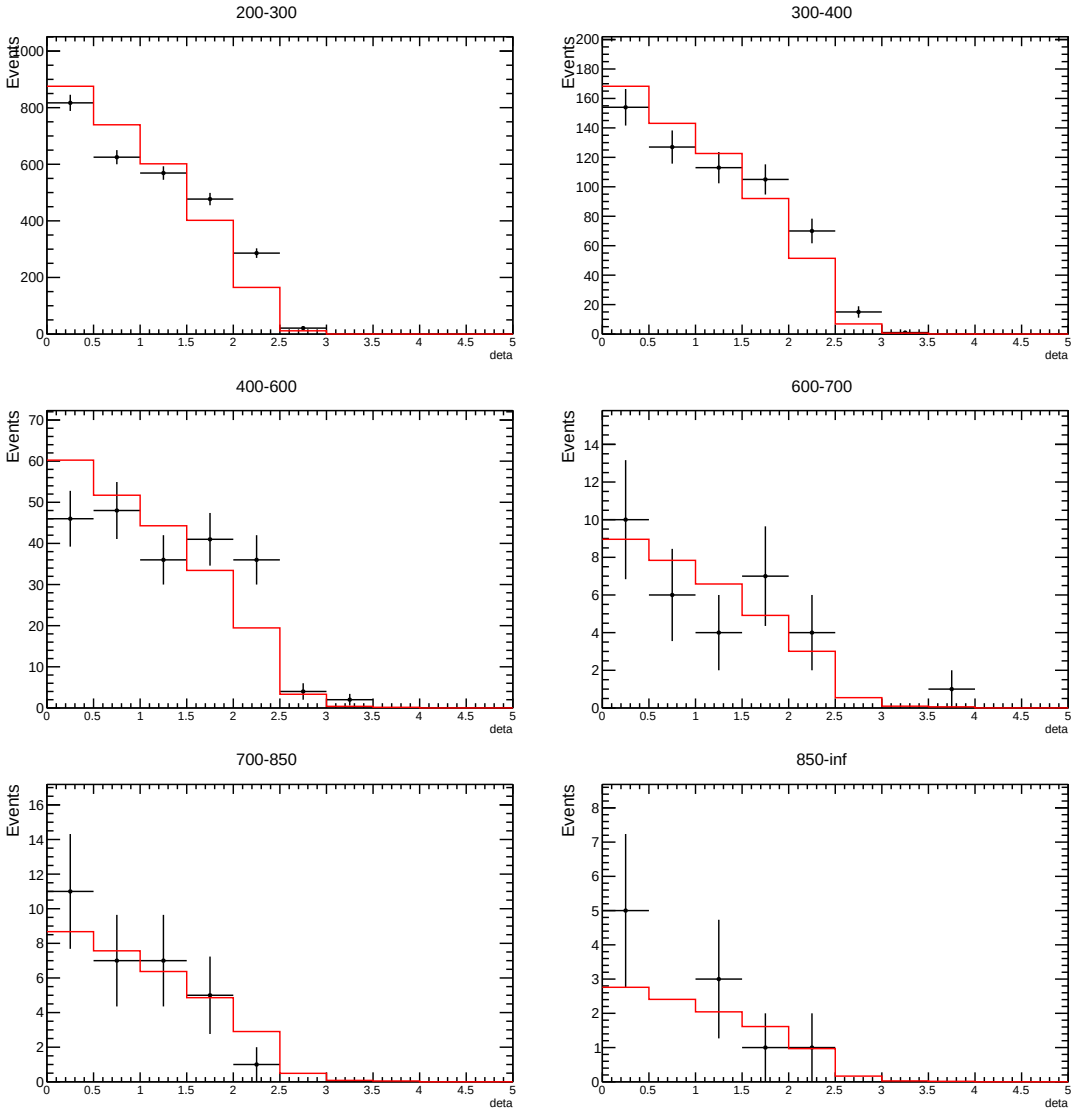

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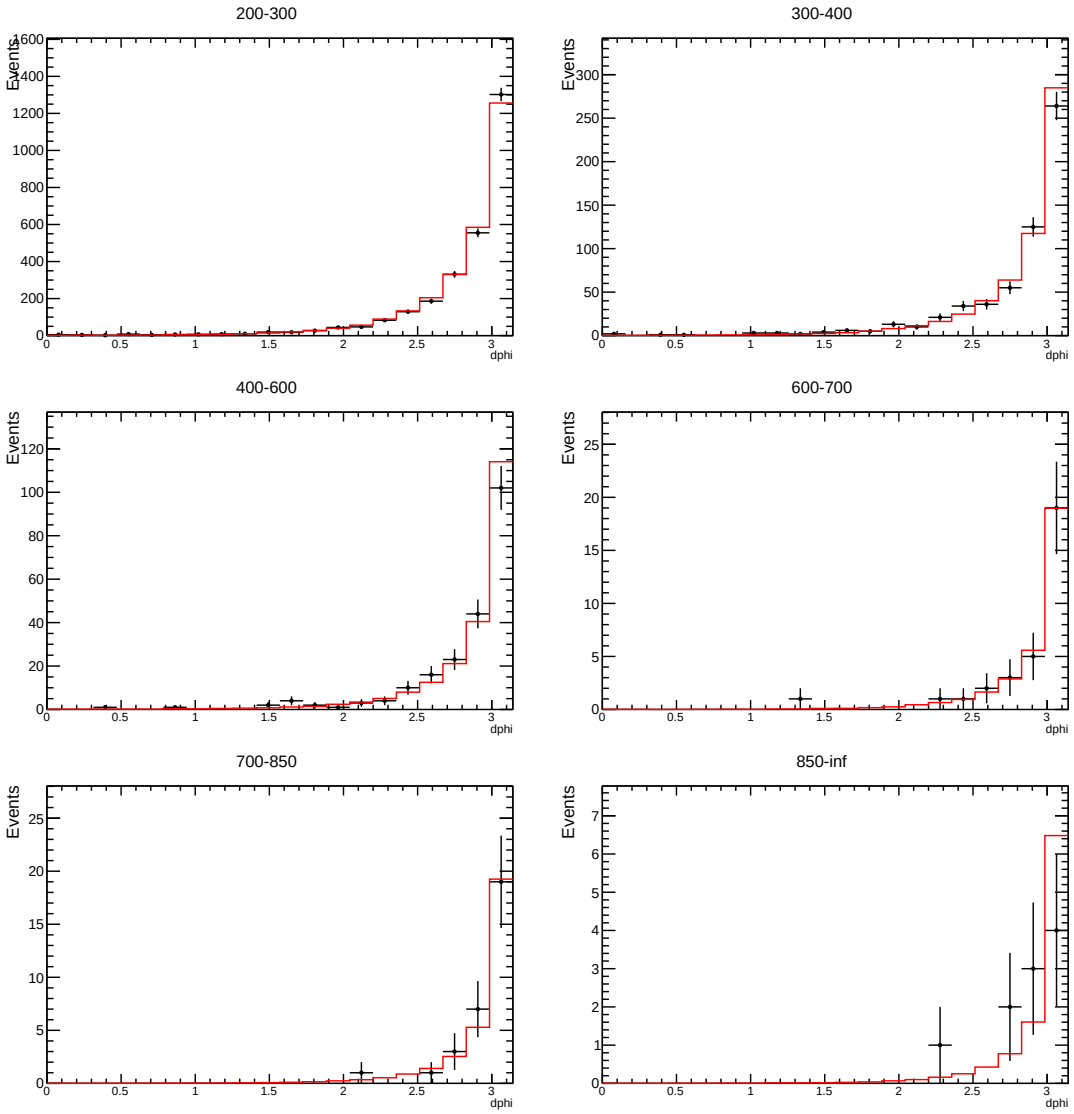

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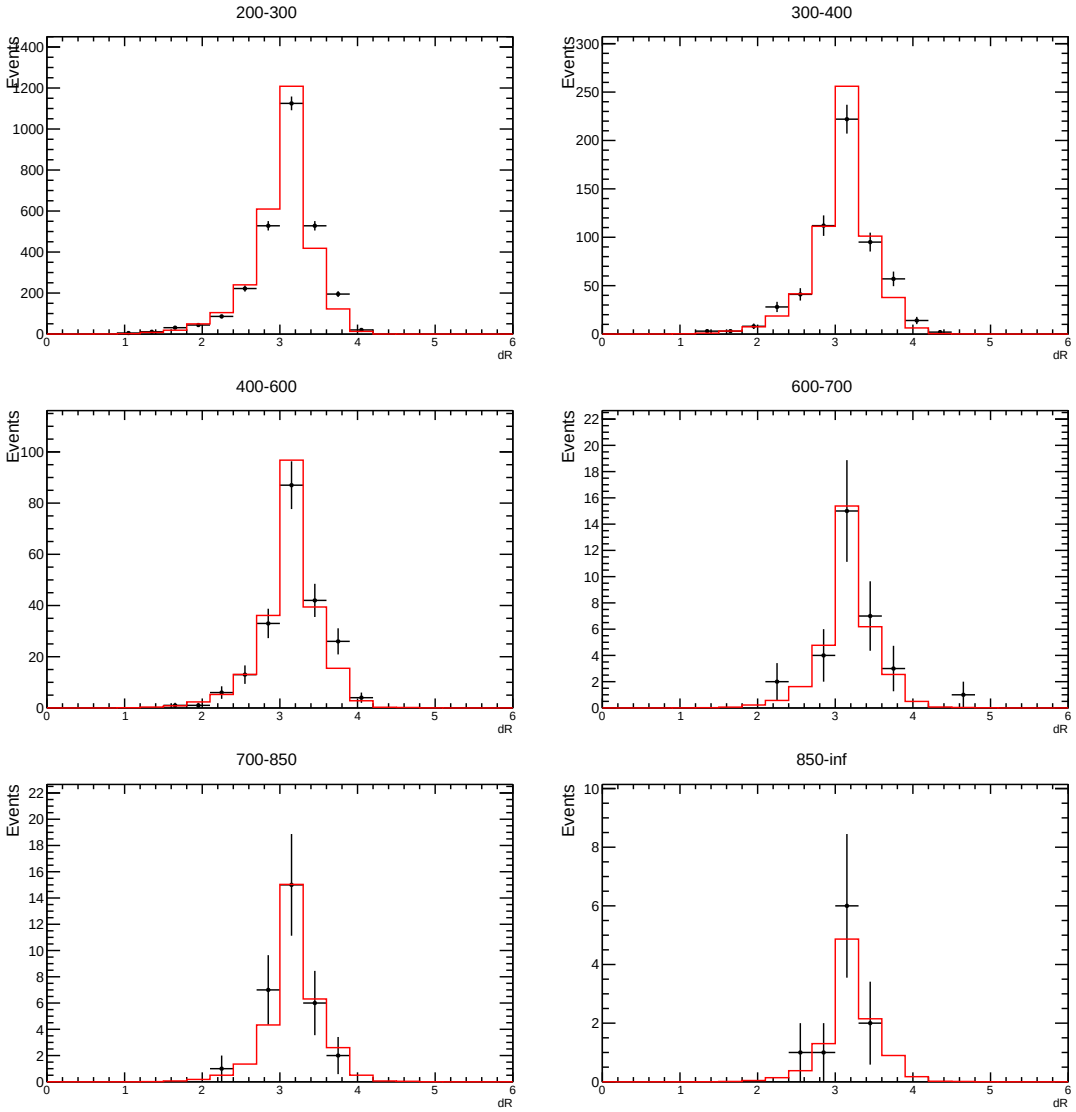

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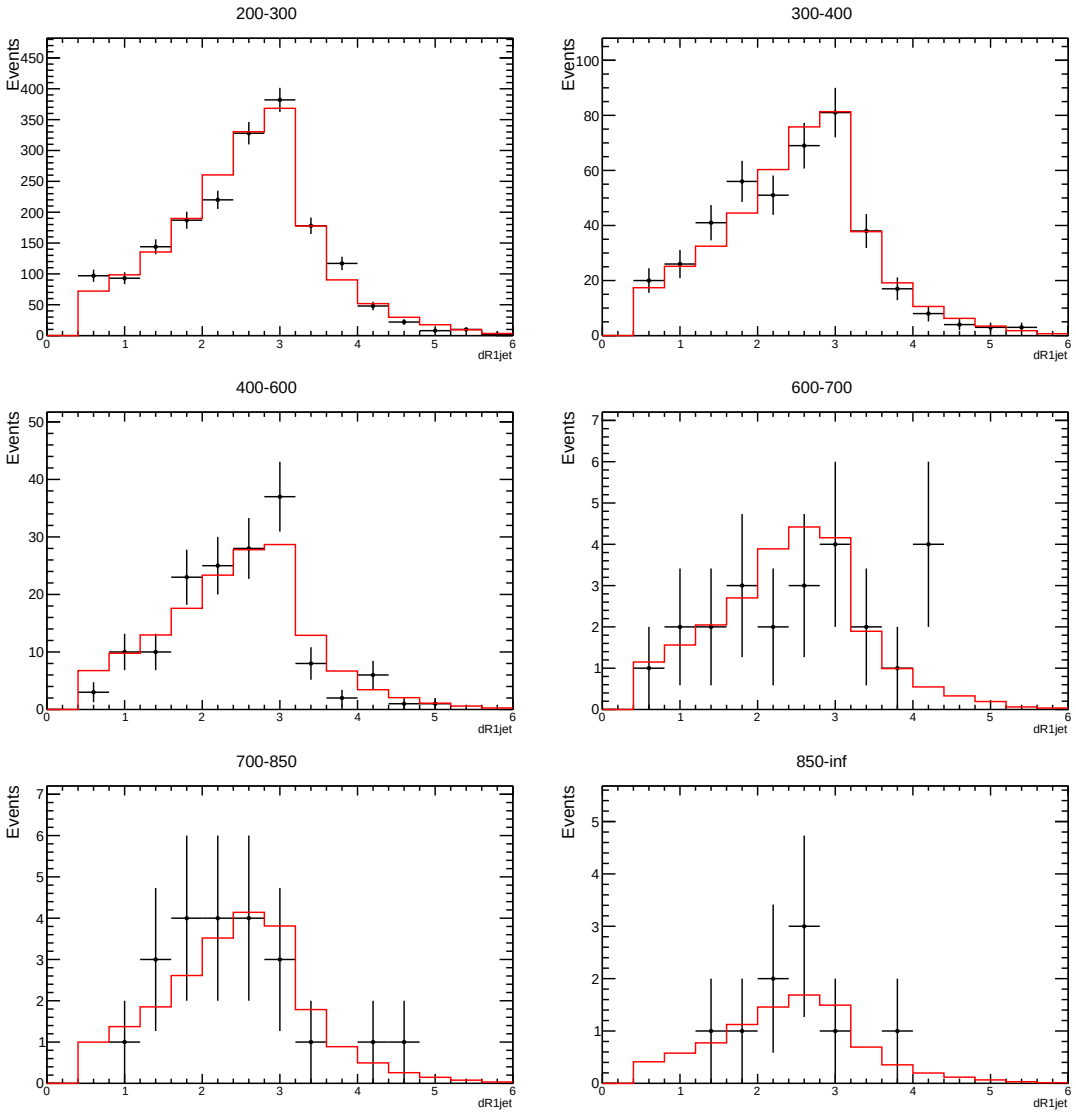

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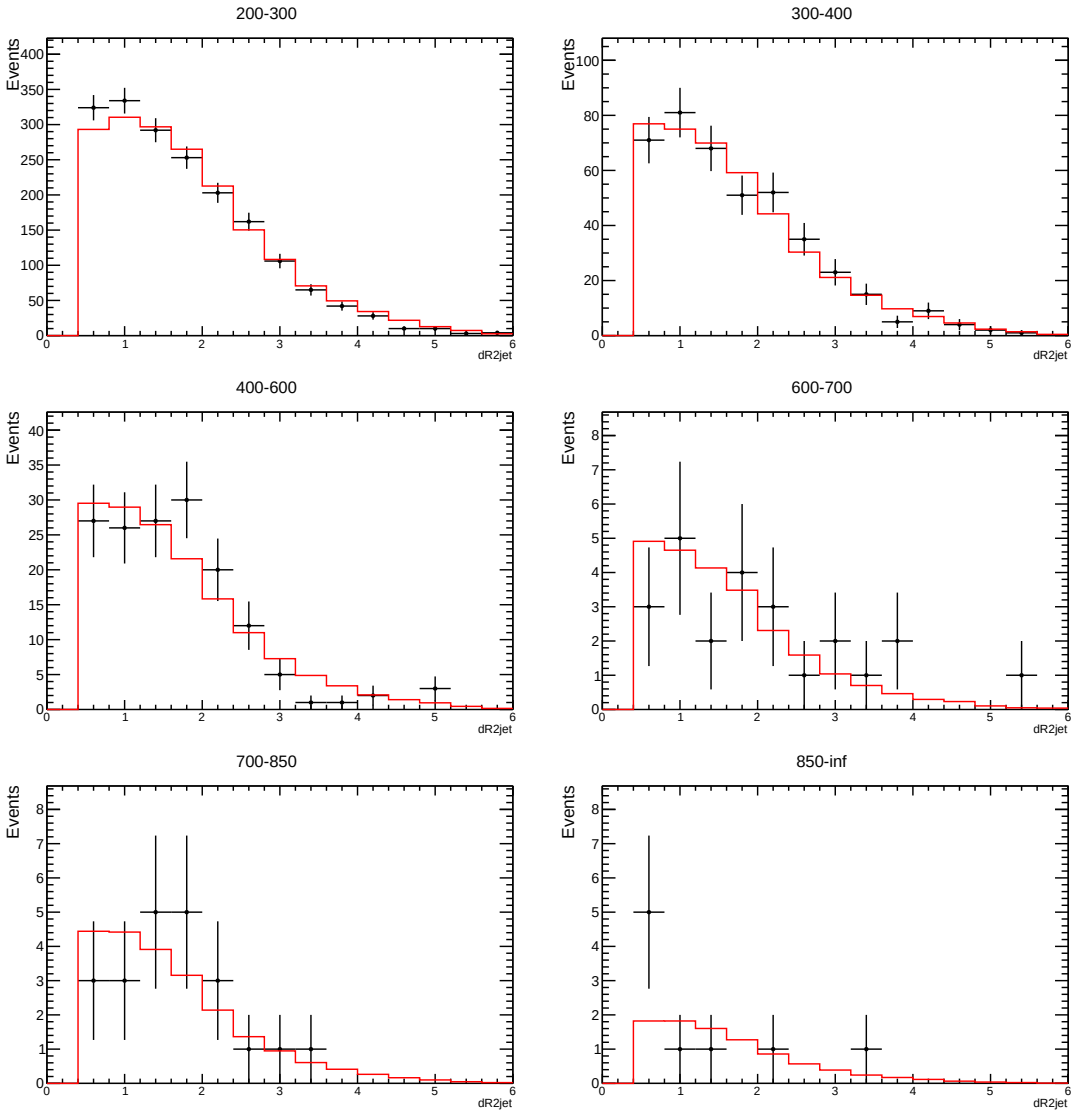

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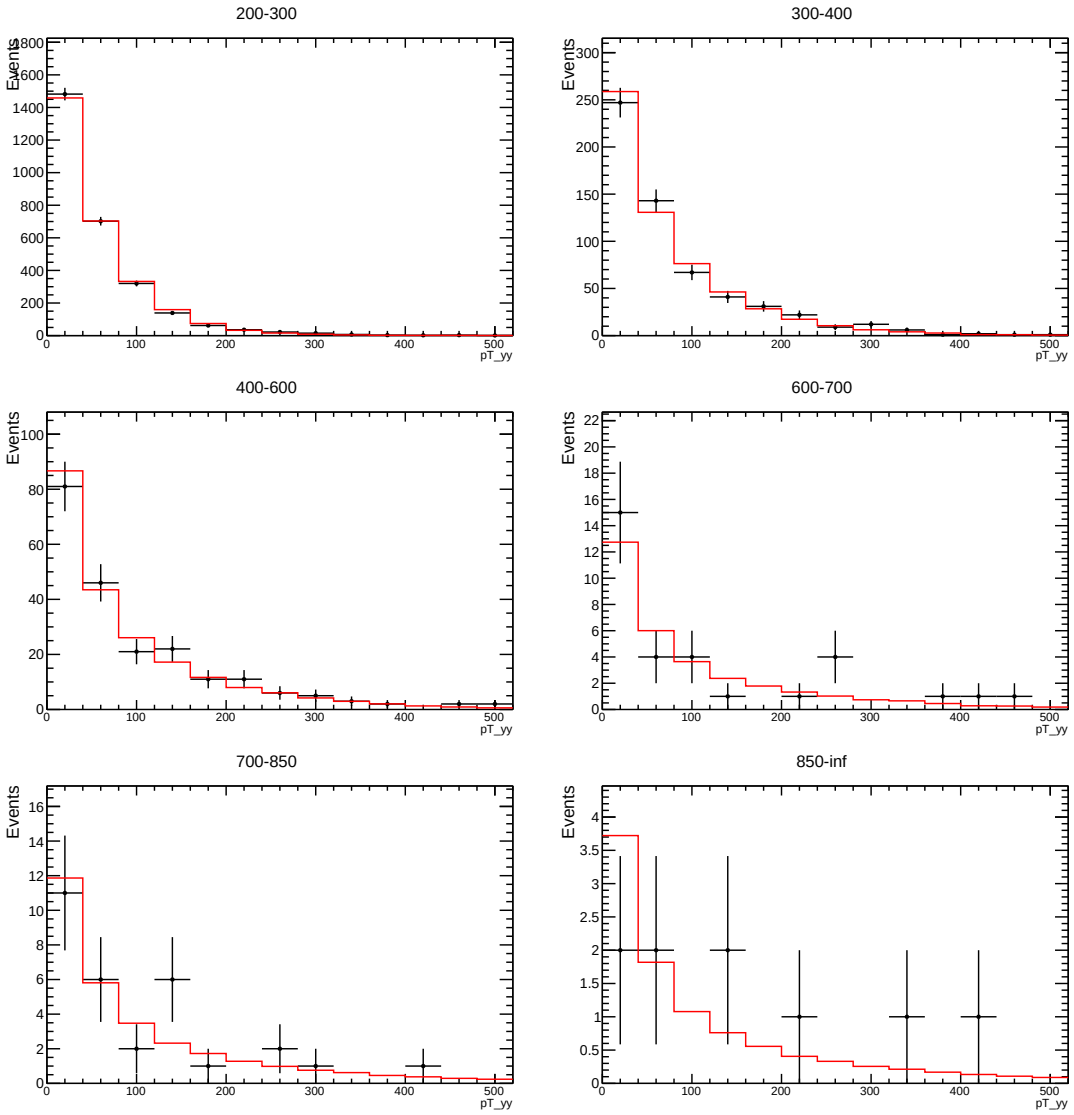
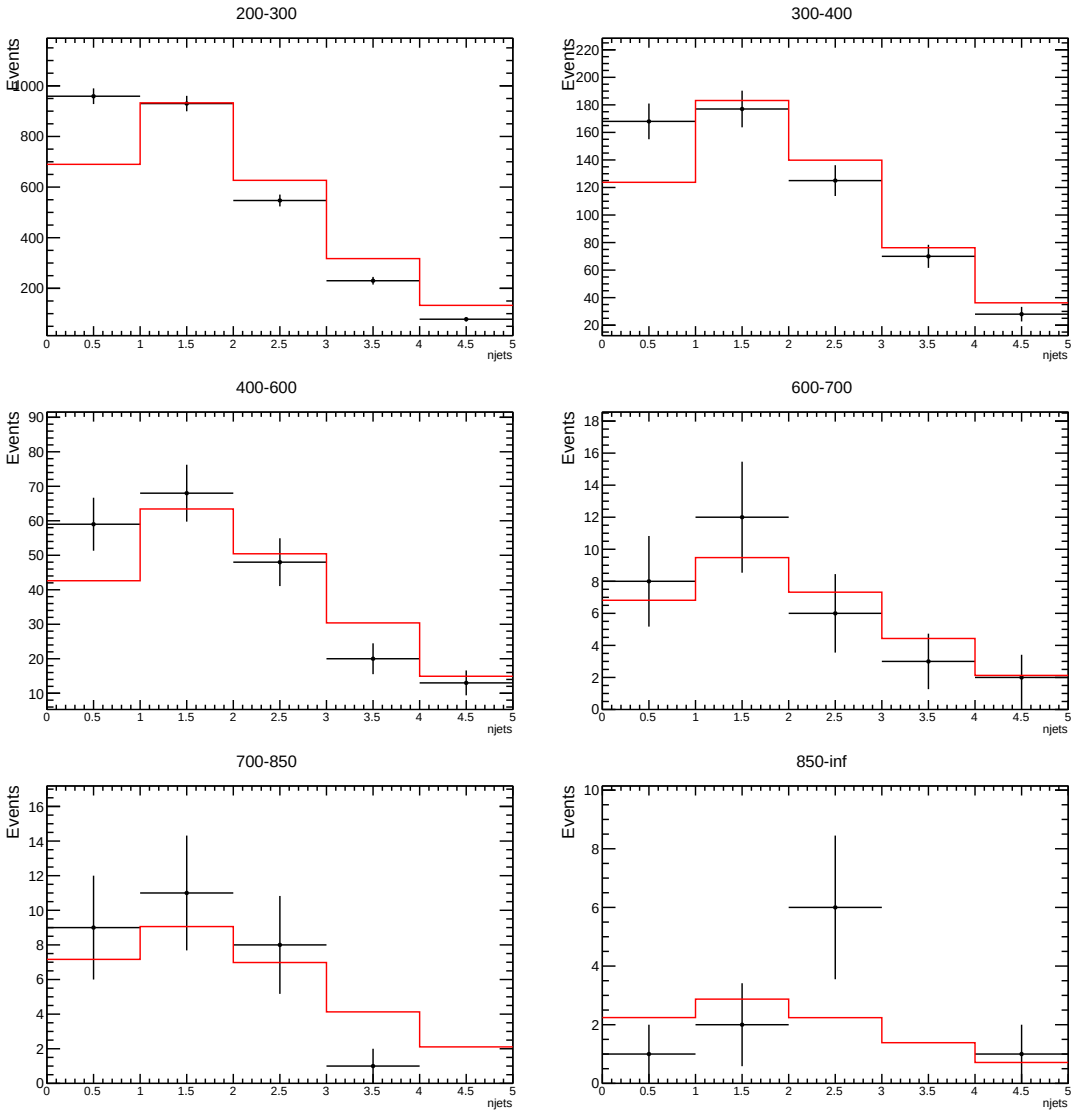
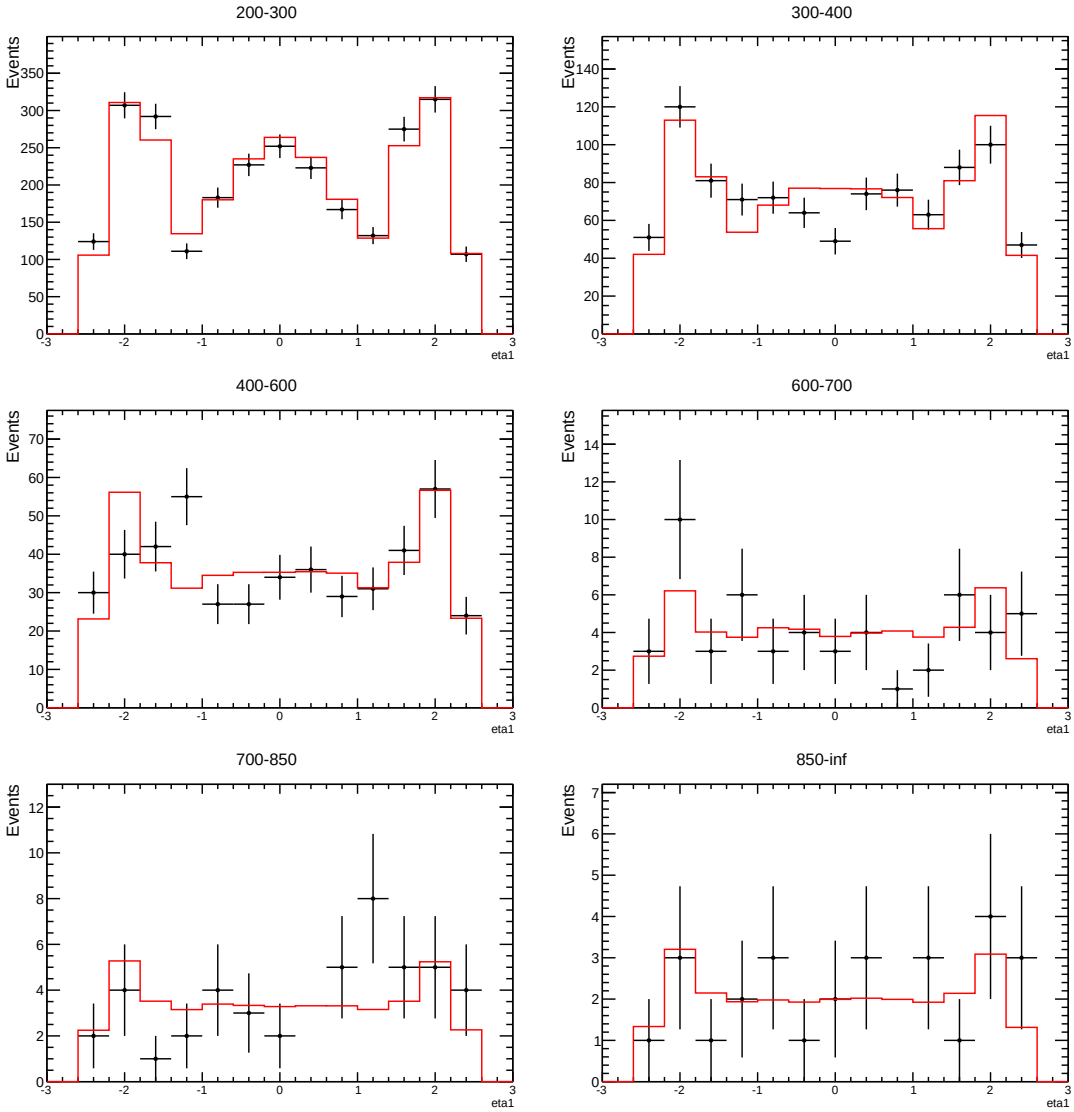


2.2.11 Njets



2.3 BEEB

2.3.1 Eta1



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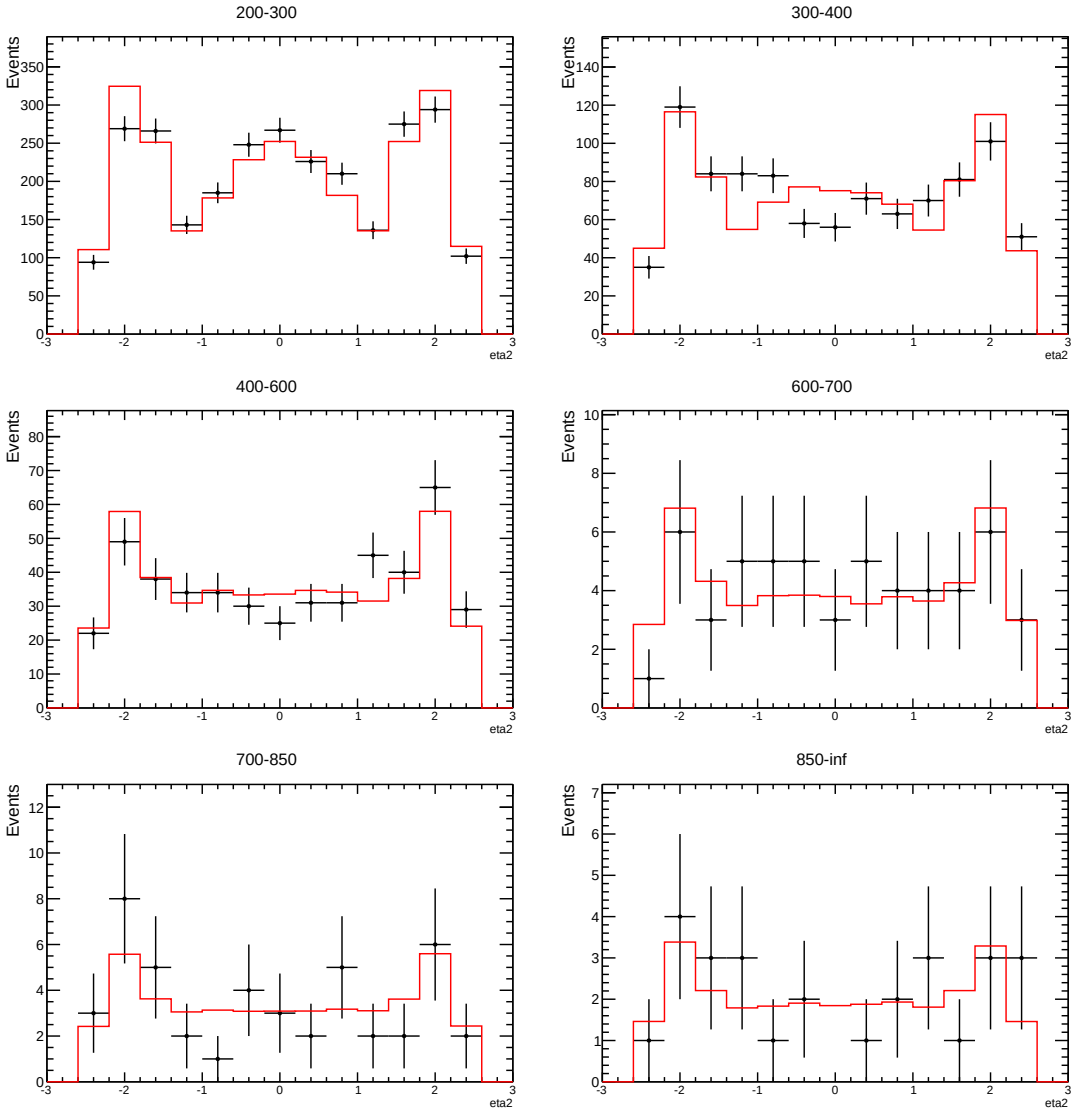
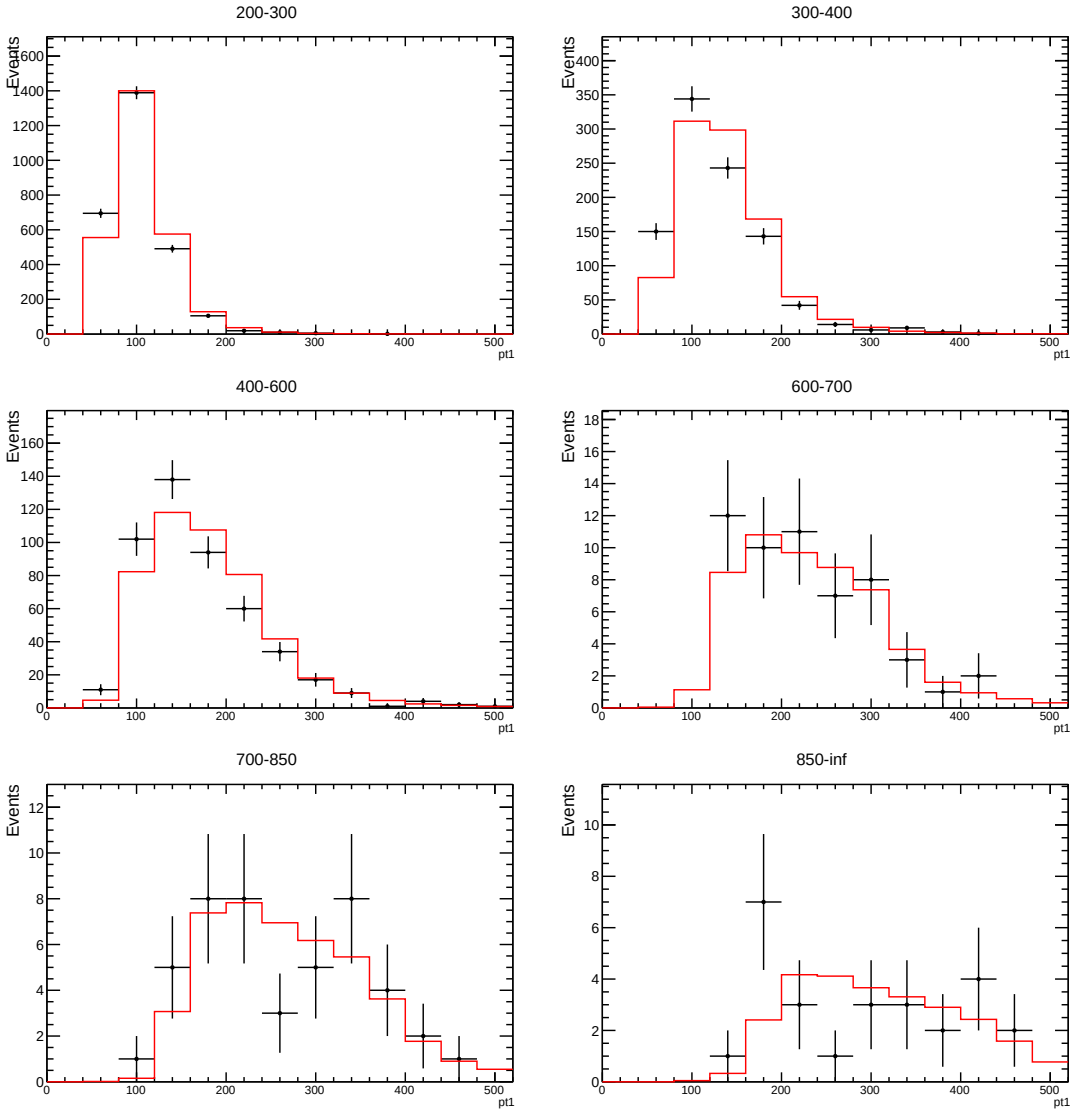


2.3.3 Pt1



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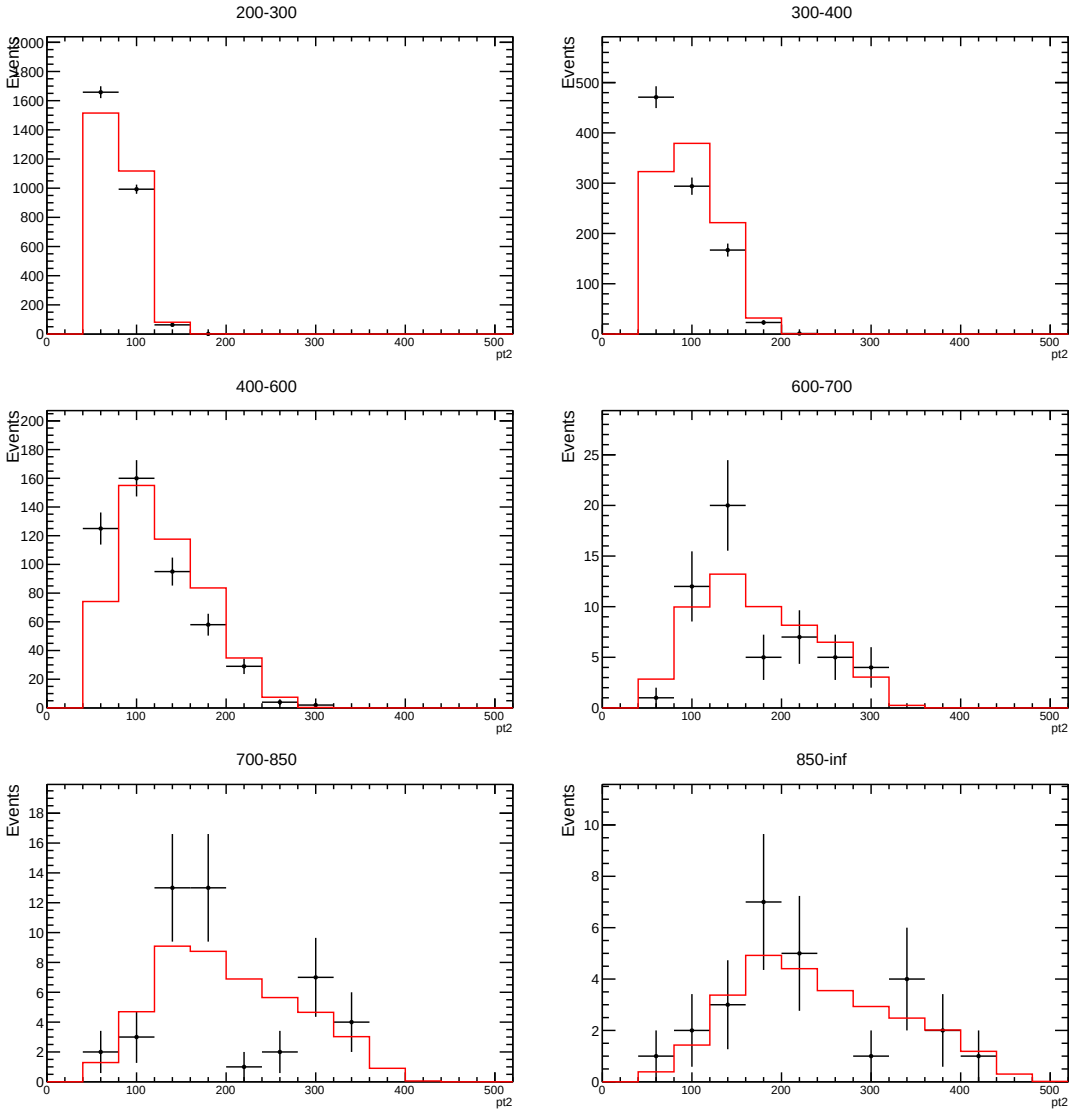
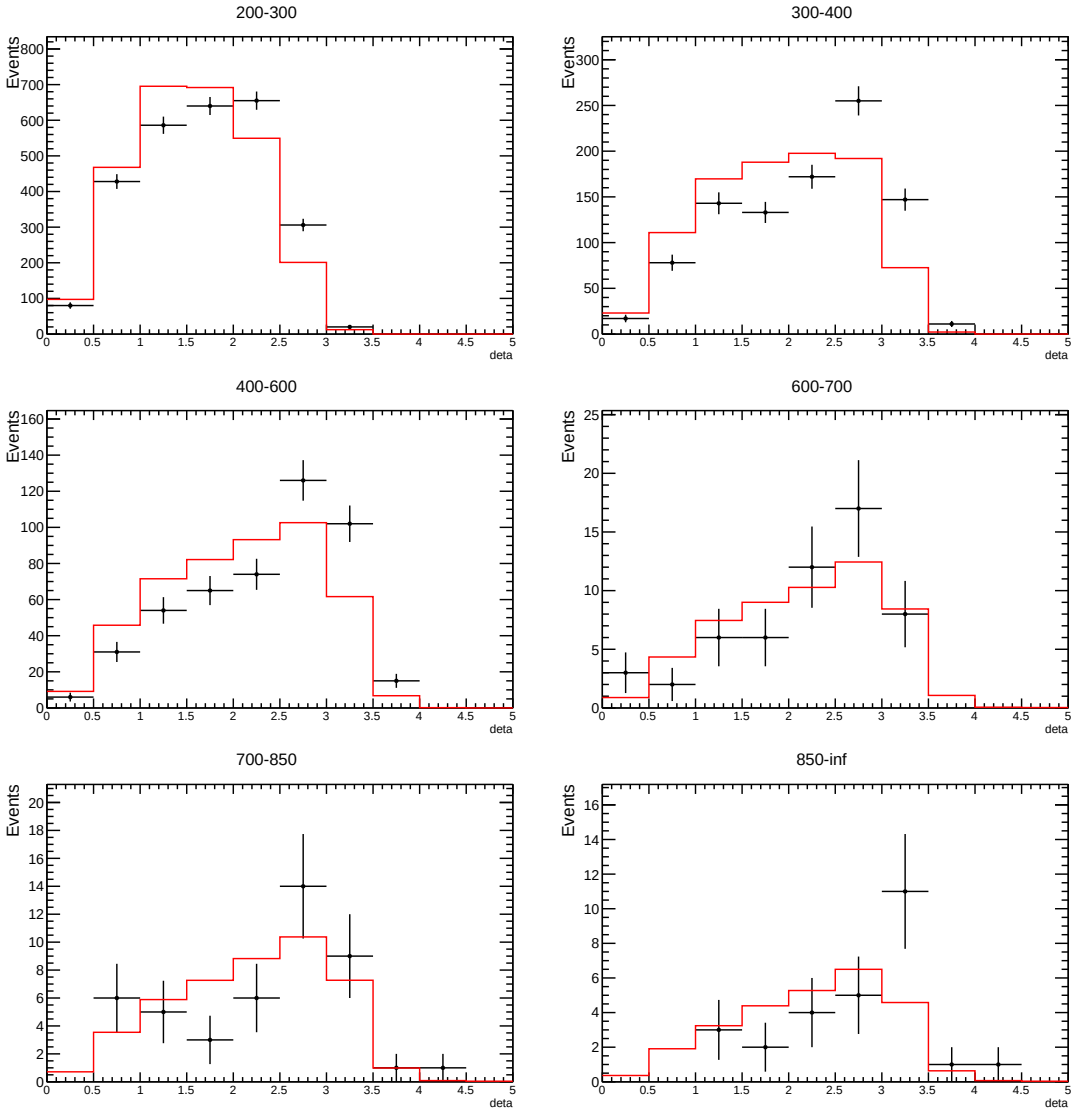


2.3.5 Deta



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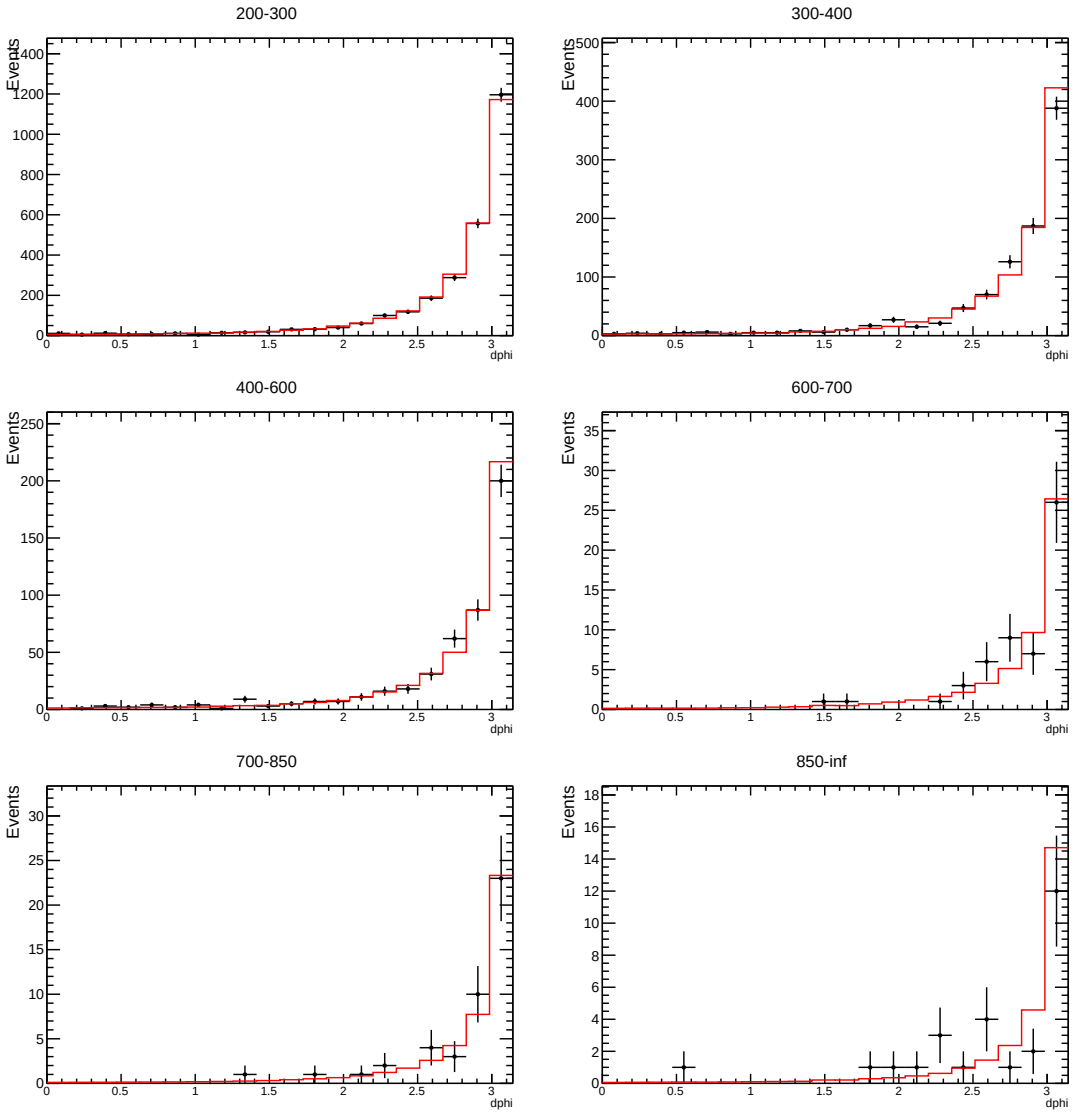
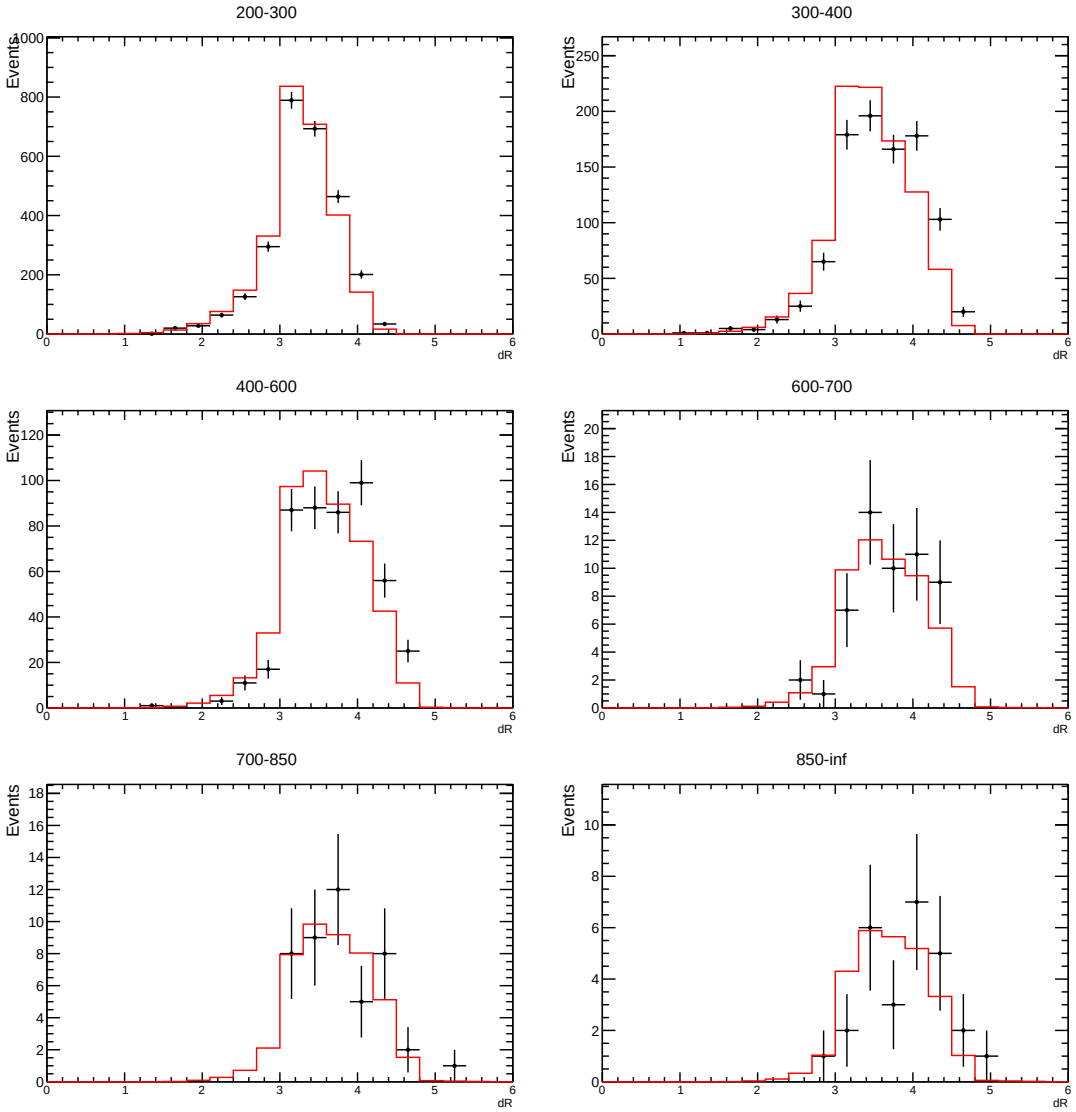
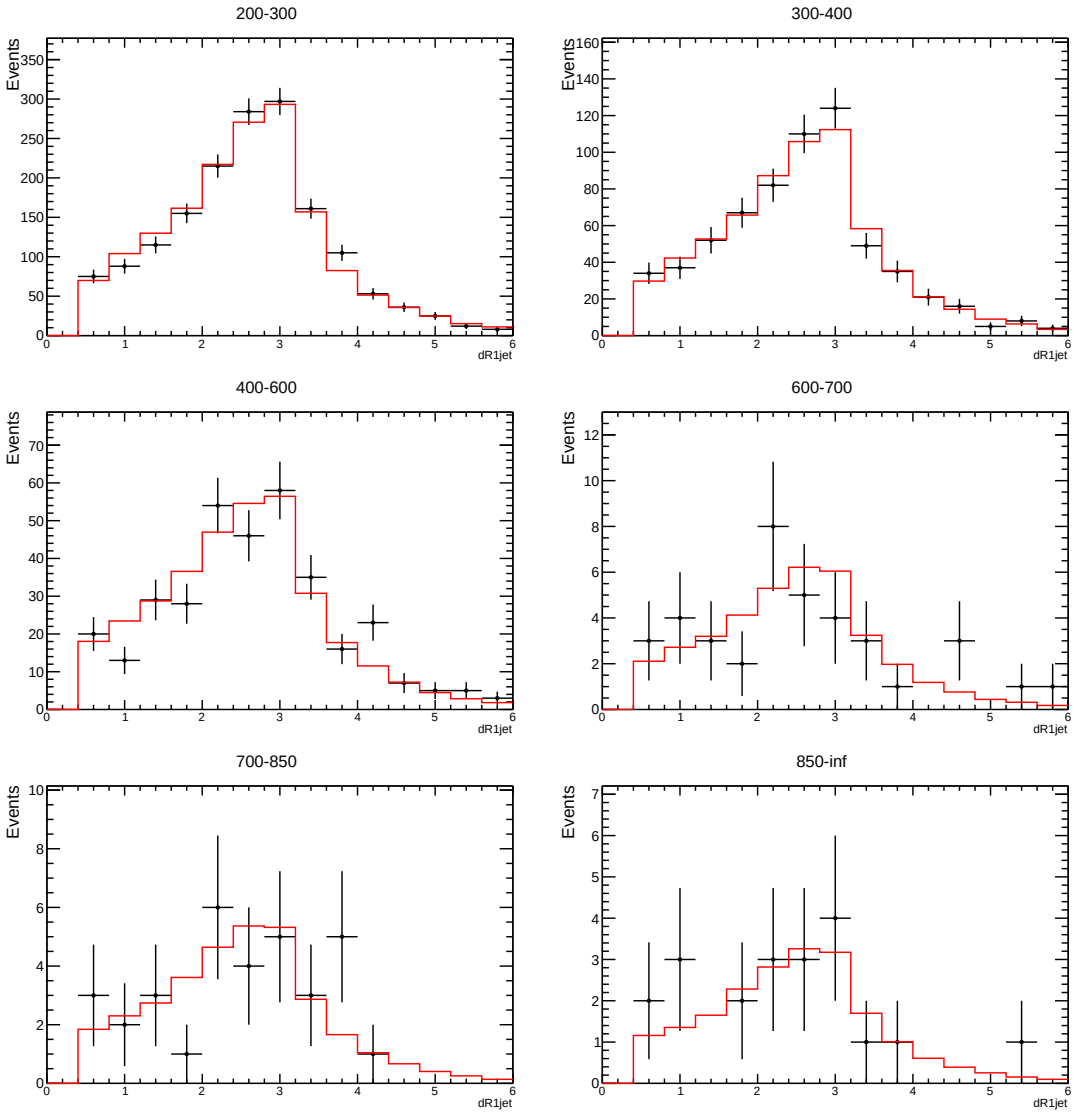


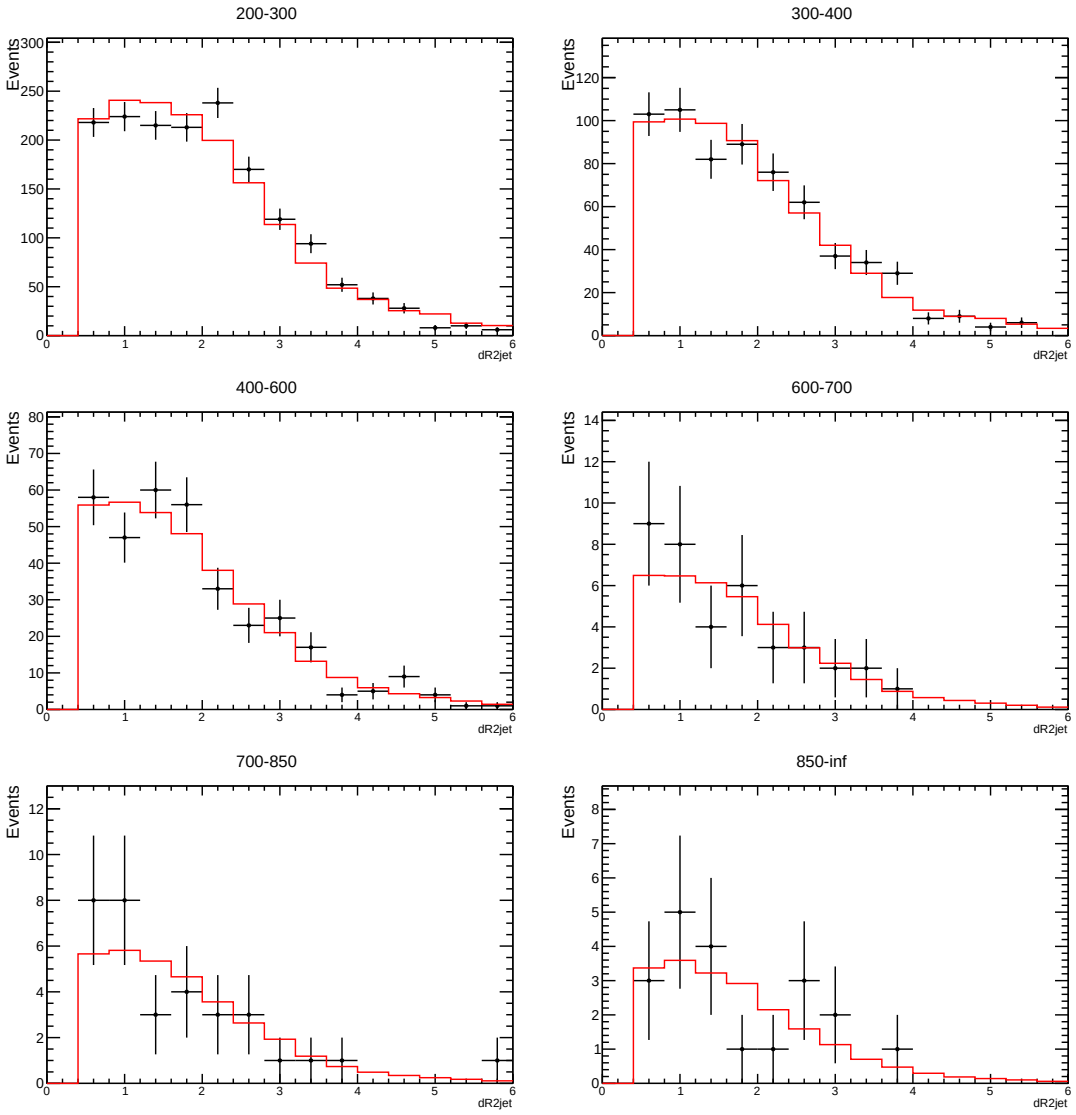
2.3.7 DR



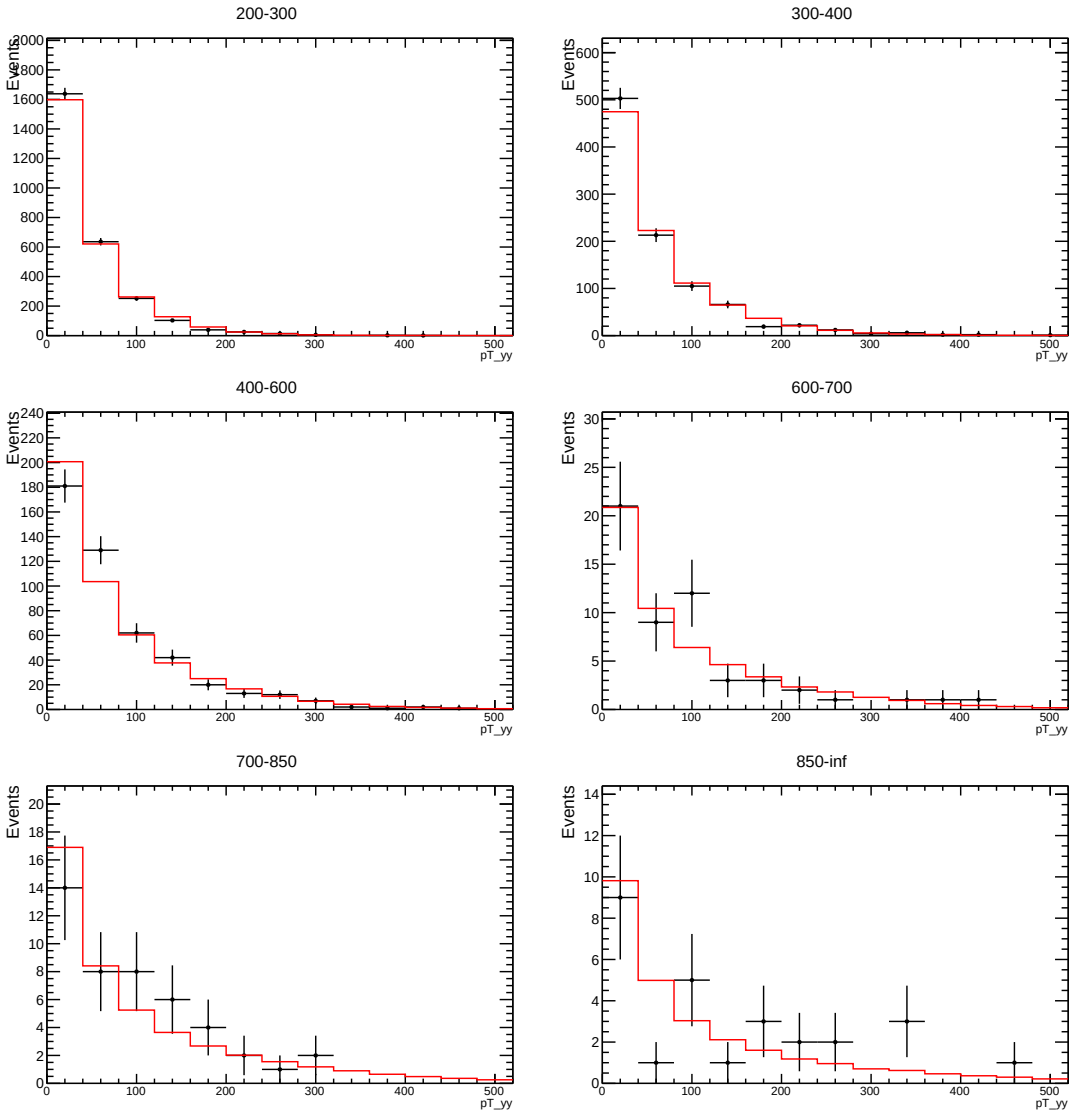
2.3.8 DR1jet



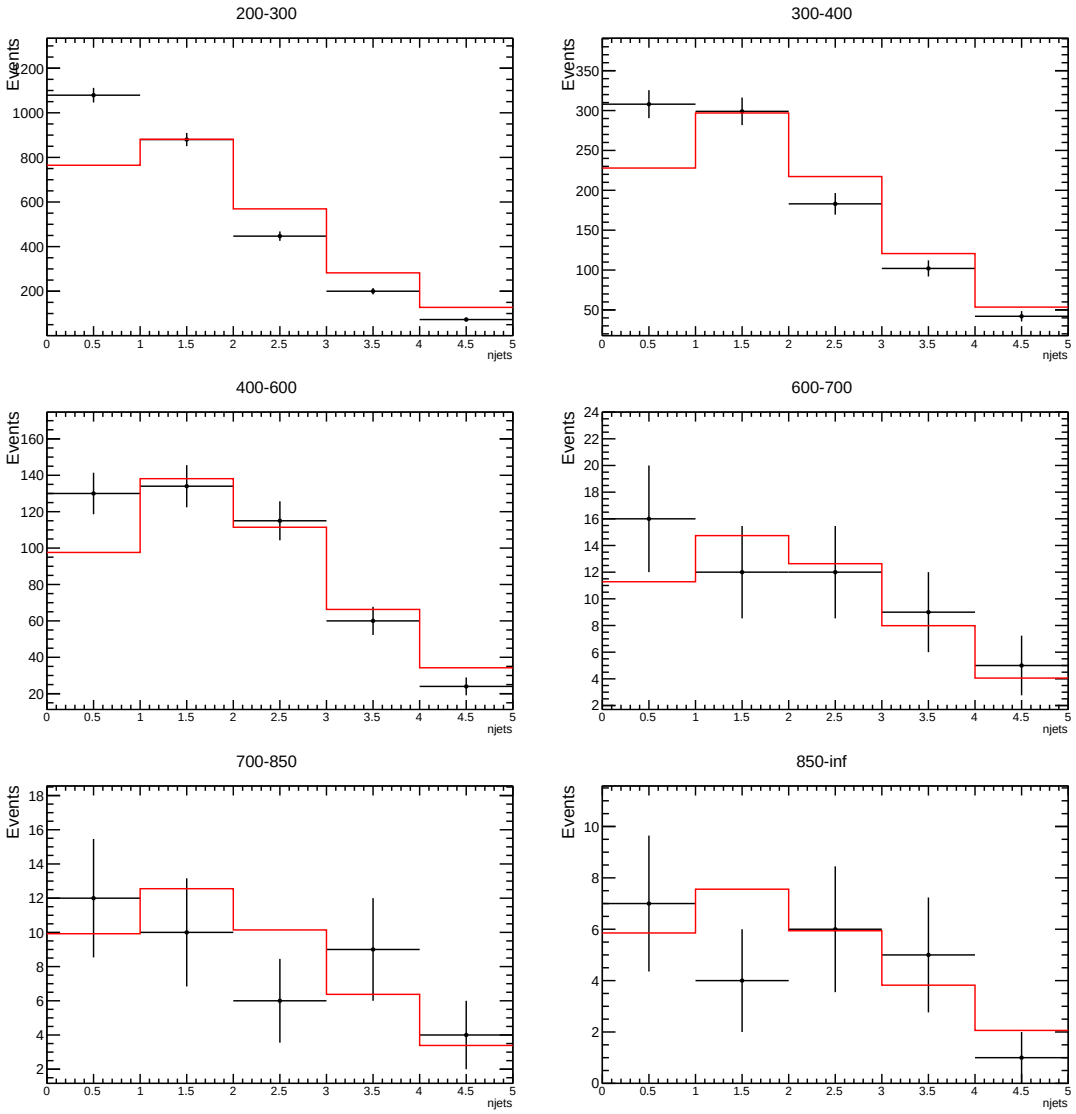
2.3.9 DR2jet



2.3.10 ptyy

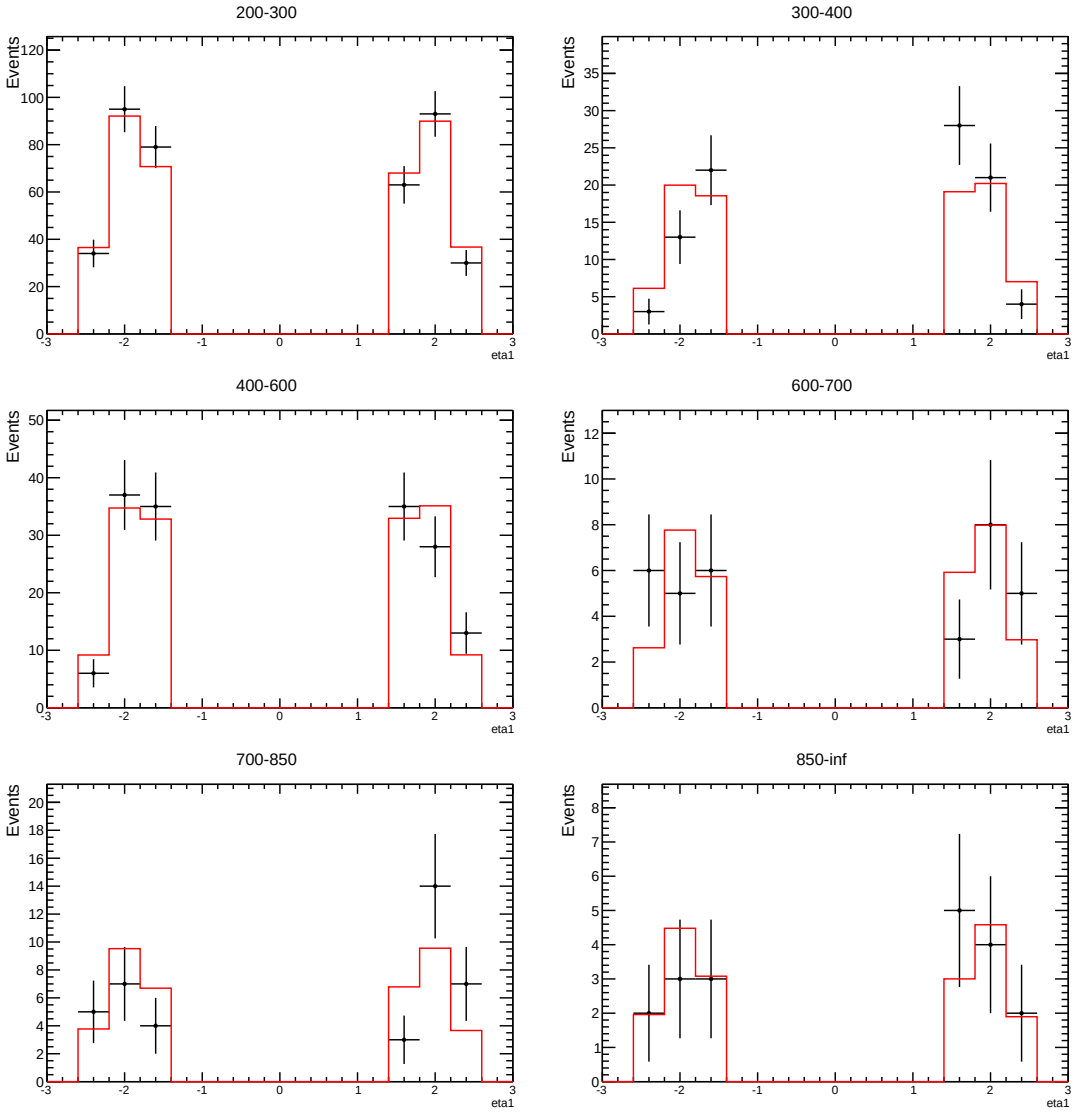


2.3.11 Njets



2.4 EE

2.4.1 Eta1



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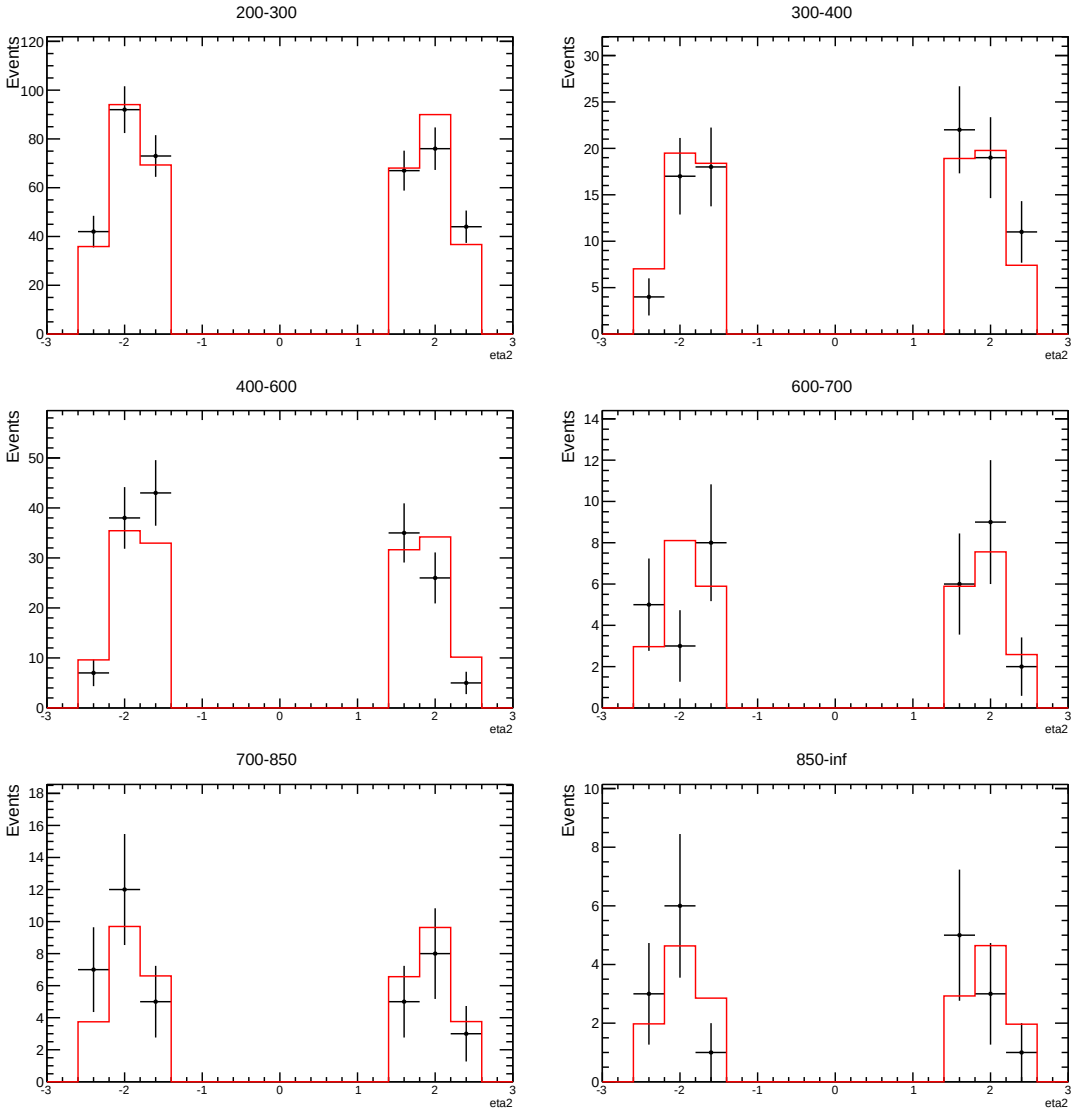

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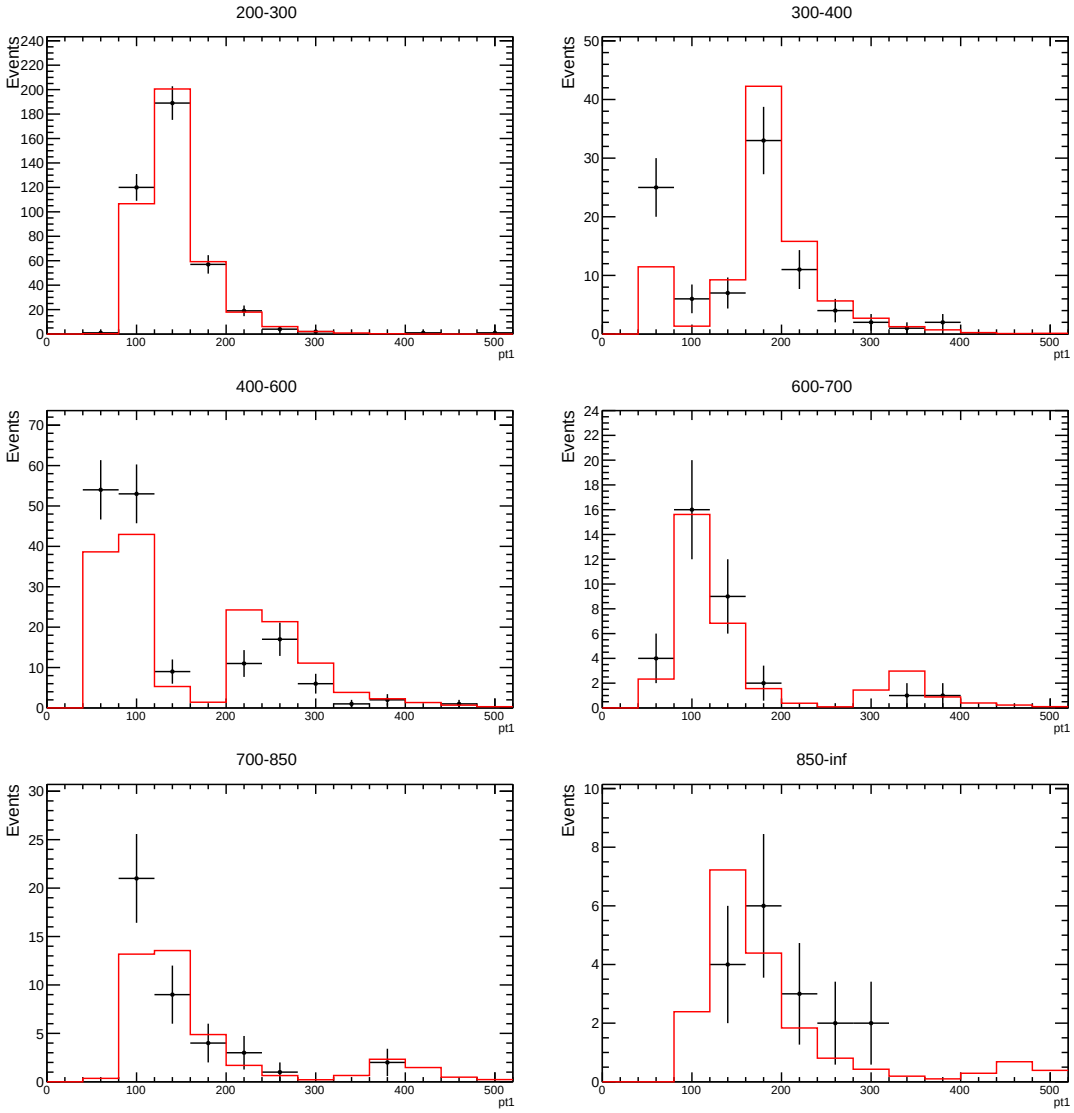
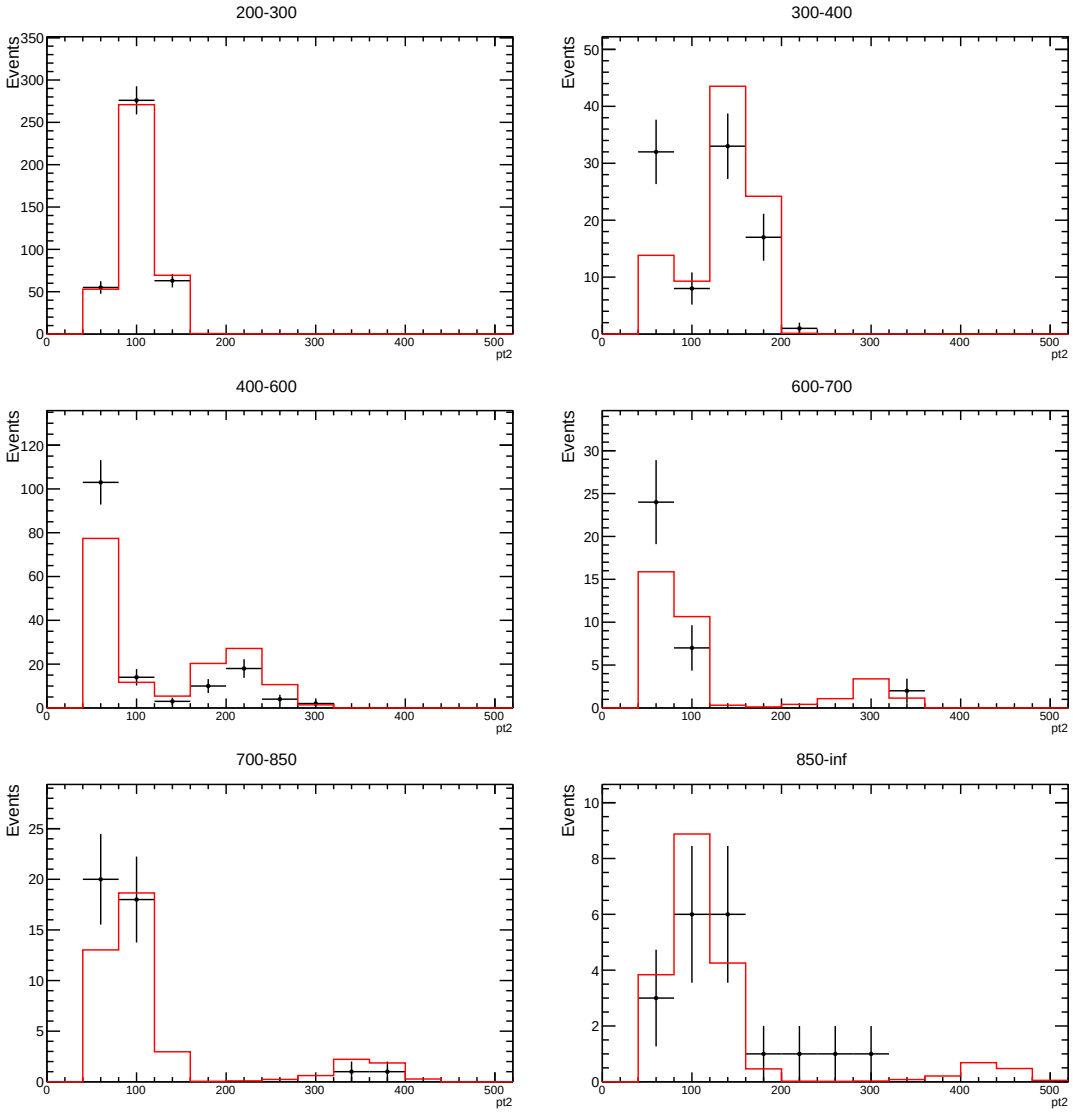
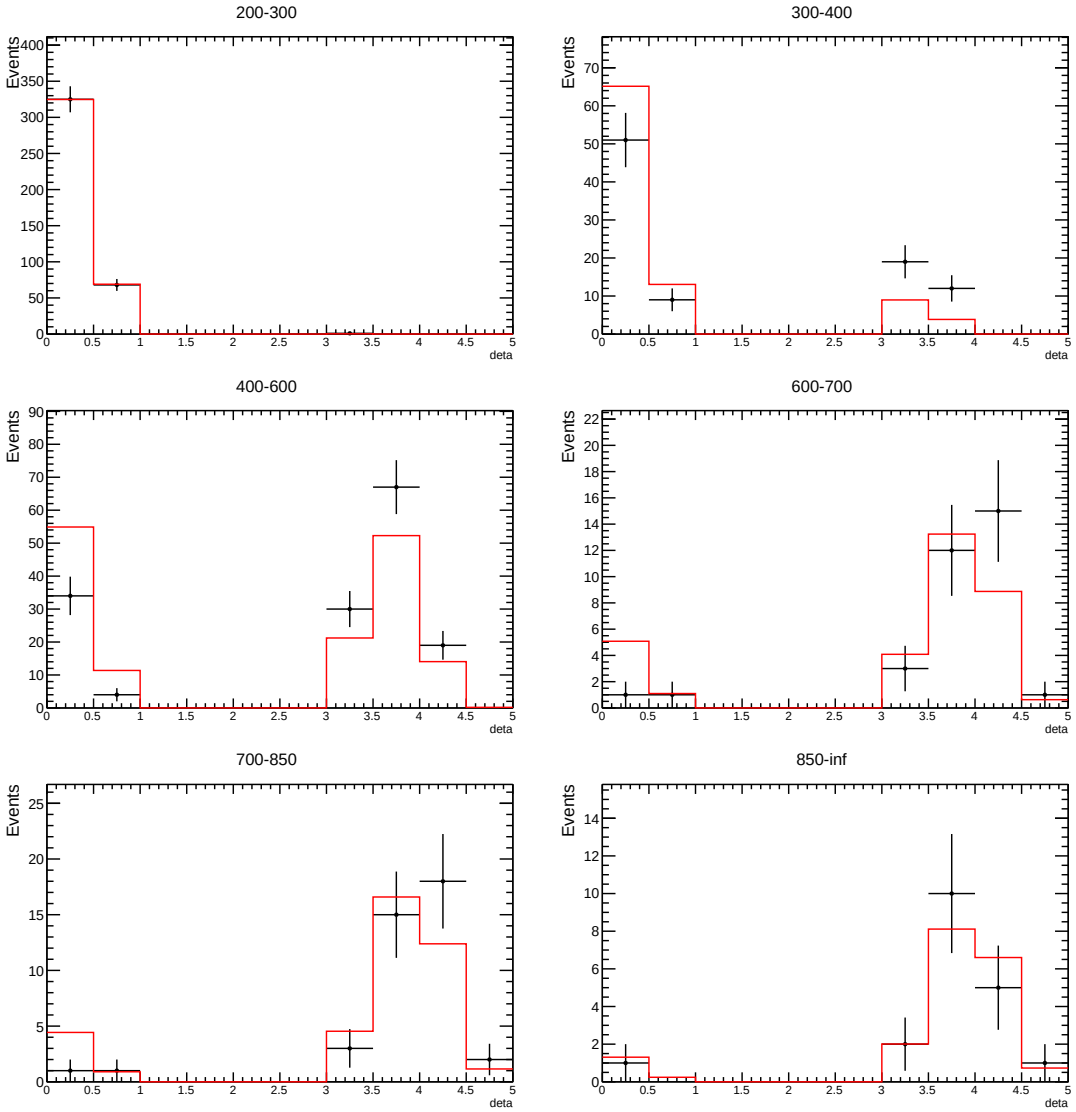


2.4.4 Pt2



2.4.5 Deta



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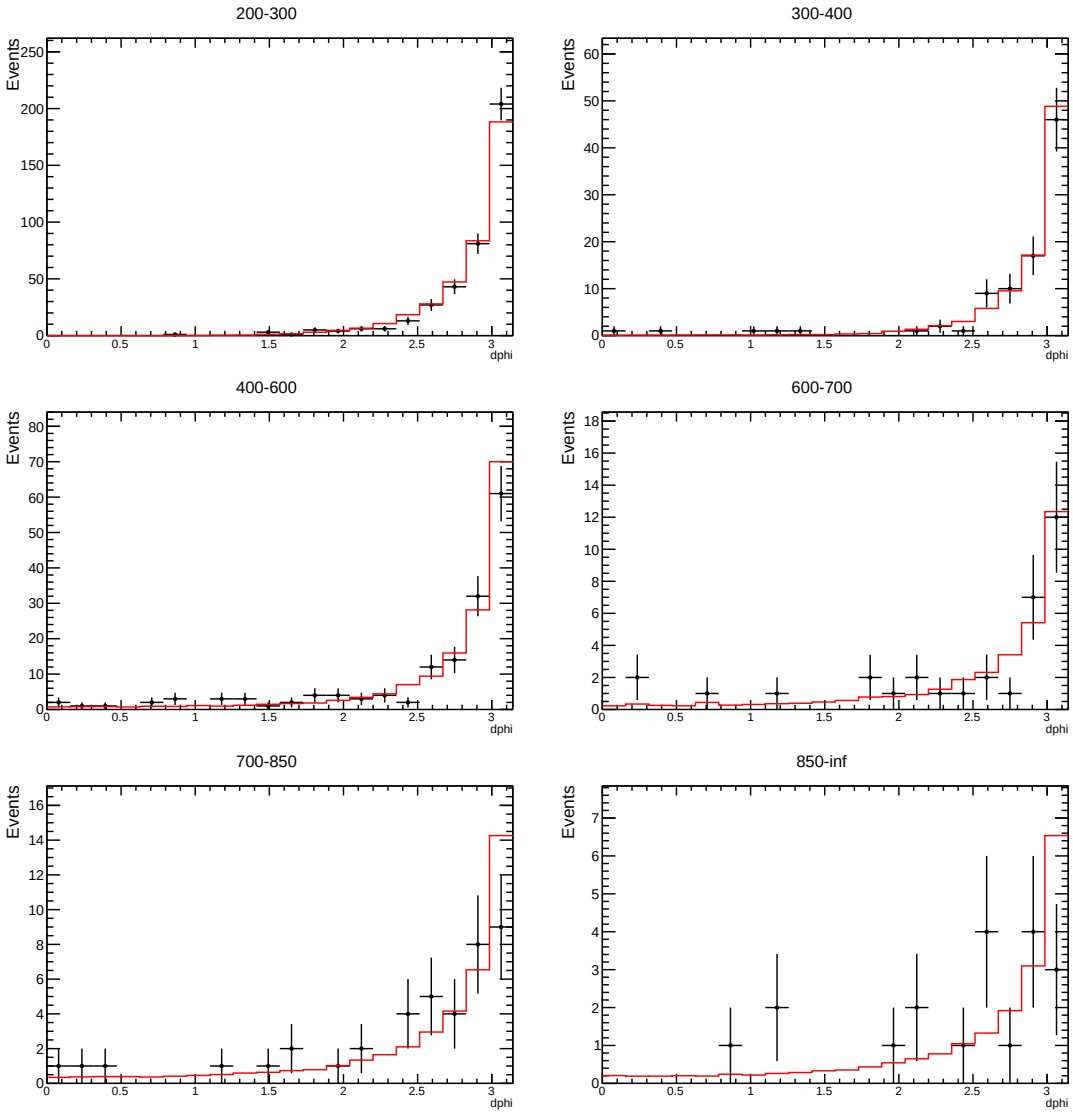

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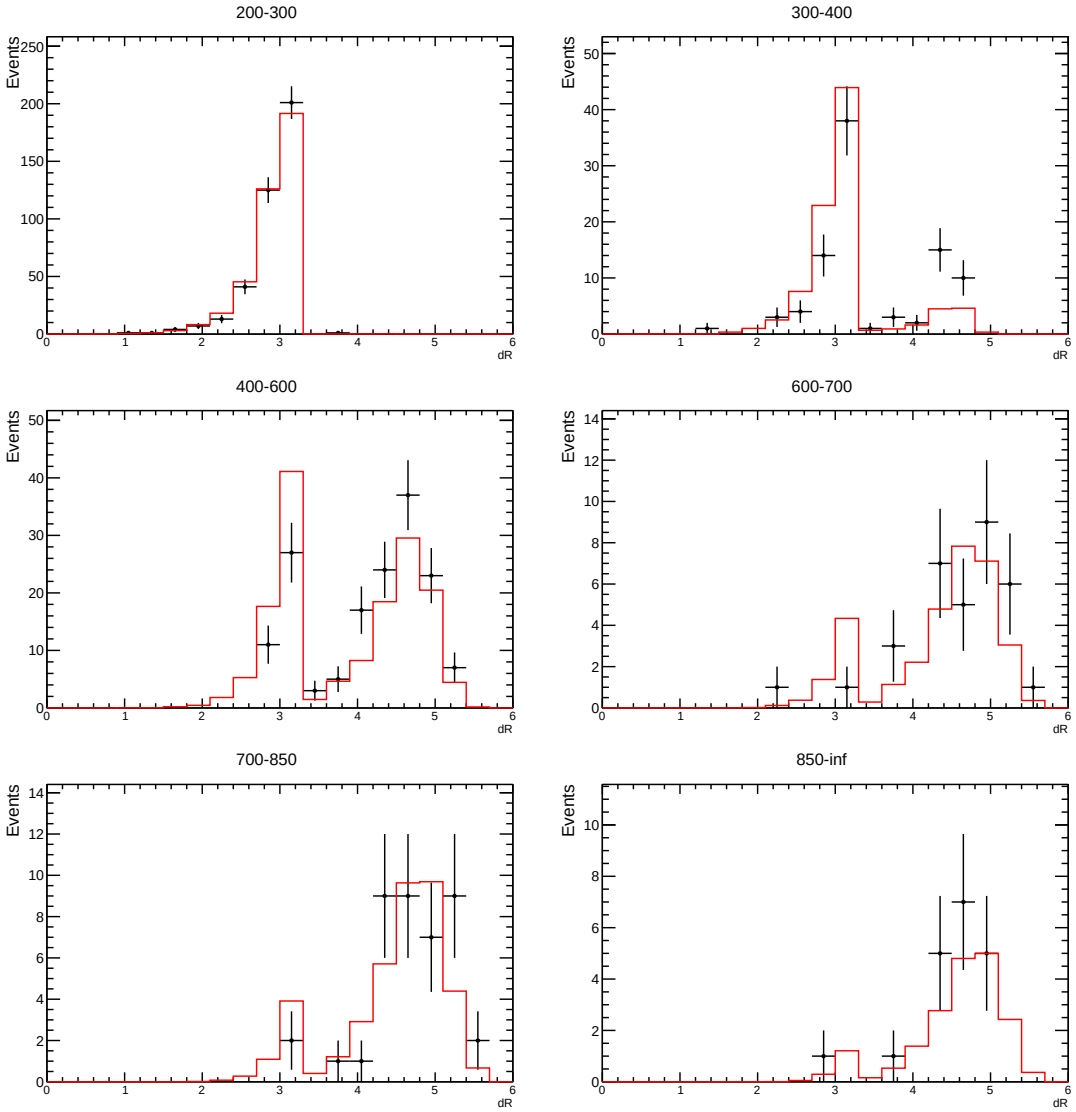
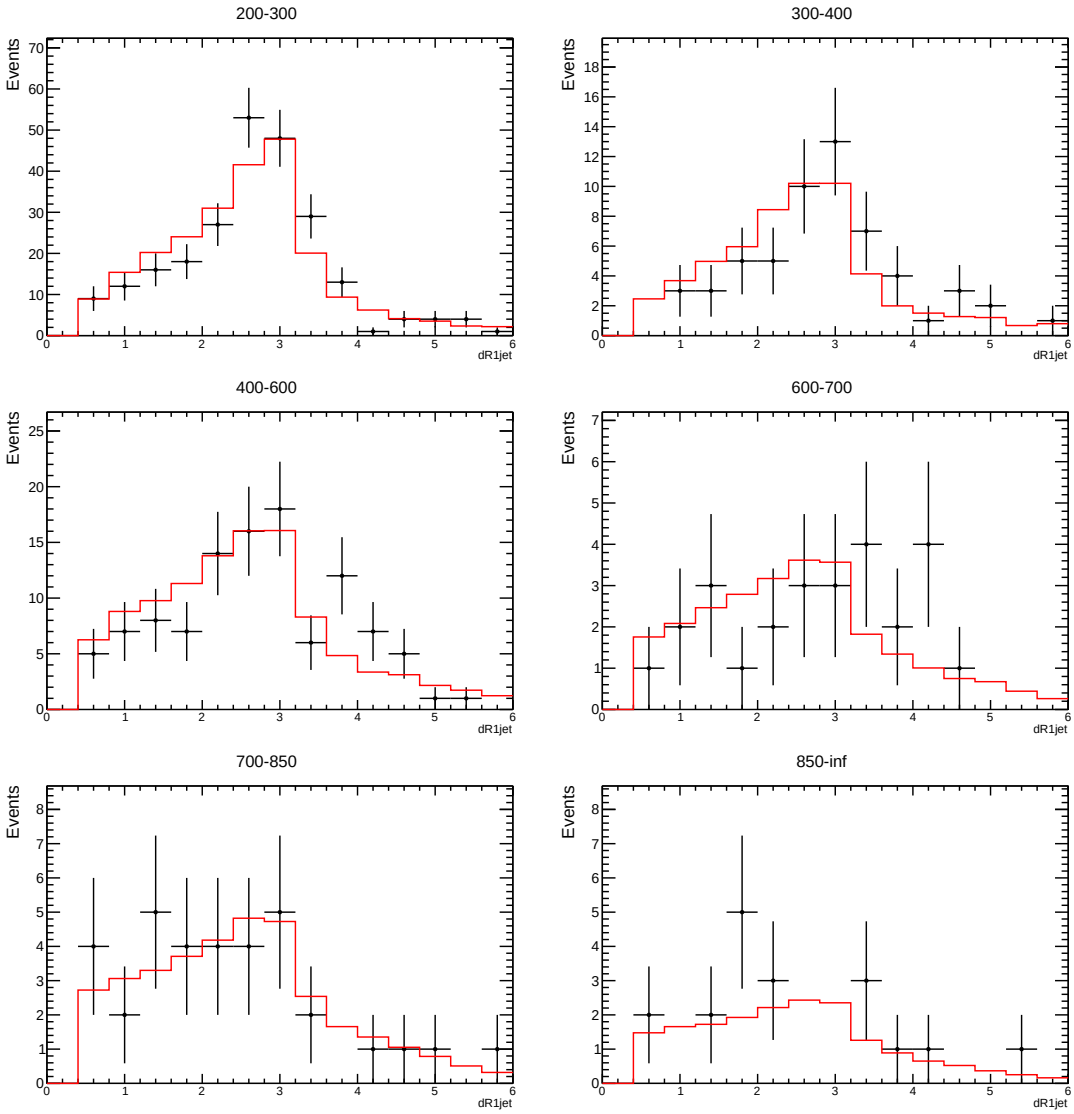


2.4.8 DR1jet



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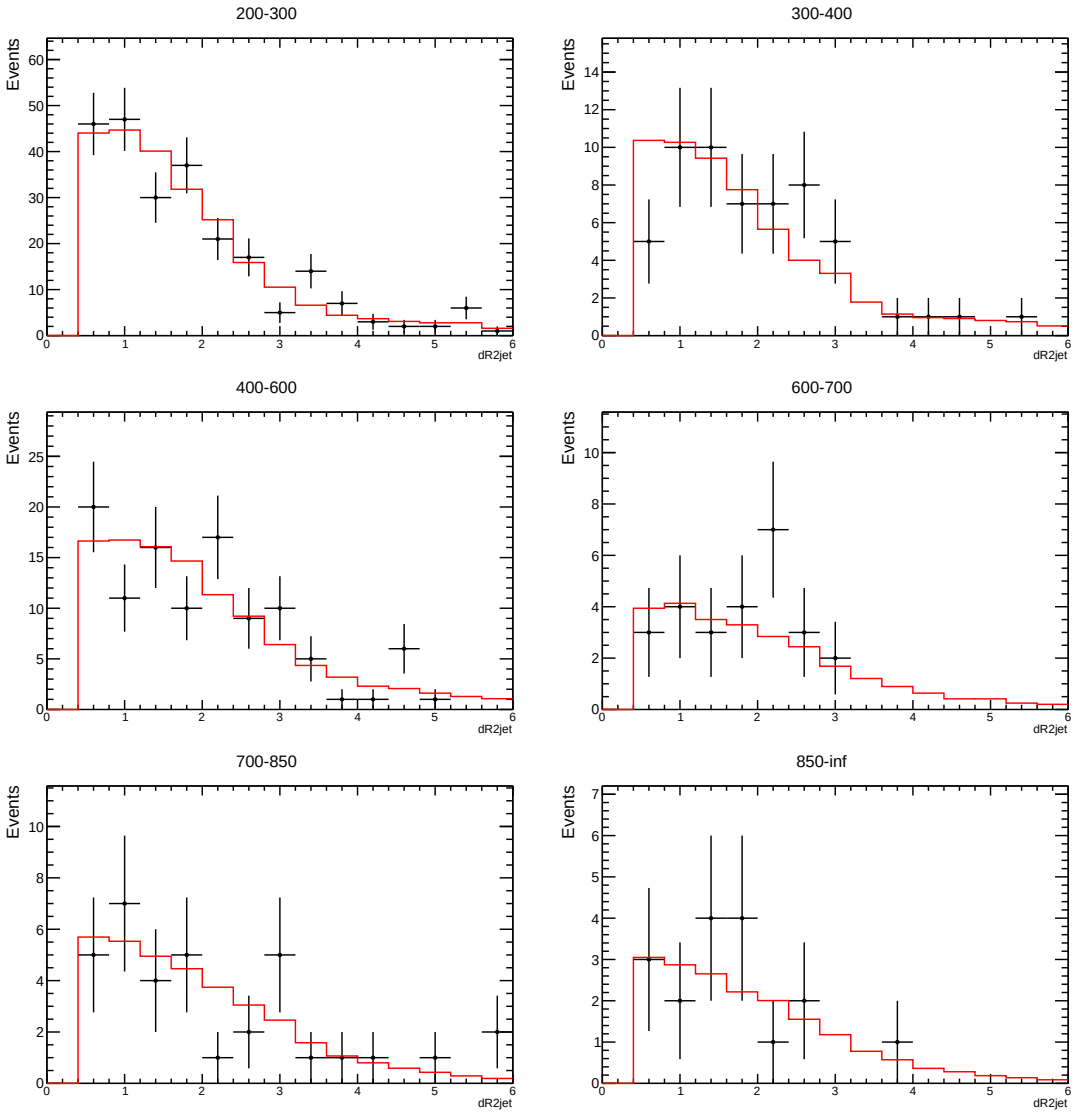
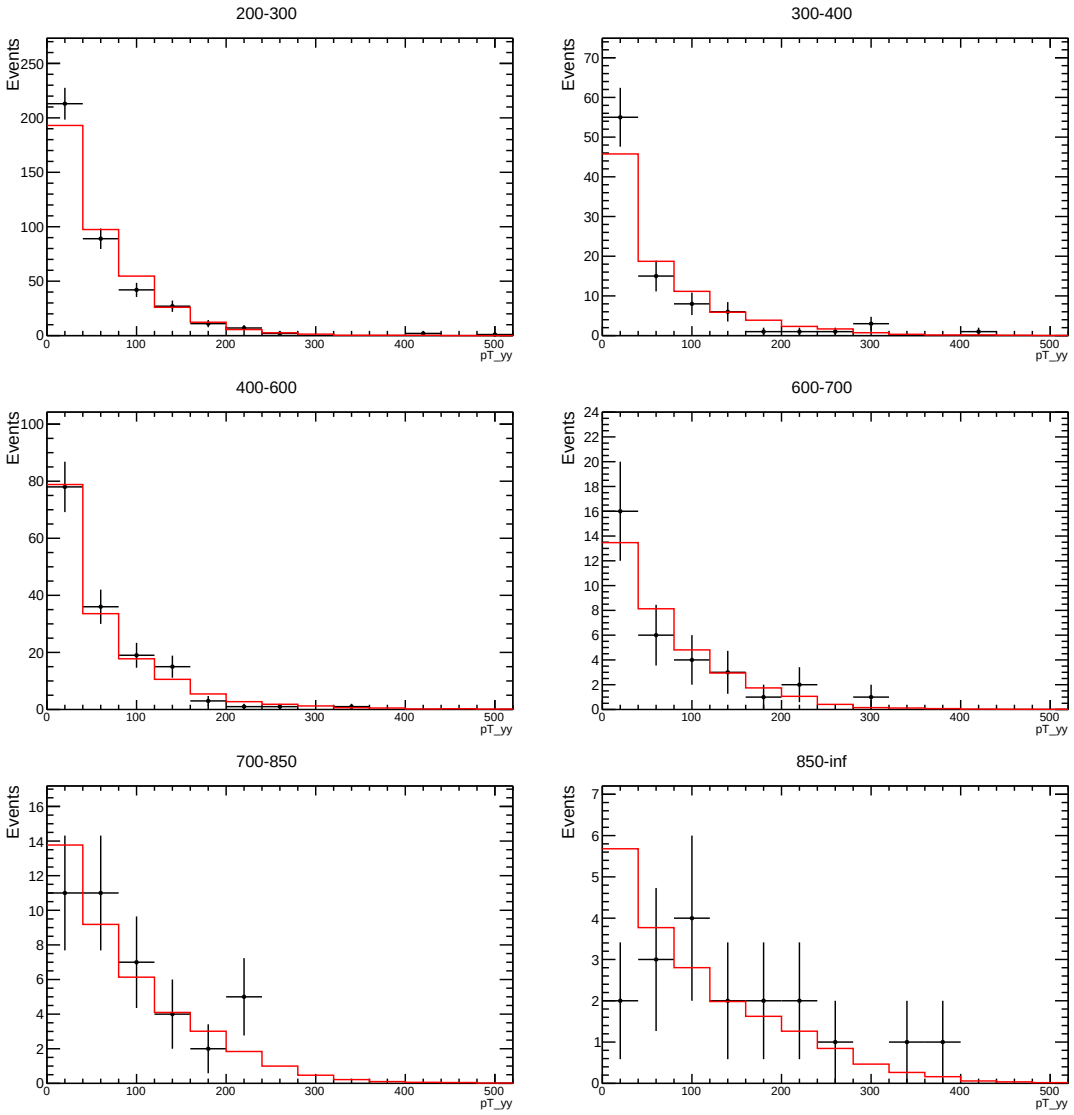
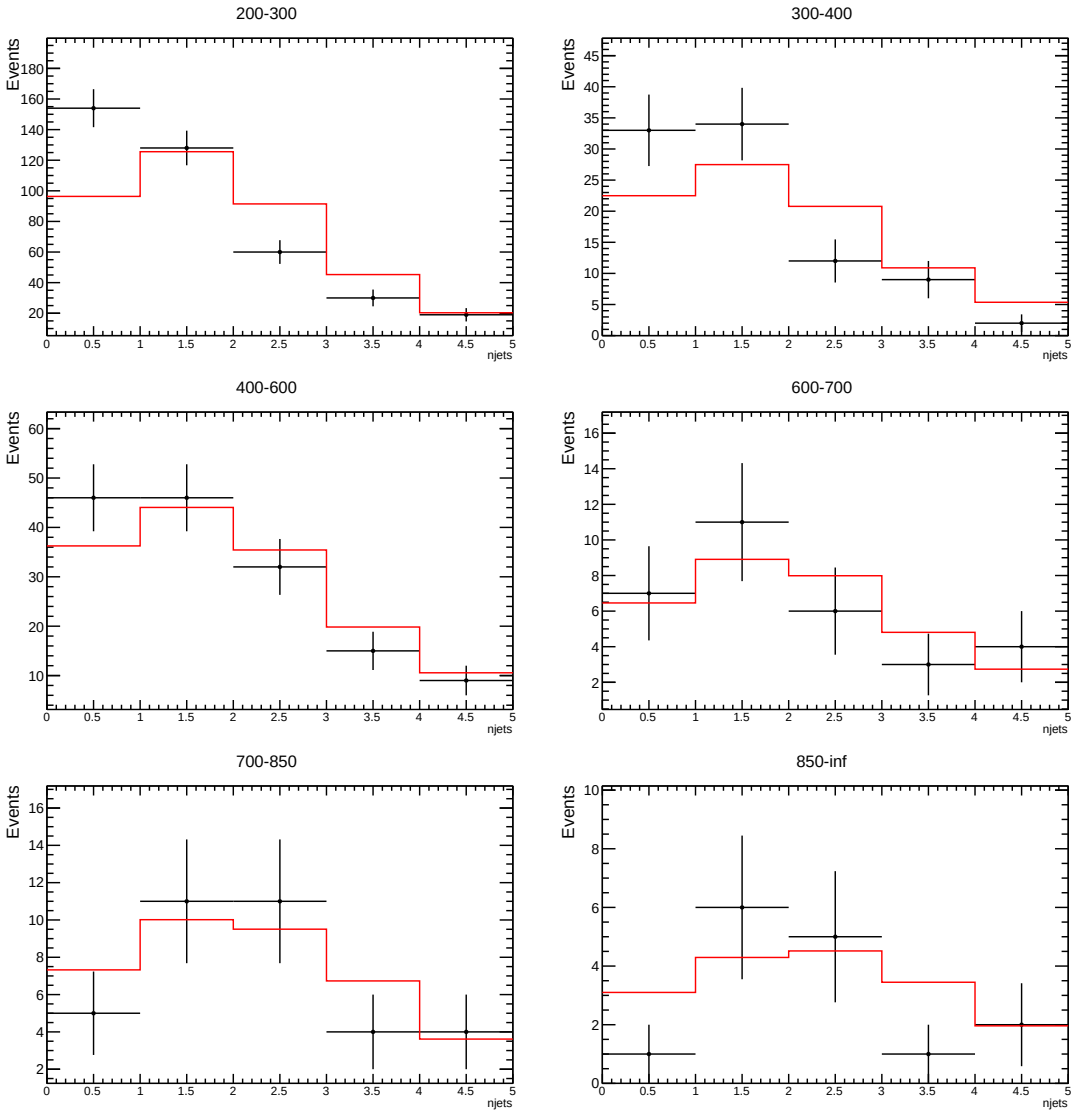


2.4.10 ptyy



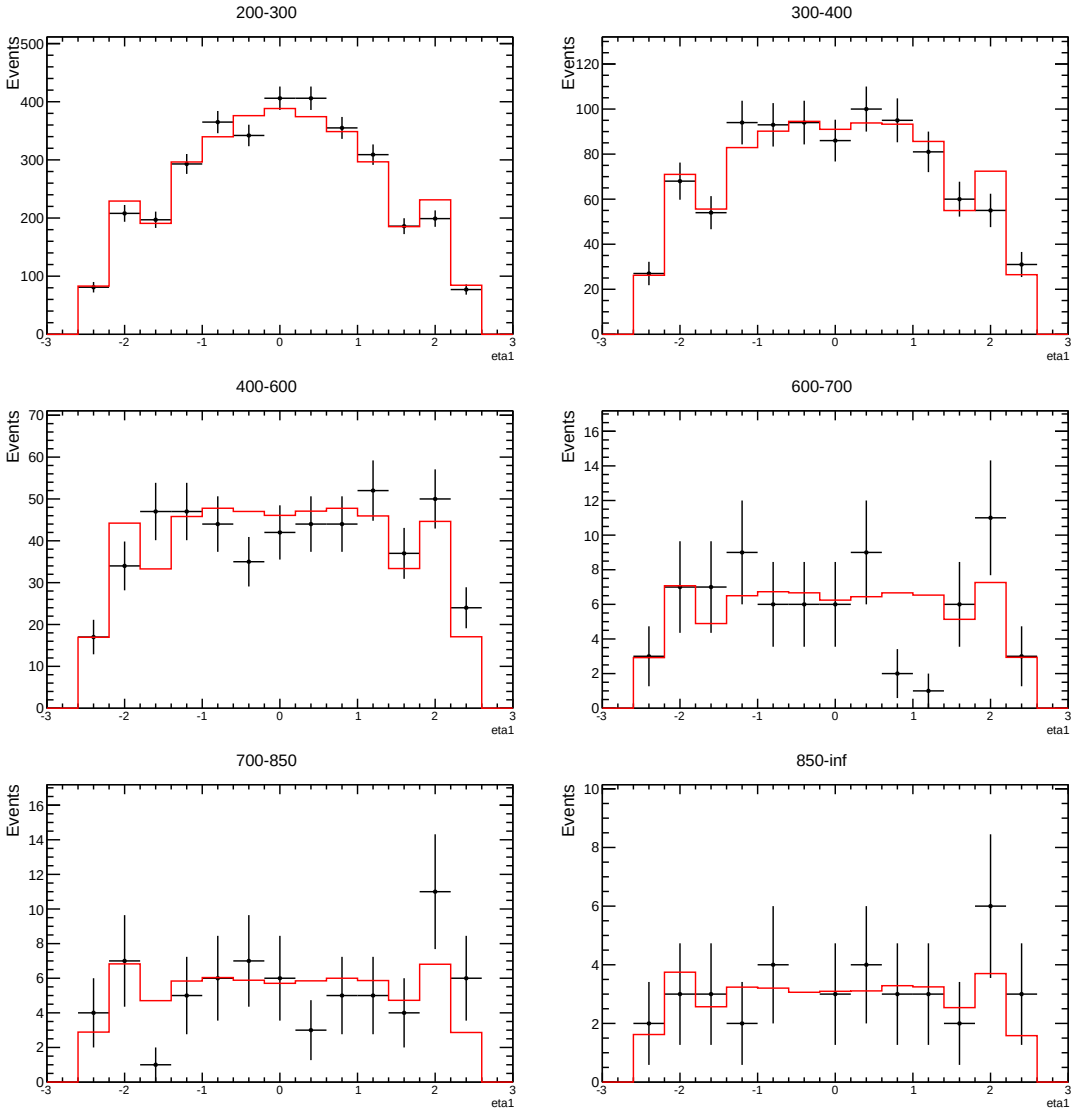
2.4.11 Njets



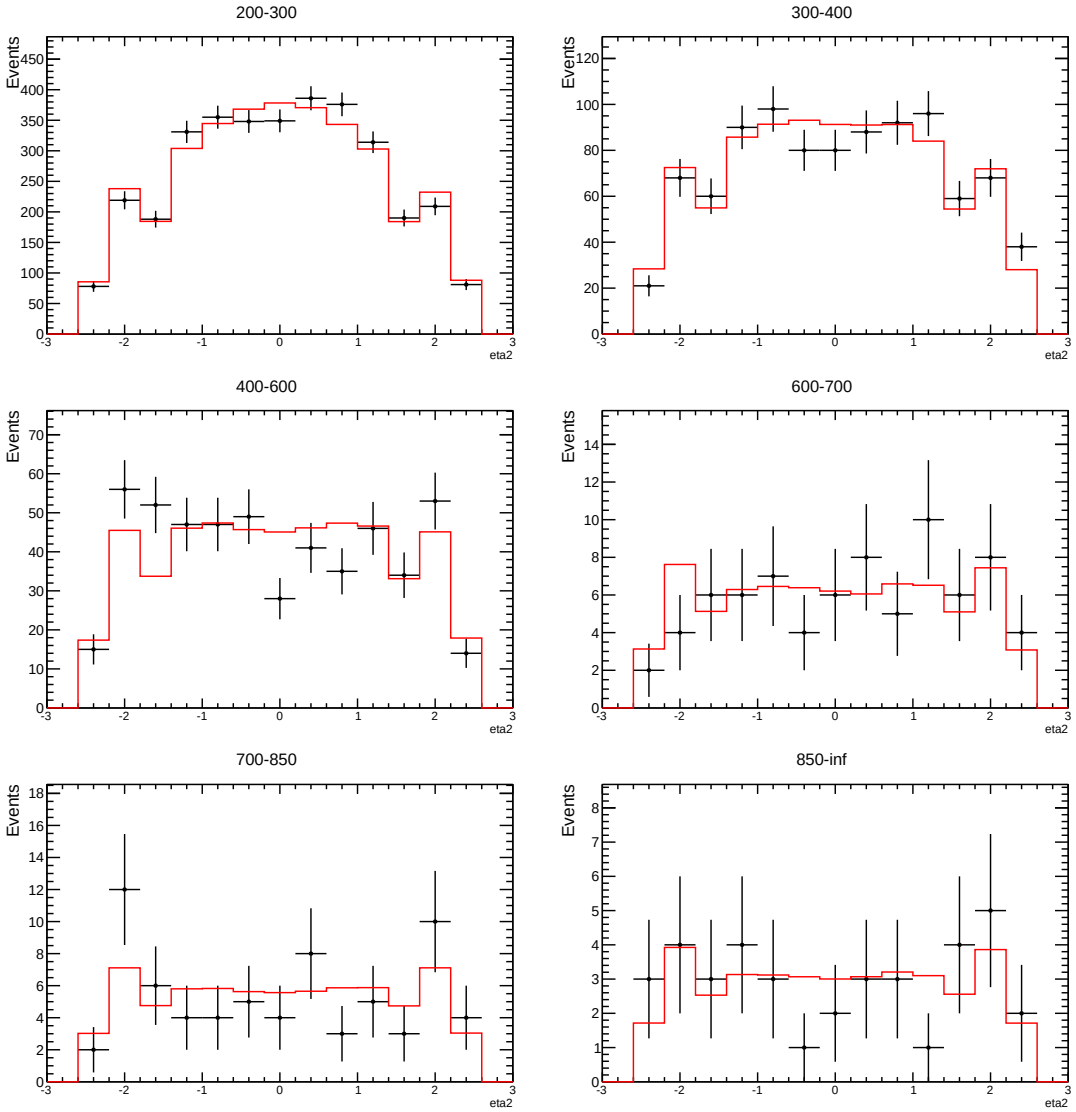
3 Exotis with tight isolation

3.1 Inclusive

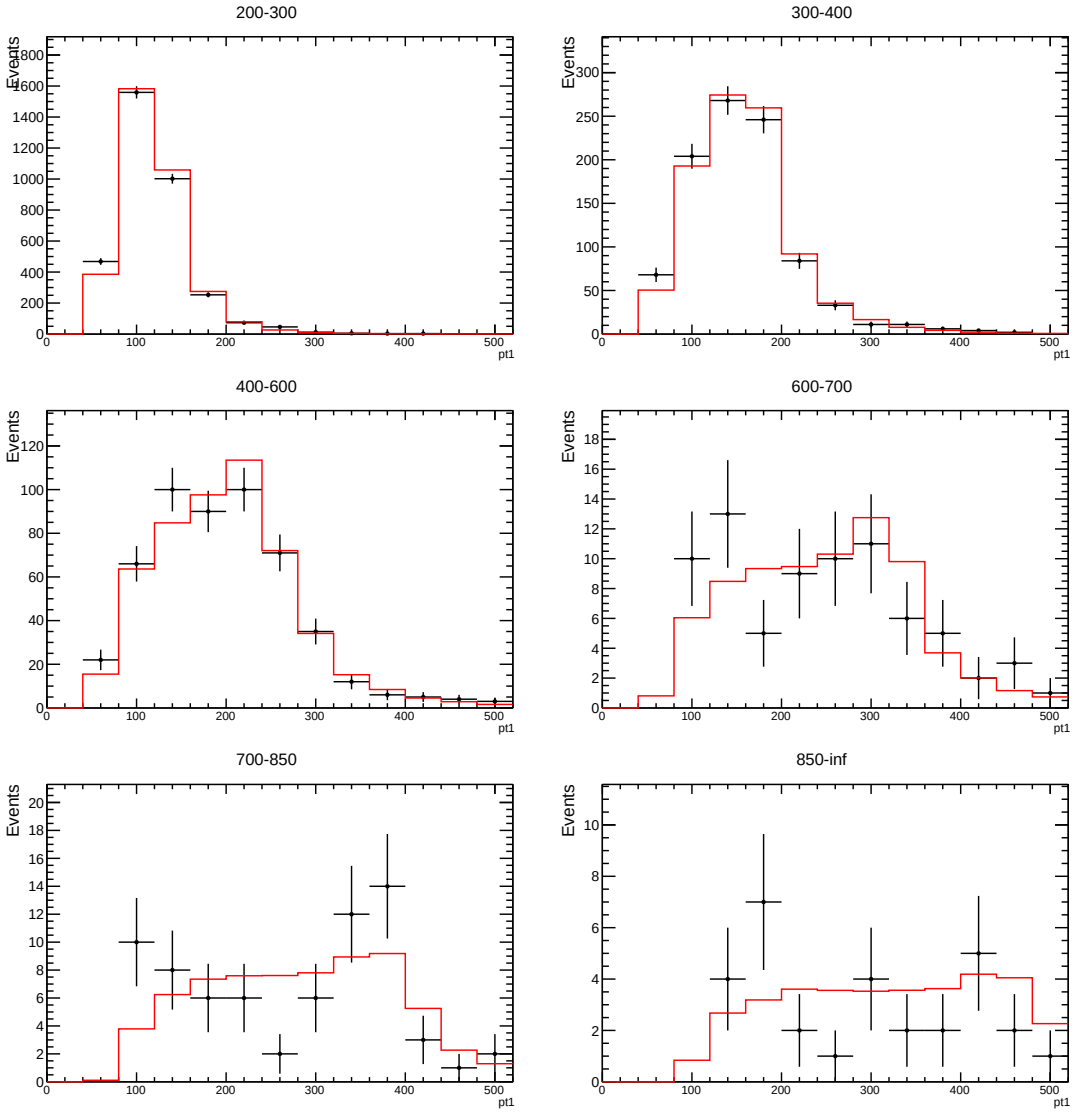
3.1.1 Eta1



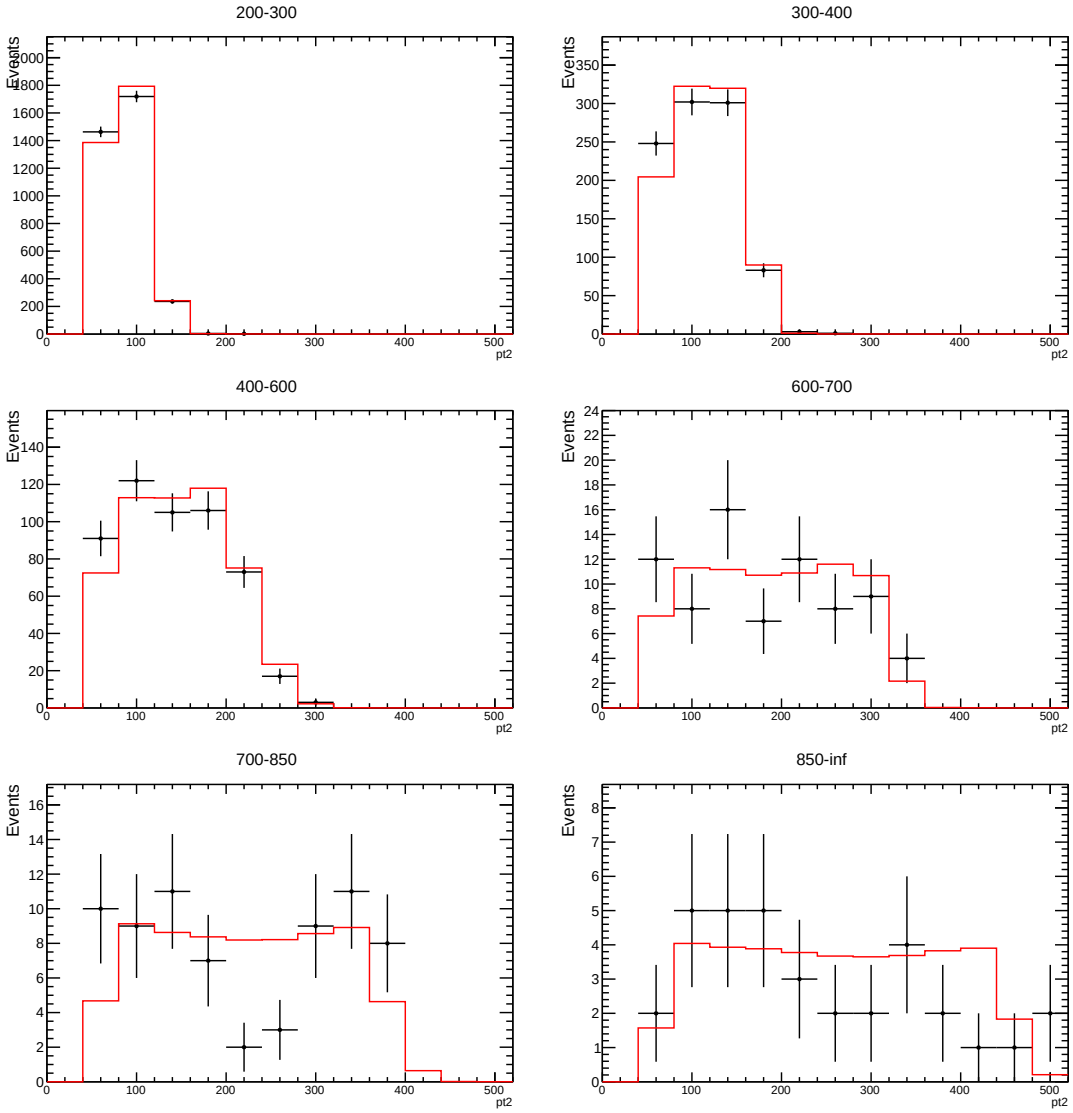
3.1.2 Eta2



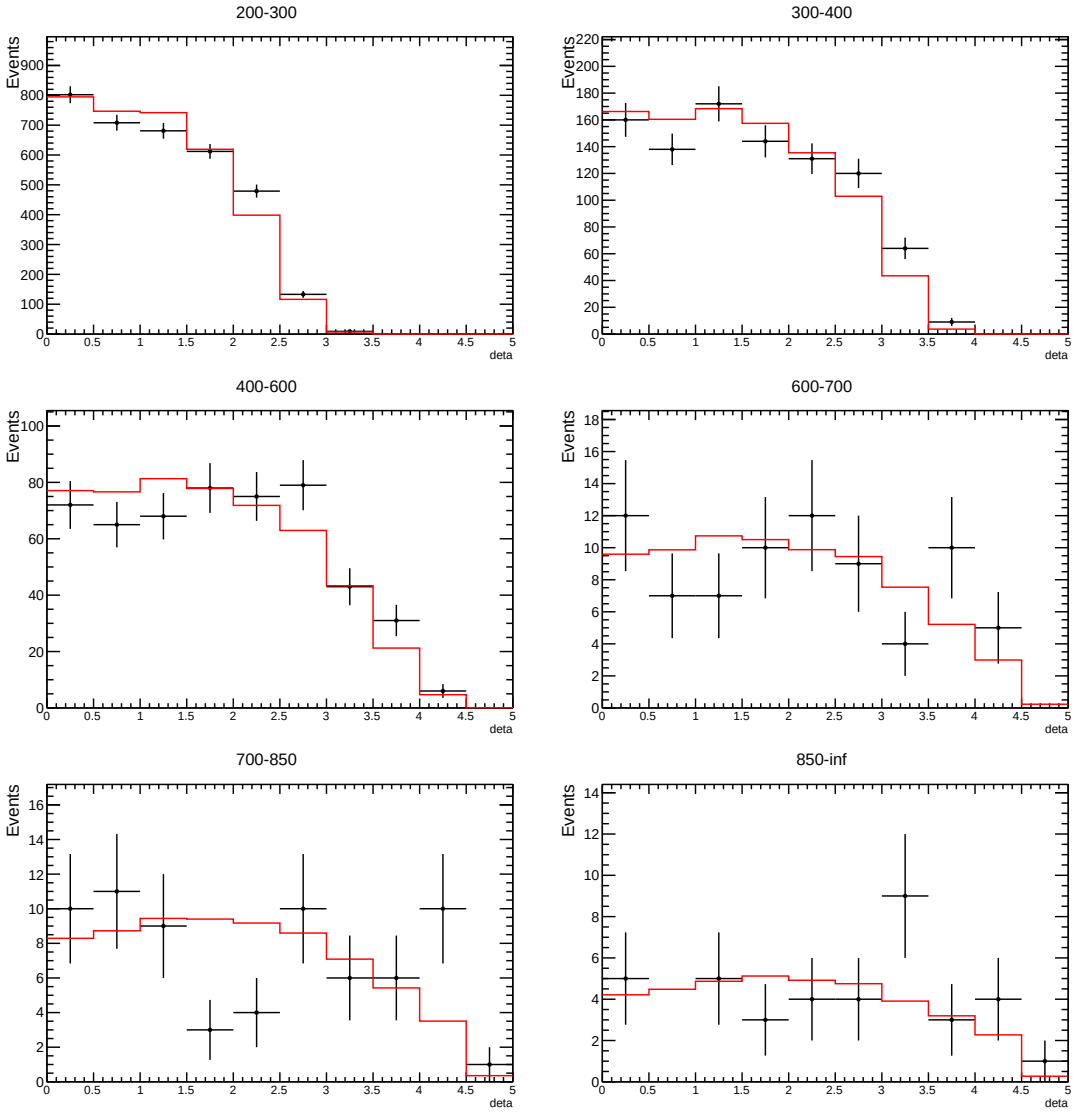
3.1.3 Pt1



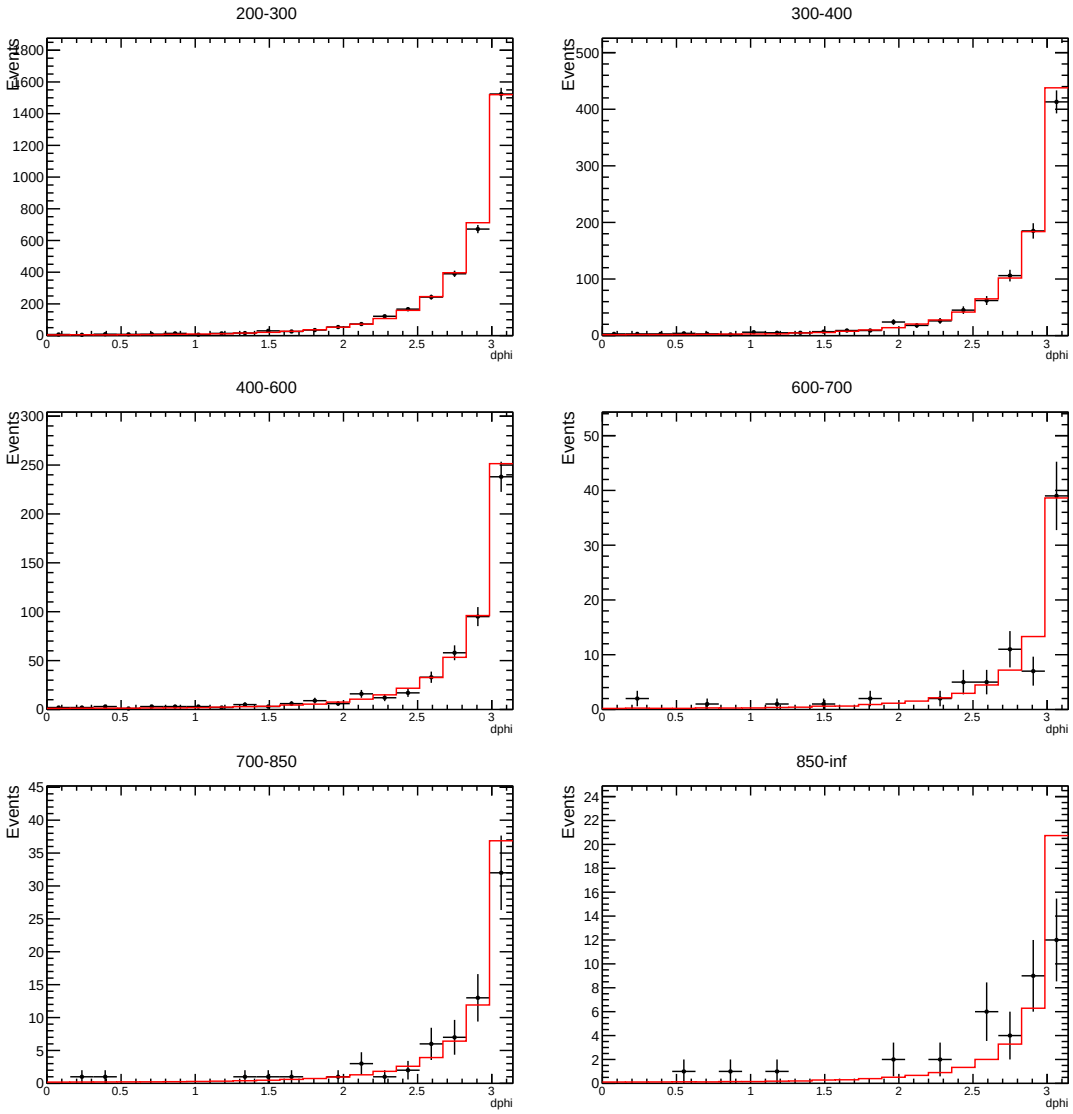
3.1.4 Pt2



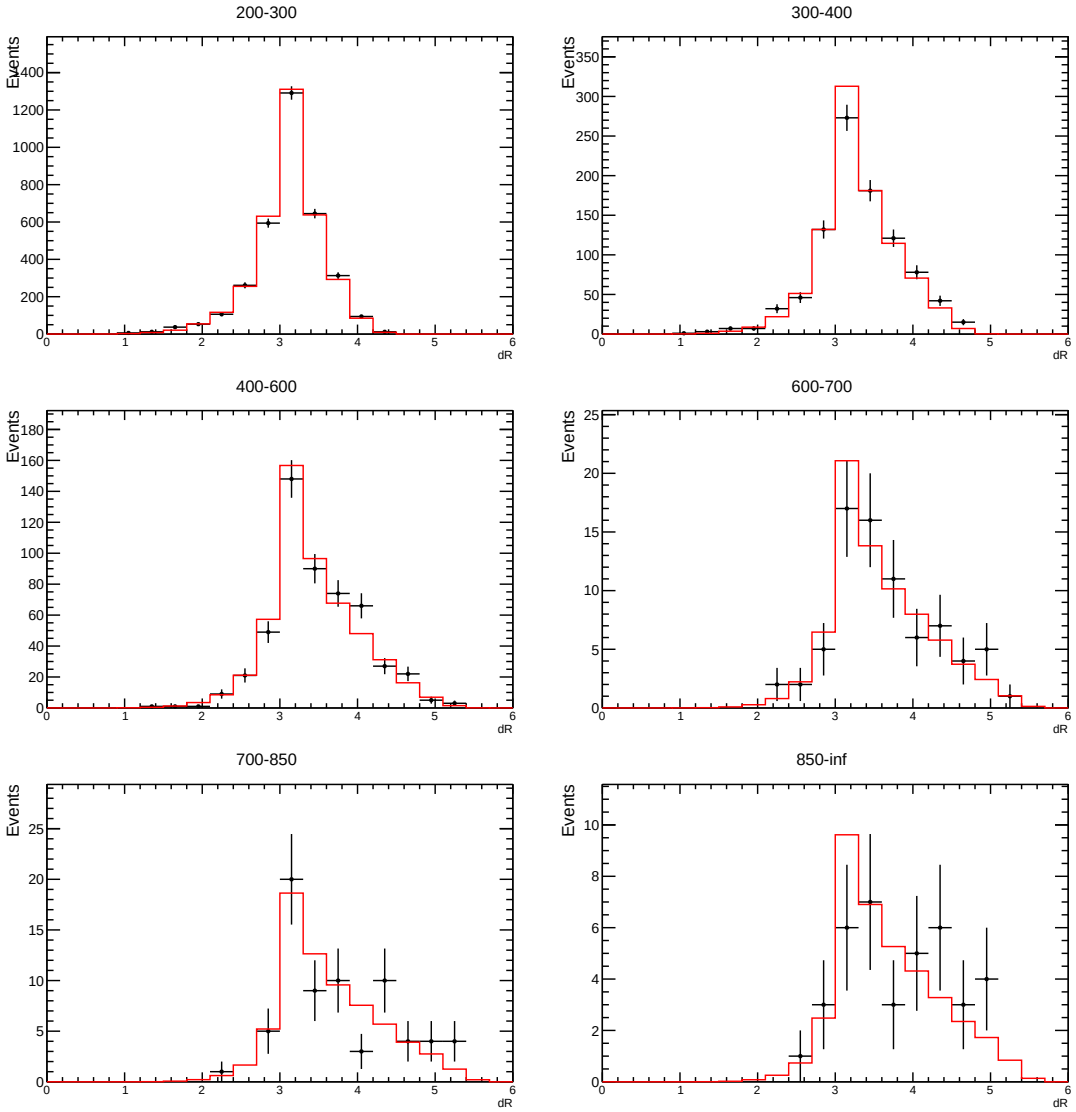
3.1.5 Deta



3.1.6 Dphi

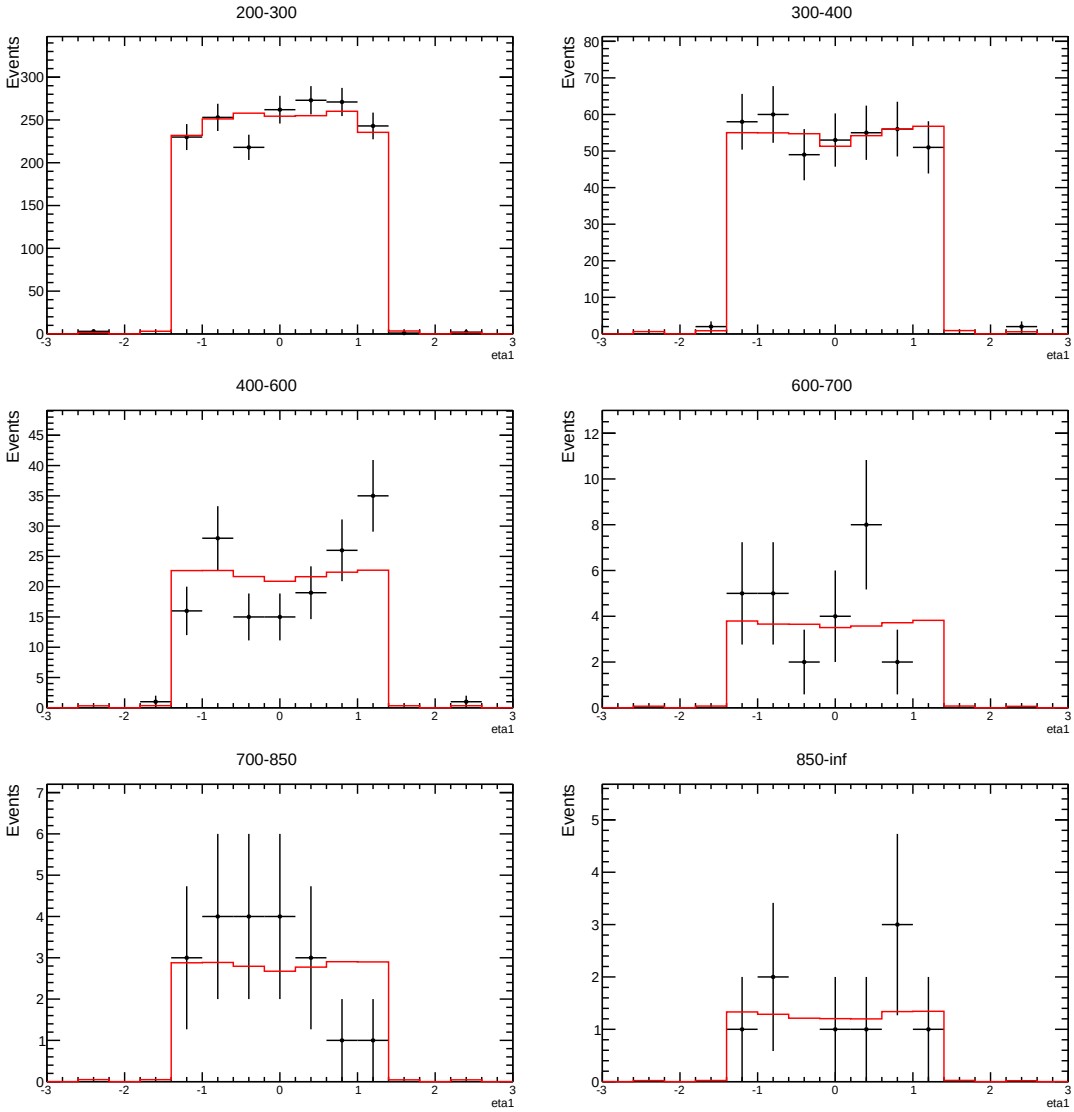


3.1.7 DR



3.2 BB

3.2.1 Eta1



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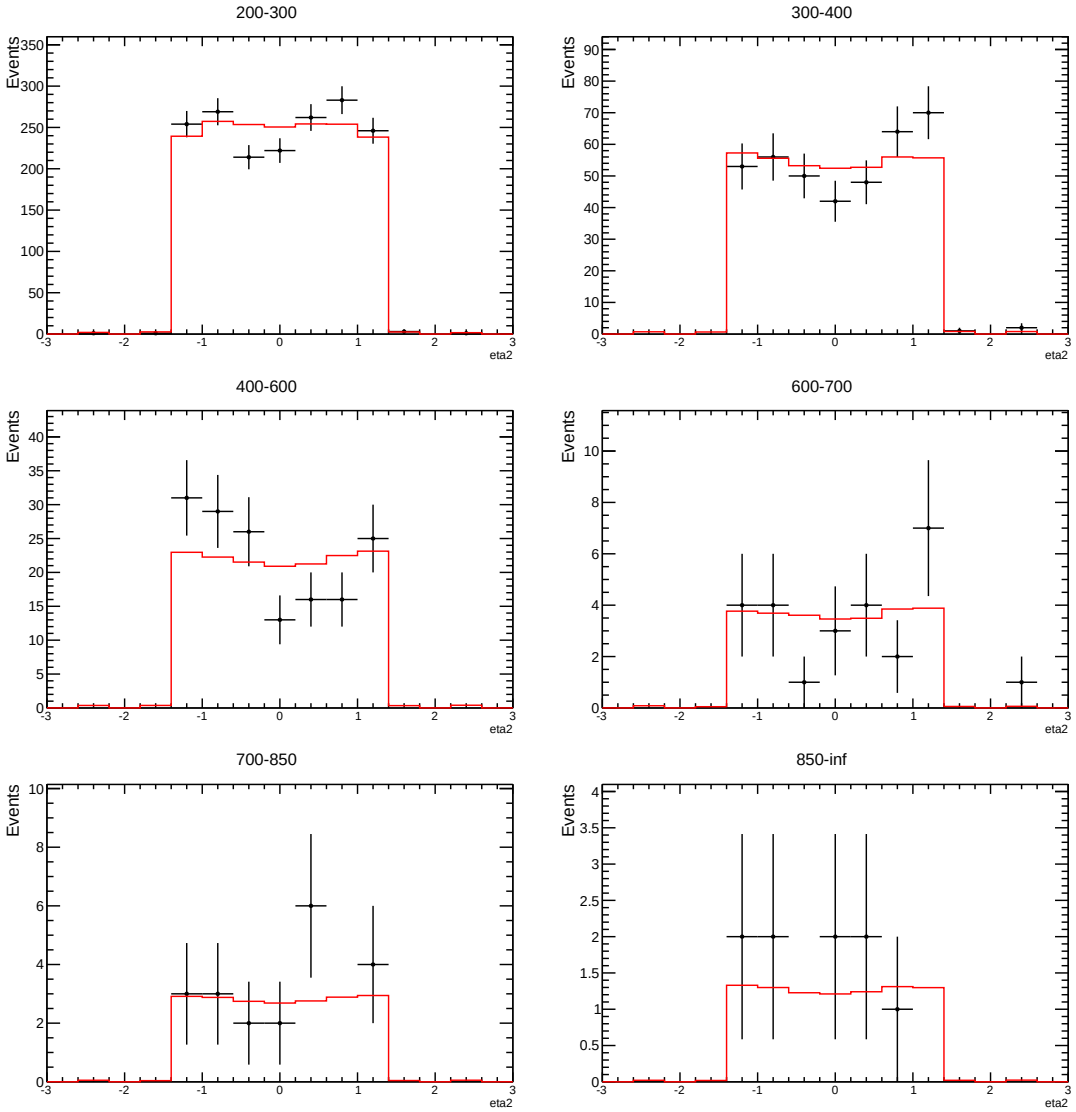
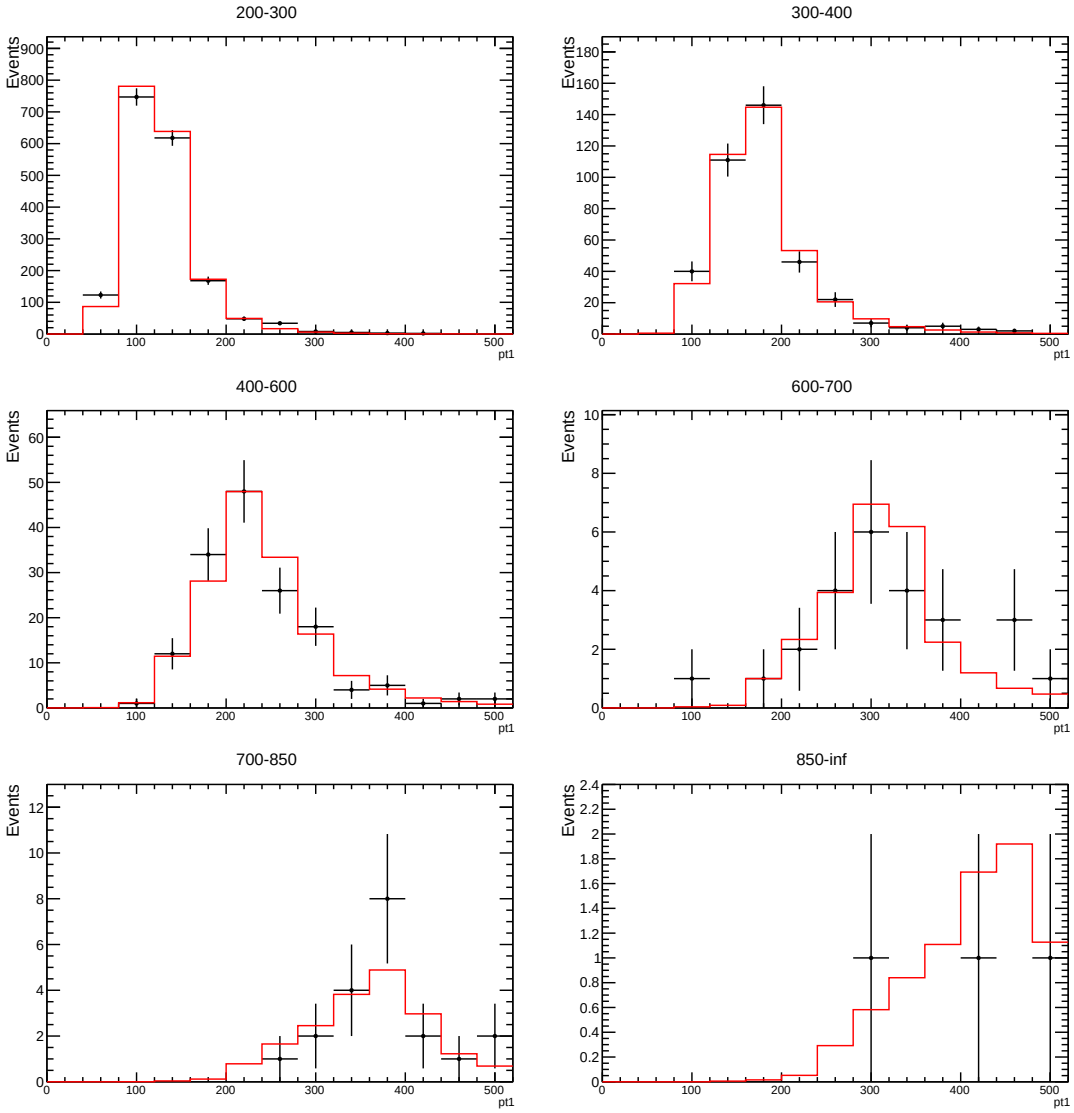
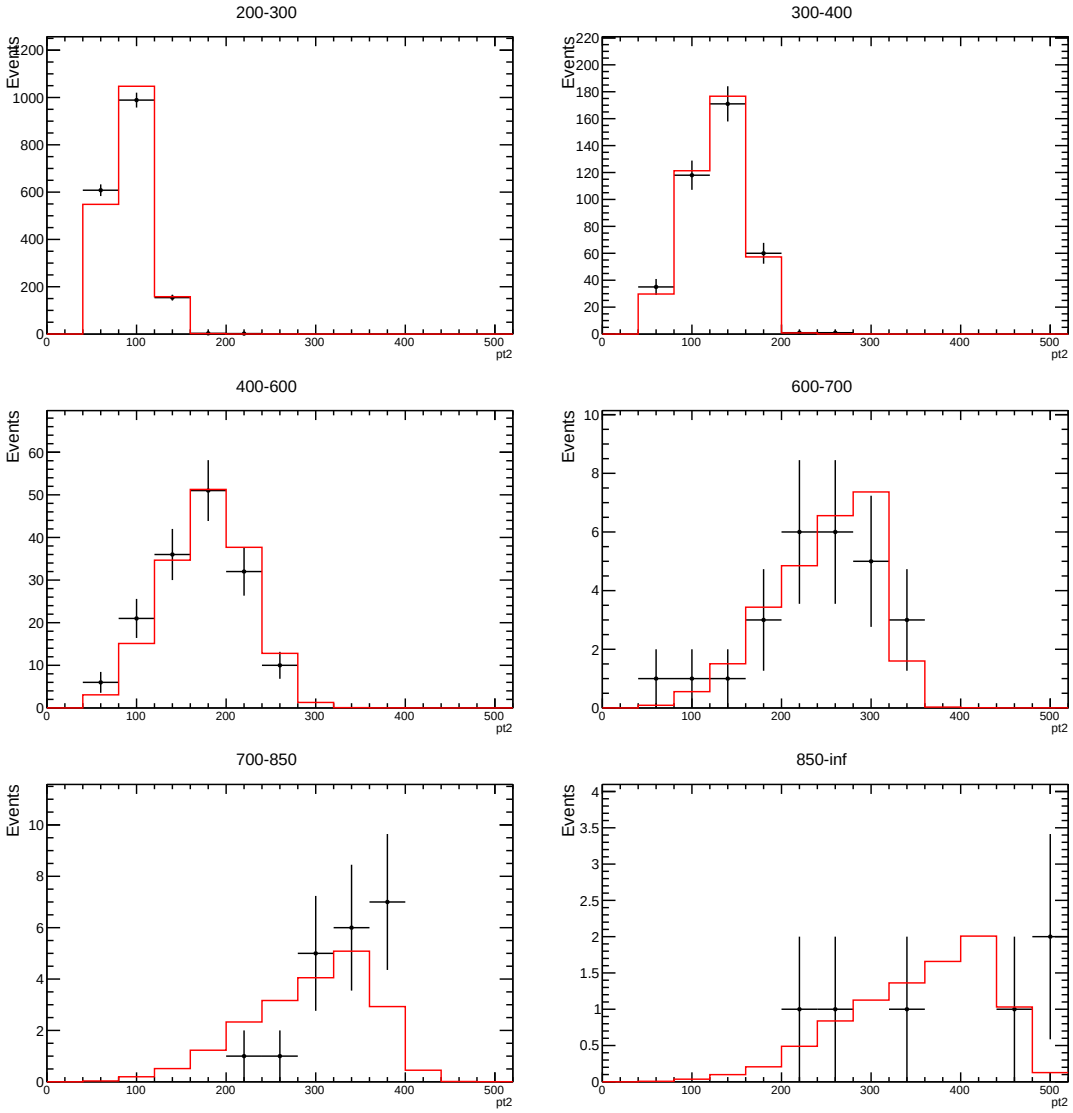


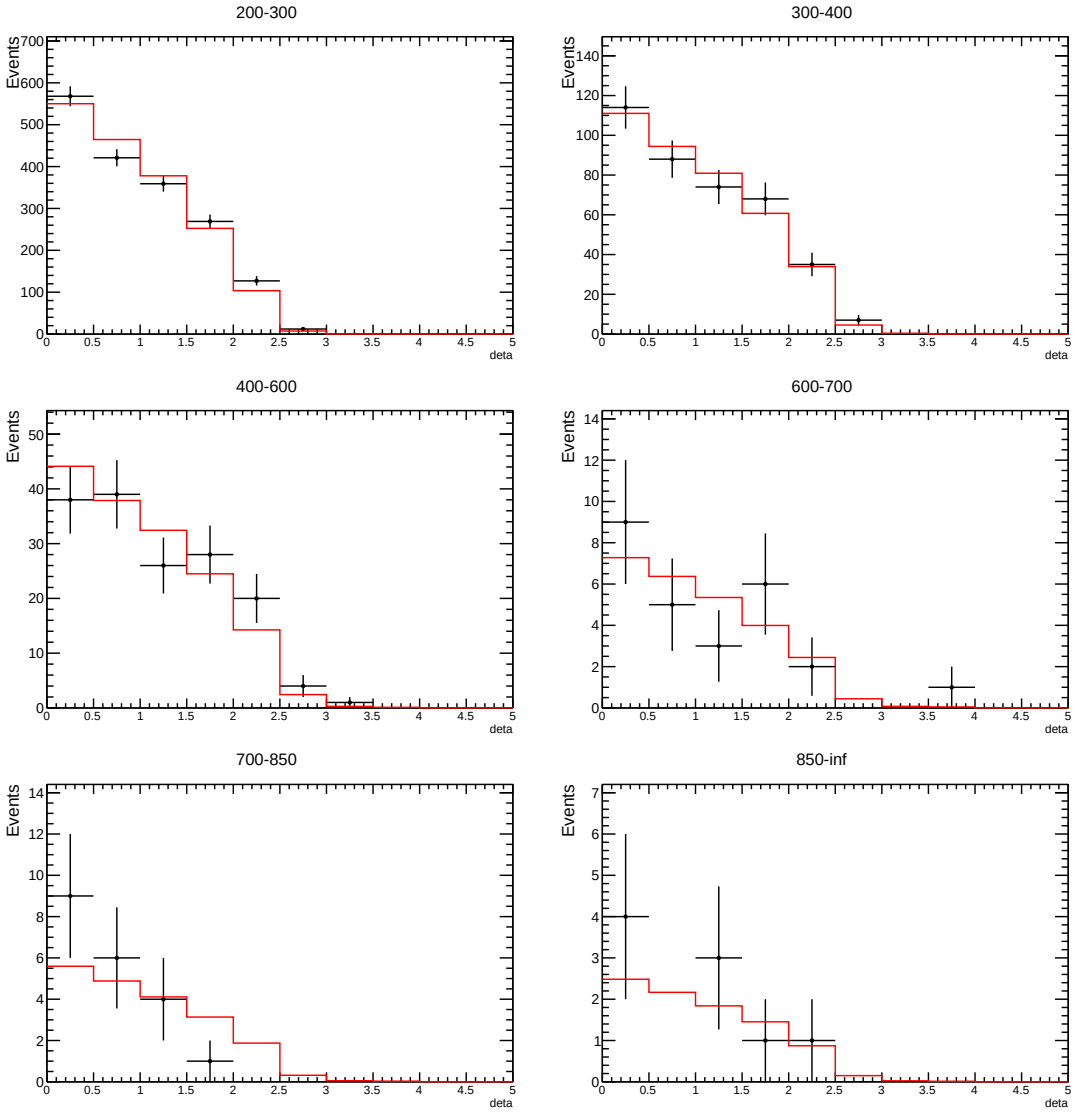
3.2.3 Pt1



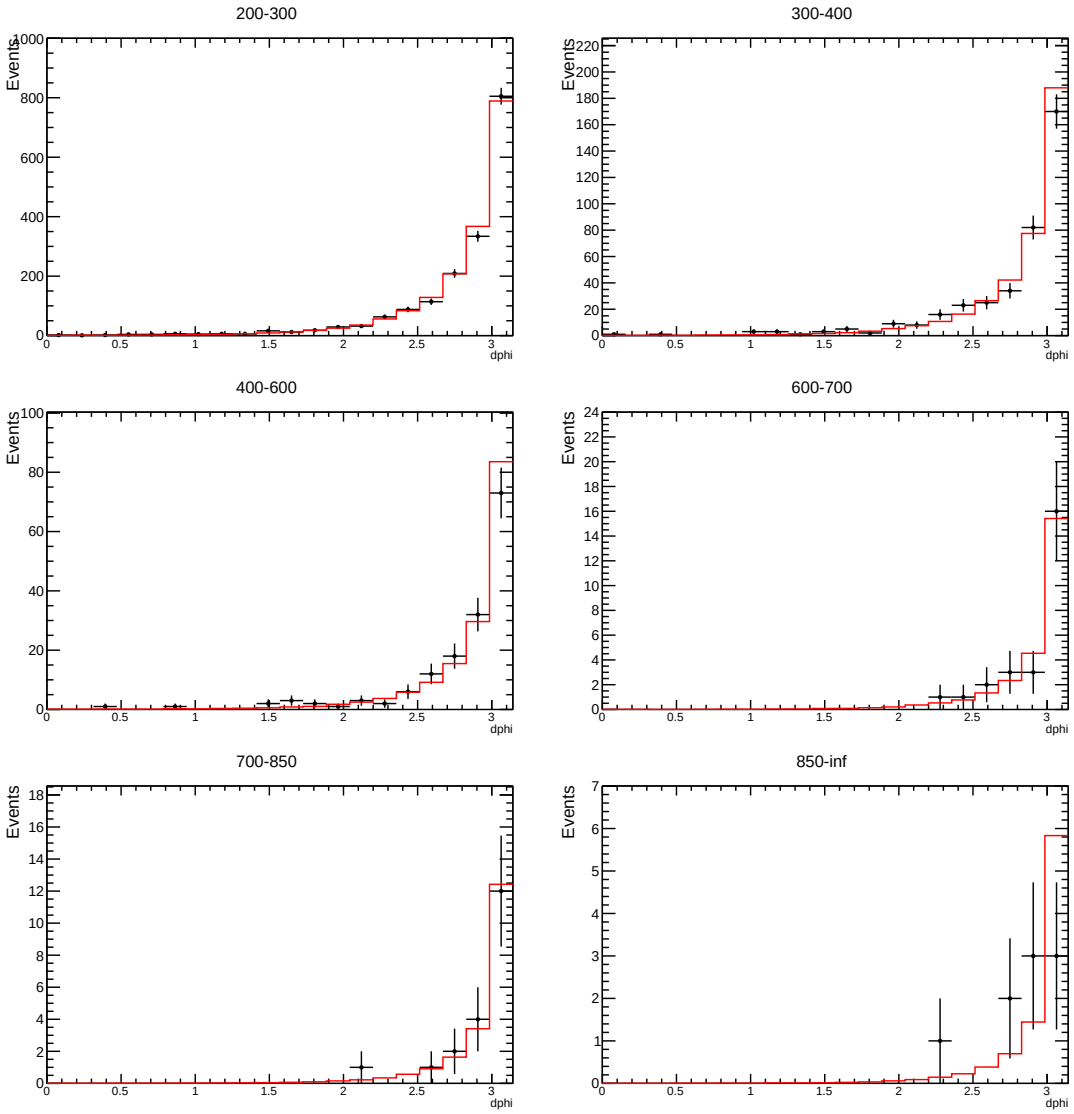
3.2.4 Pt2



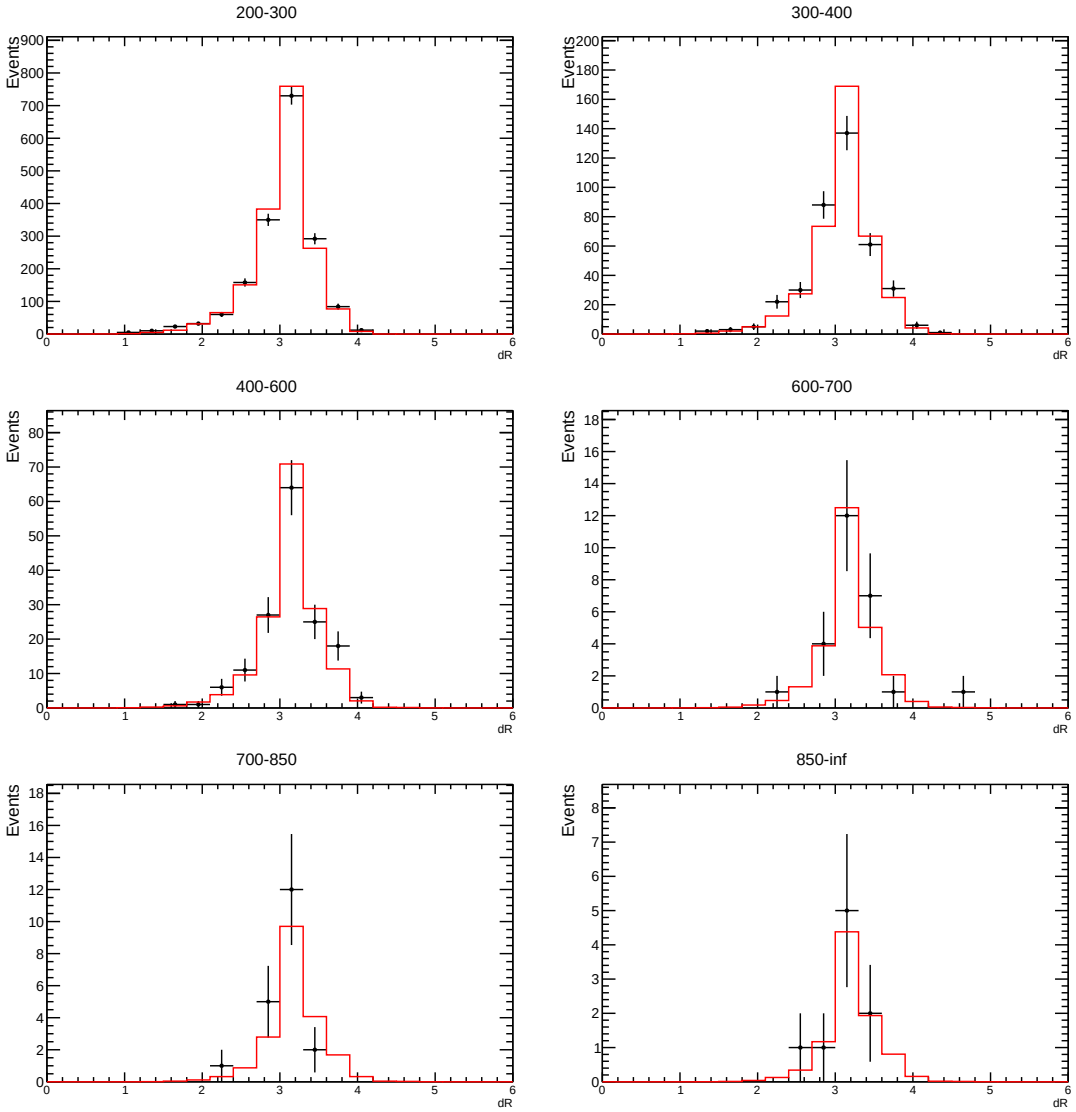
3.2.5 Deta



3.2.6 Dphi

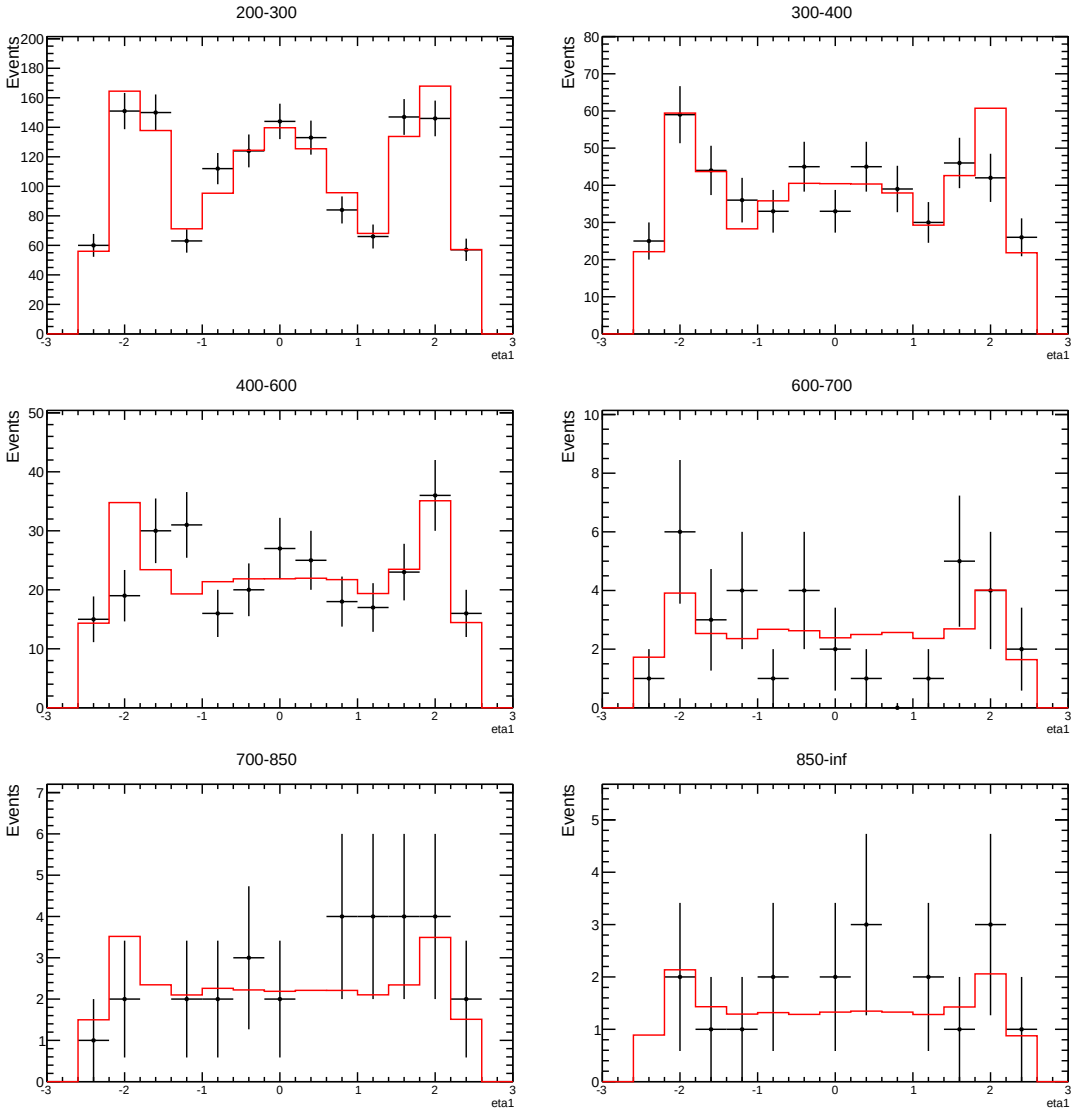


3.2.7 DR

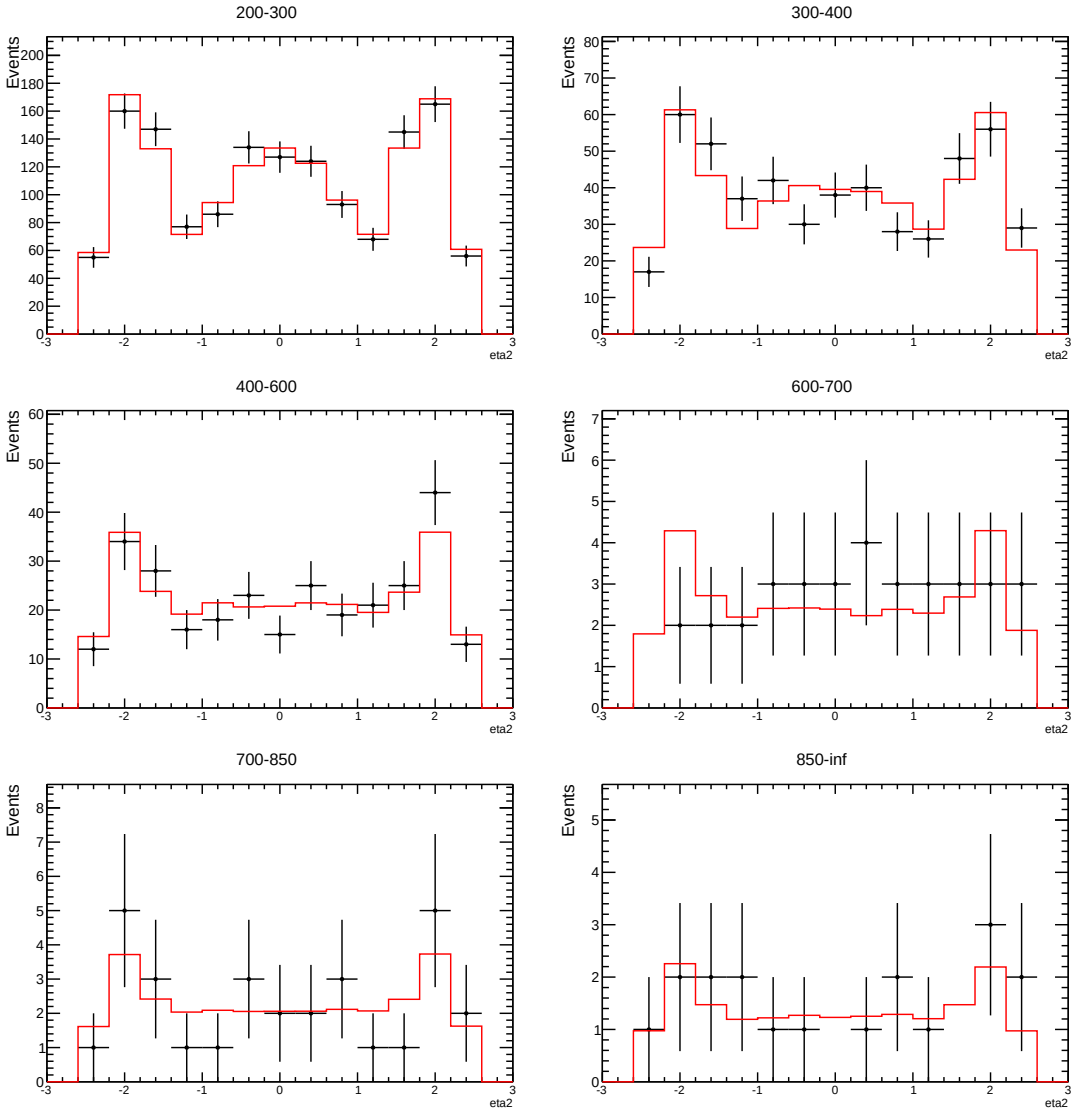


3.3 BEEB

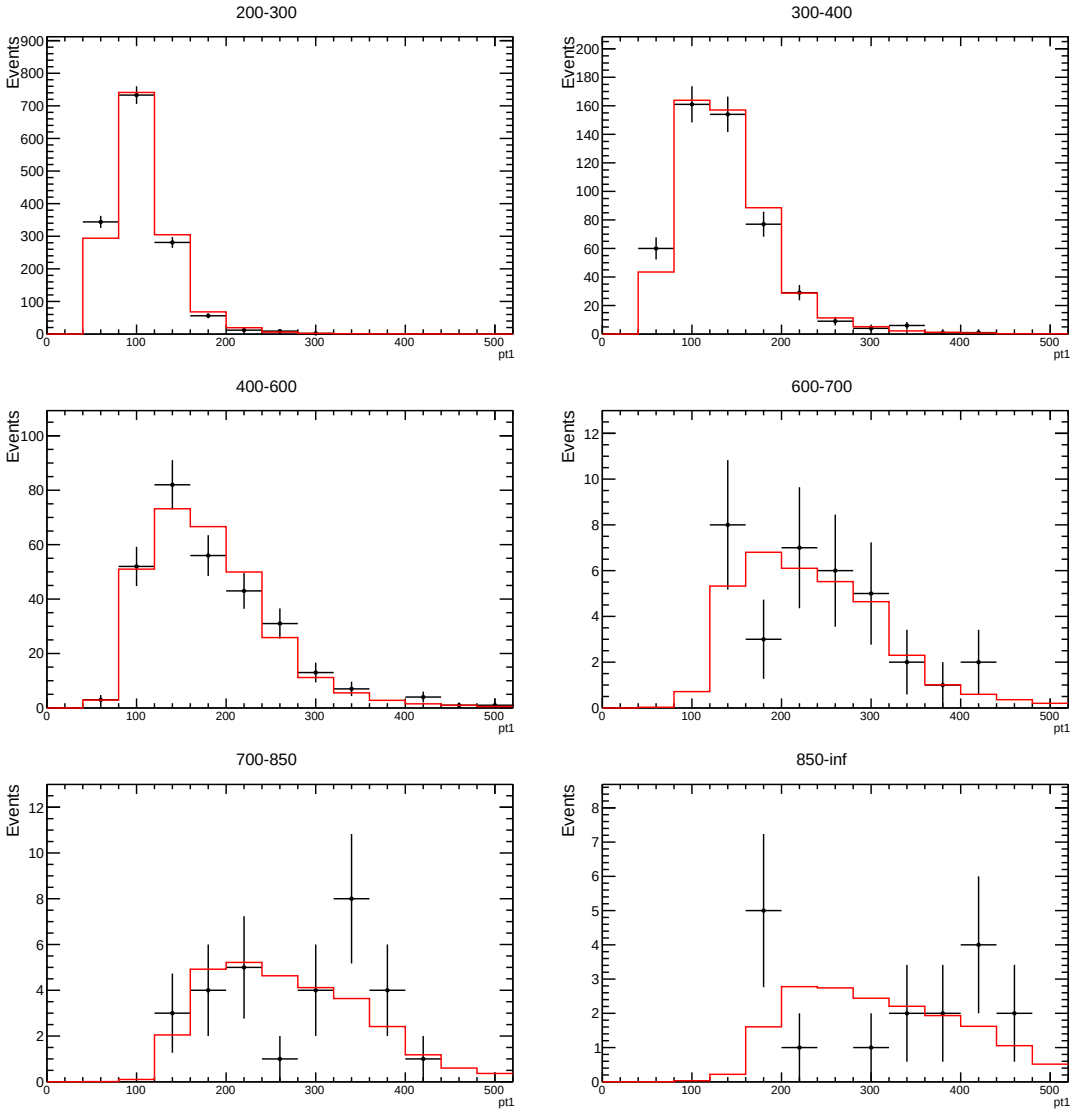
3.3.1 Eta1



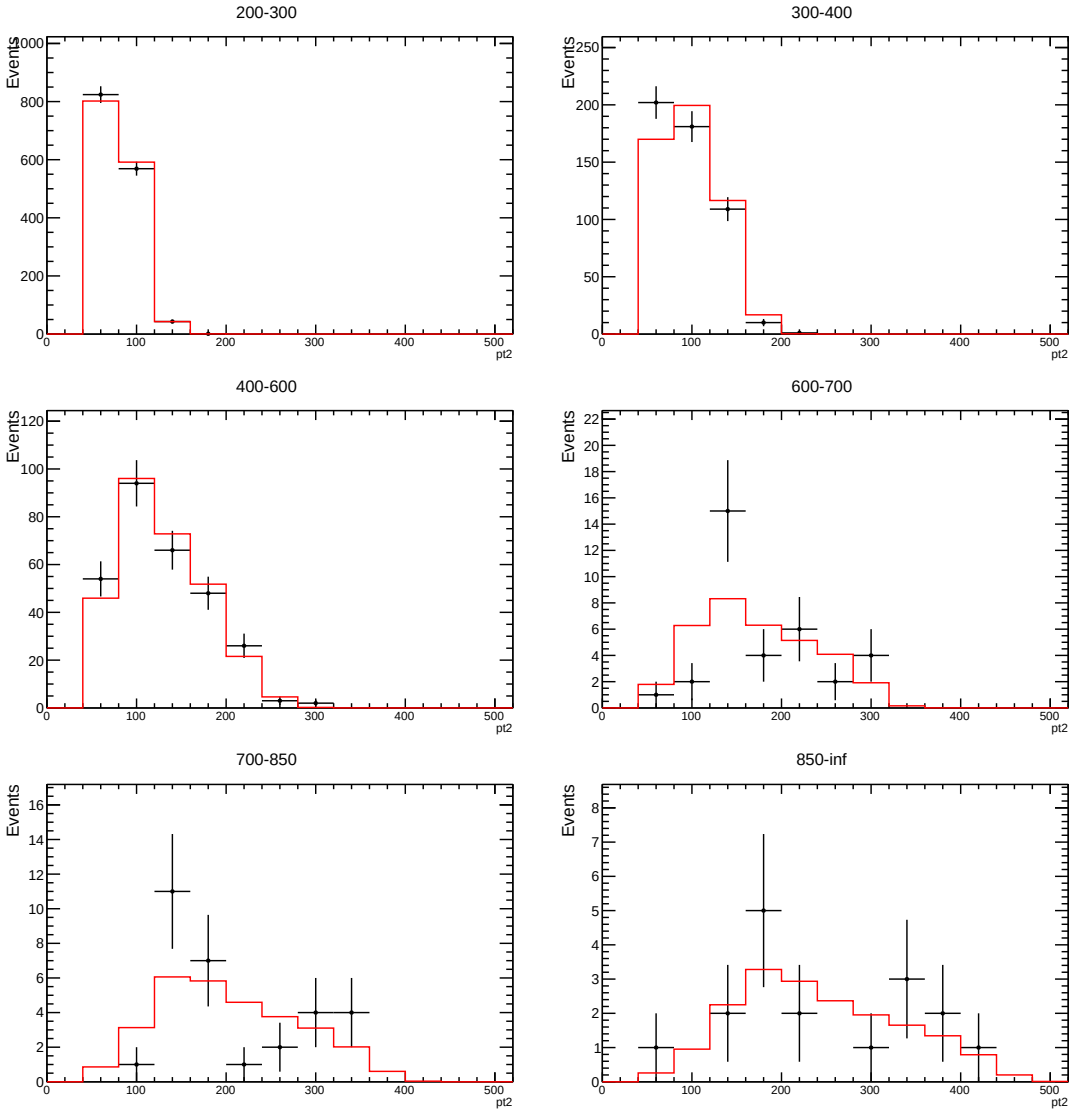
3.3.2 Eta2



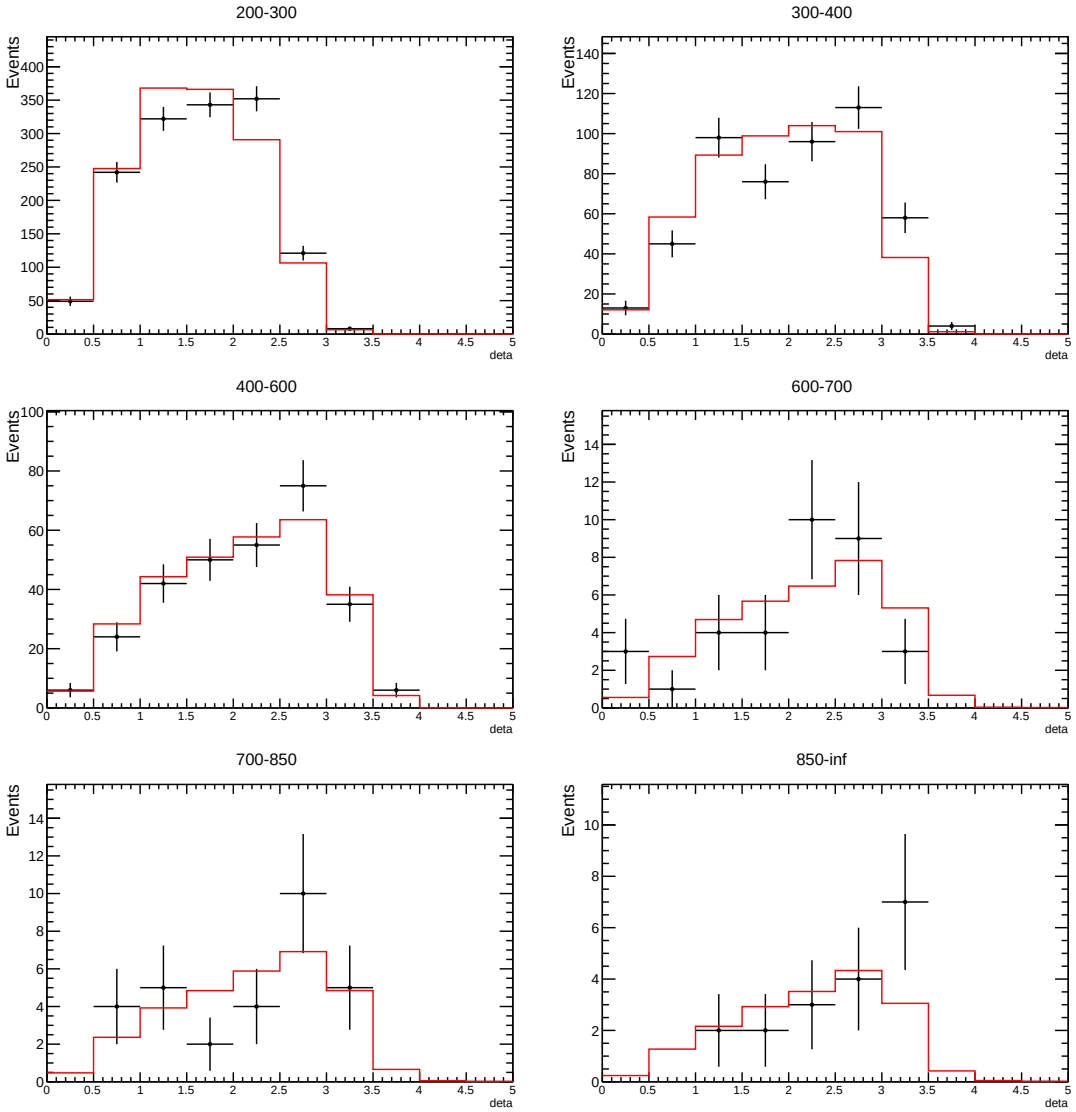
3.3.3 Pt1



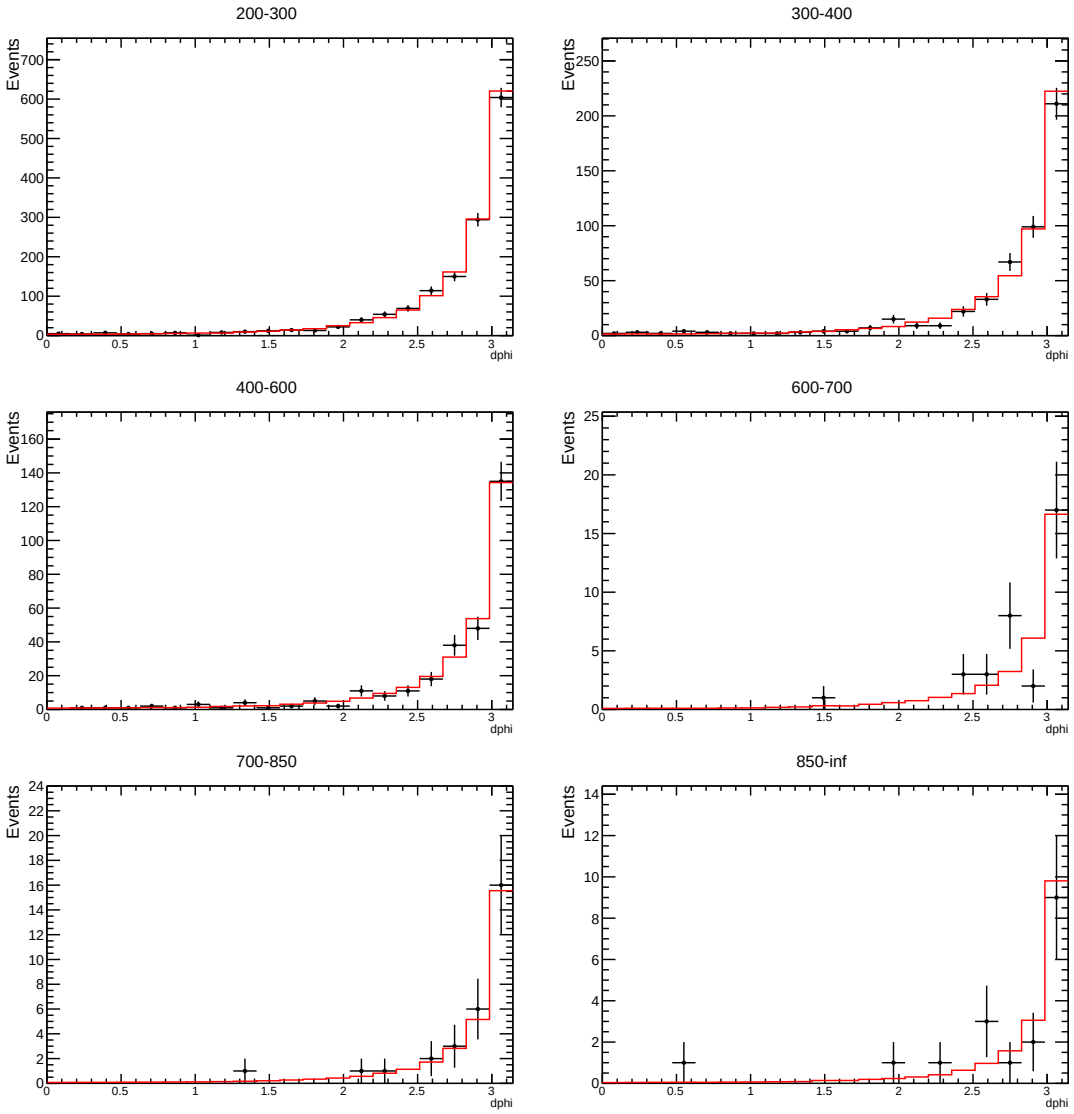
3.3.4 Pt2



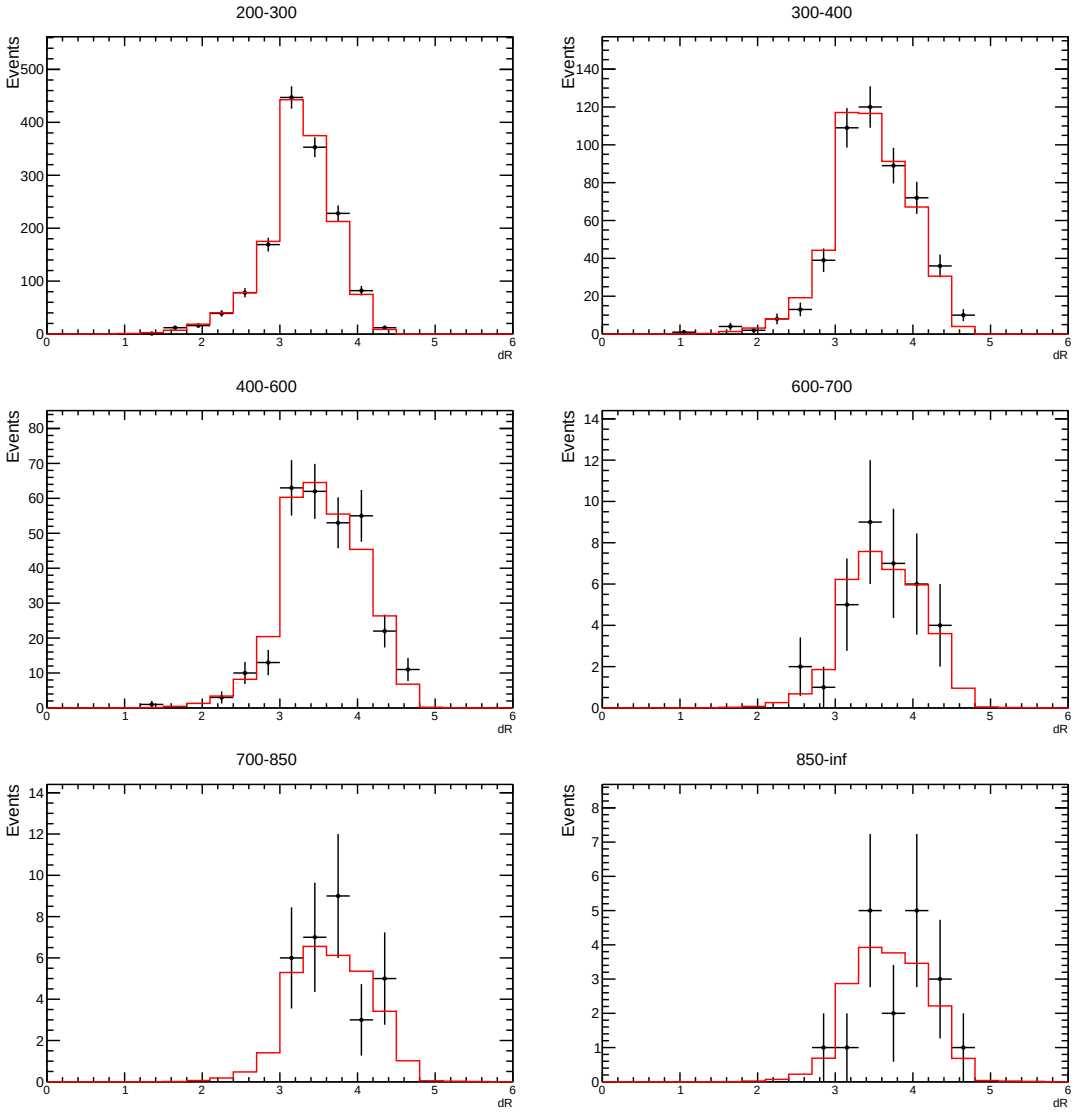
3.3.5 Deta



3.3.6 Dphi

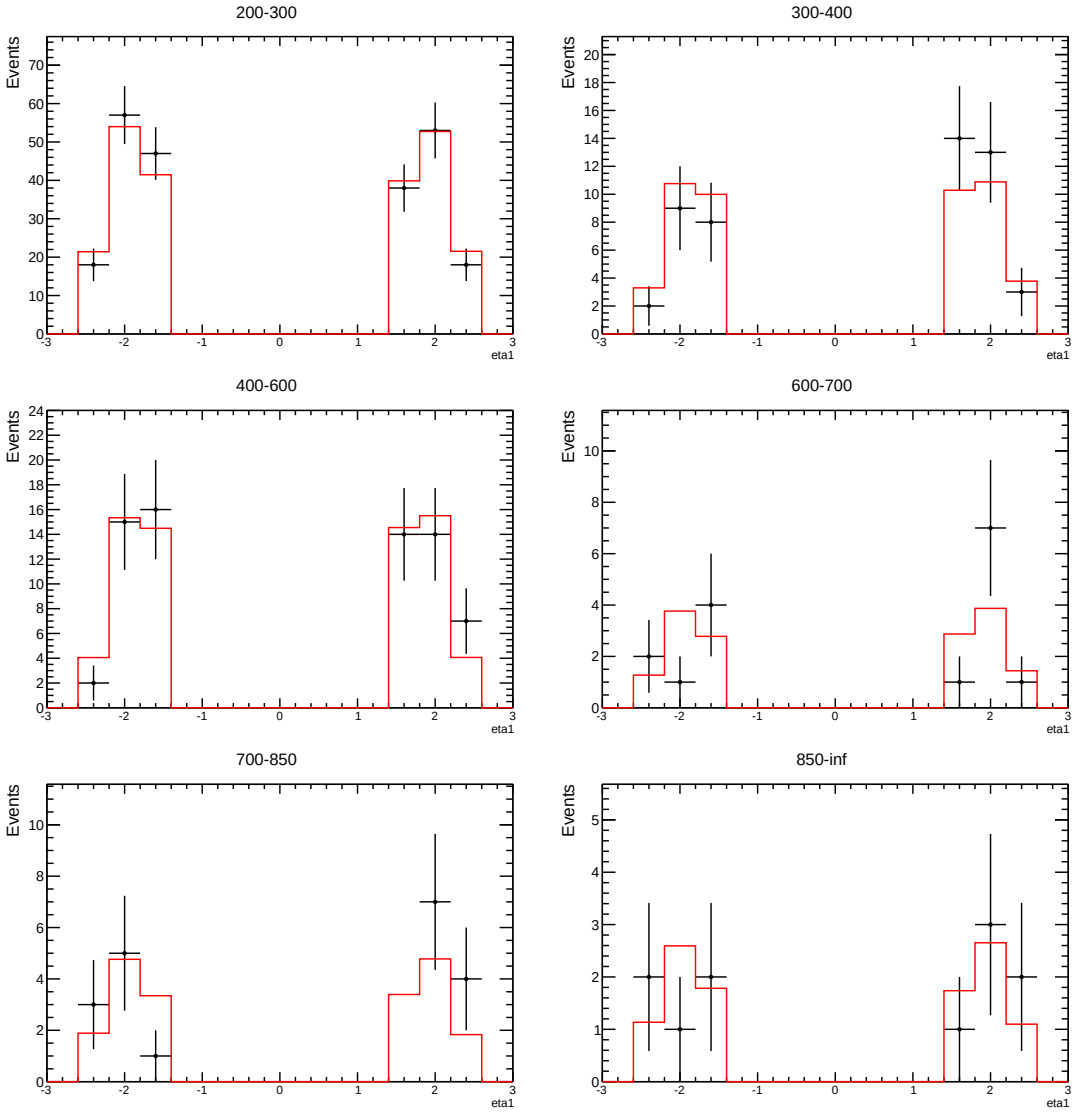


3.3.7 DR

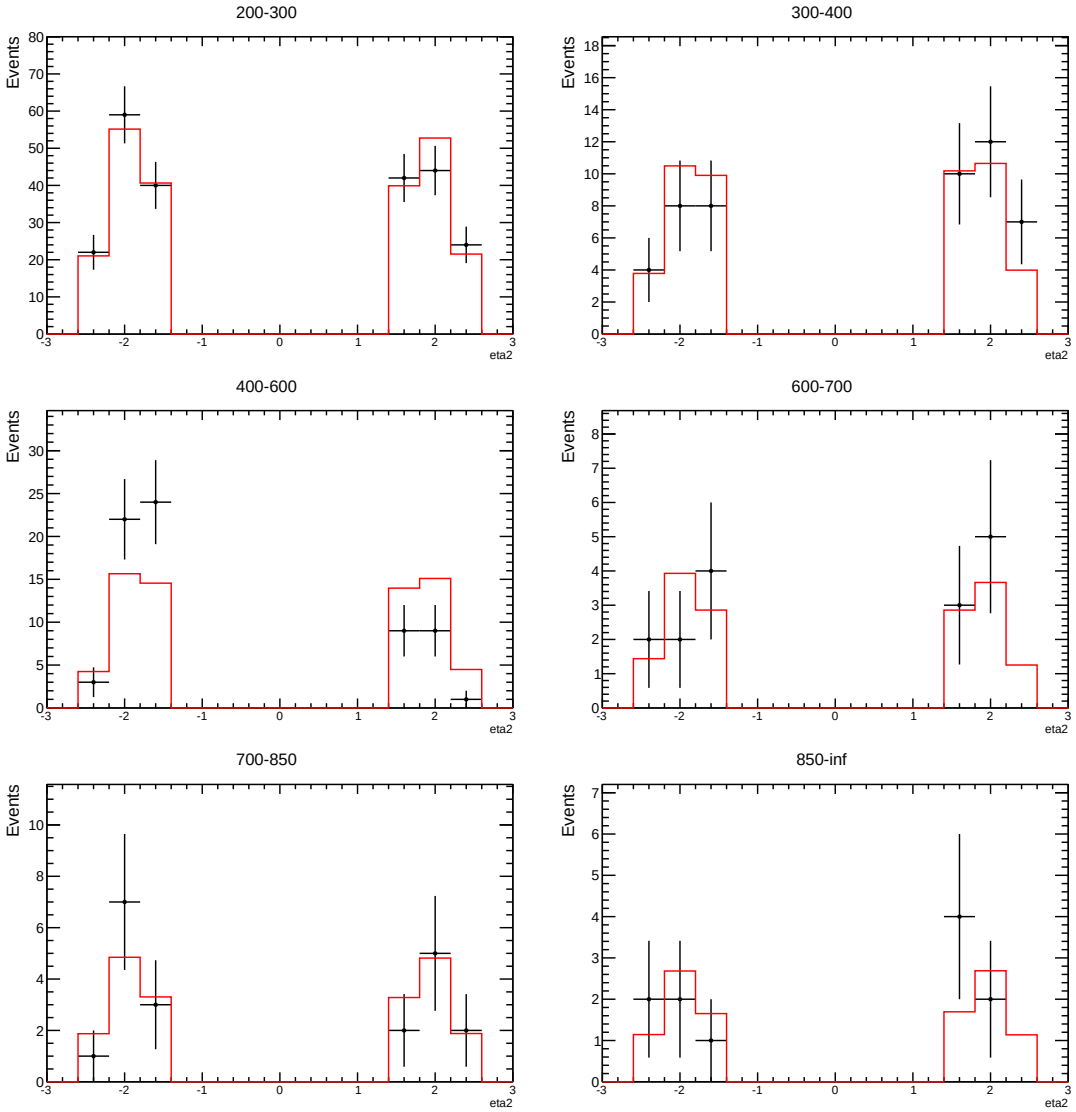


3.4 EE

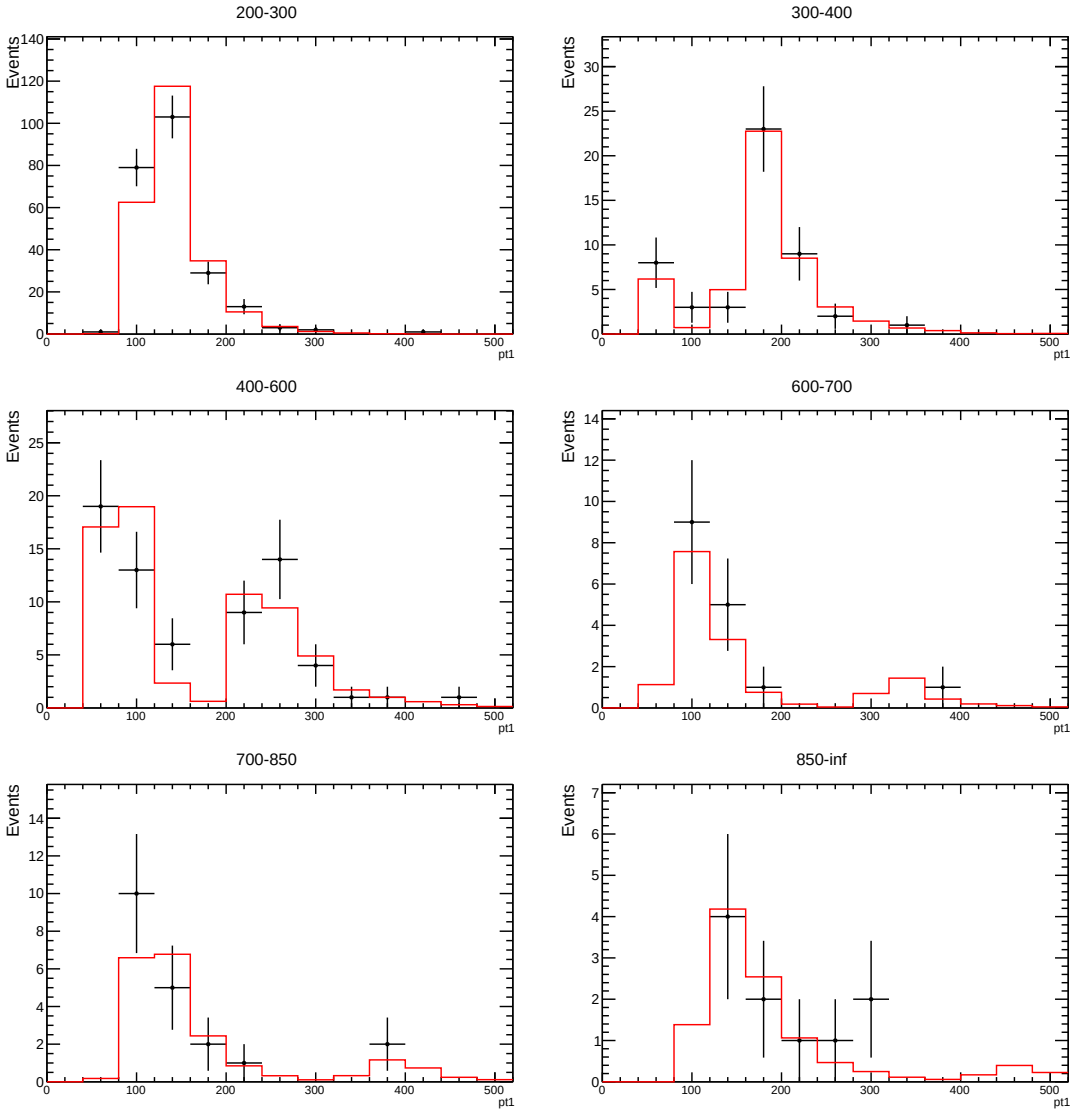
3.4.1 Eta1



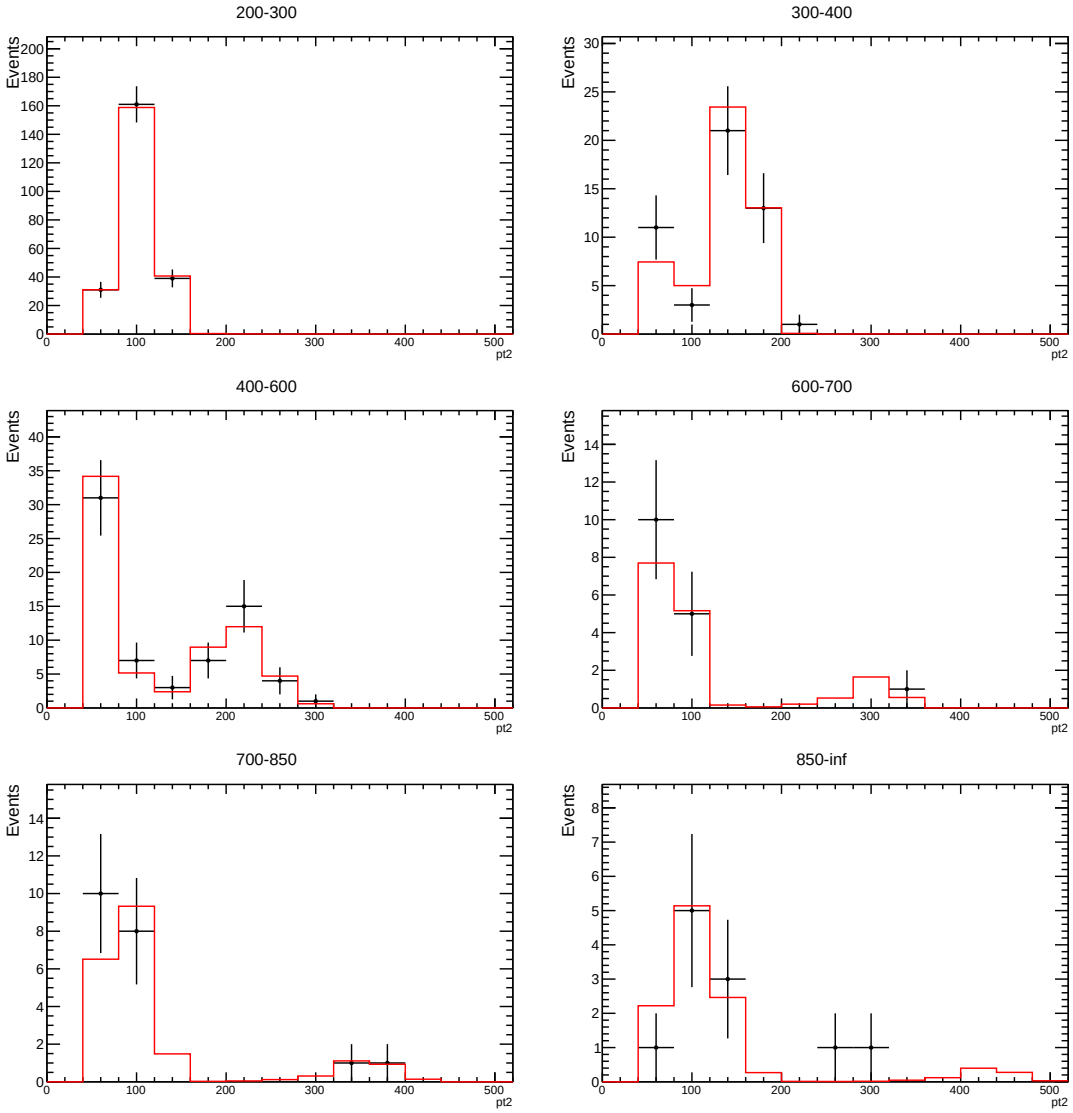
3.4.2 Eta2



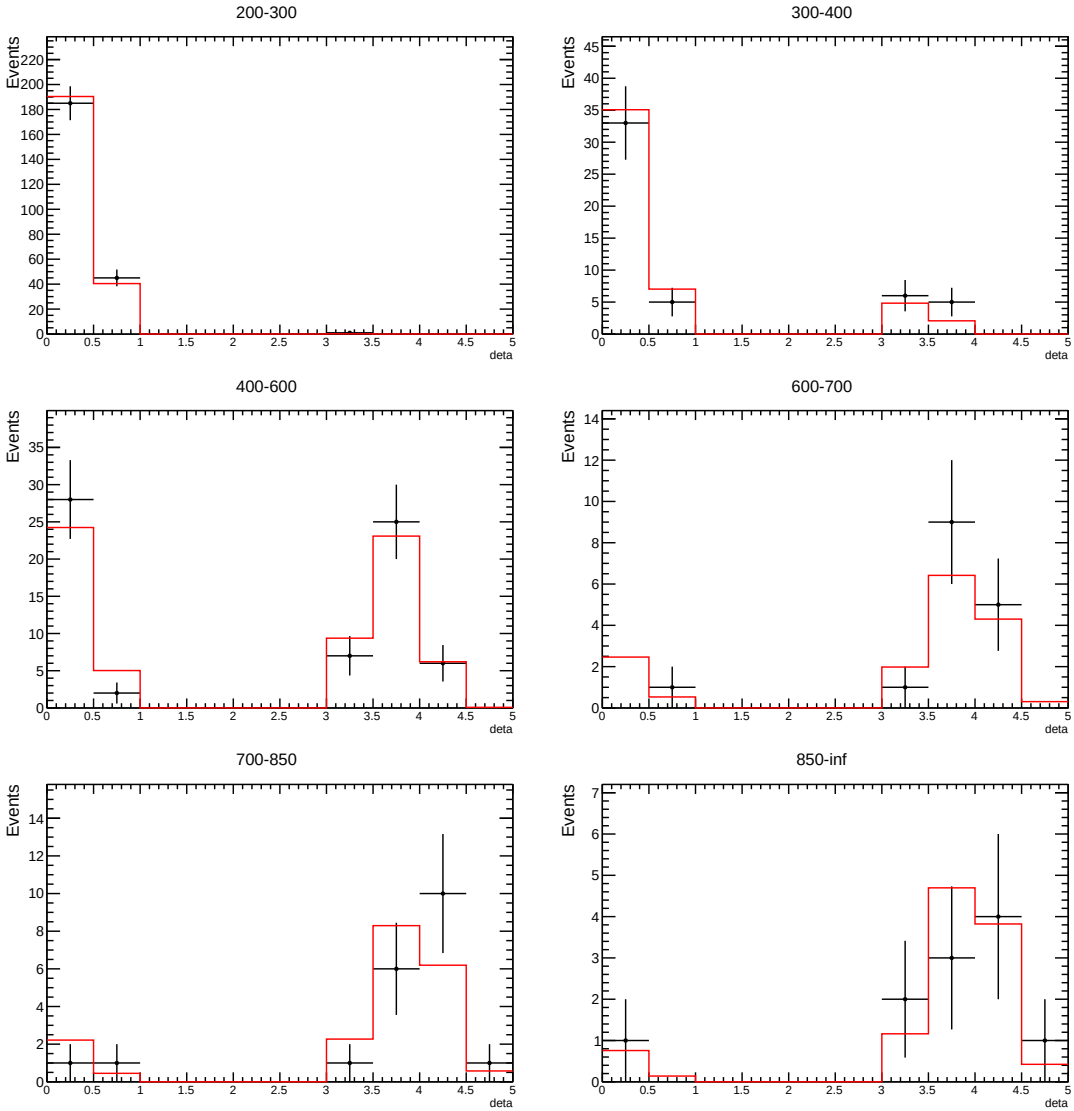
3.4.3 Pt1



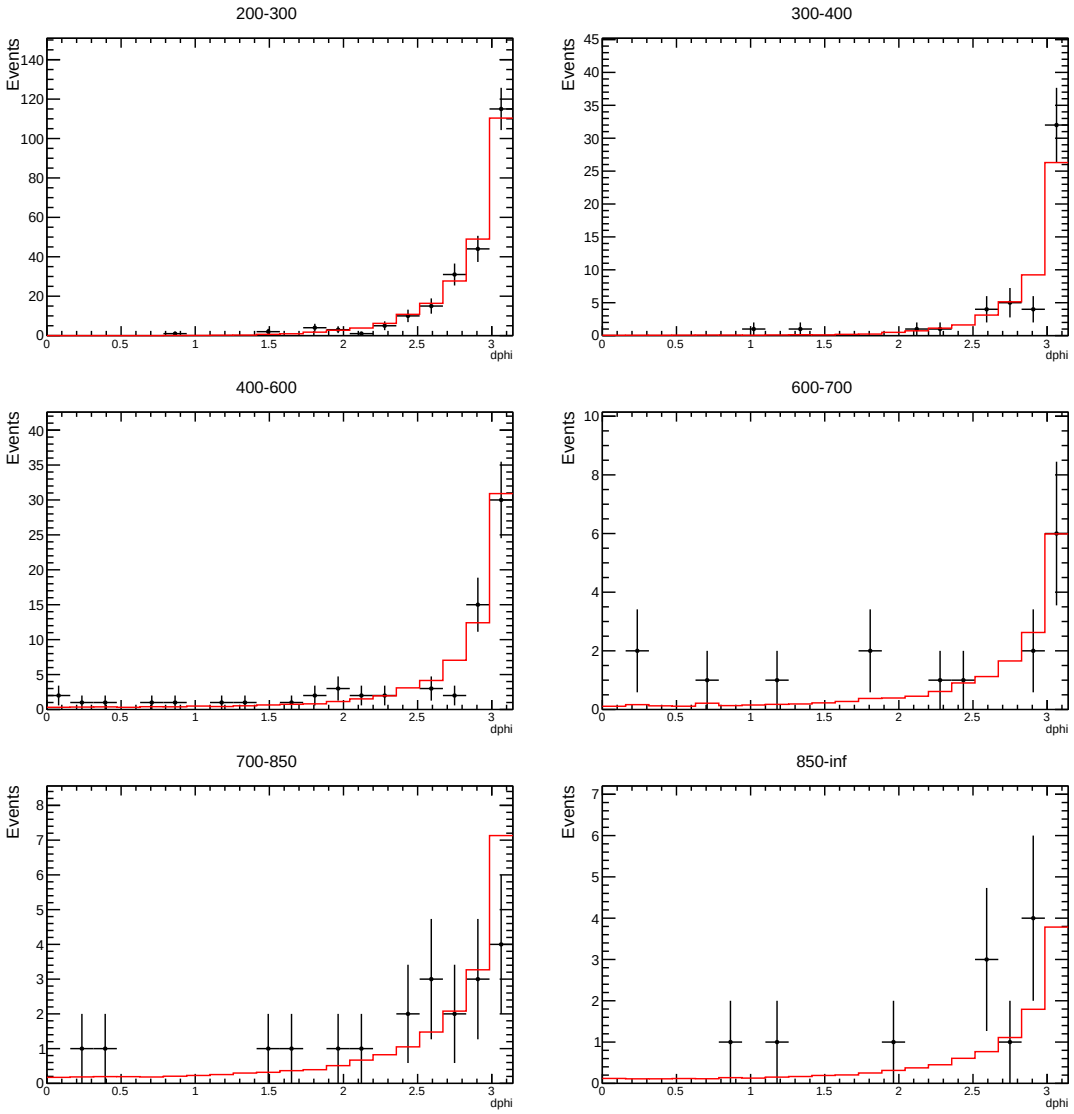
3.4.4 Pt2



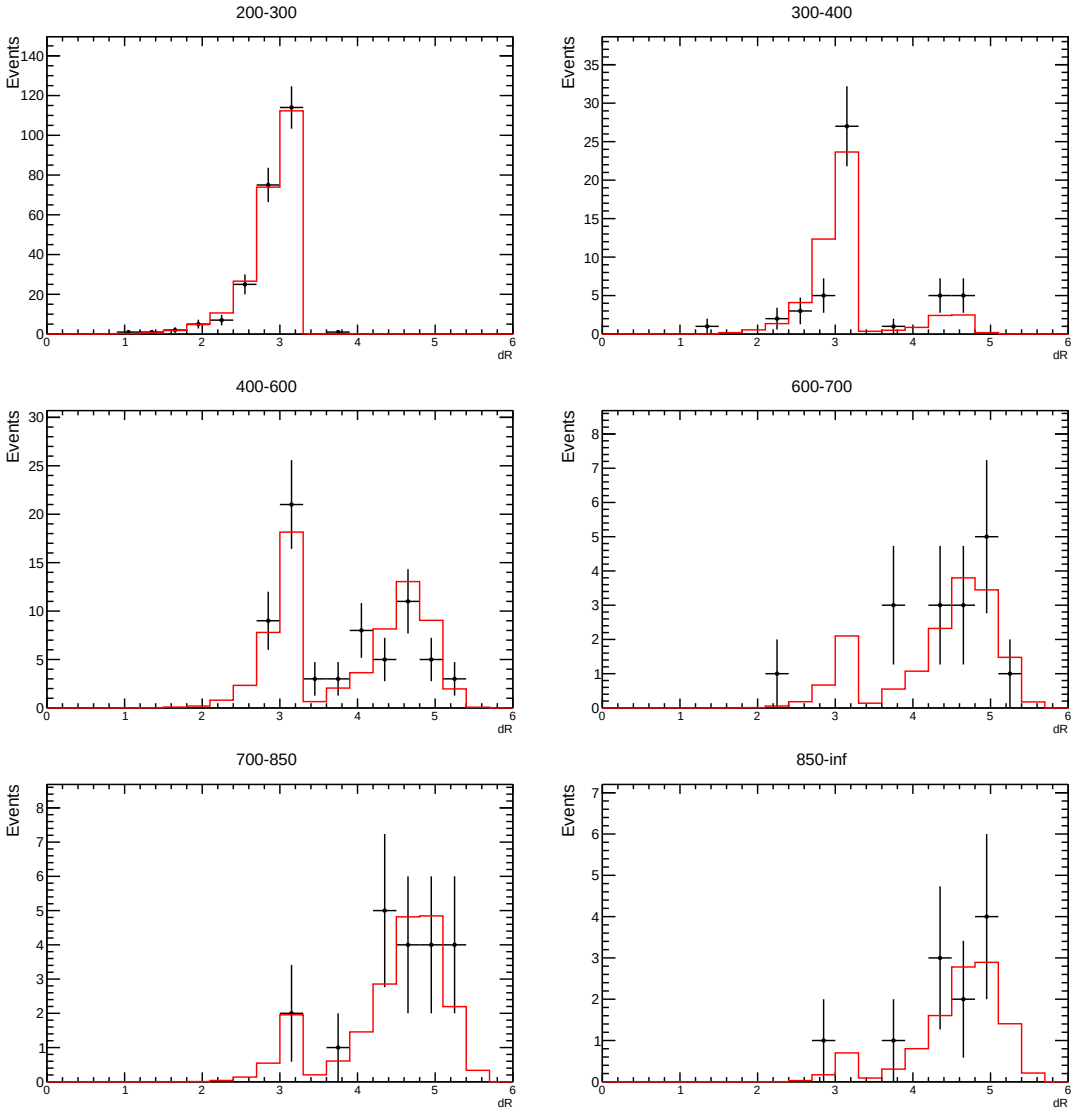
3.4.5 Deta



3.4.6 Dphi



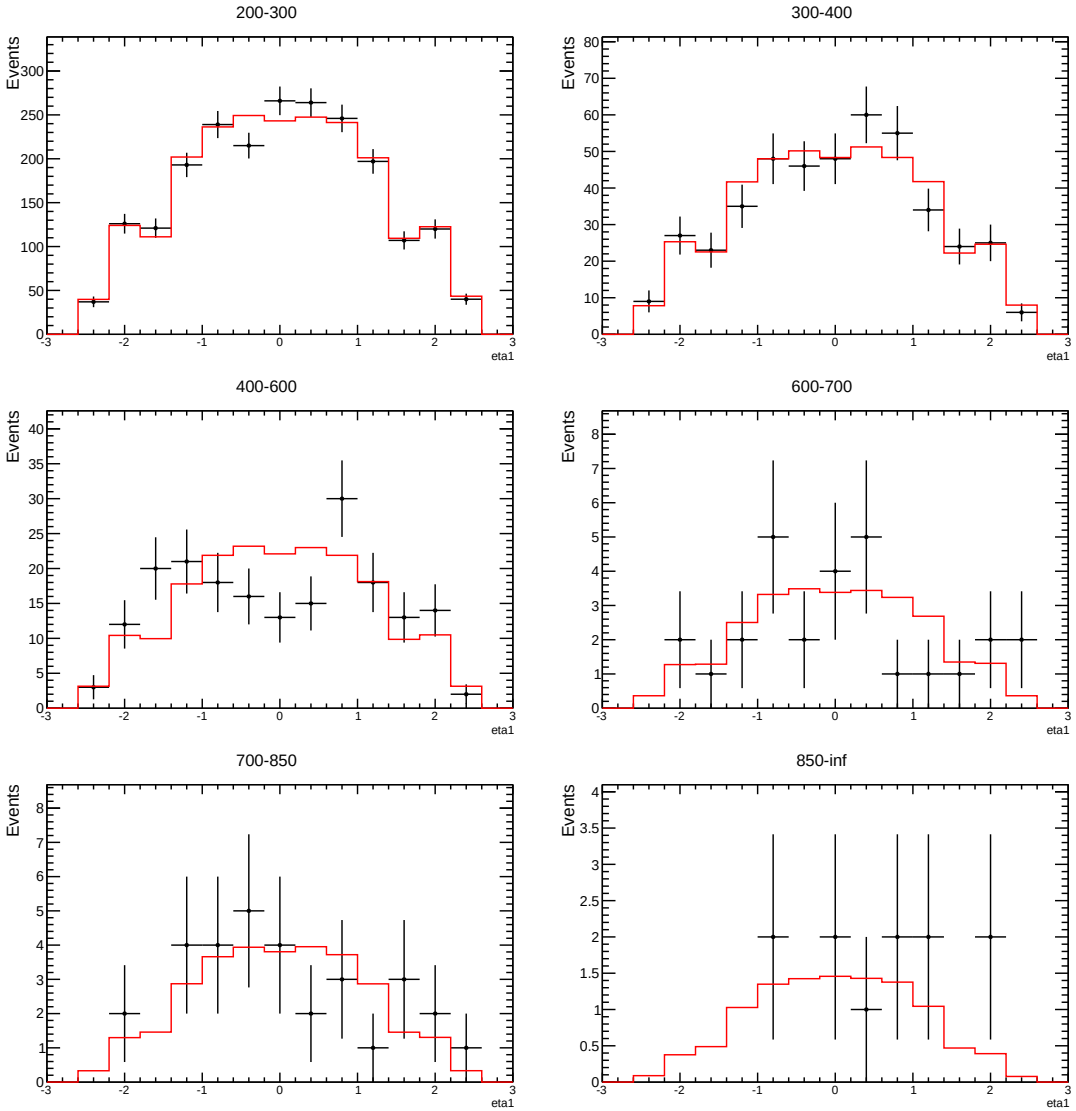
3.4.7 DR



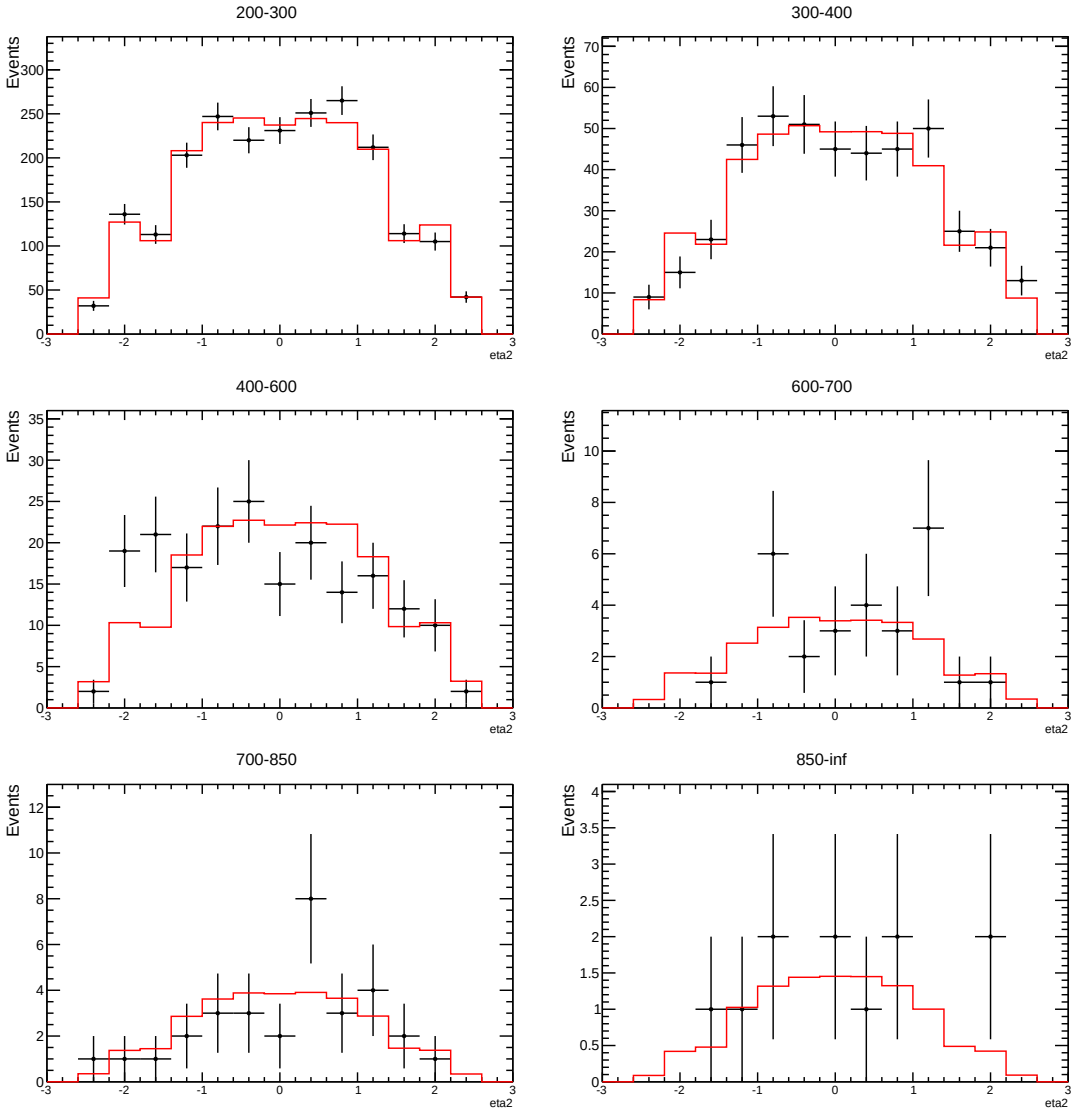
4 Higgs

4.1 Inclusive

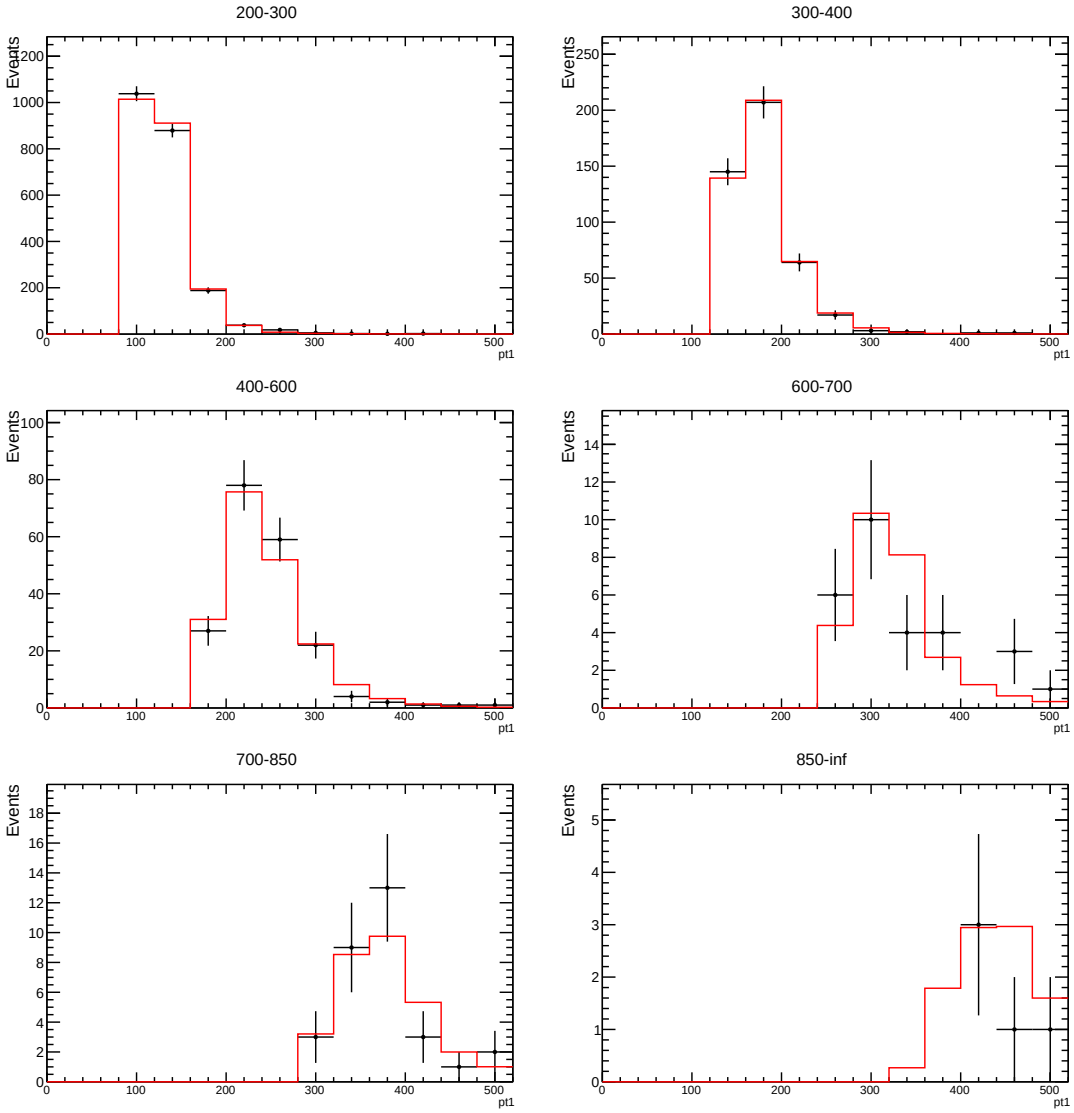
4.1.1 Eta1



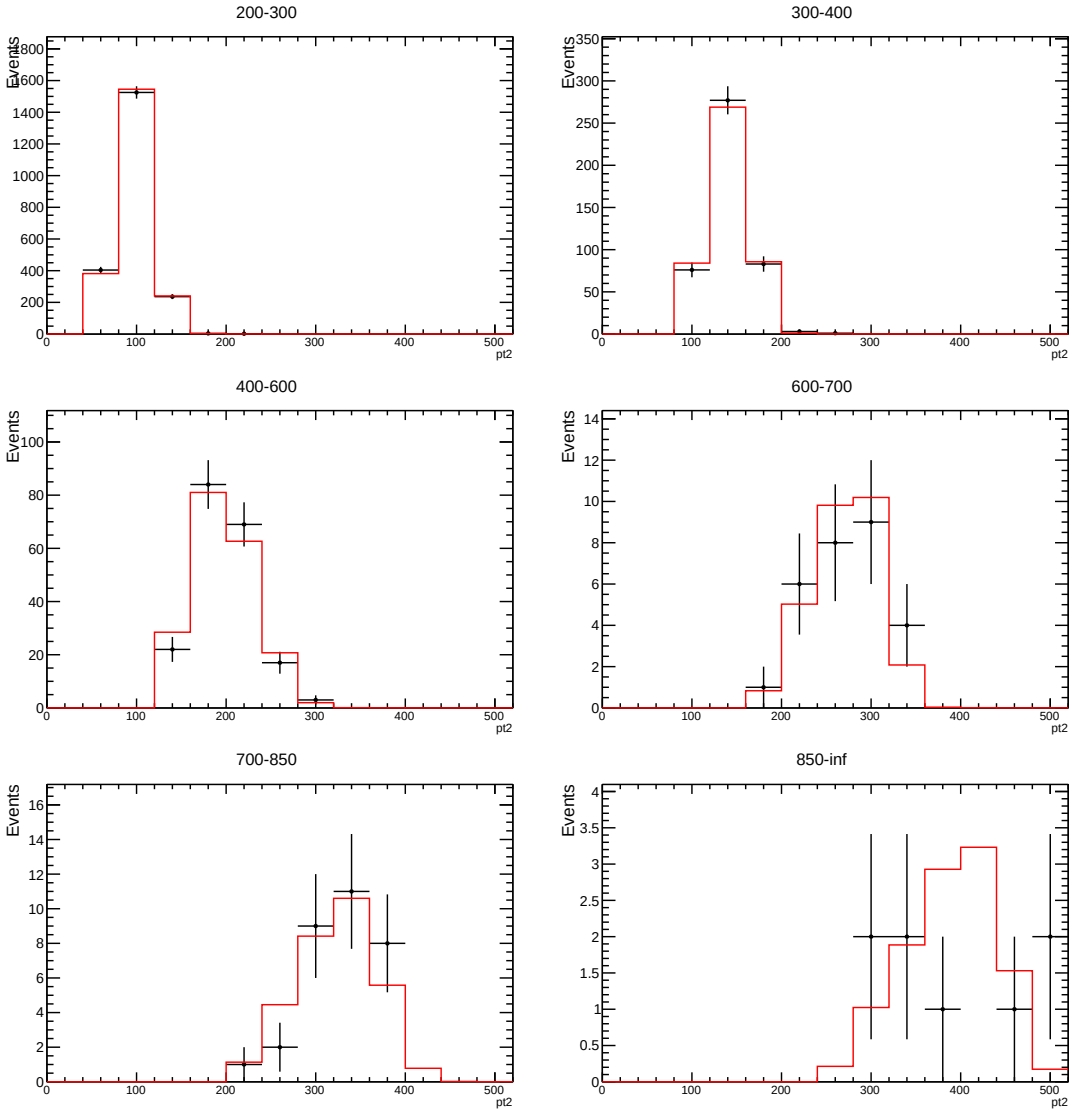
4.1.2 Eta2



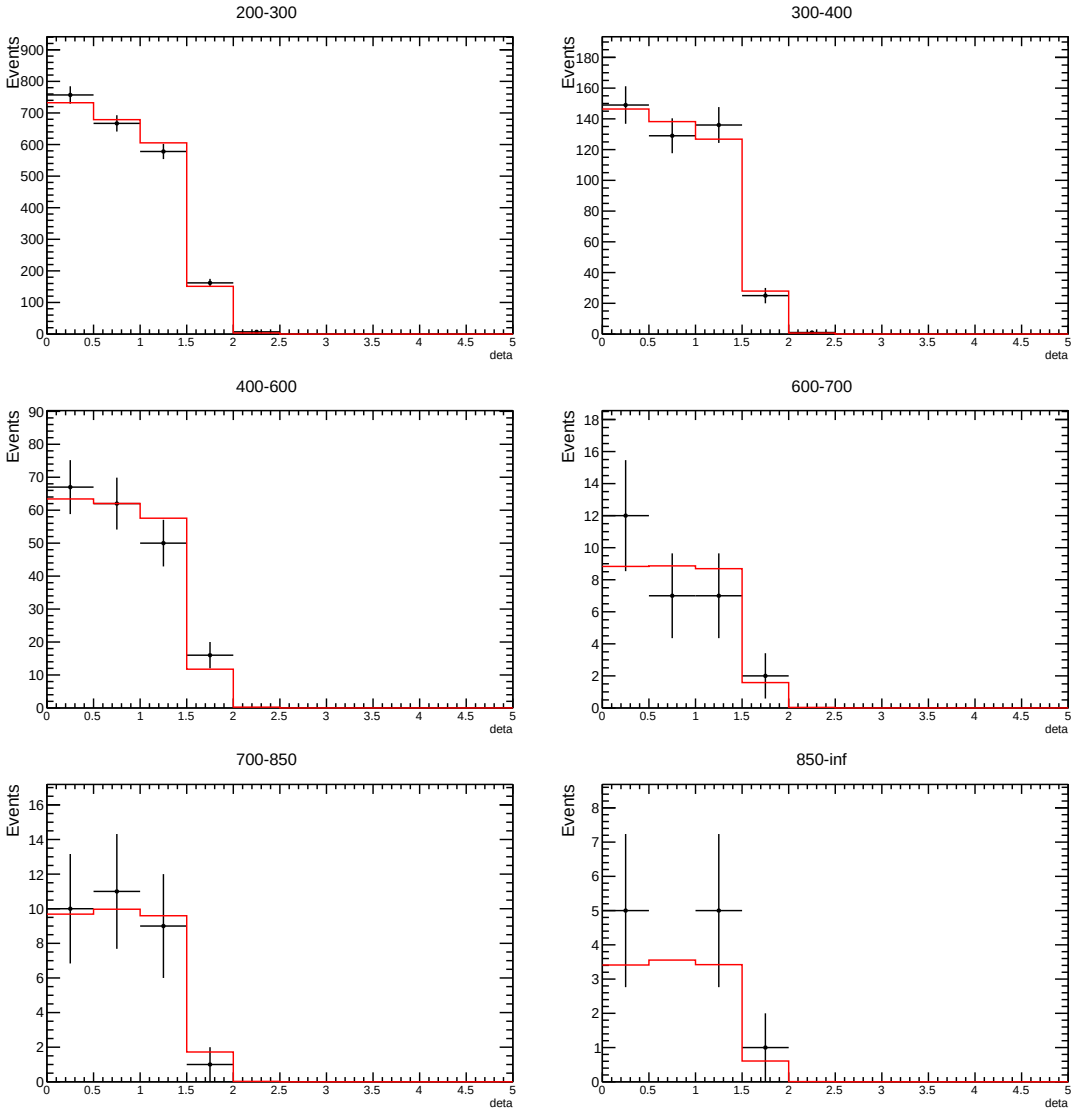
4.1.3 Pt1



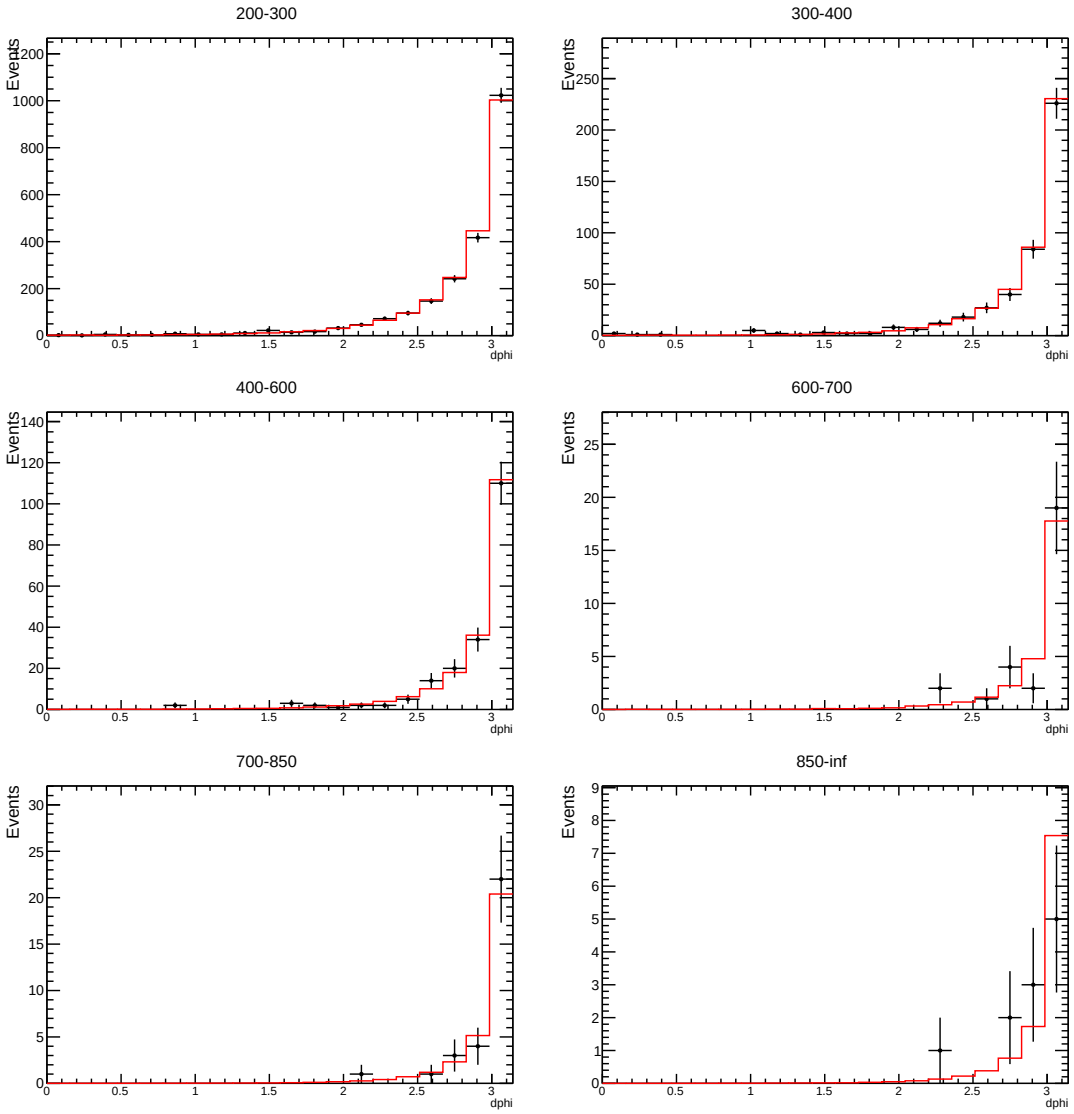
4.1.4 Pt2



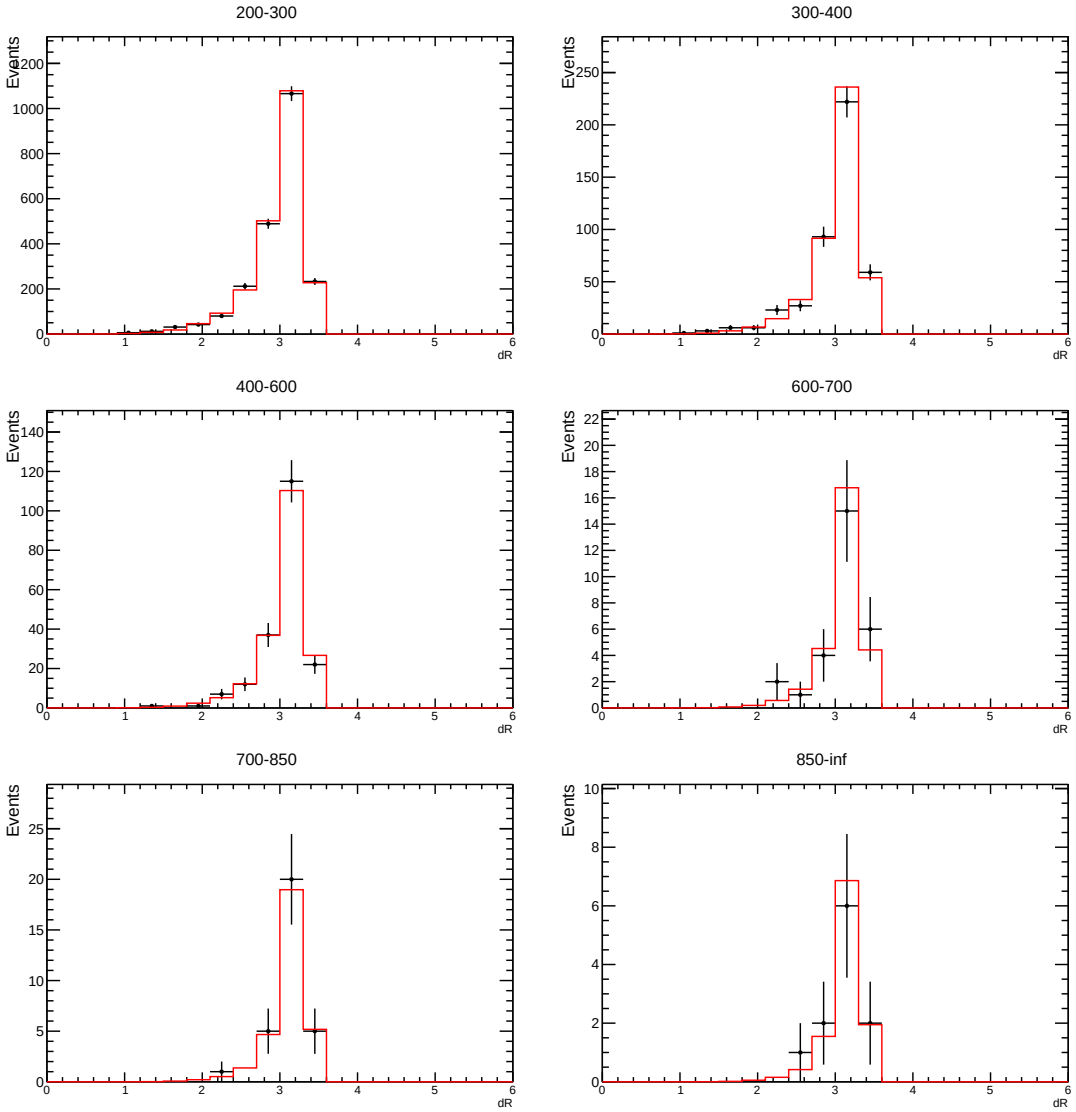
4.1.5 Deta



4.1.6 Dphi

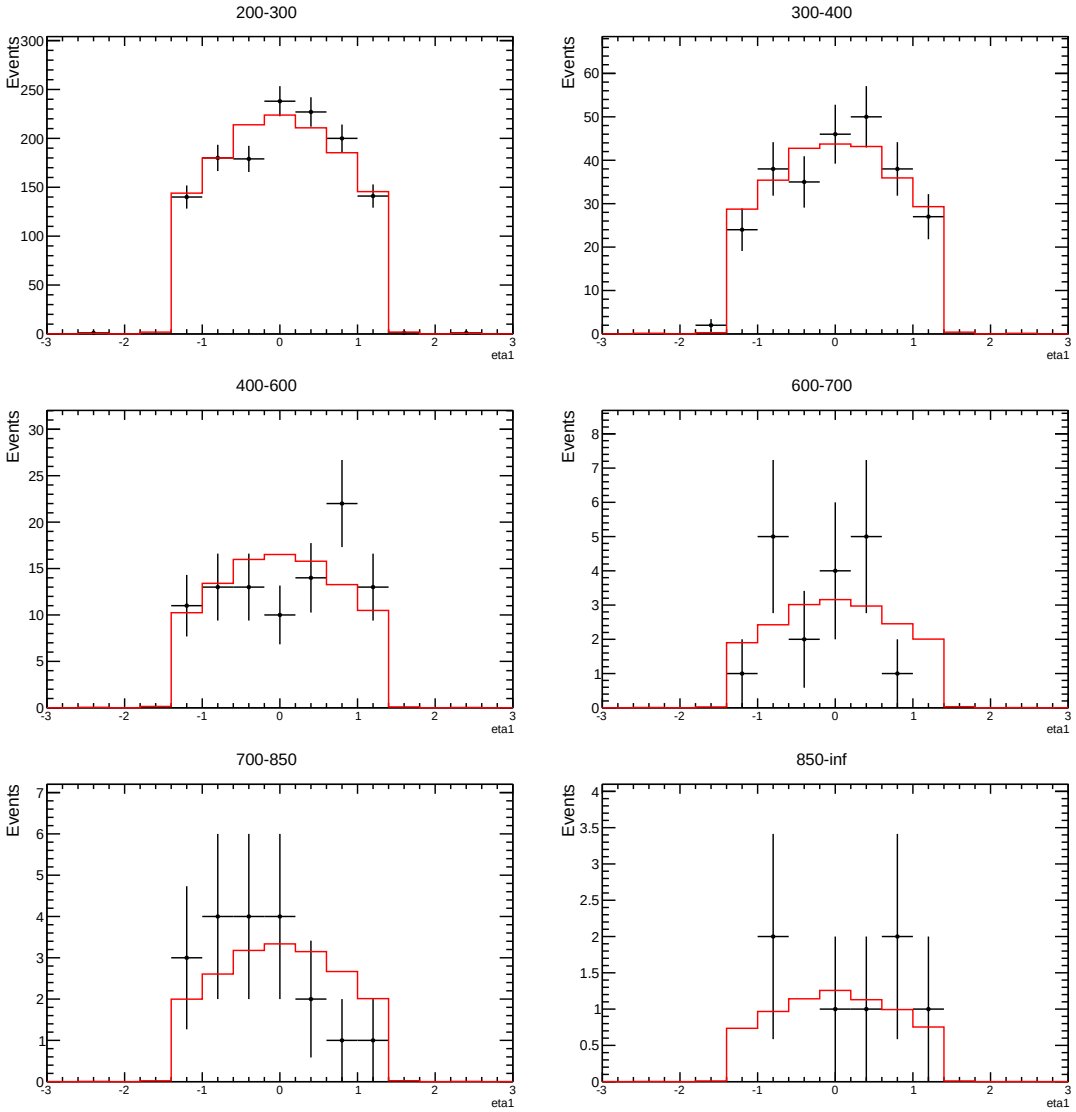


4.1.7 DR

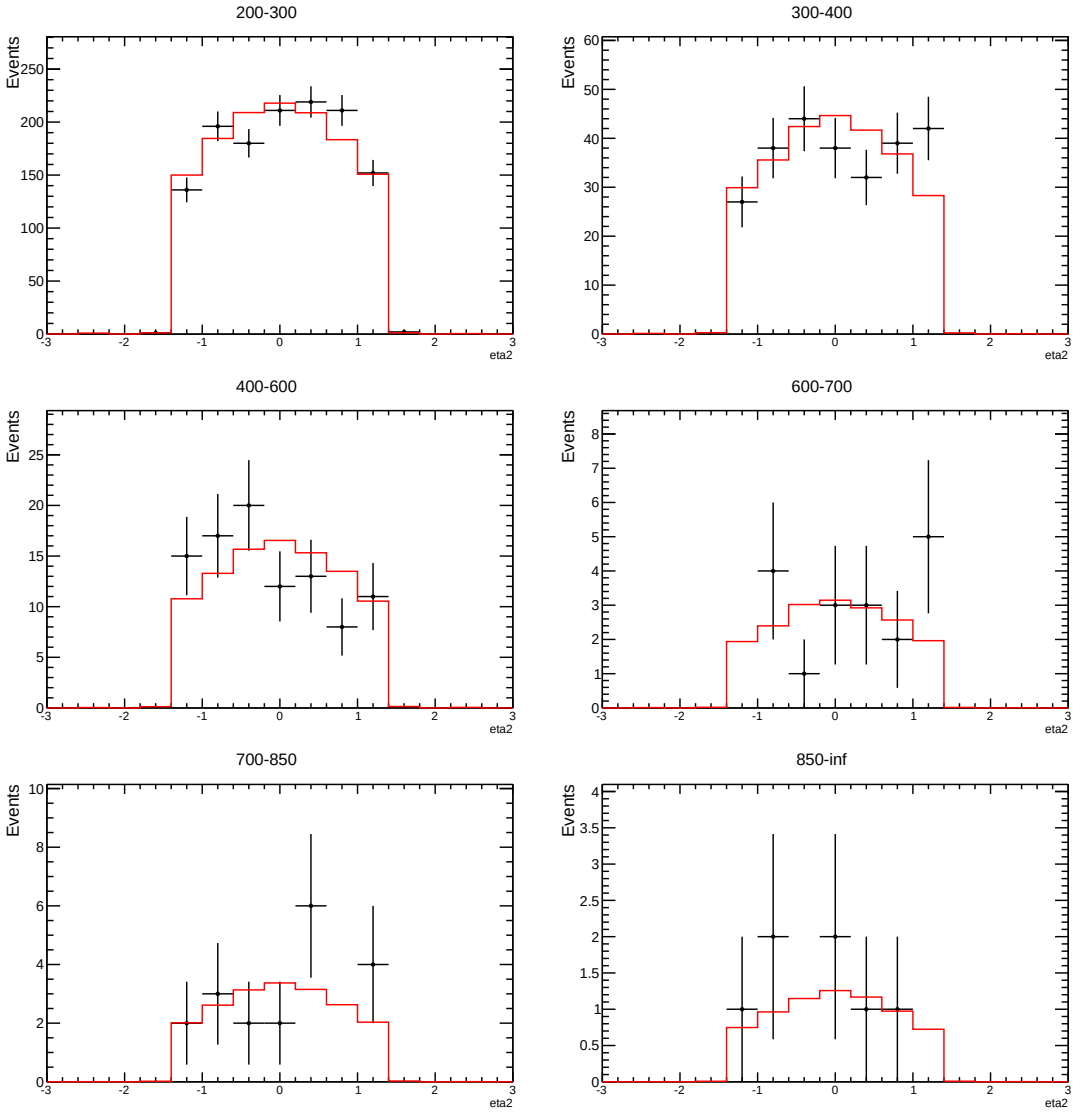


4.2 BB

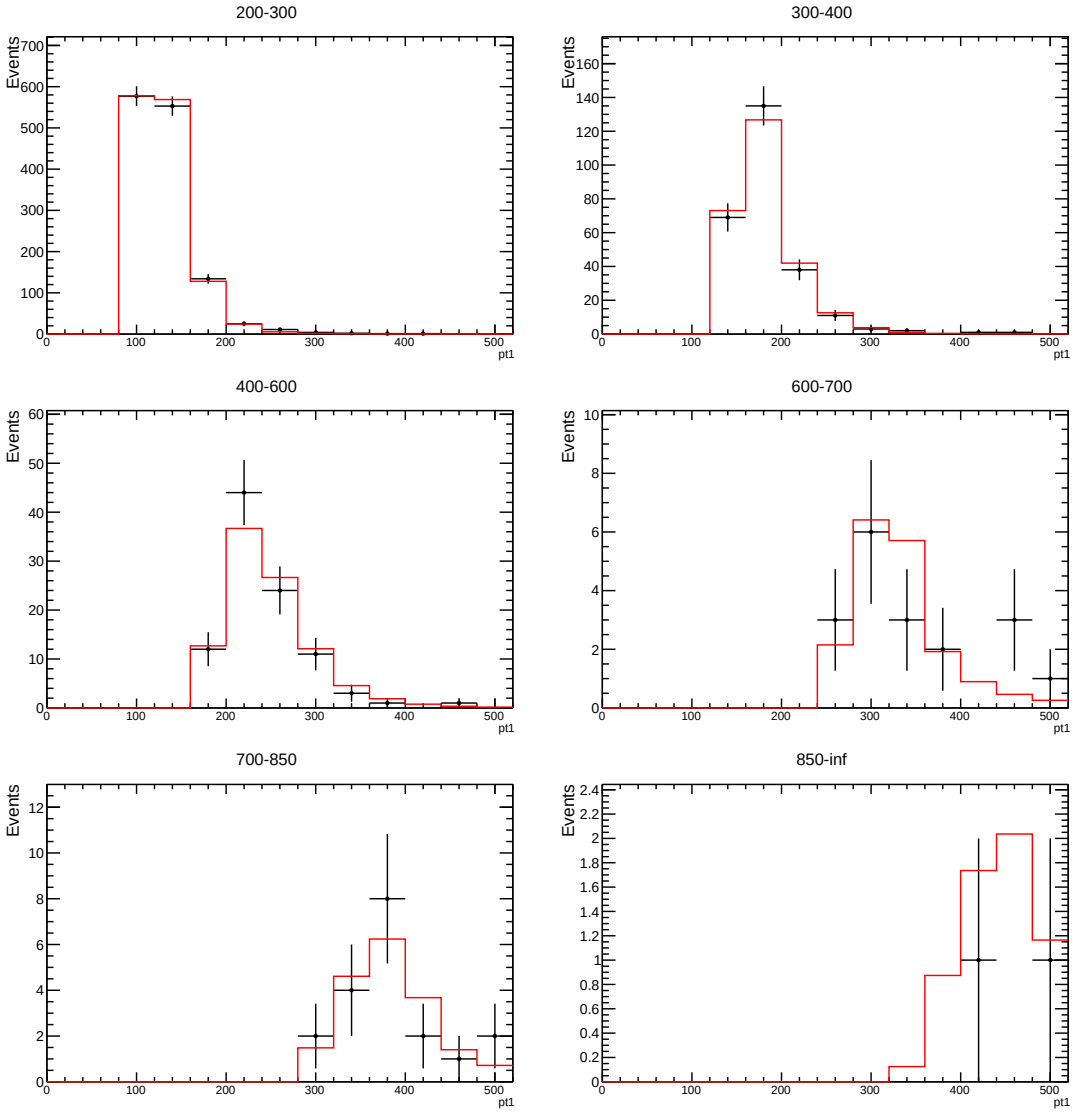
4.2.1 Eta1



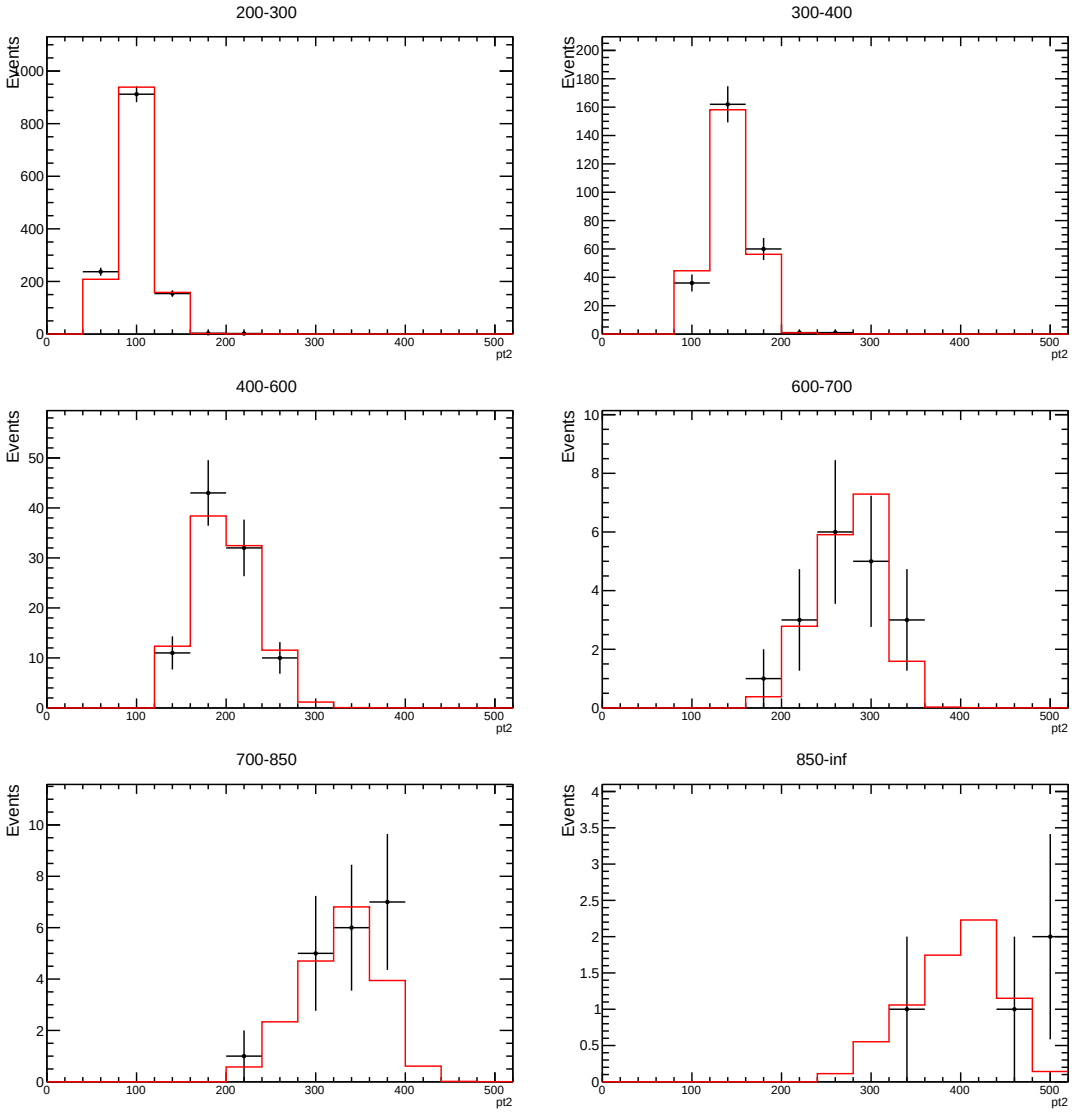
4.2.2 Eta2



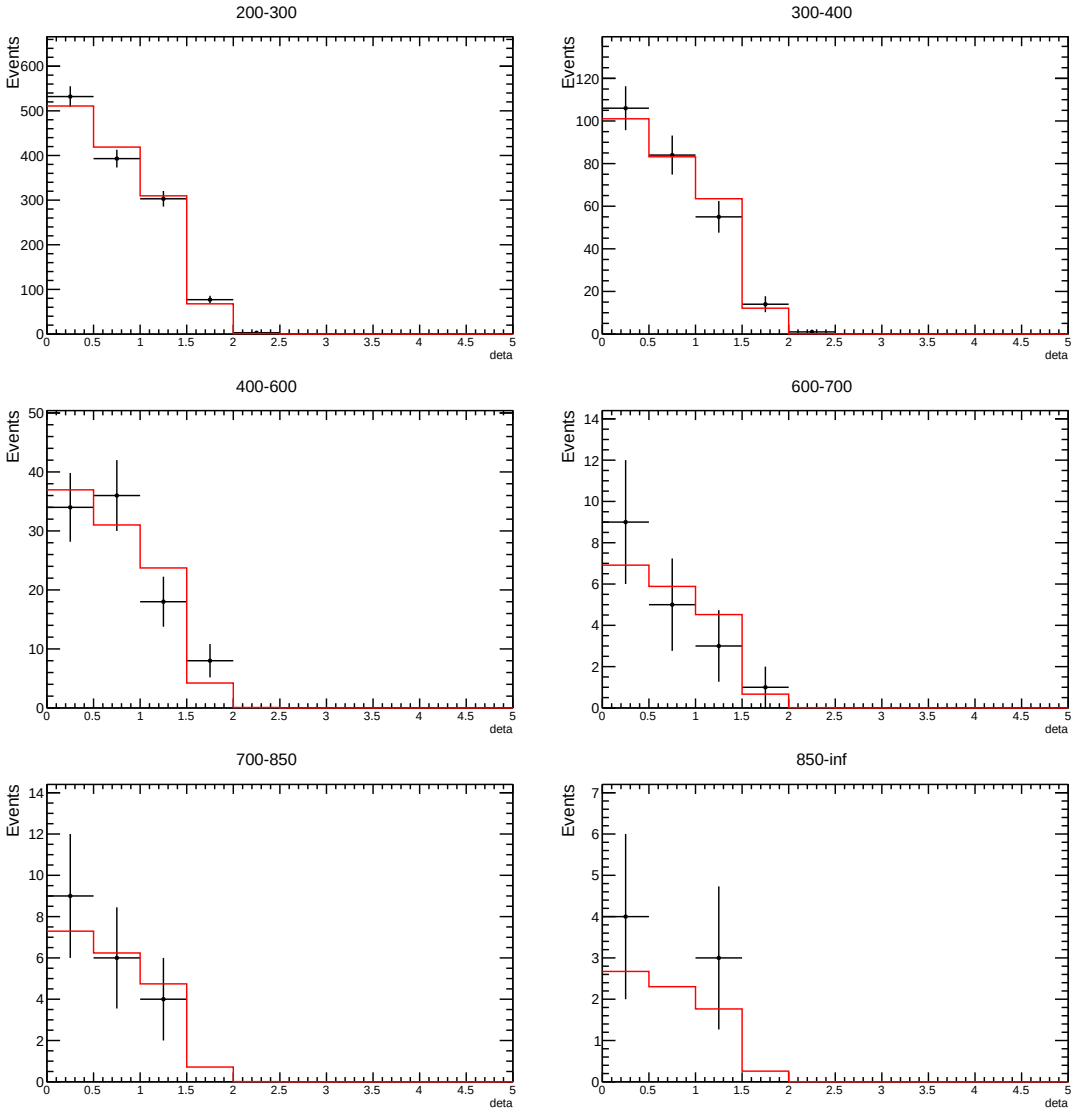
4.2.3 Pt1



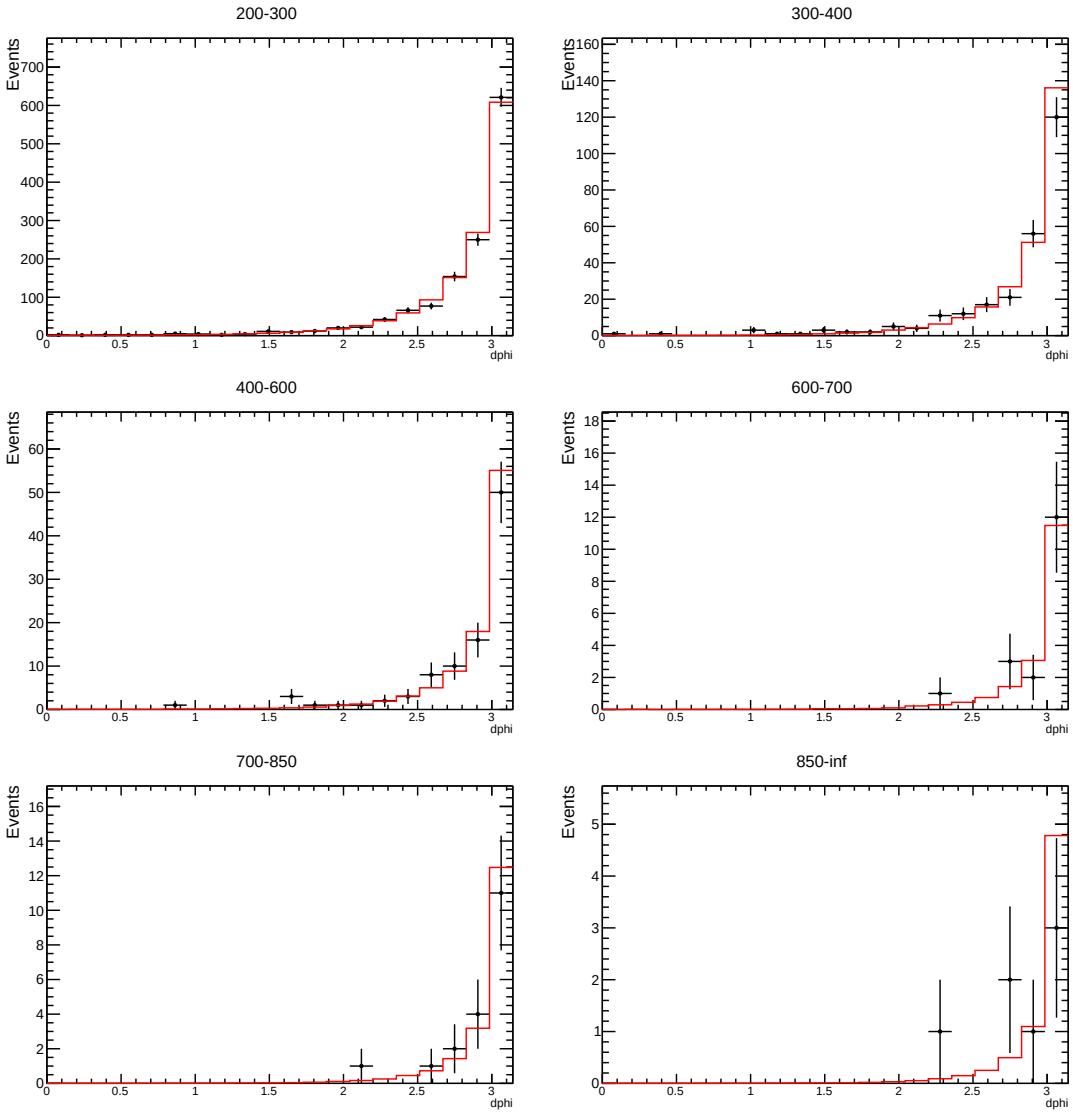
4.2.4 Pt2



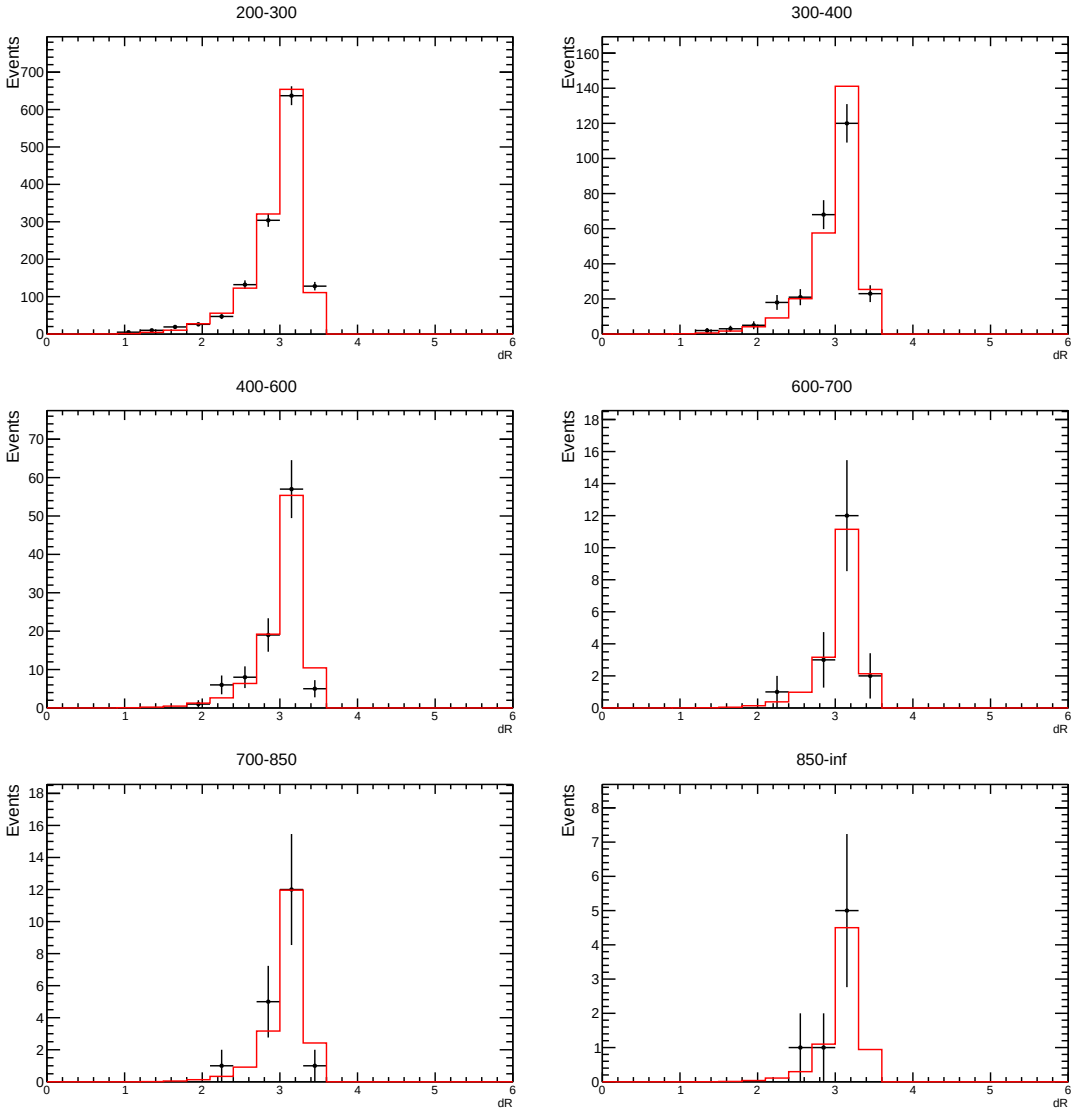
4.2.5 Deta



4.2.6 Dphi

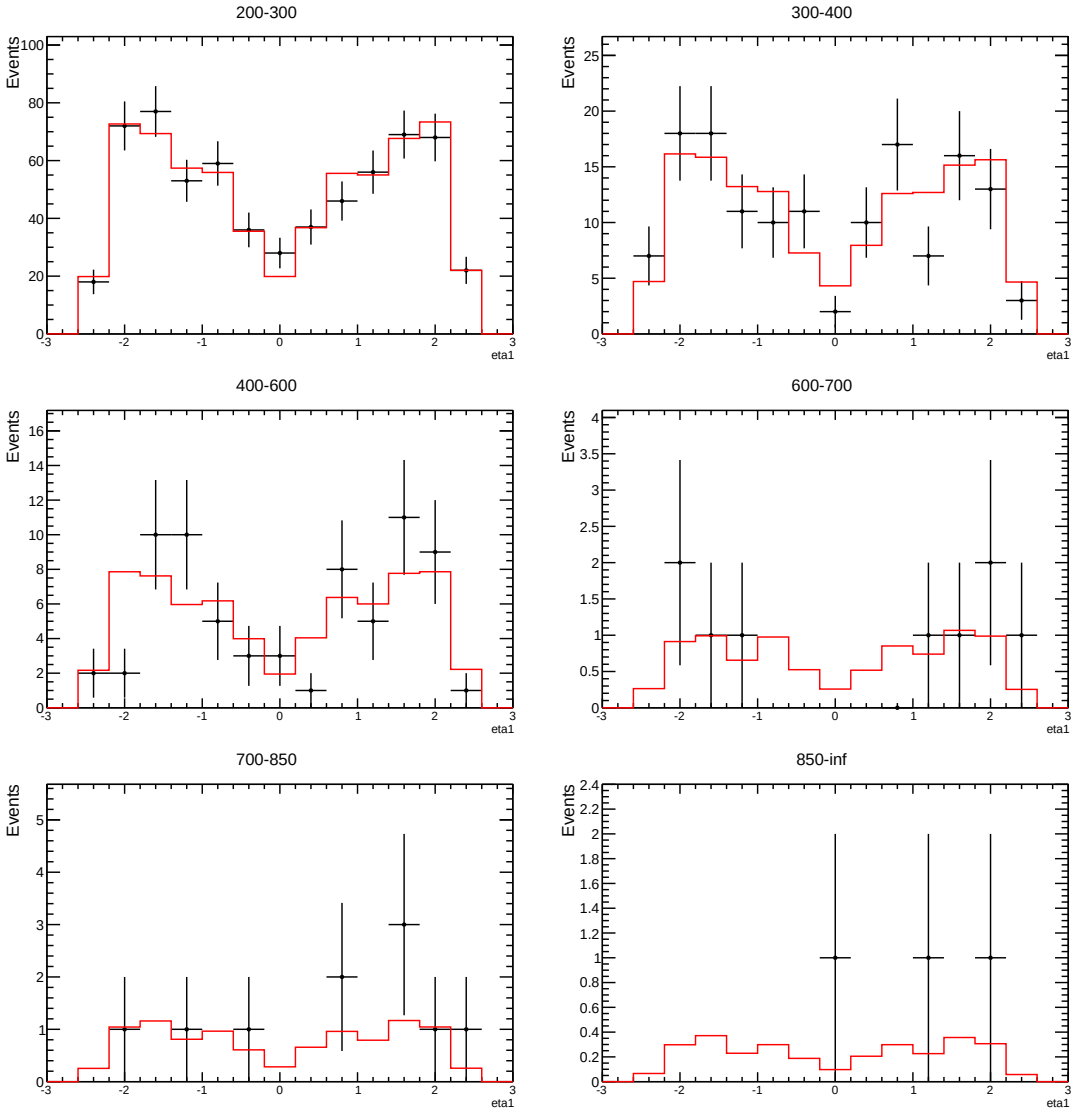


4.2.7 DR

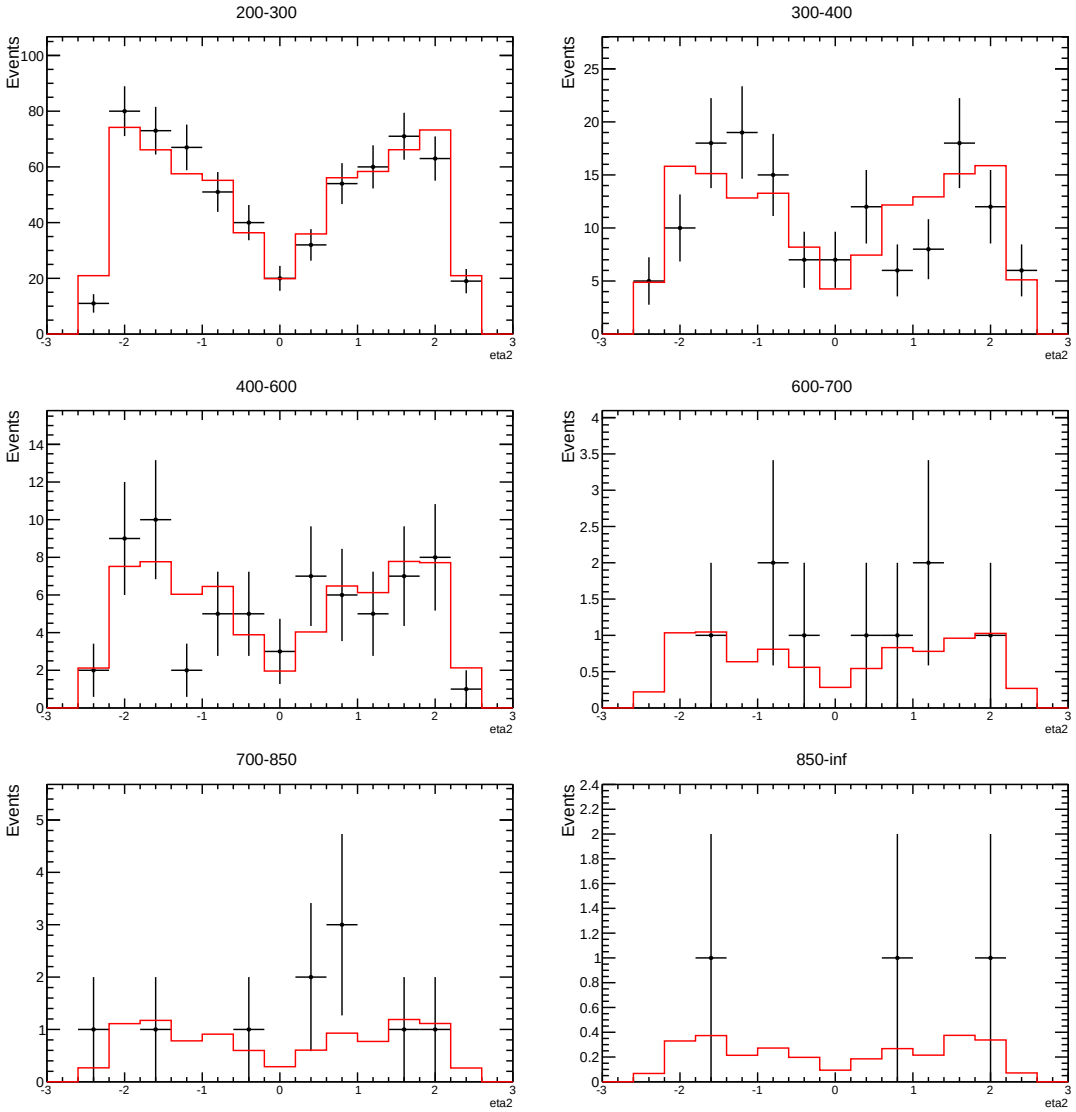


4.3 BEEB

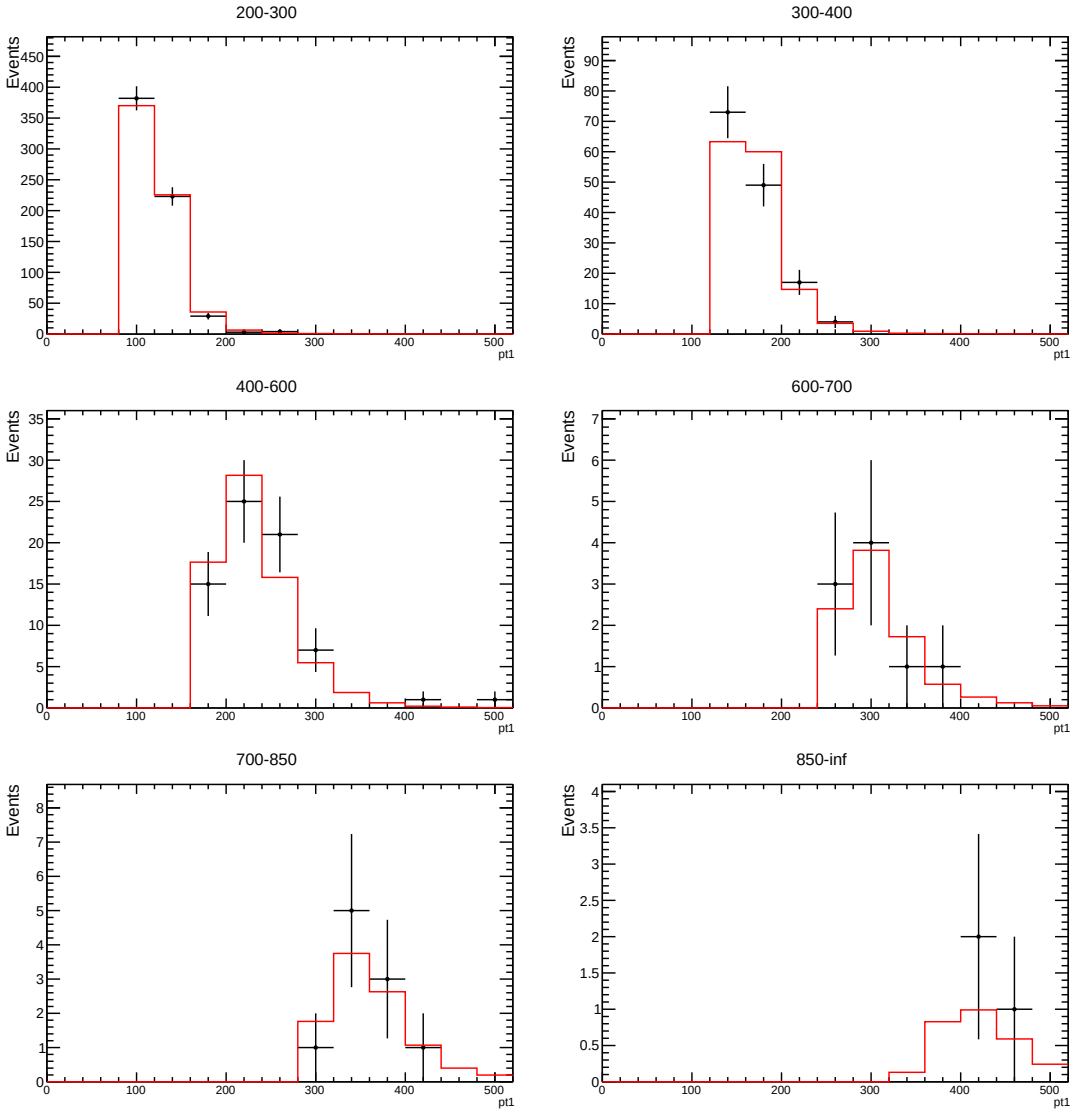
4.3.1 Eta1



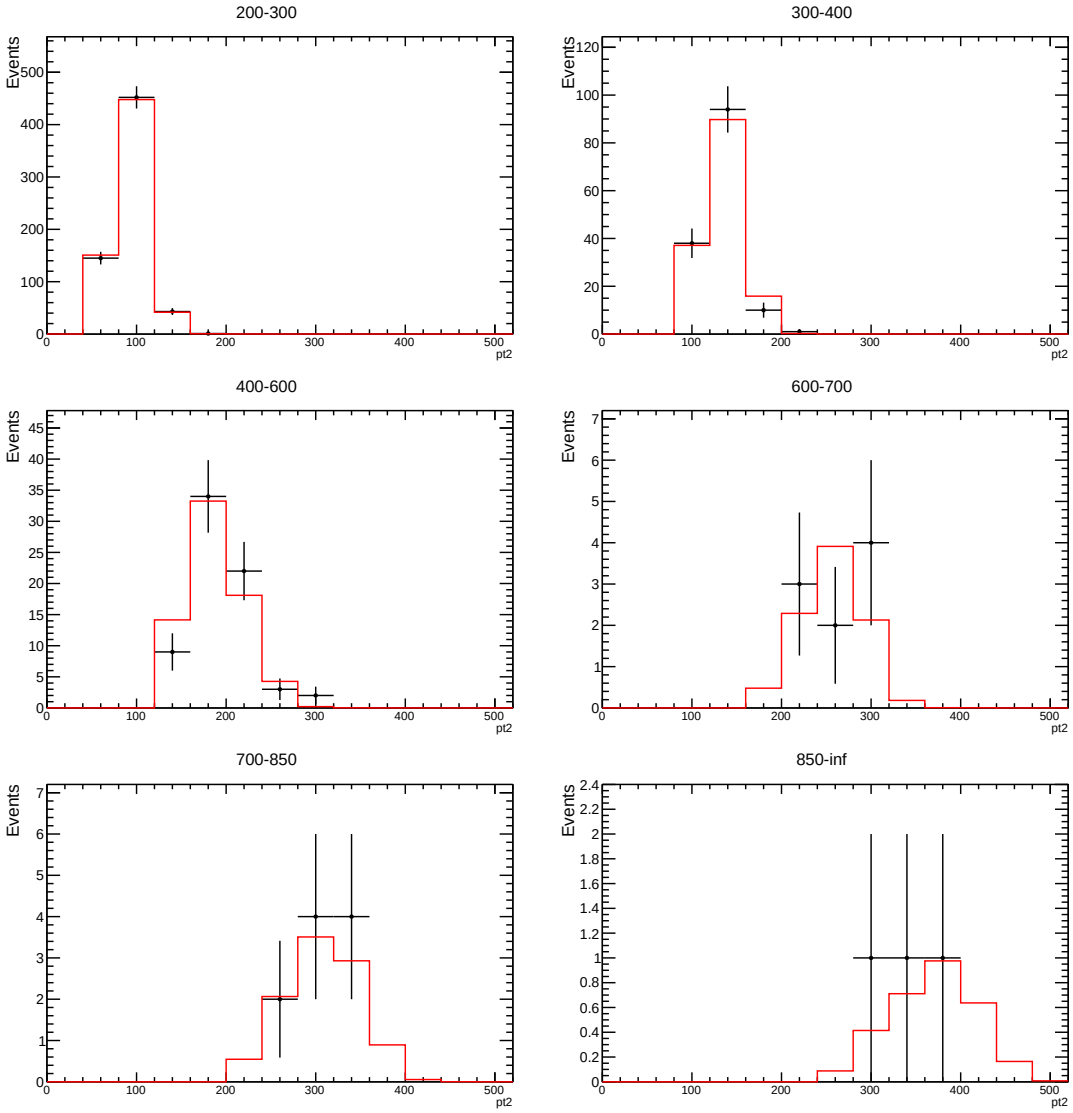
4.3.2 Eta2



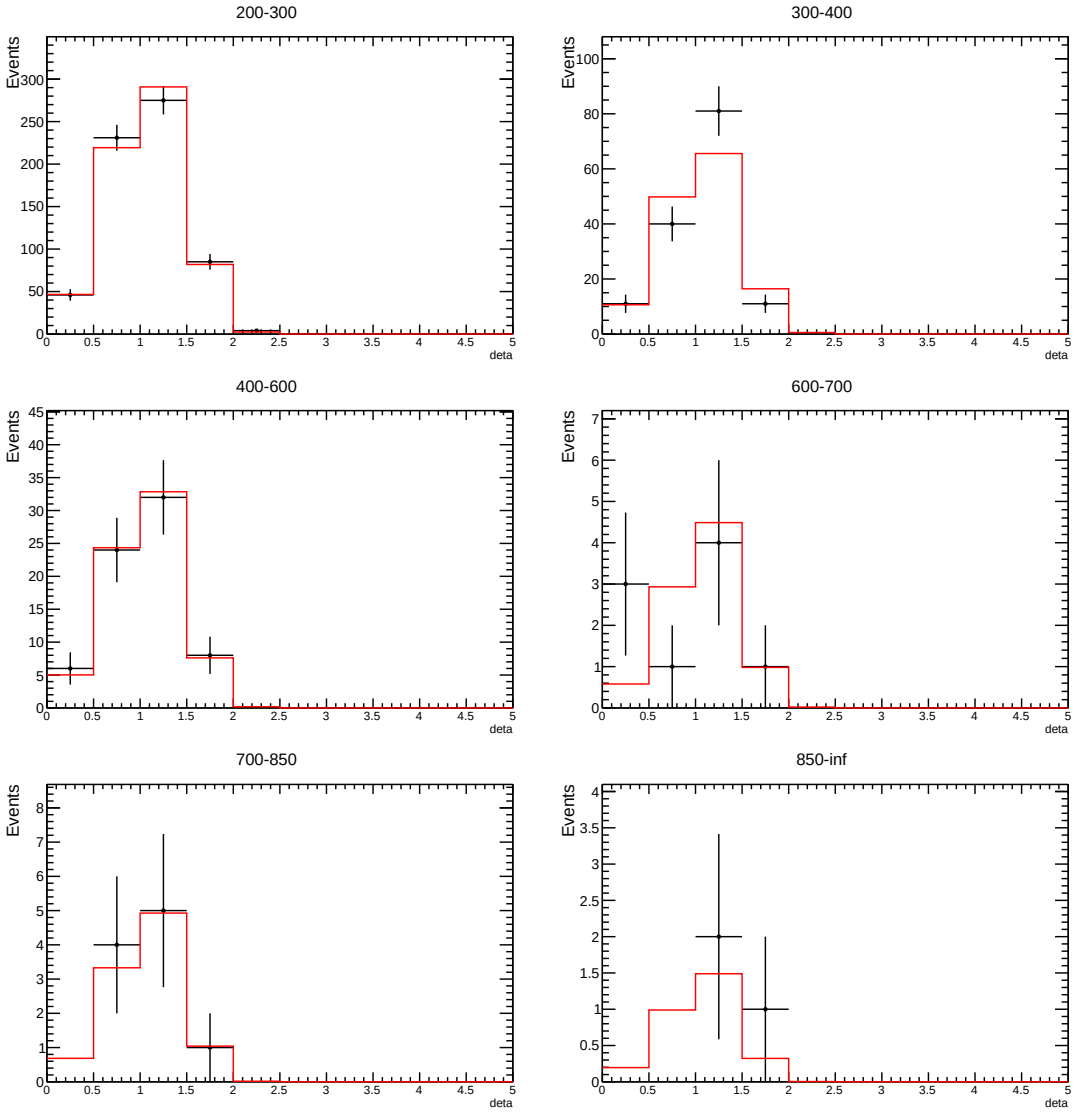
4.3.3 Pt1



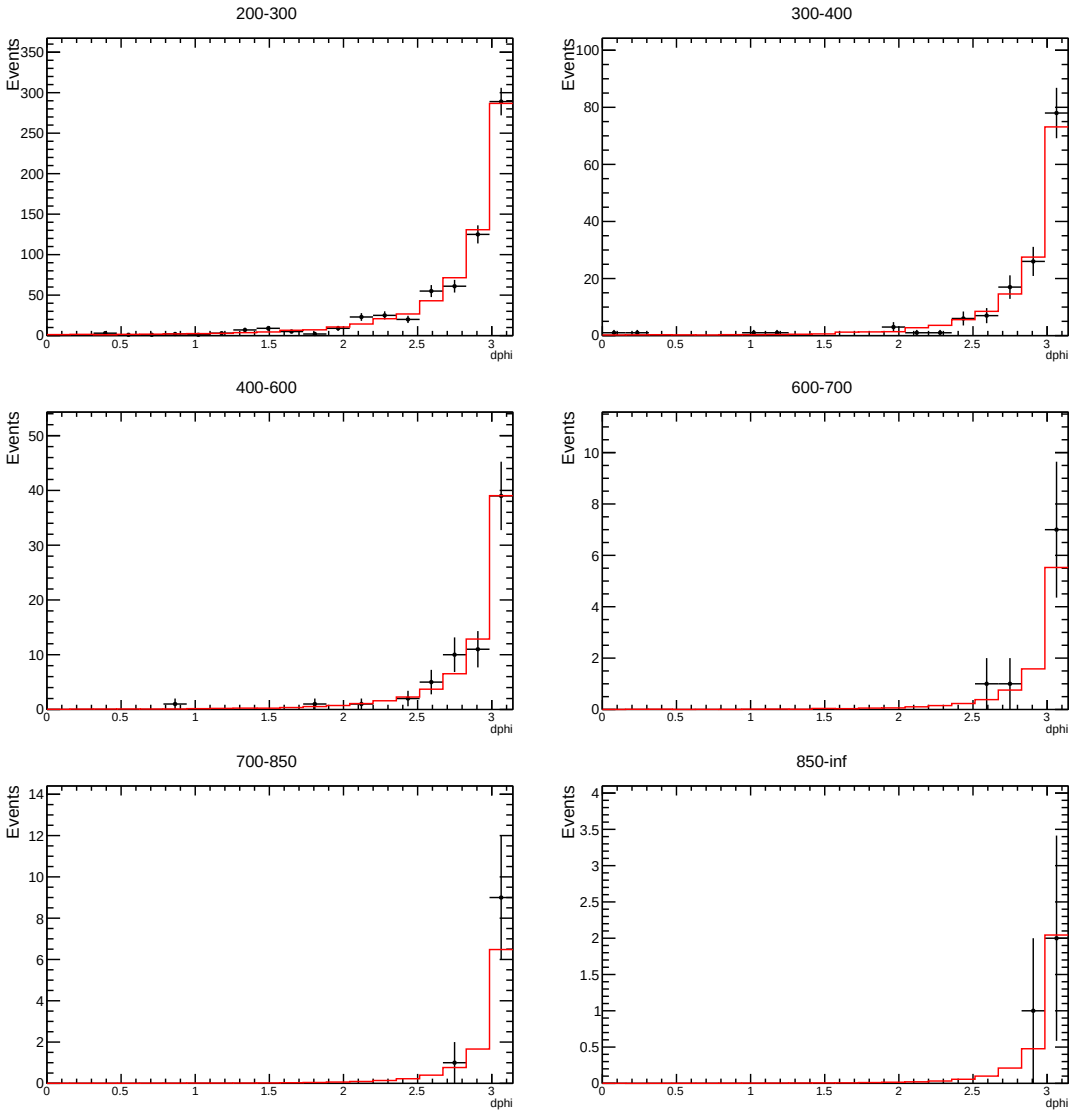
4.3.4 Pt2



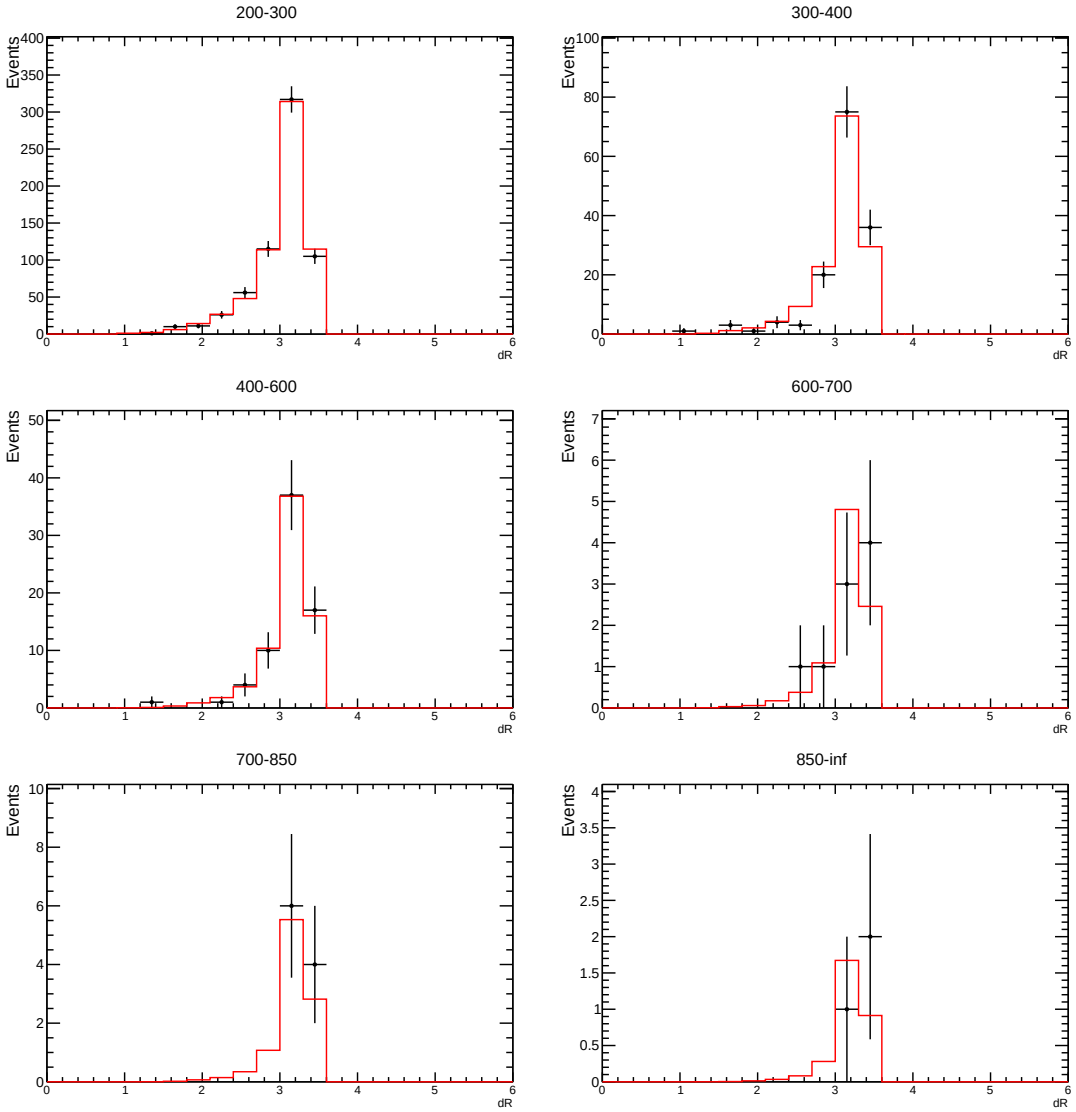
4.3.5 Deta



4.3.6 Dphi

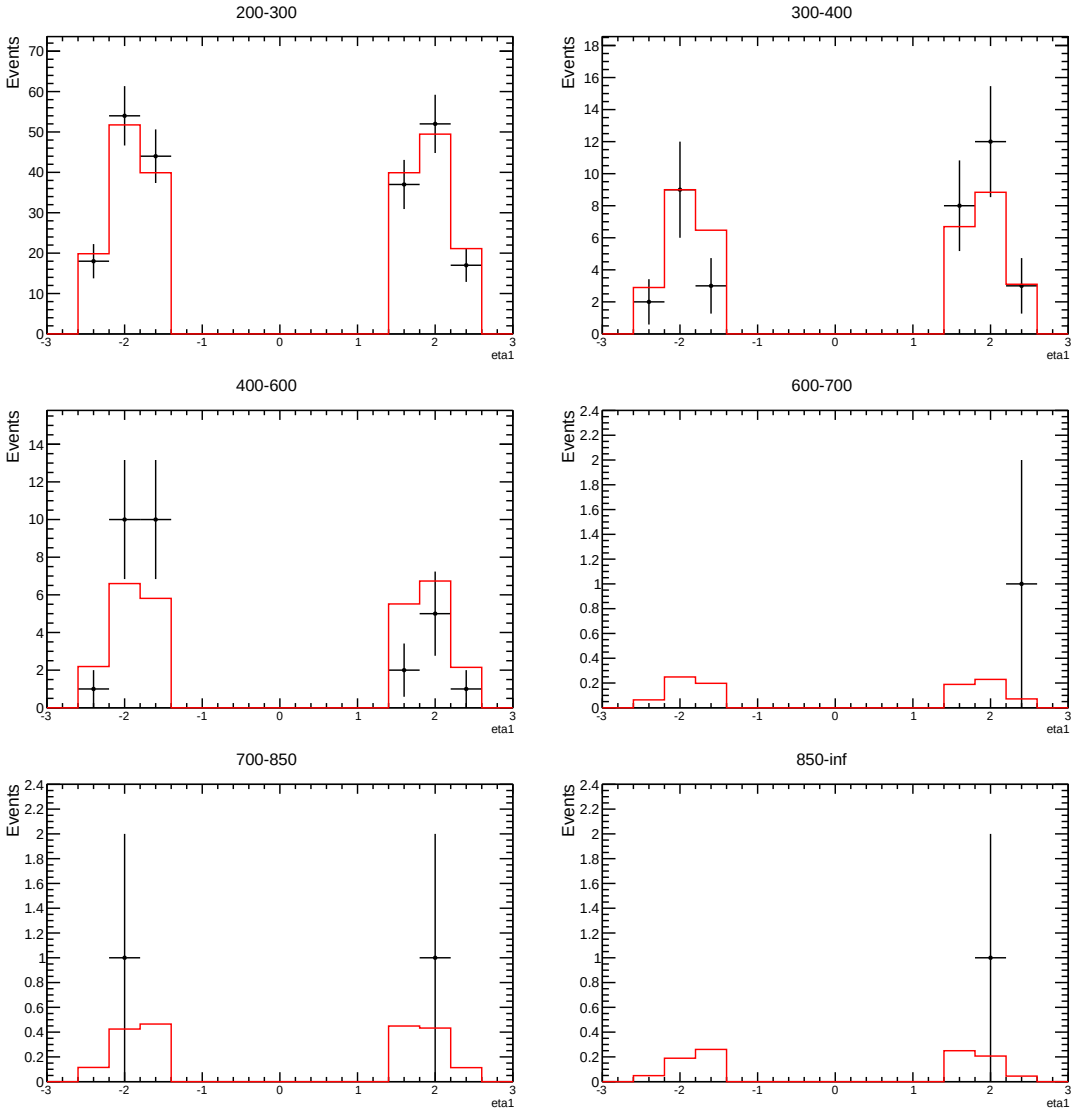


4.3.7 DR

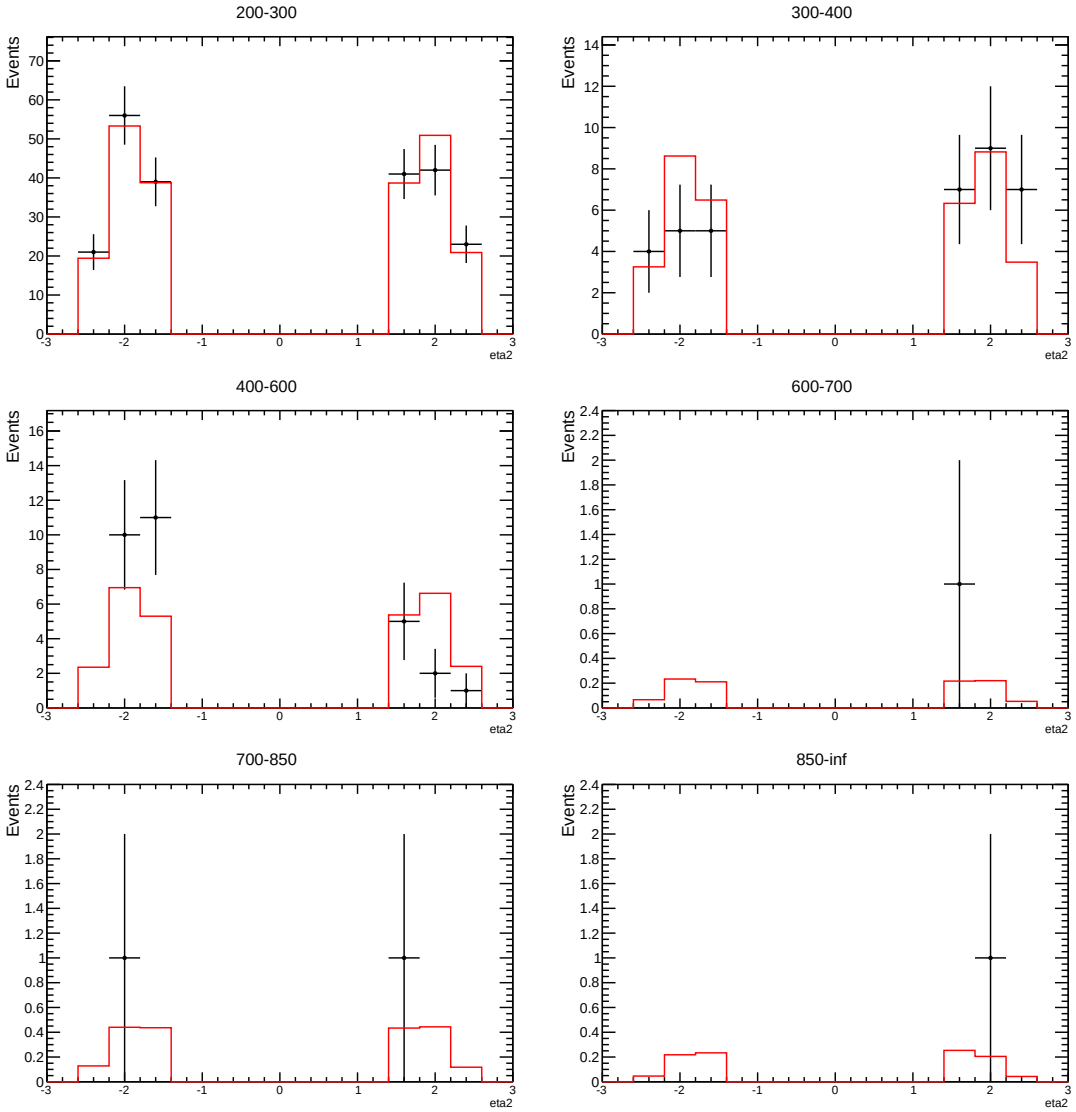


4.4 EE

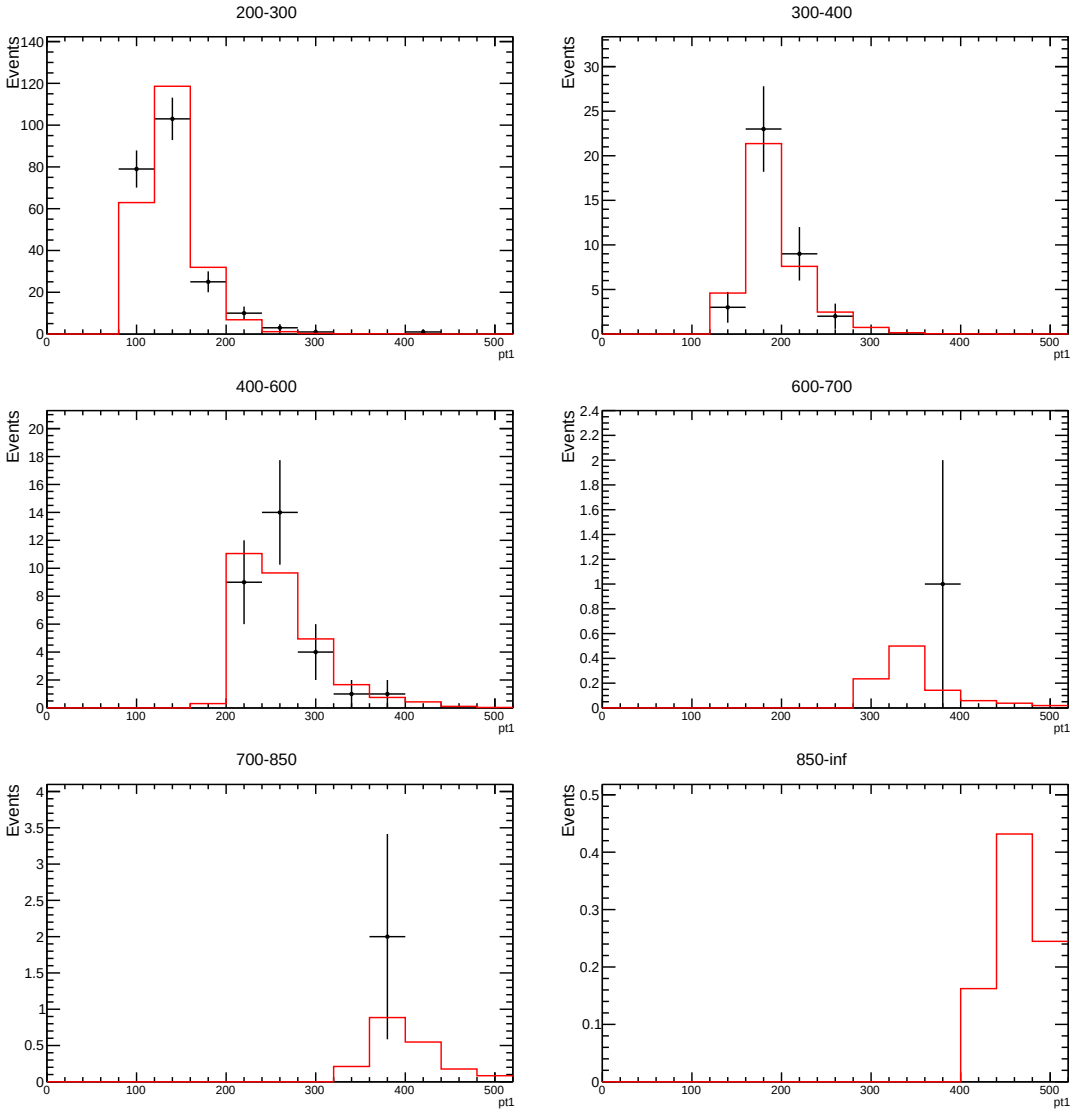
4.4.1 Eta1



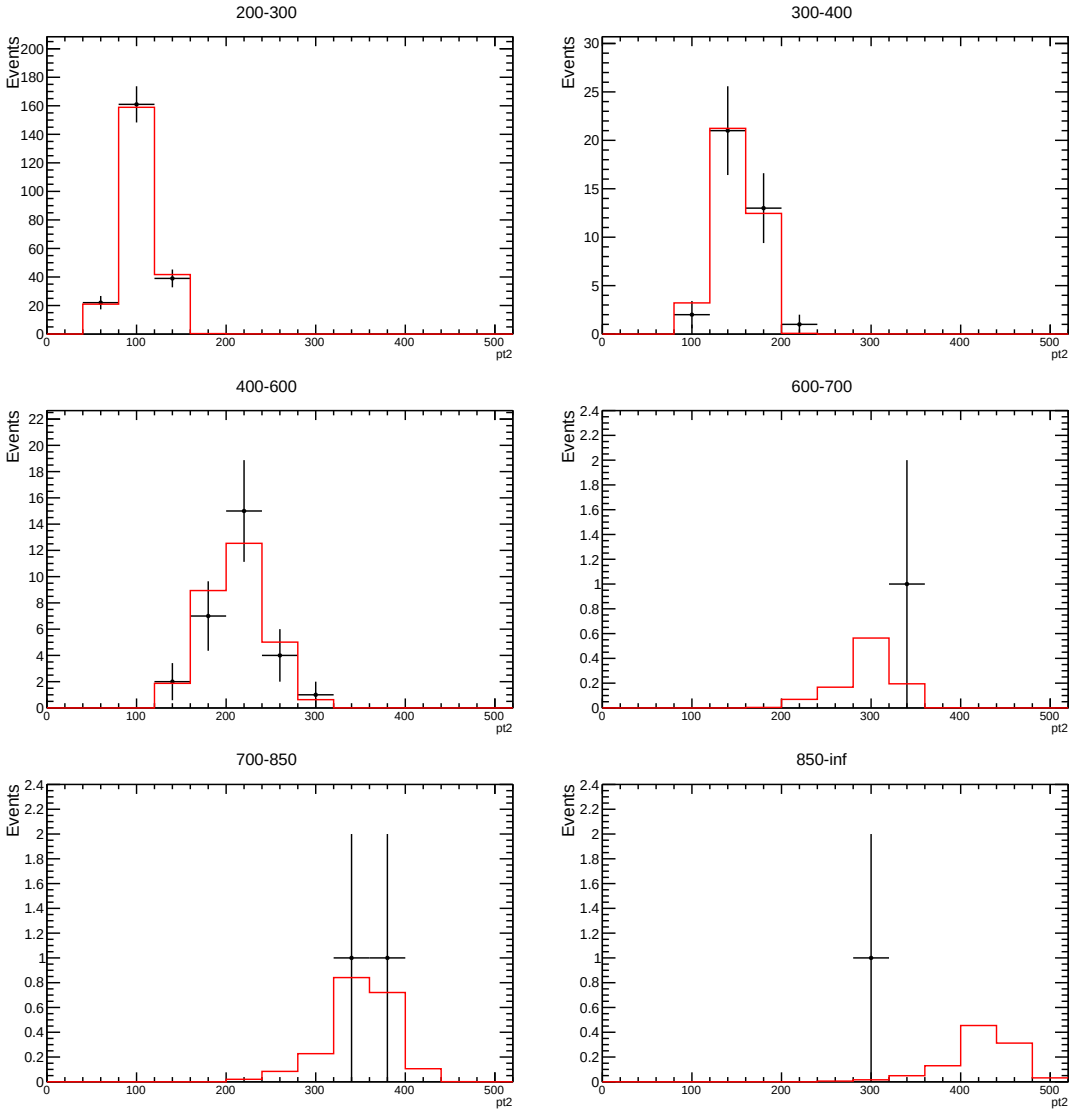
4.4.2 Eta2



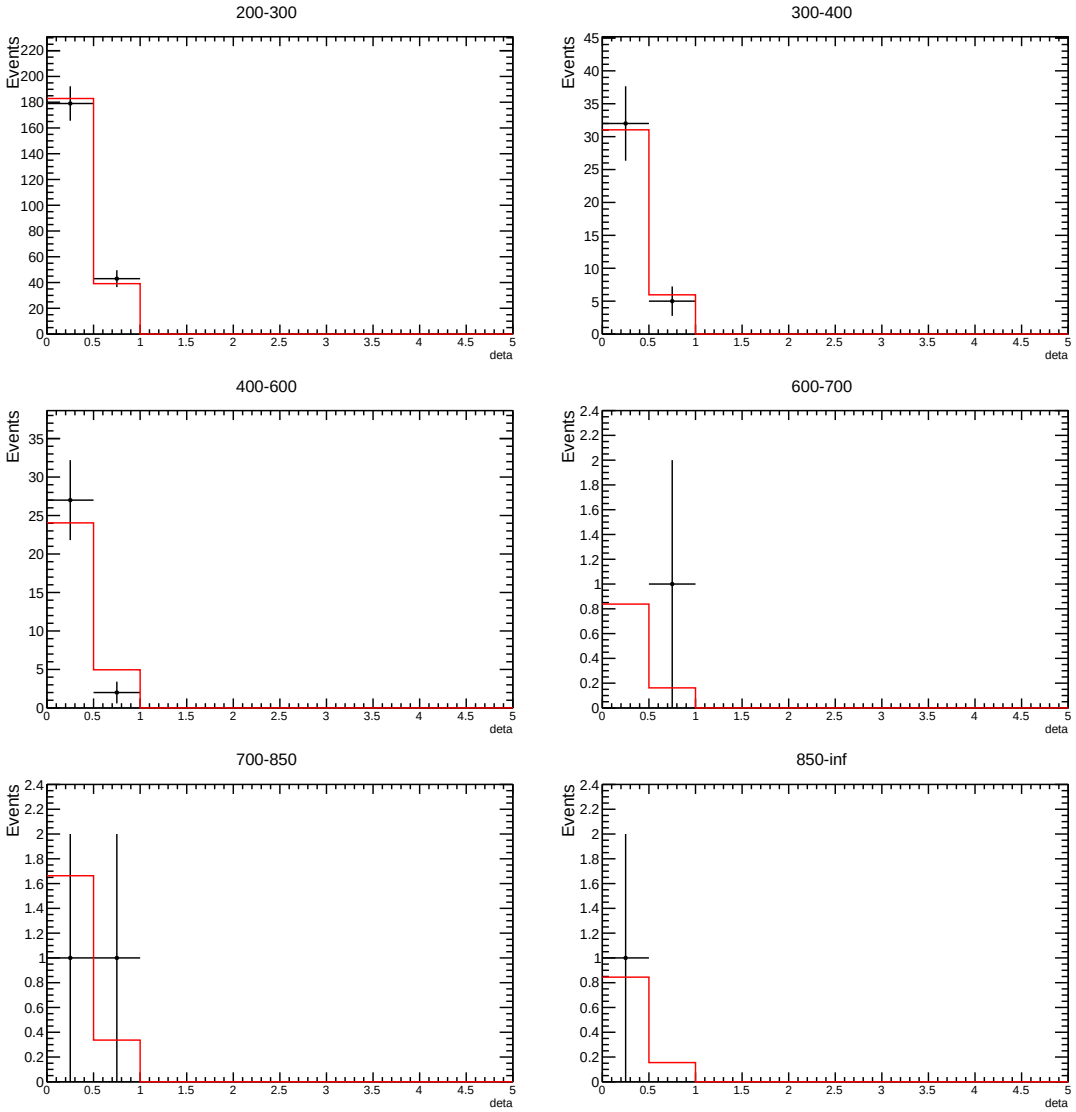
4.4.3 Pt1



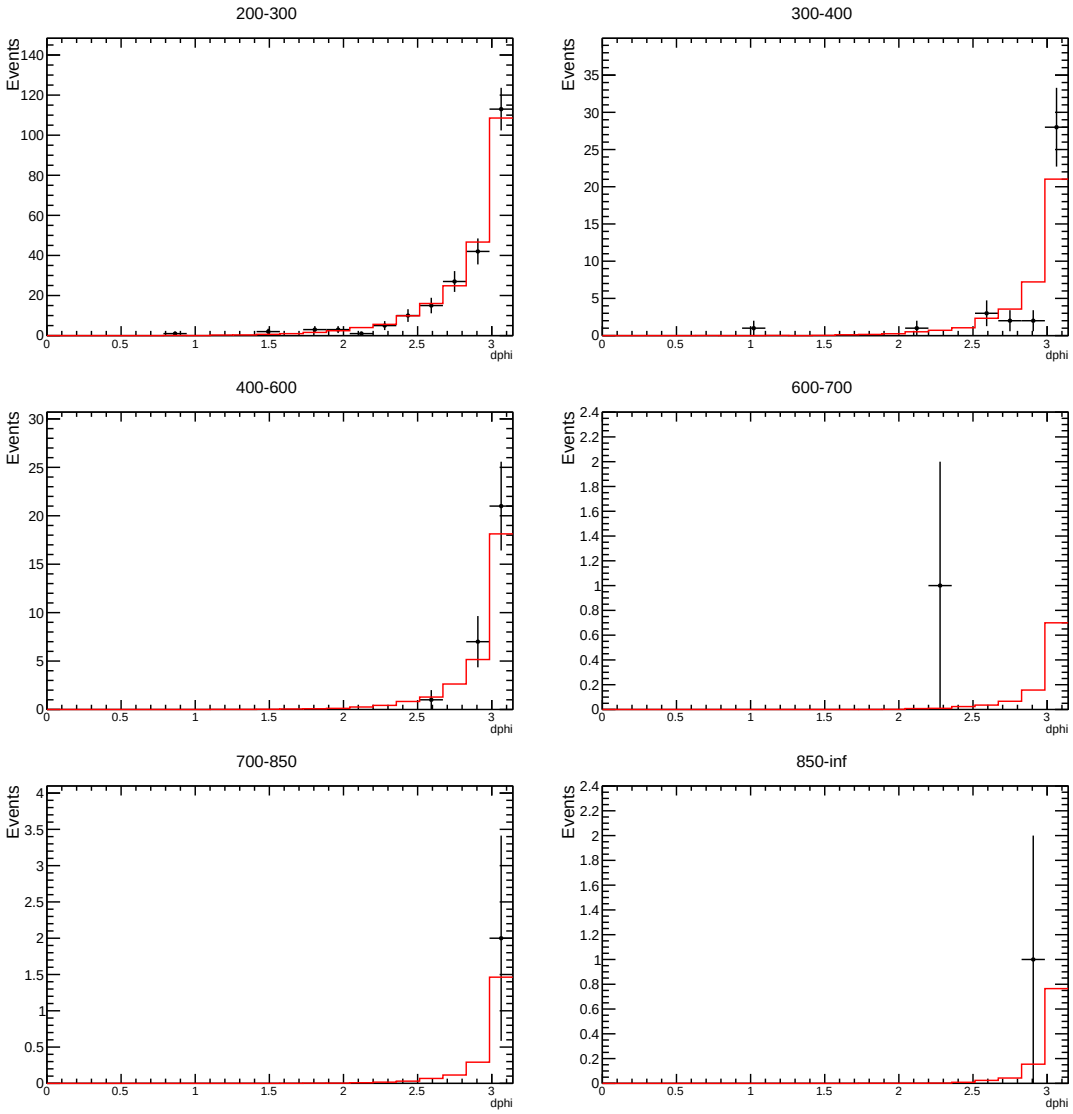
4.4.4 Pt2



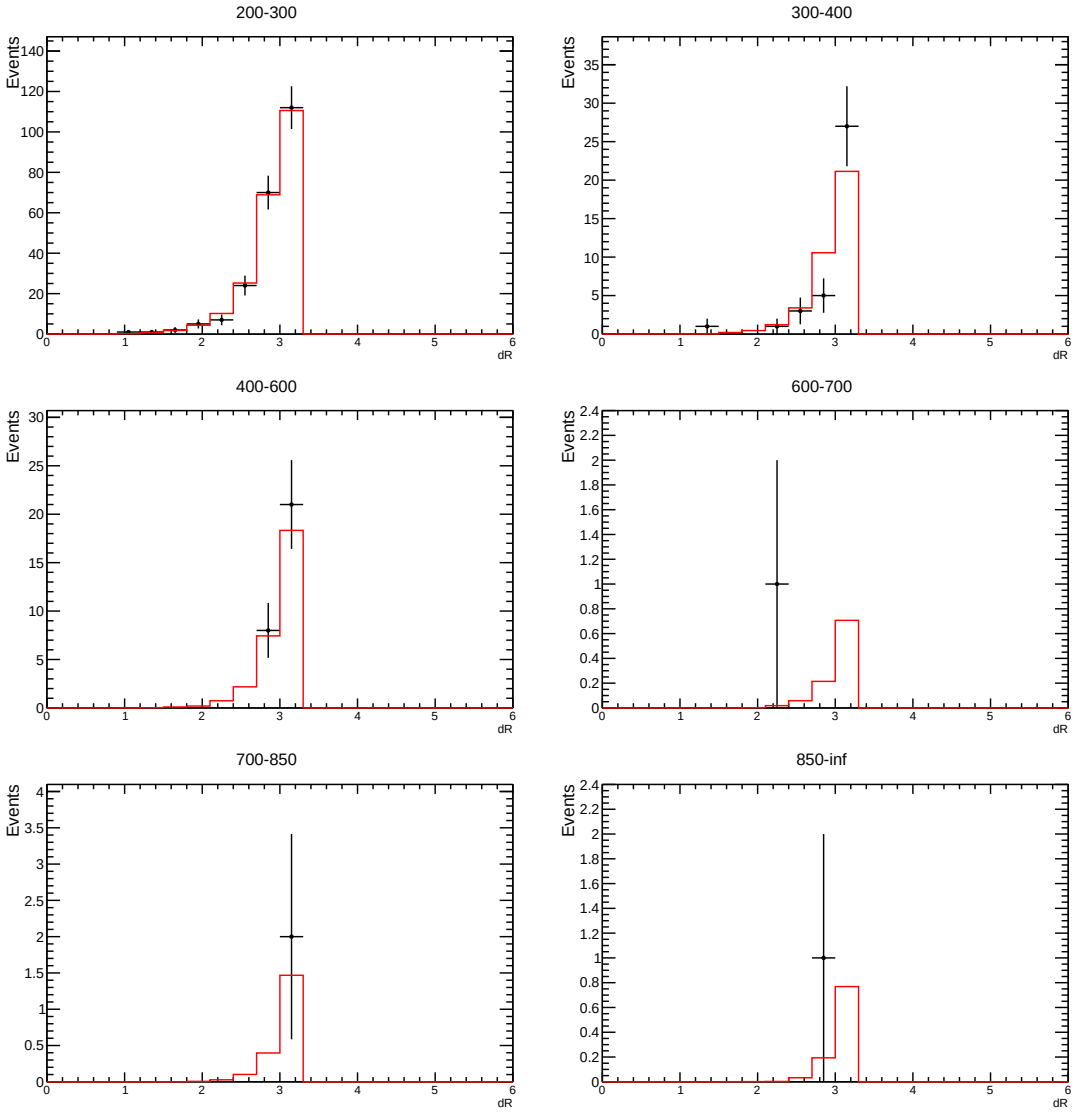
4.4.5 Deta



4.4.6 Dphi



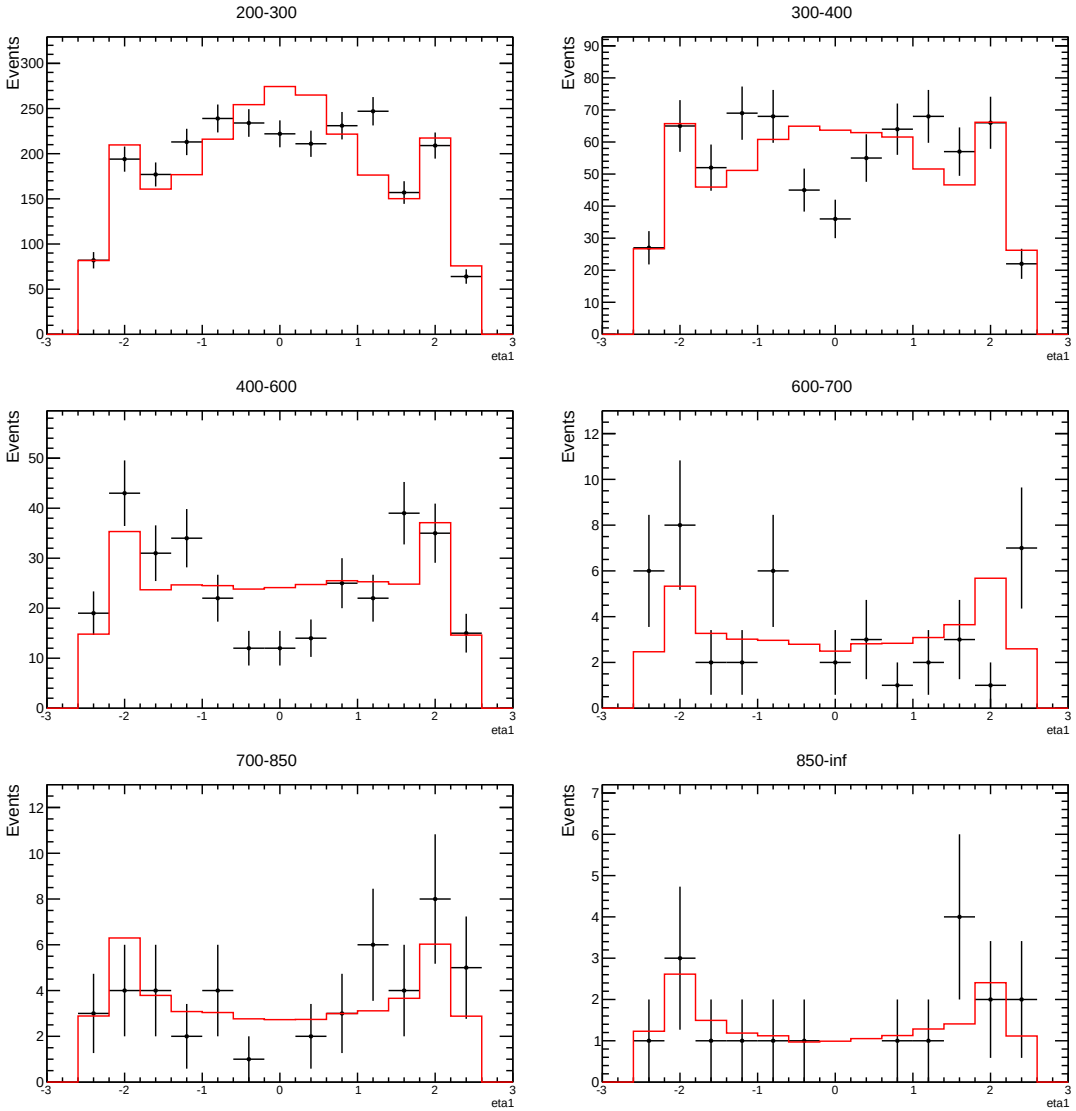
4.4.7 DR



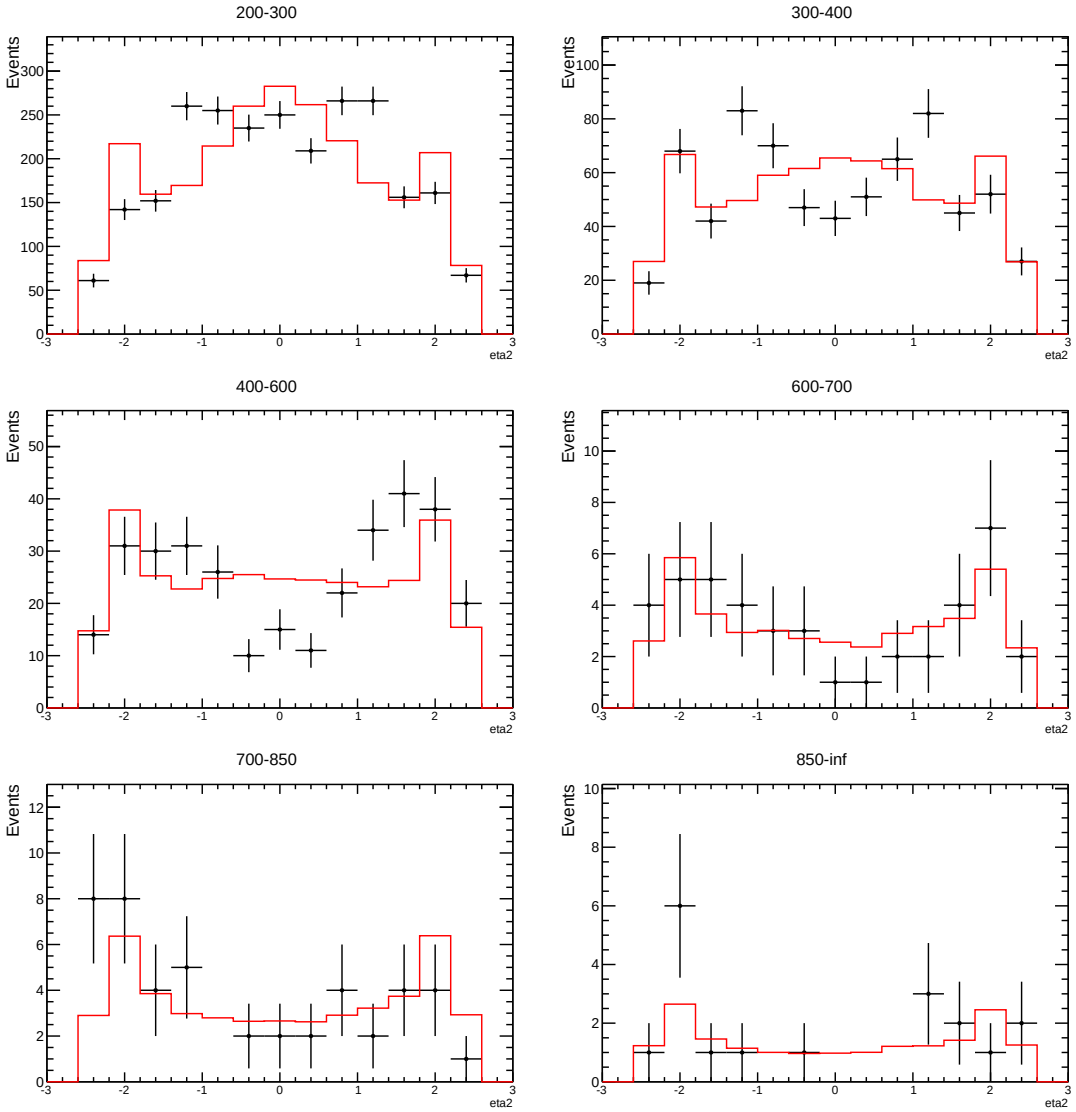
5 Grey

5.1 Inclusive

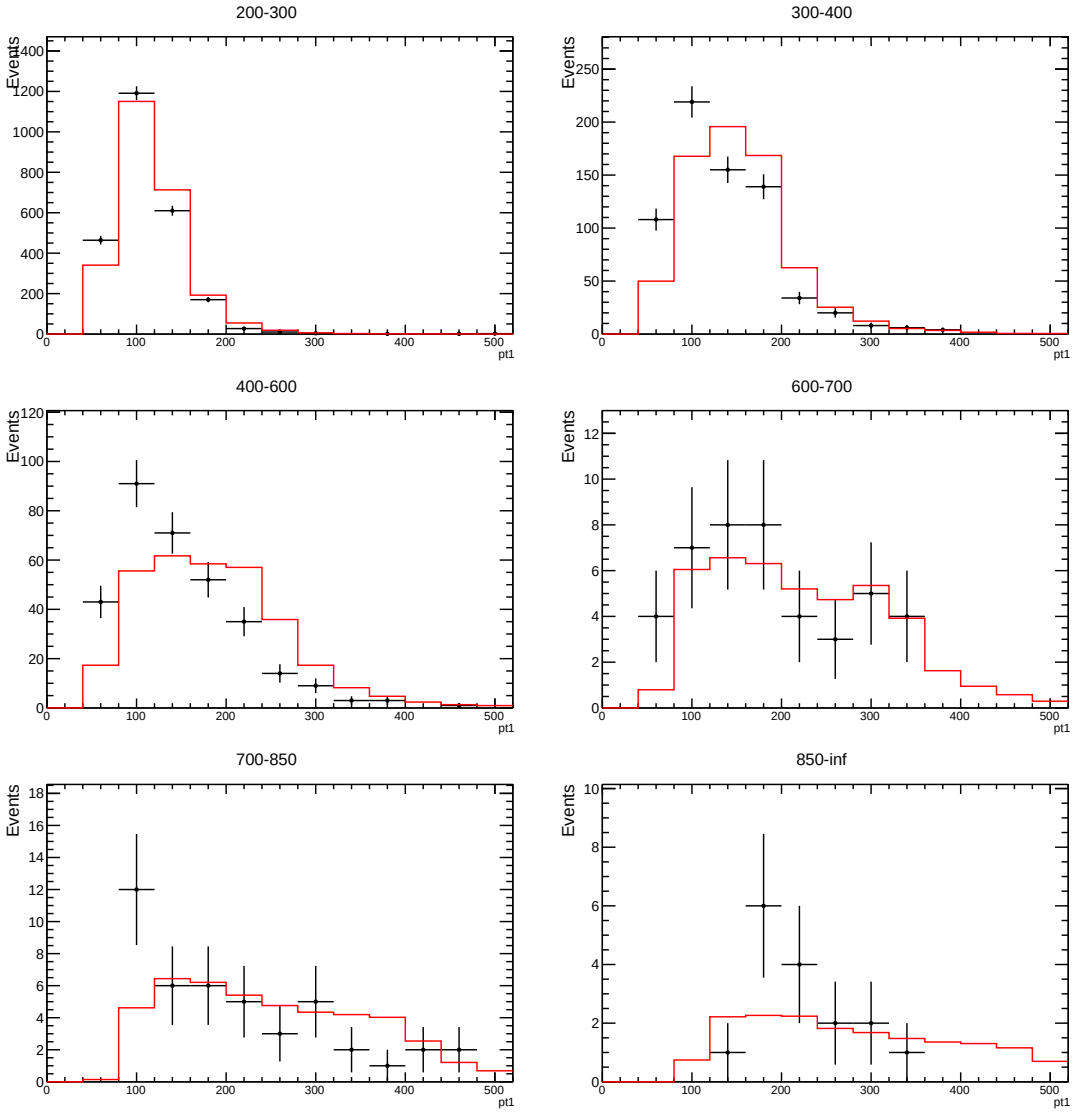
5.1.1 Eta1



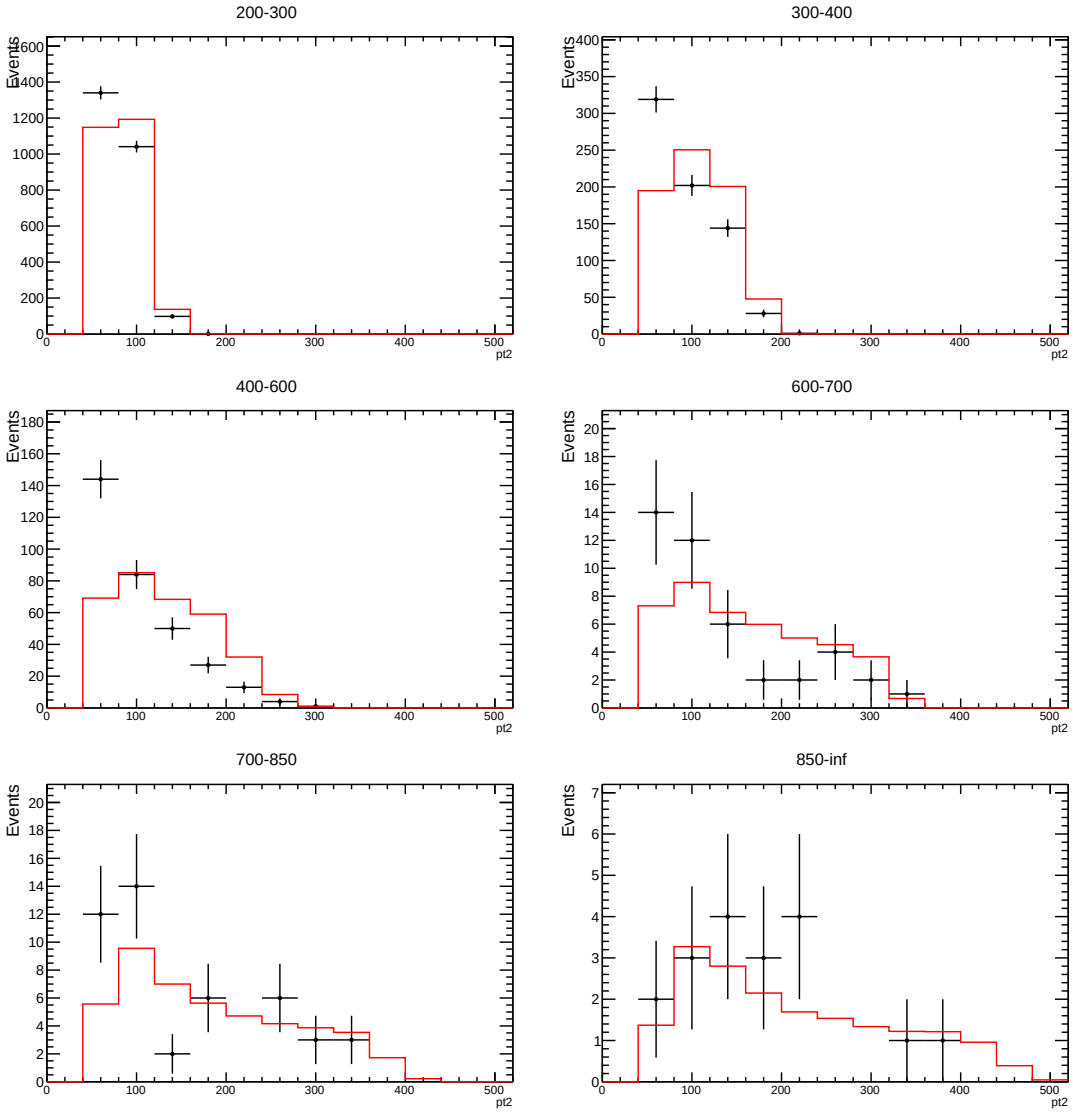
5.1.2 Eta2



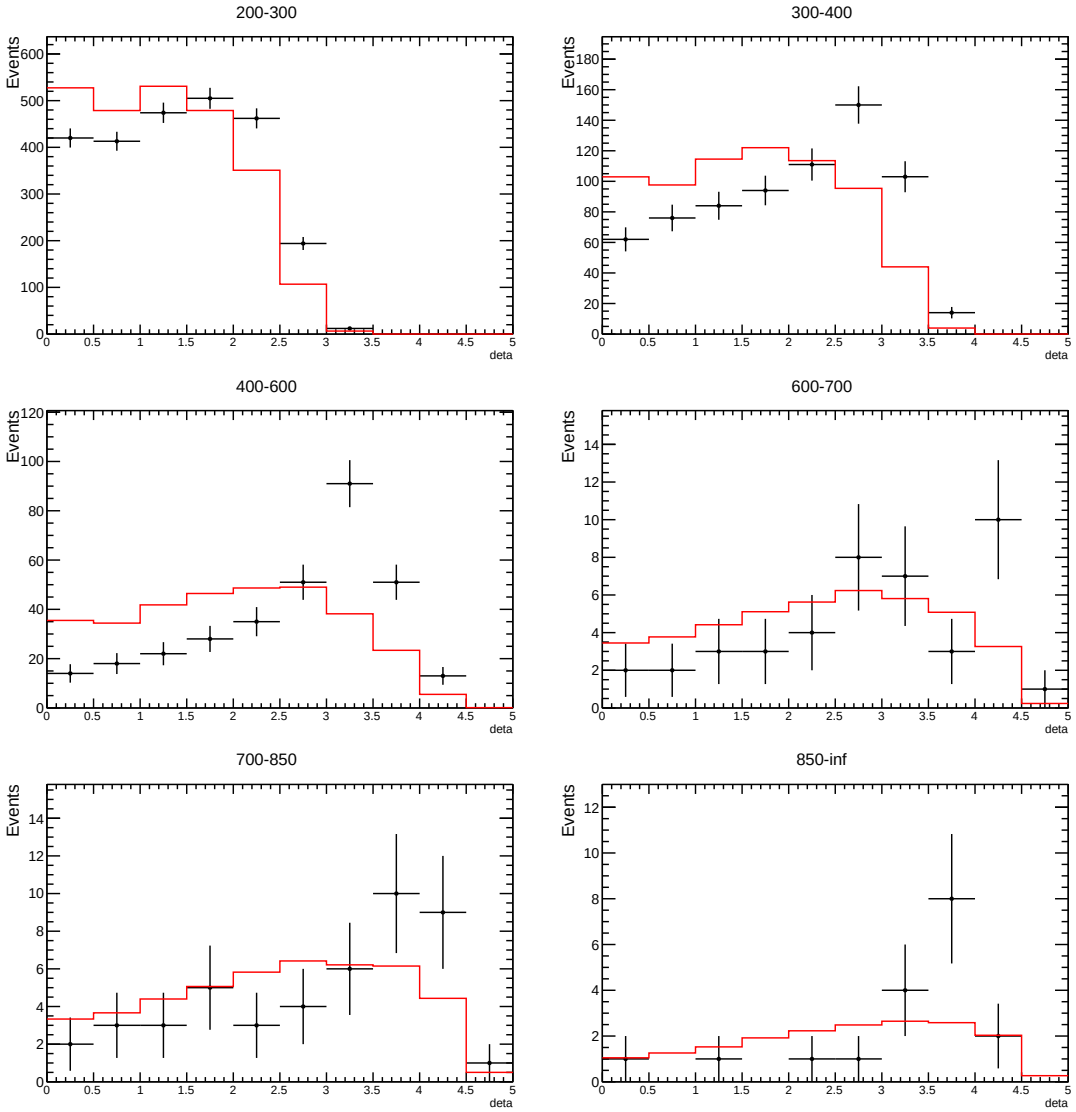
5.1.3 Pt1



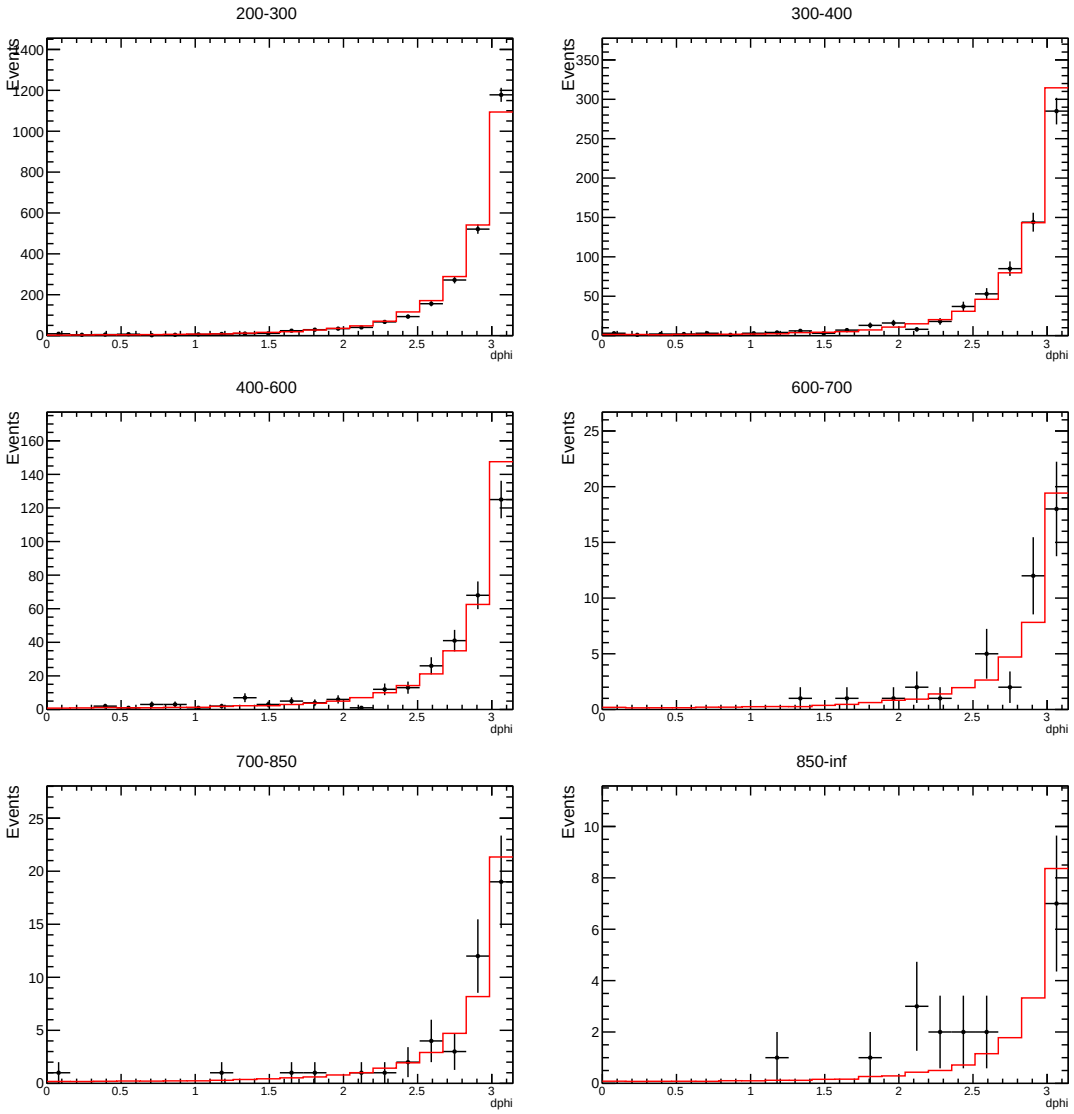
5.1.4 Pt2



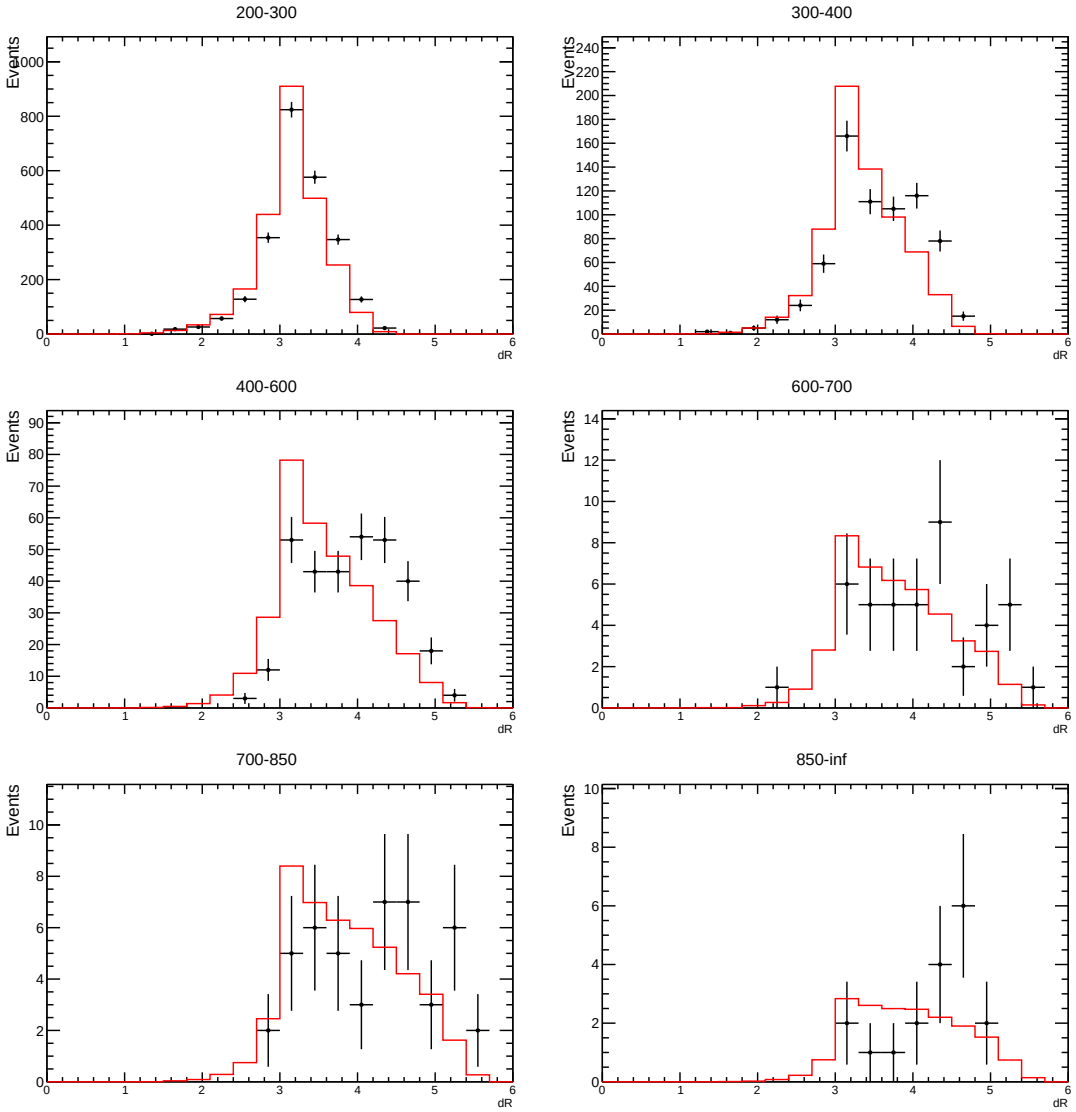
5.1.5 Deta



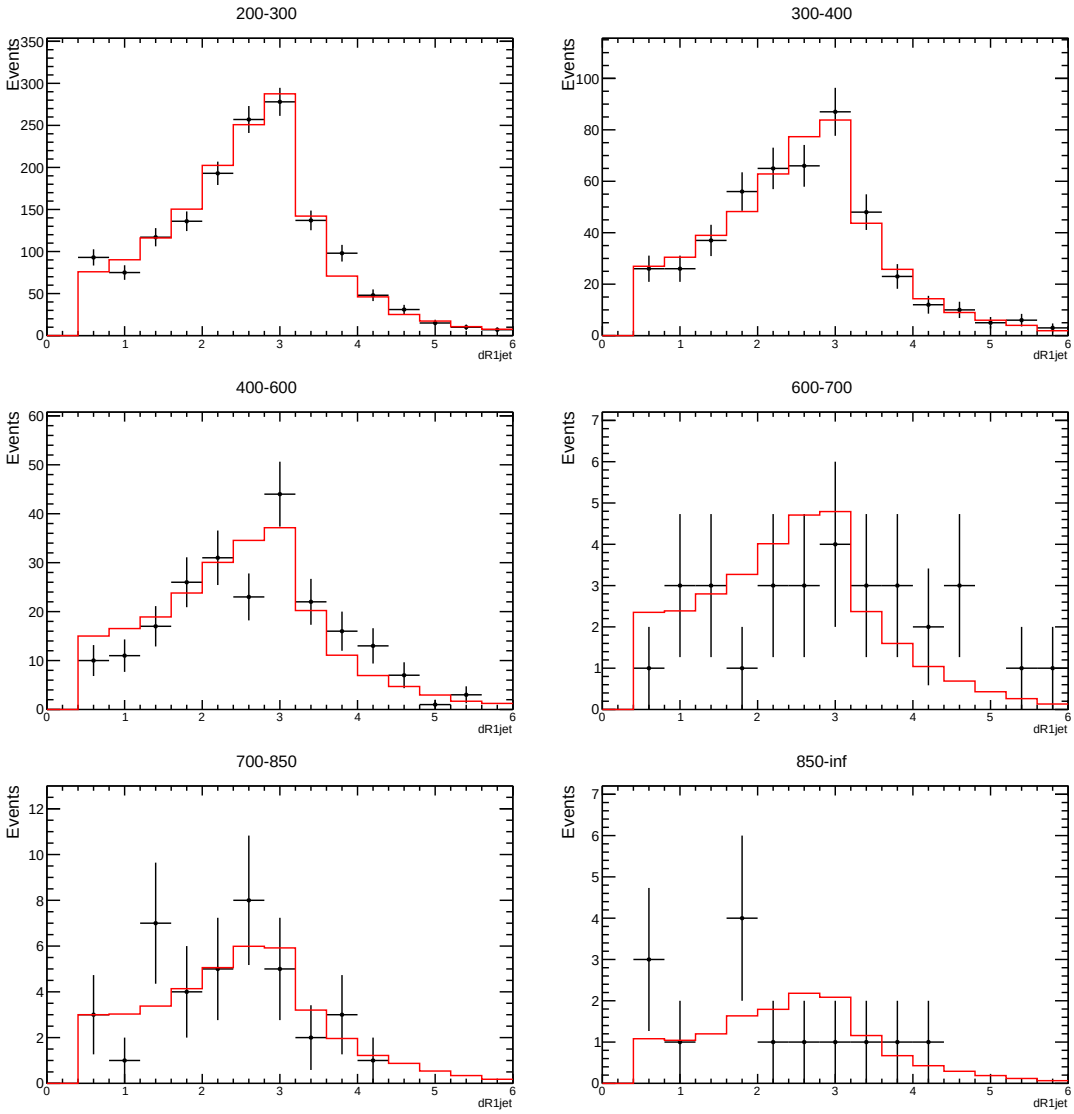
5.1.6 Dphi



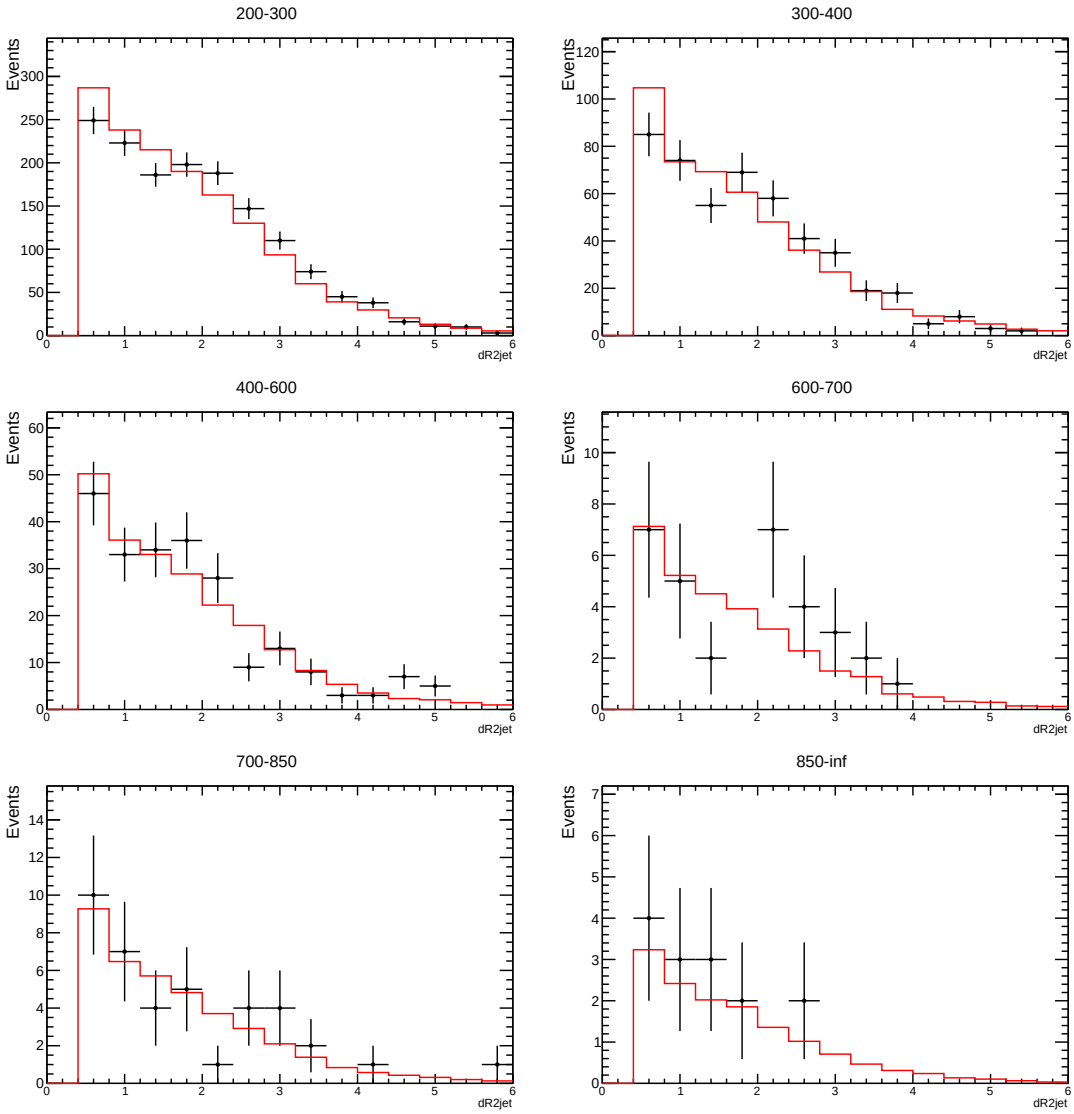
5.1.7 DR



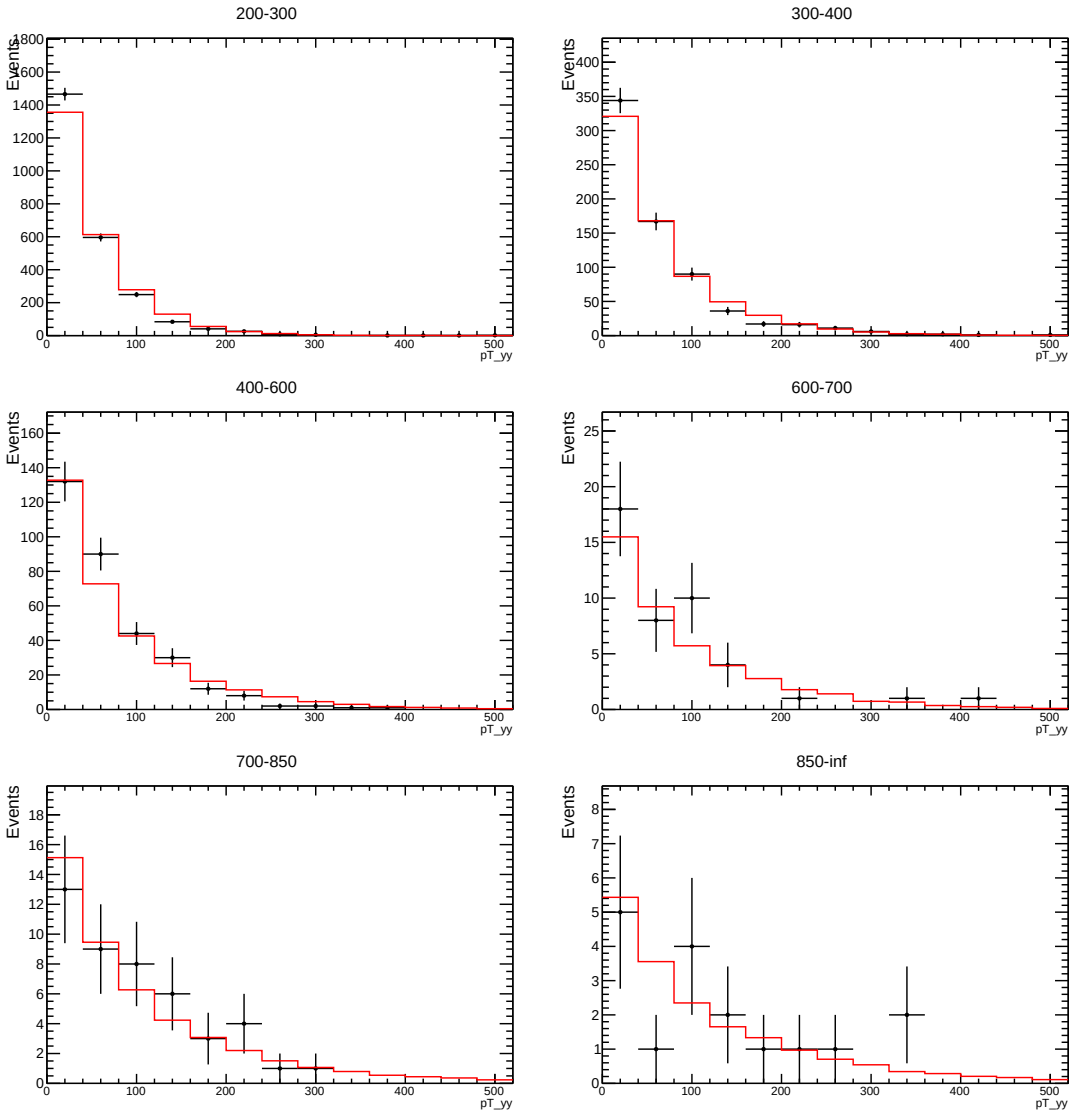
5.1.8 DR1jet



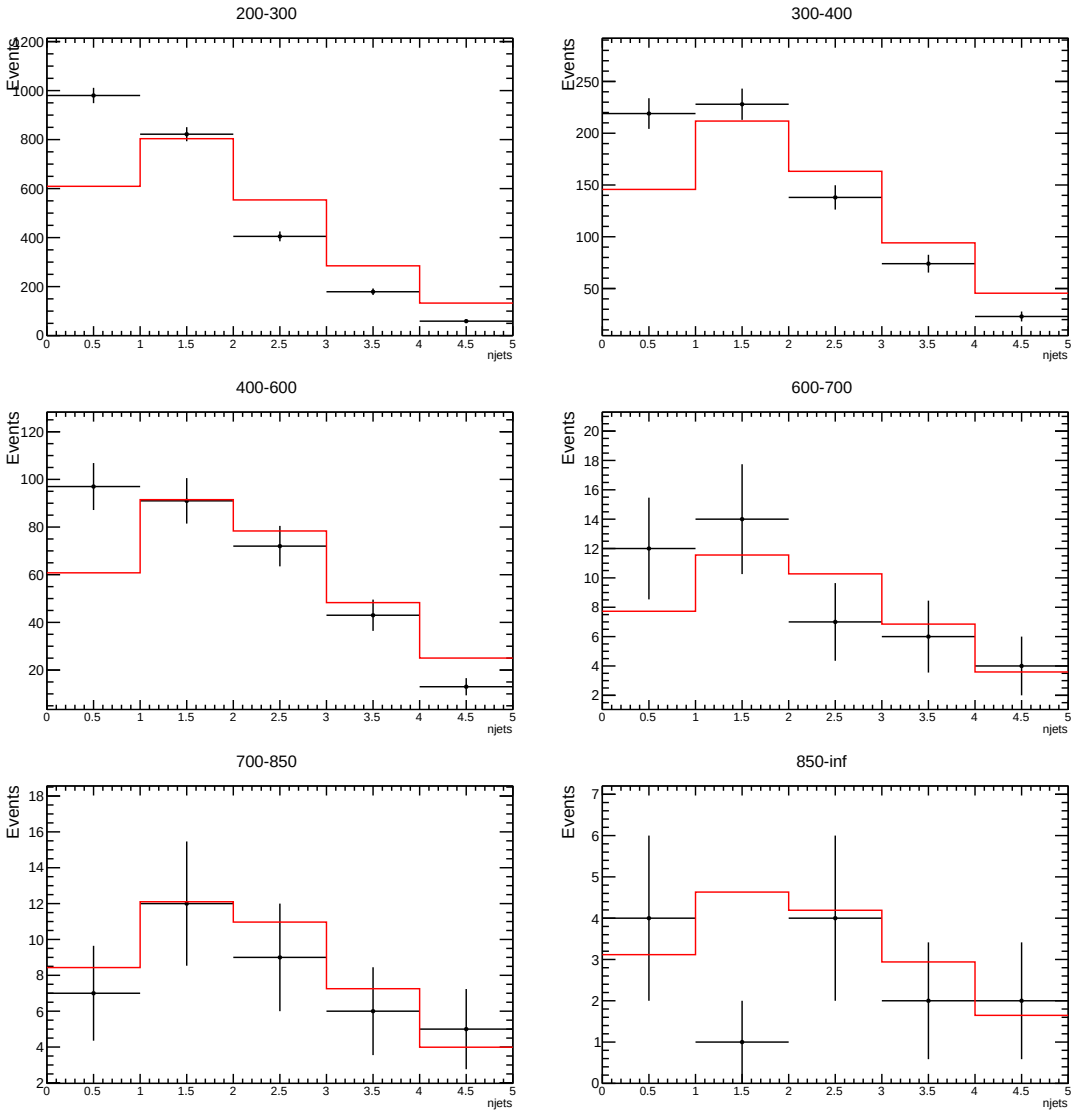
5.1.9 DR2jet



5.1.10 ptyy

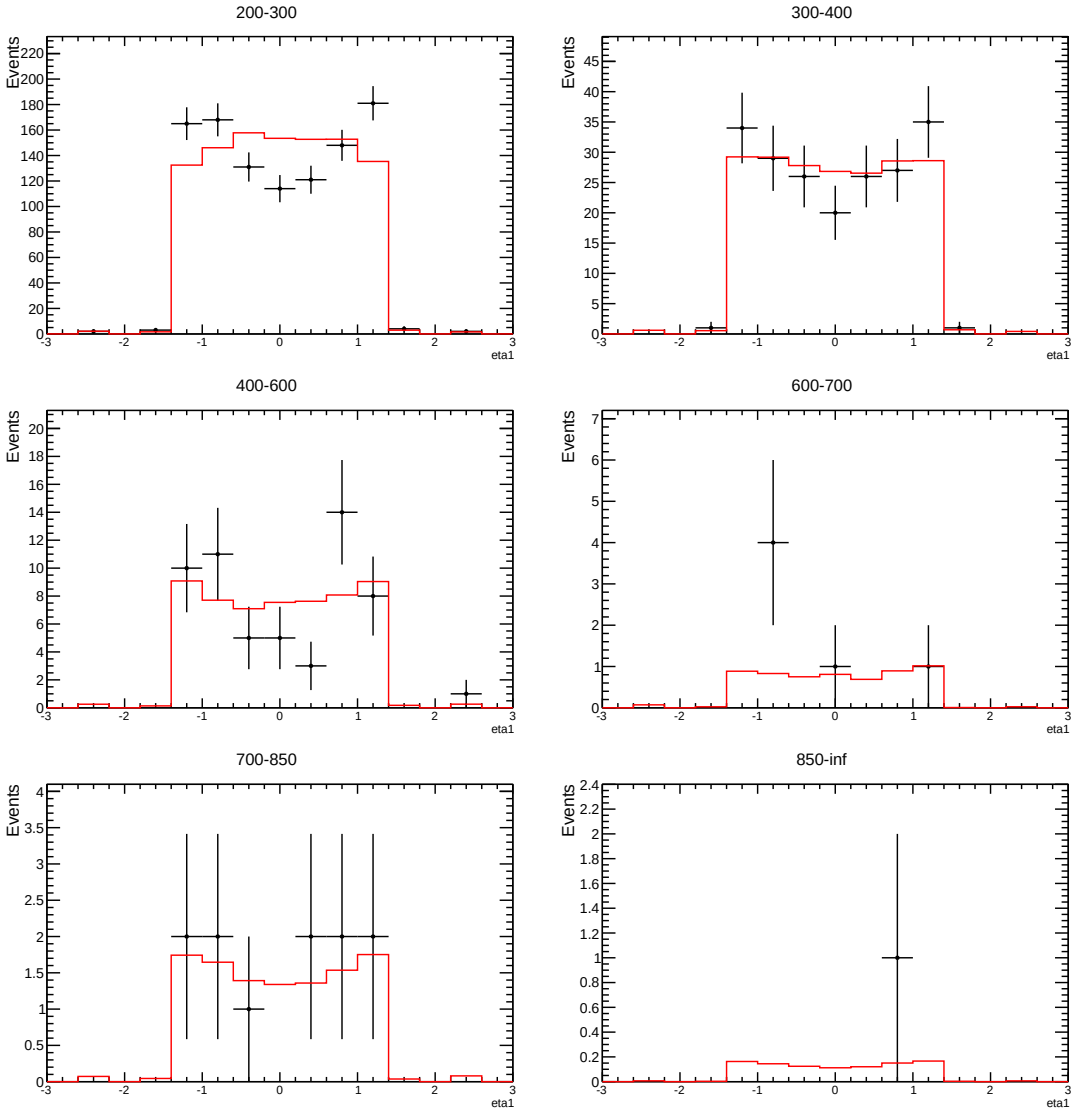


5.1.11 Njets

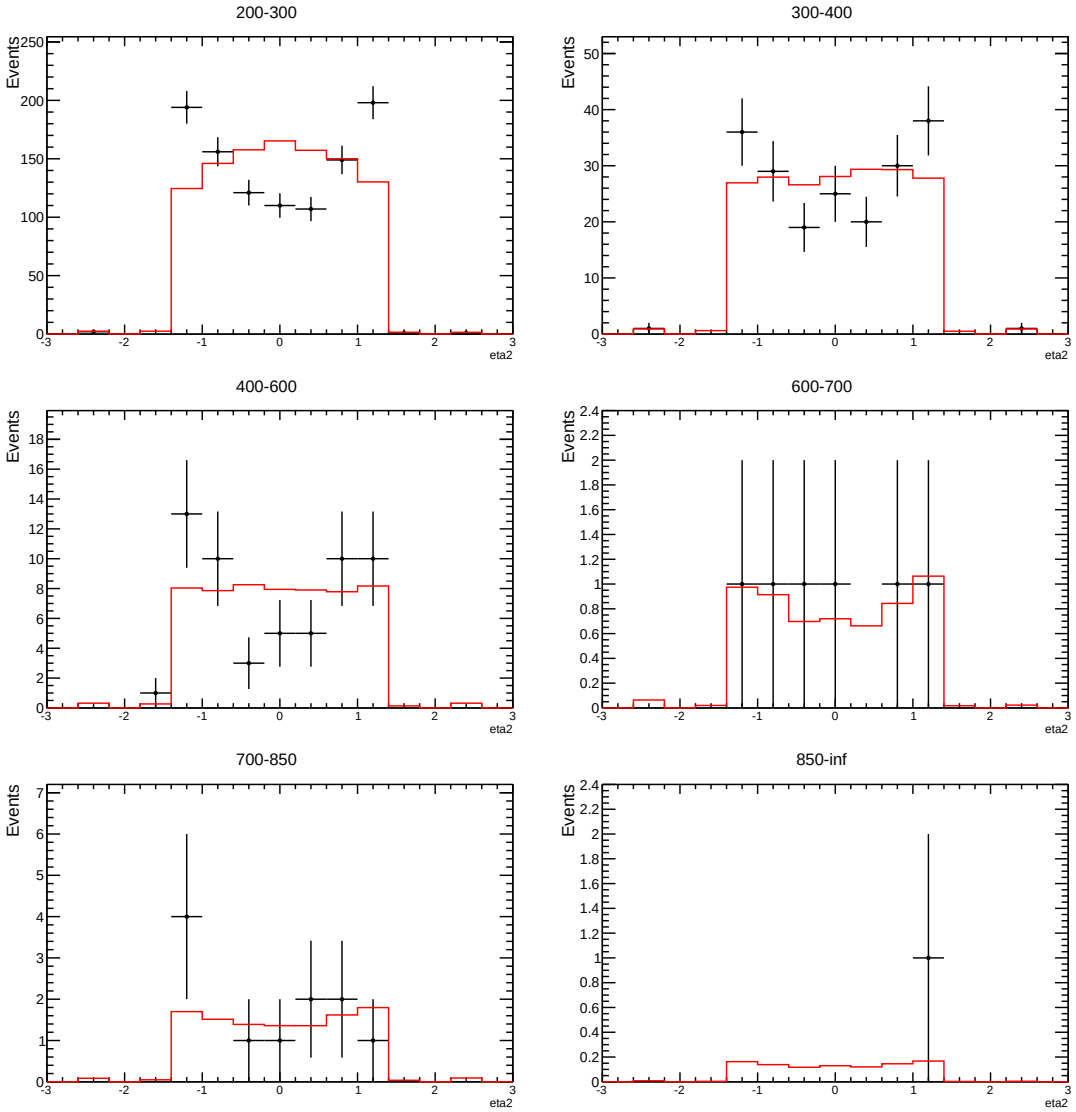


5.2 BB

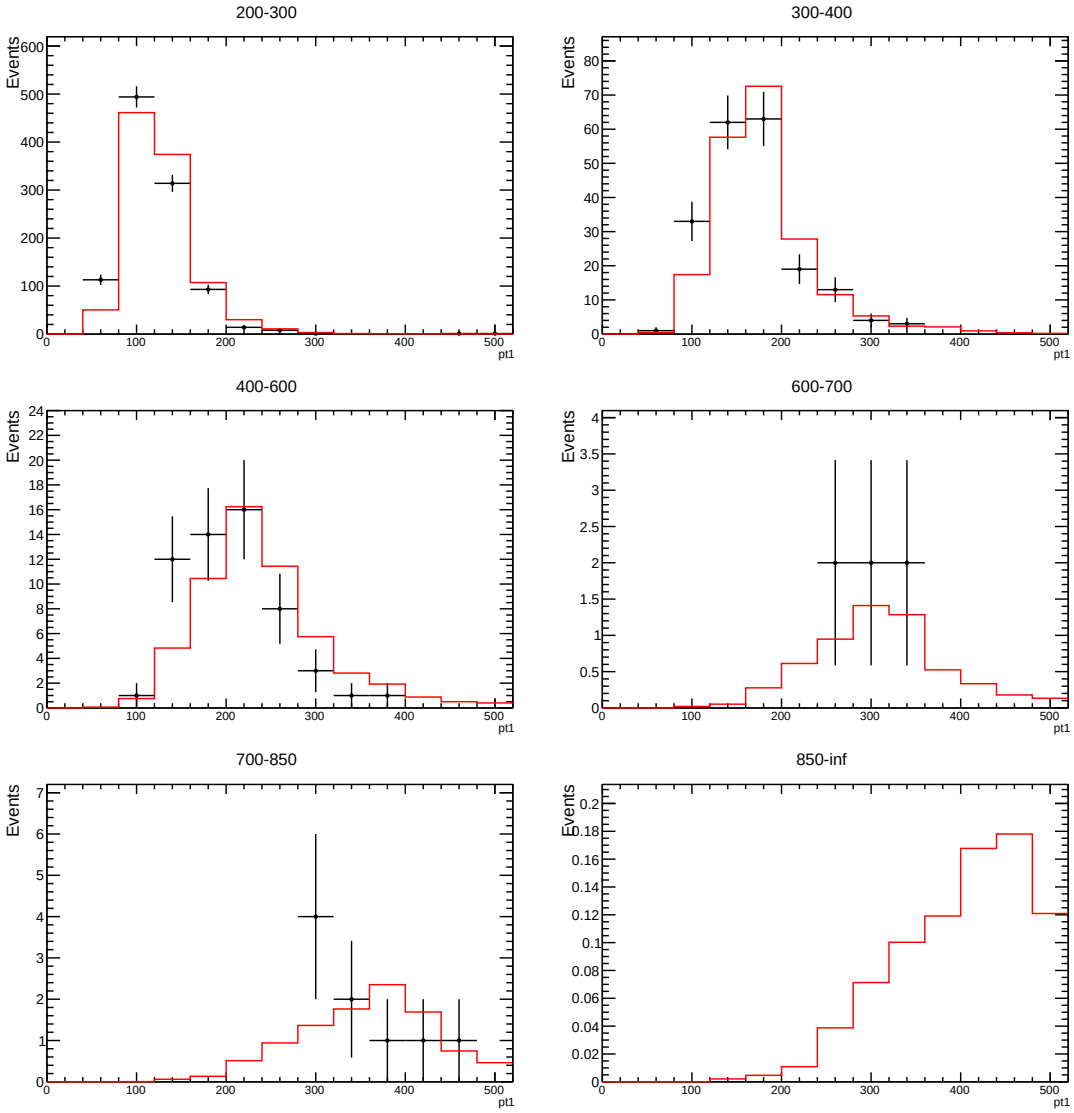
5.2.1 Eta1



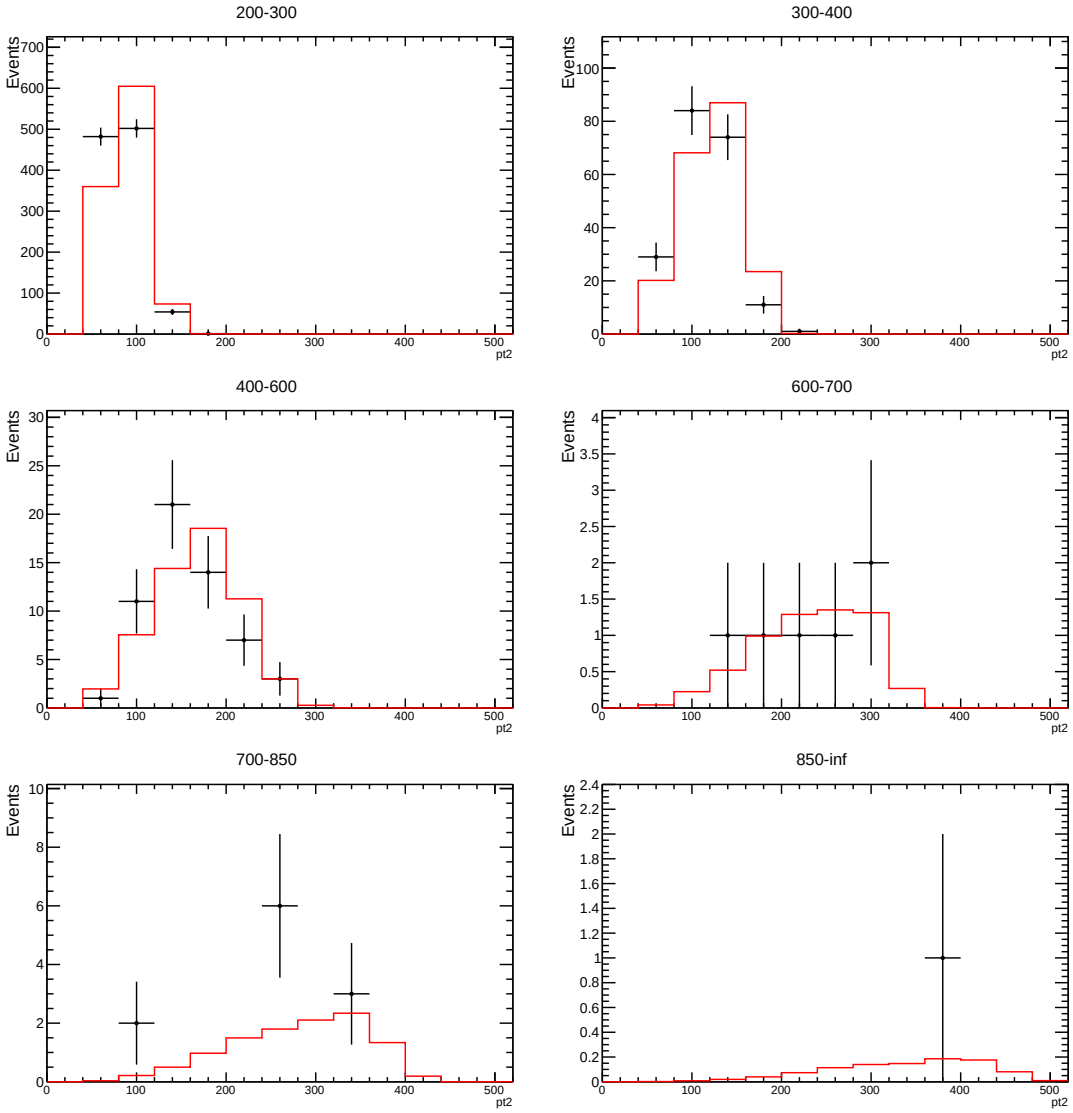
5.2.2 Eta2



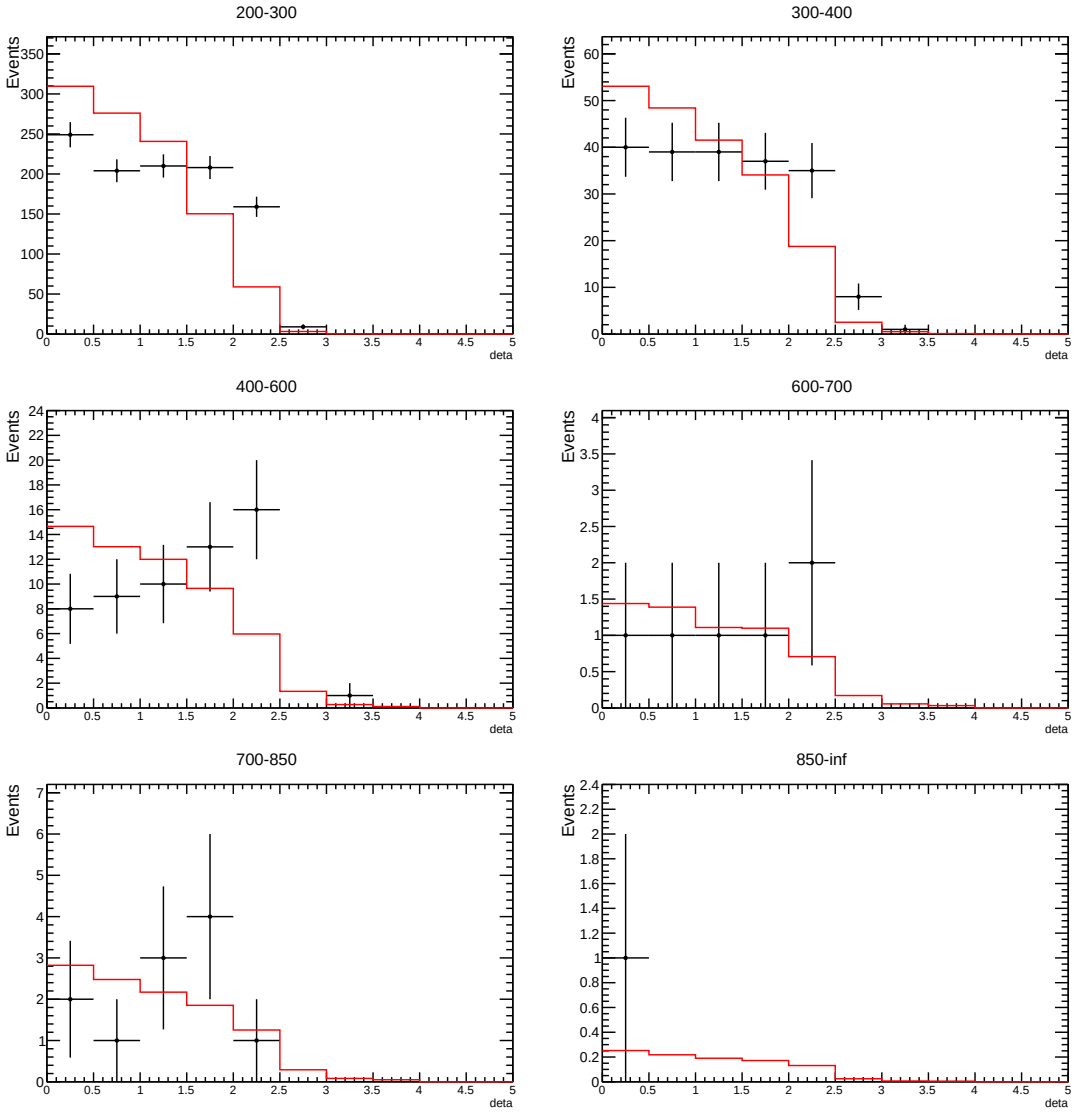
5.2.3 Pt1



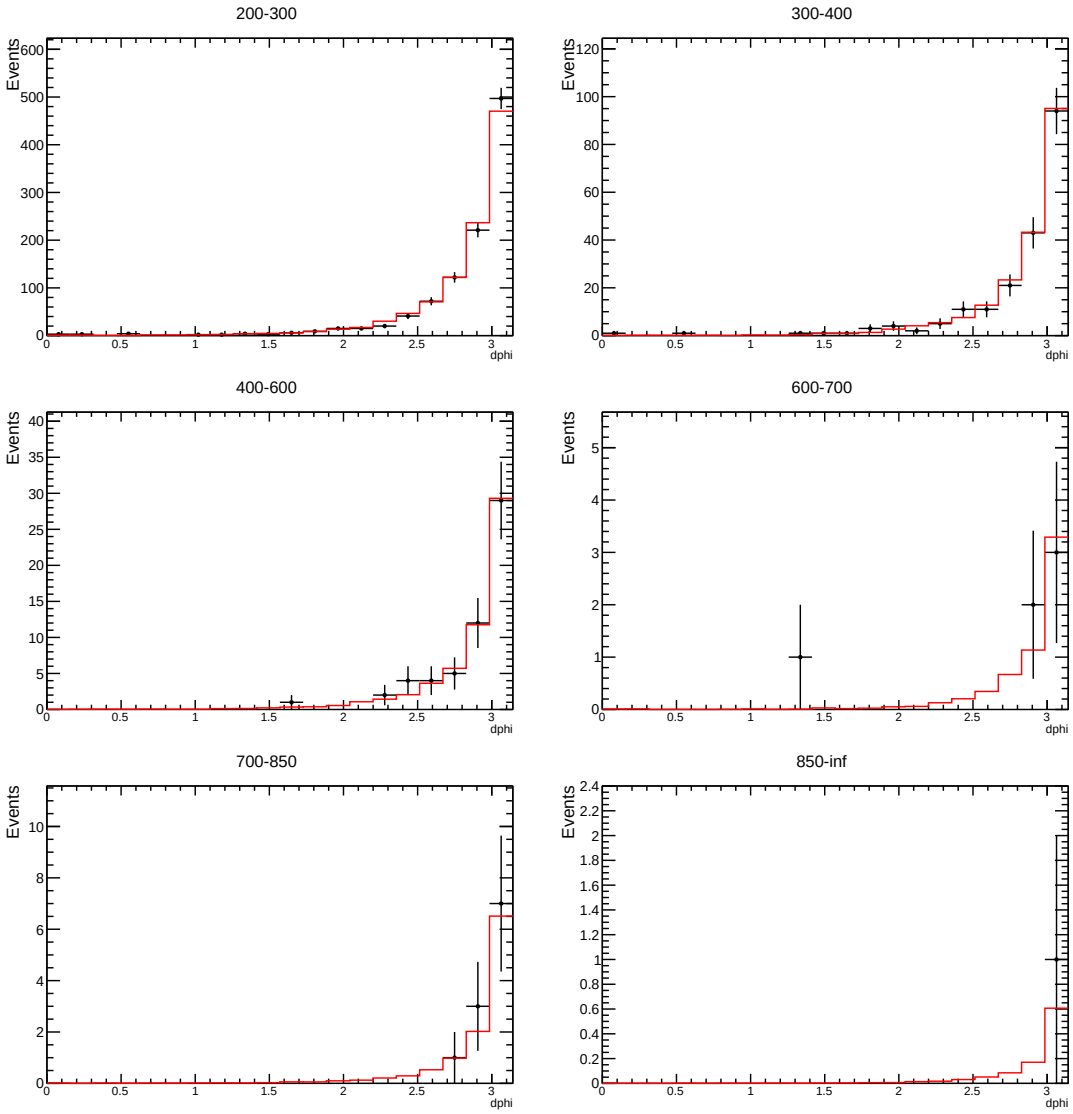
5.2.4 Pt2



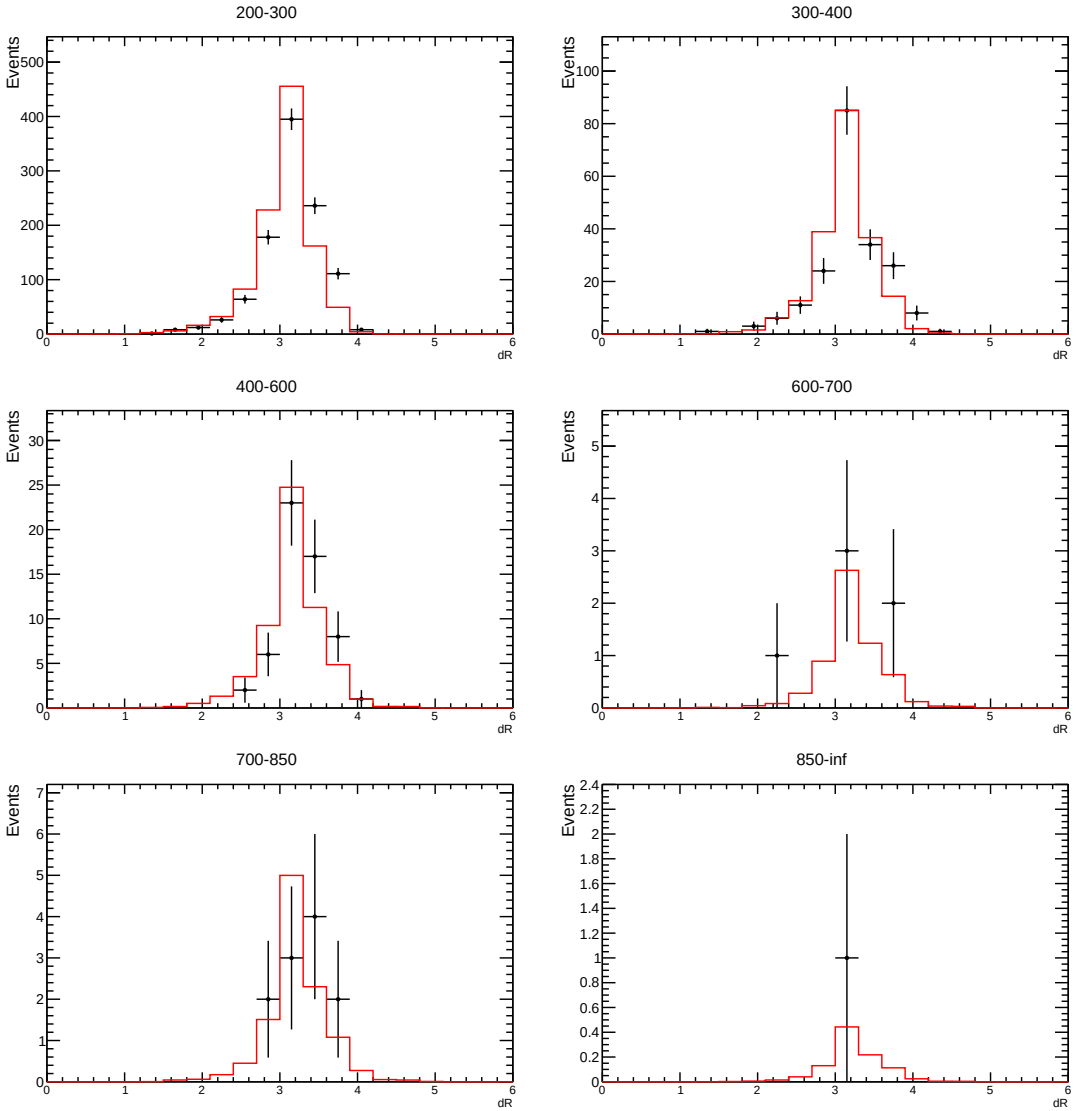
5.2.5 Deta



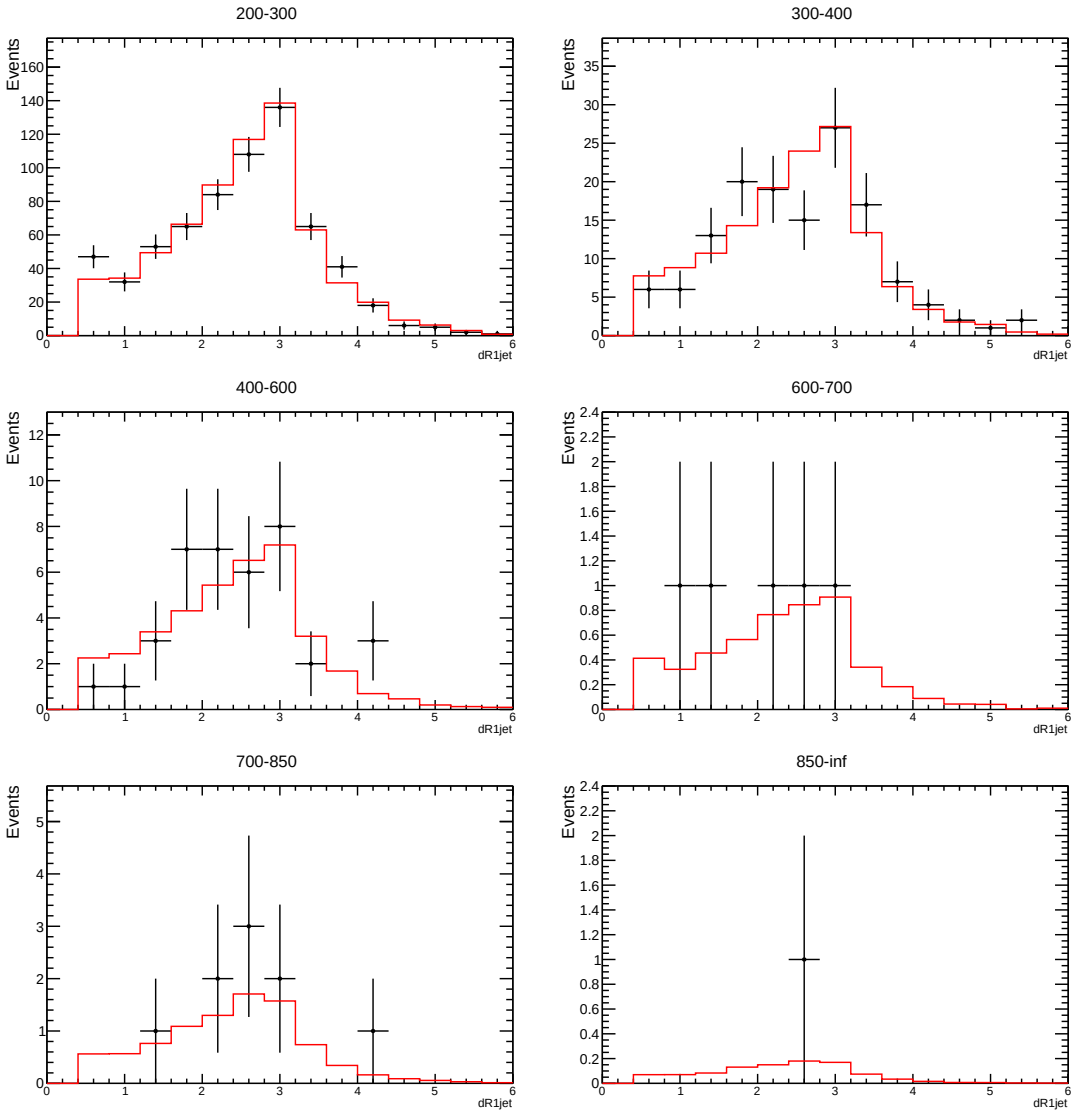
5.2.6 Dphi



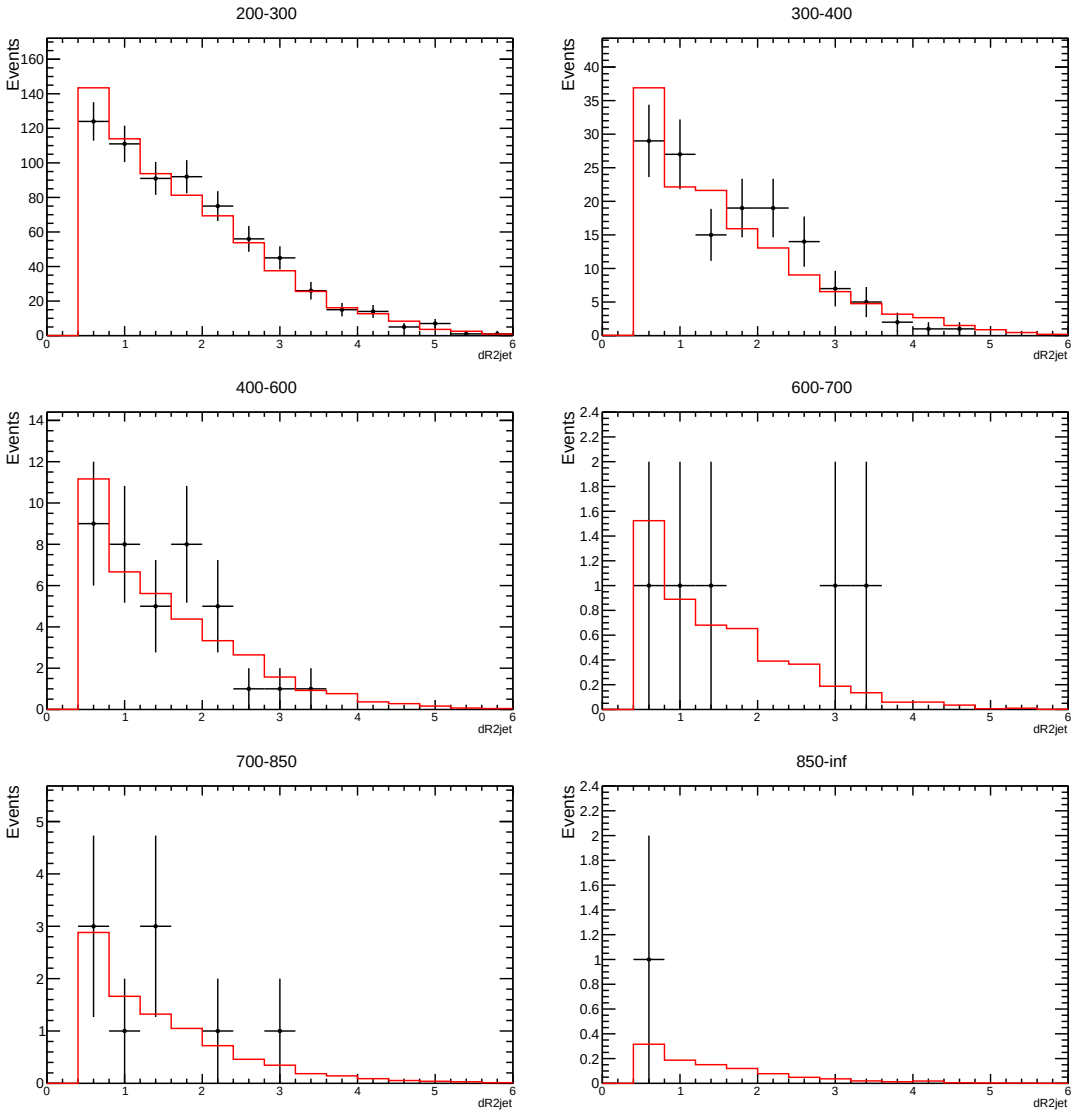
5.2.7 DR



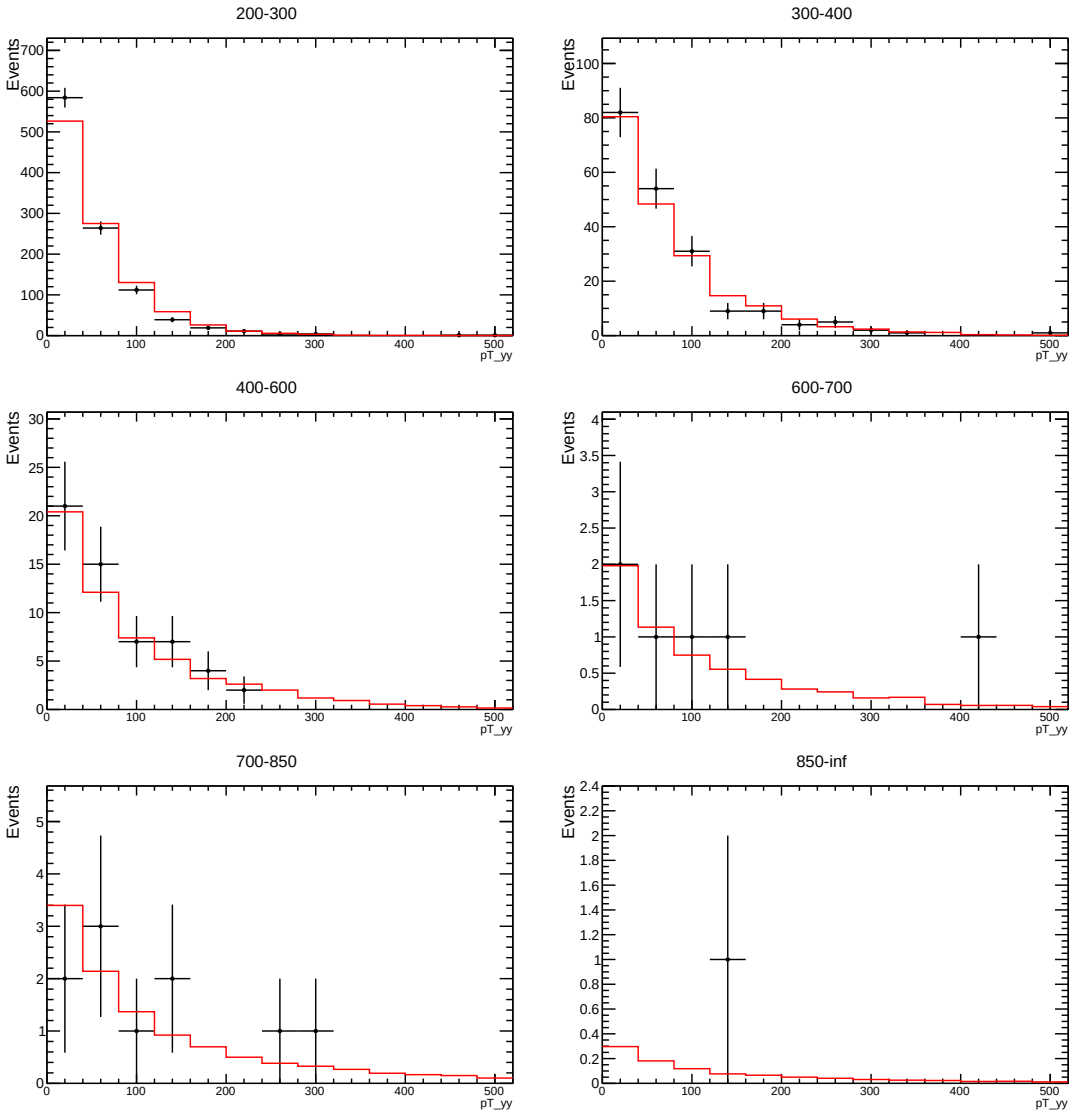
5.2.8 DR1jet



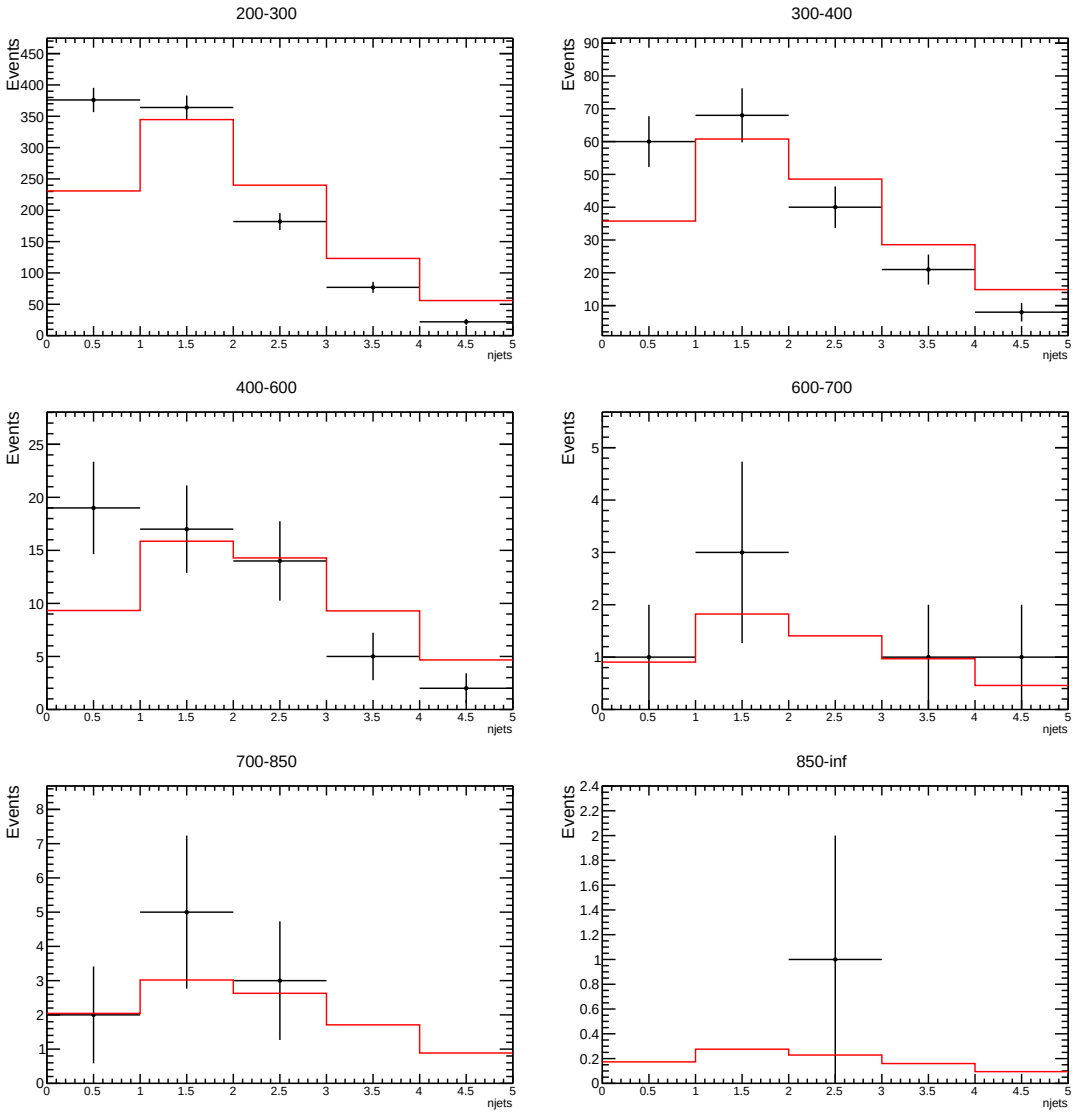
5.2.9 DR2jet



5.2.10 ptyy

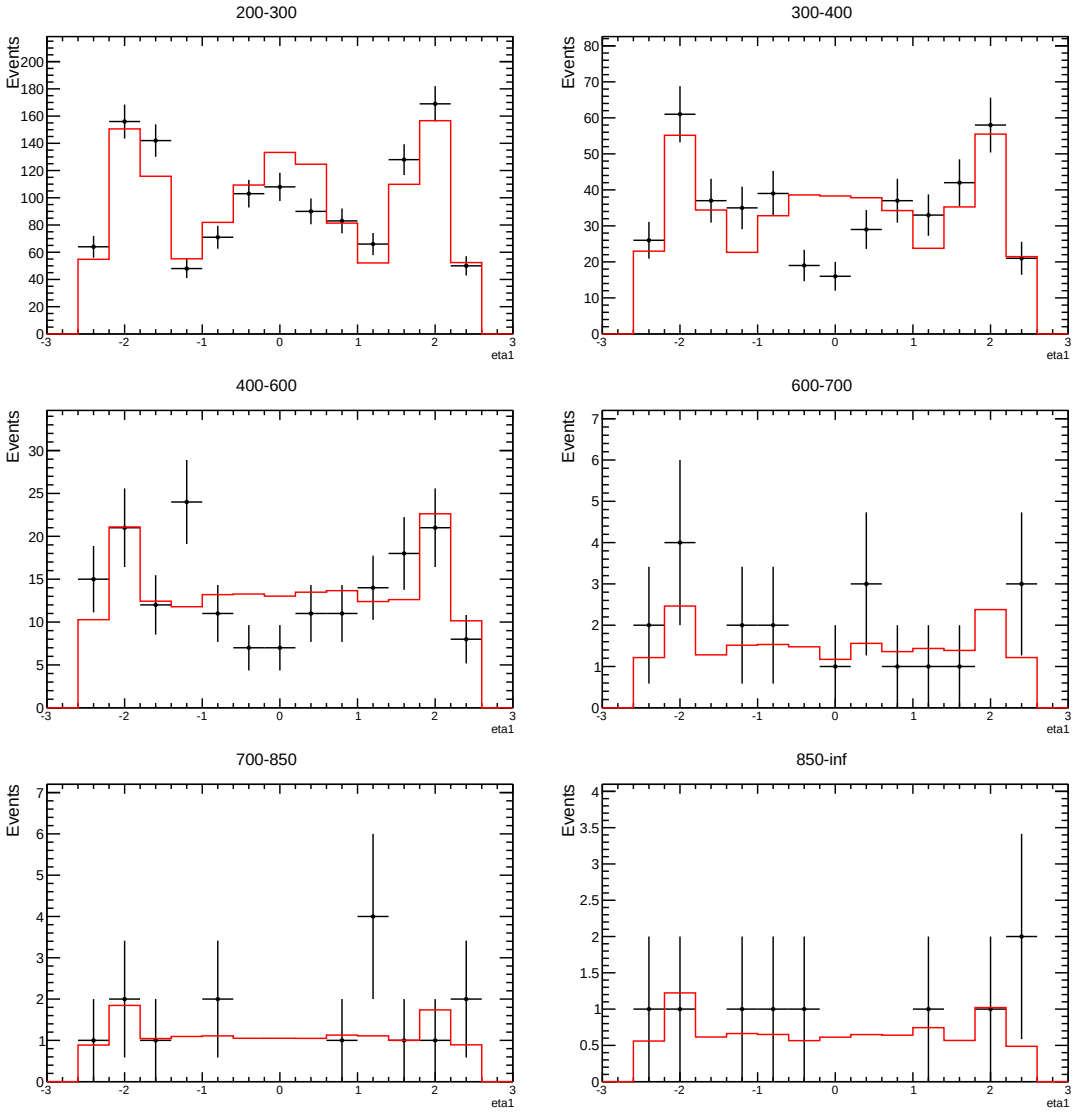


5.2.11 Njets

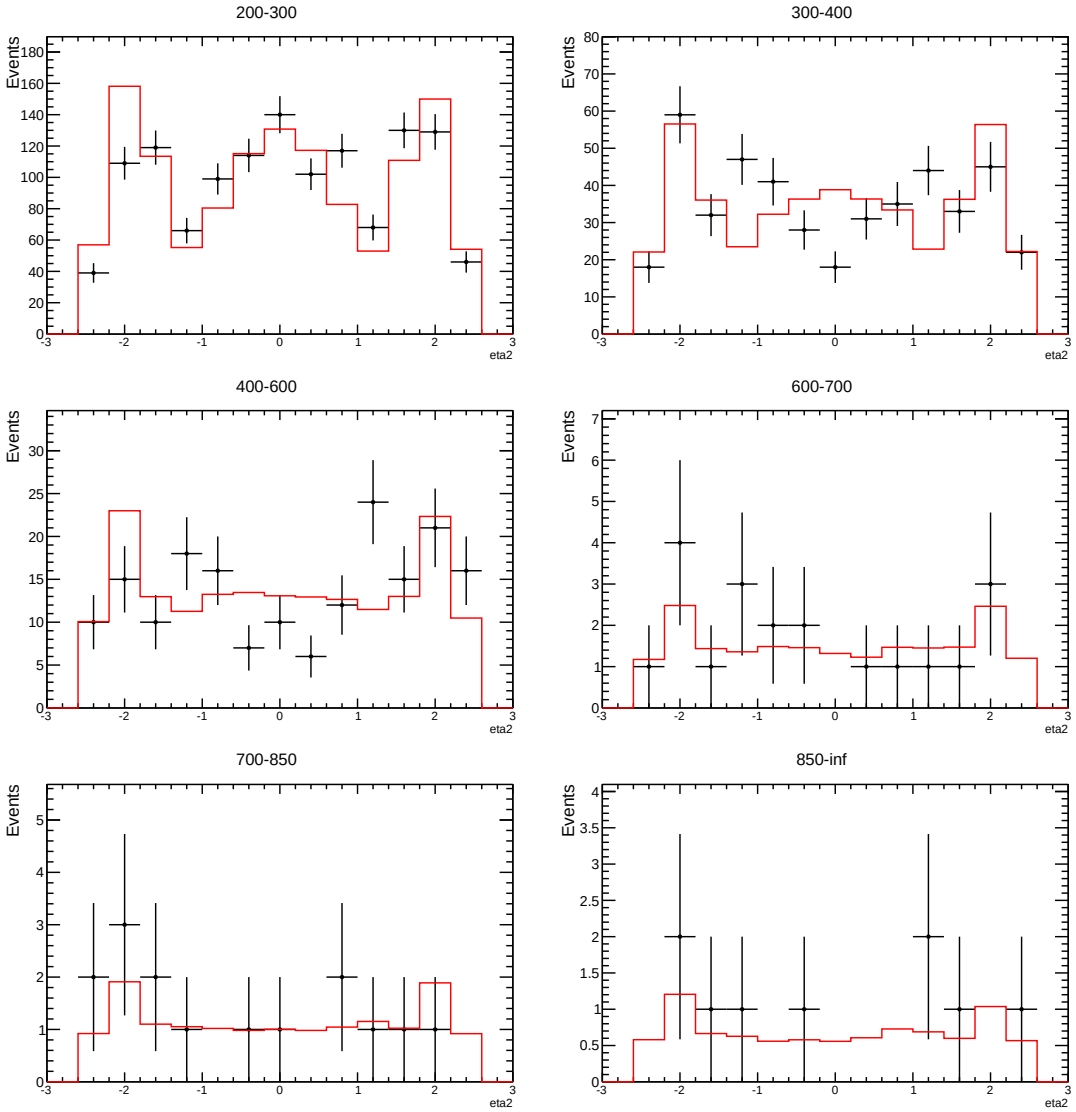


5.3 BEEB

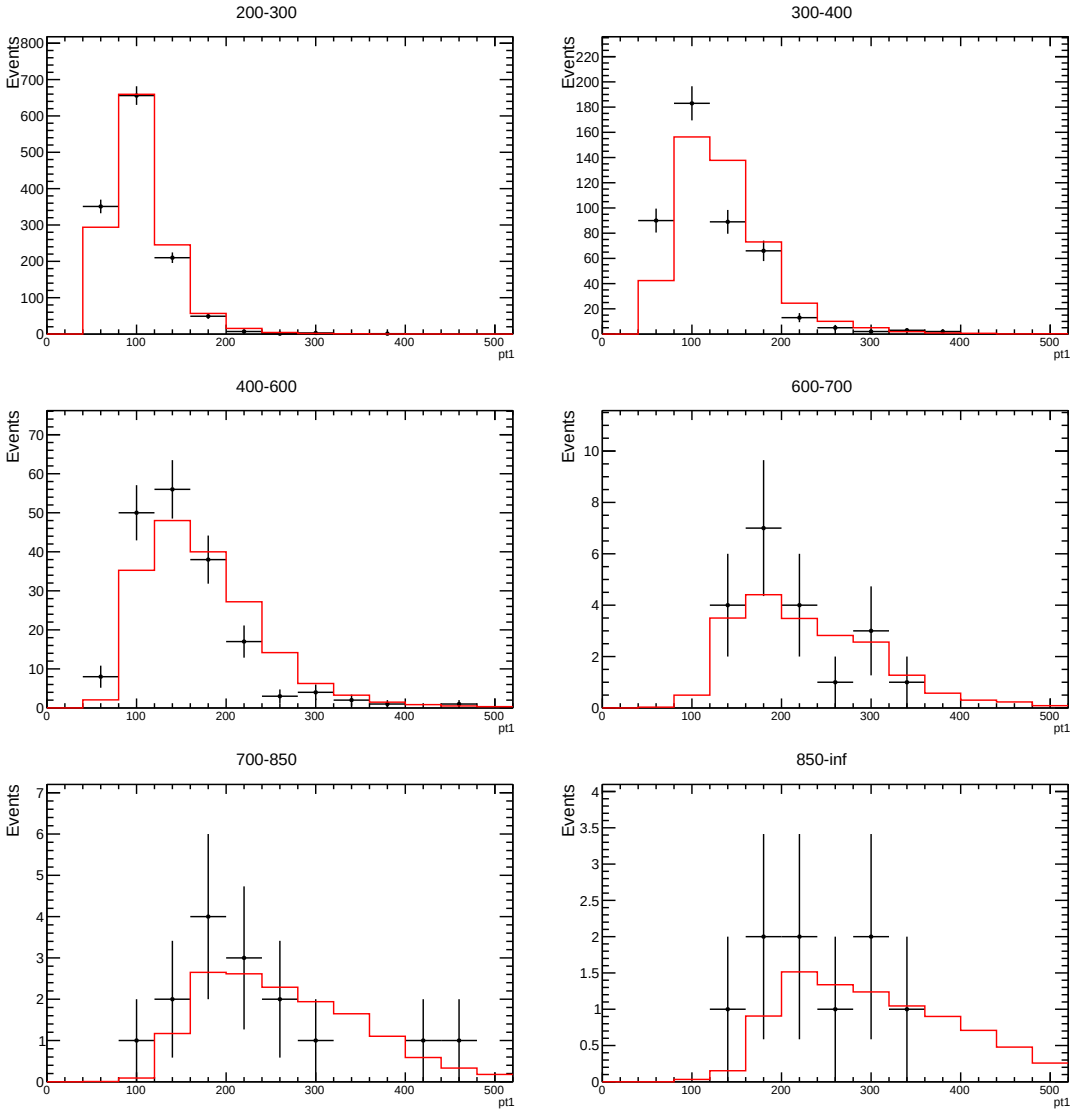
5.3.1 Eta1



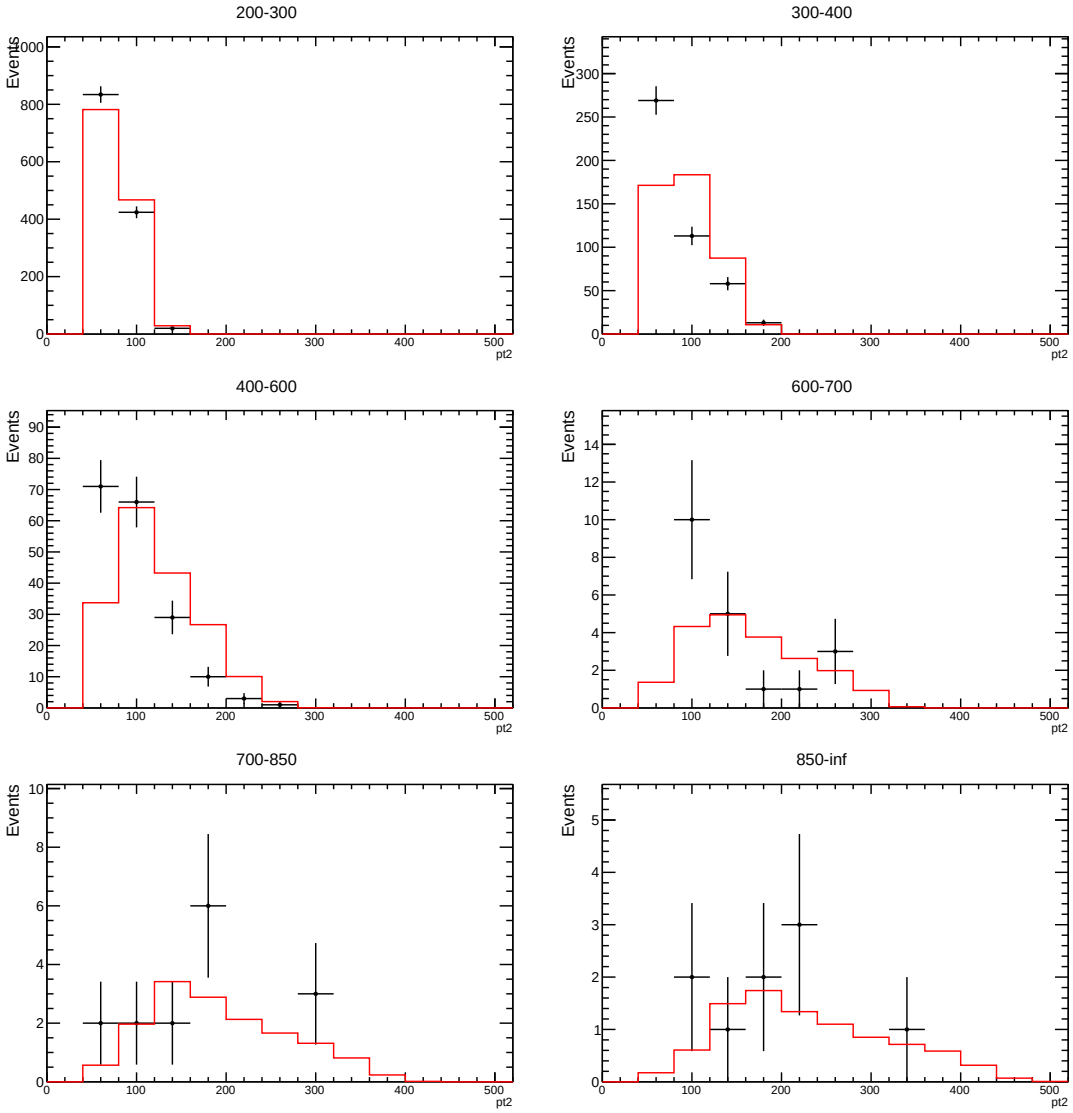
5.3.2 Eta2



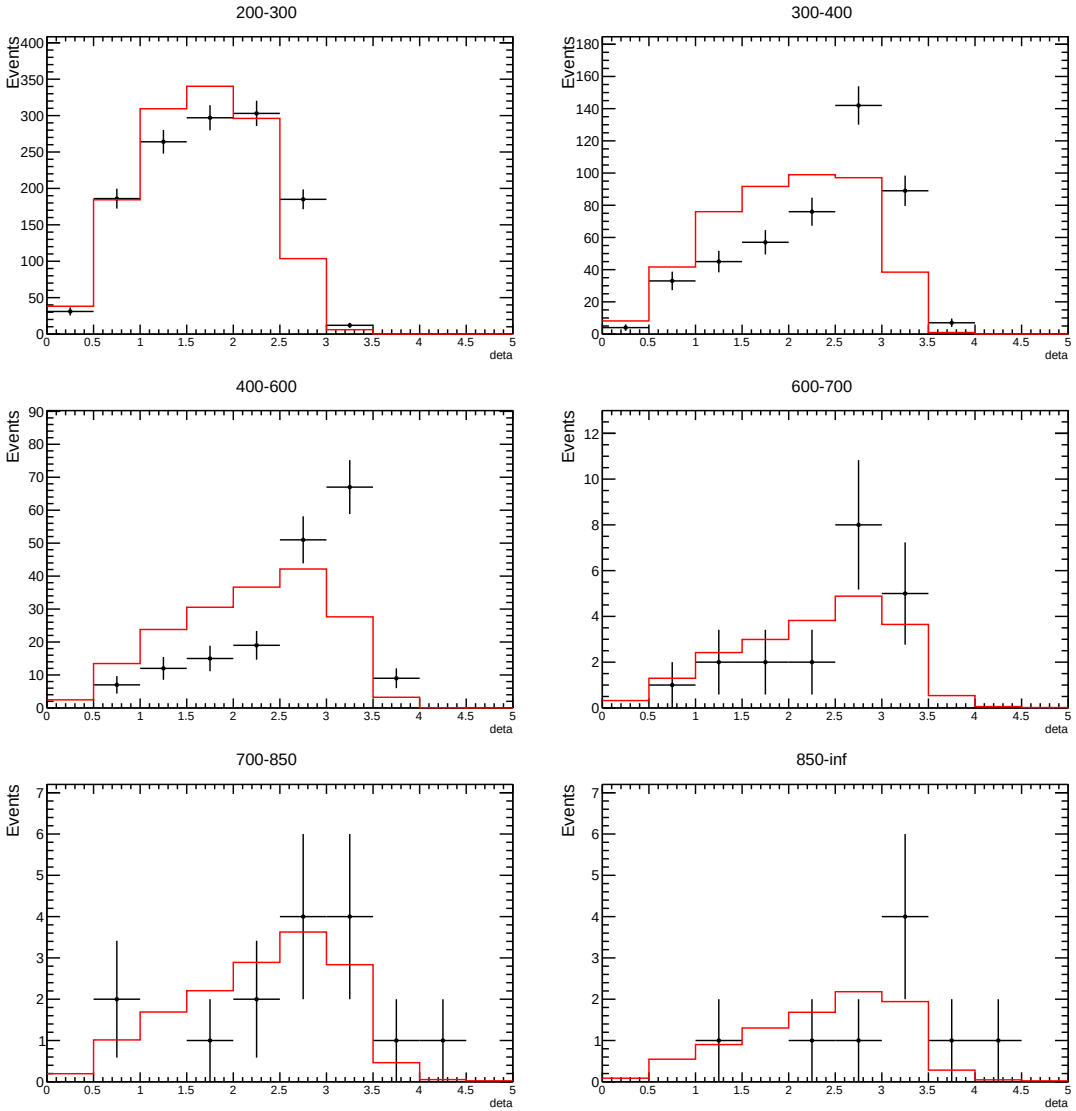
5.3.3 Pt1



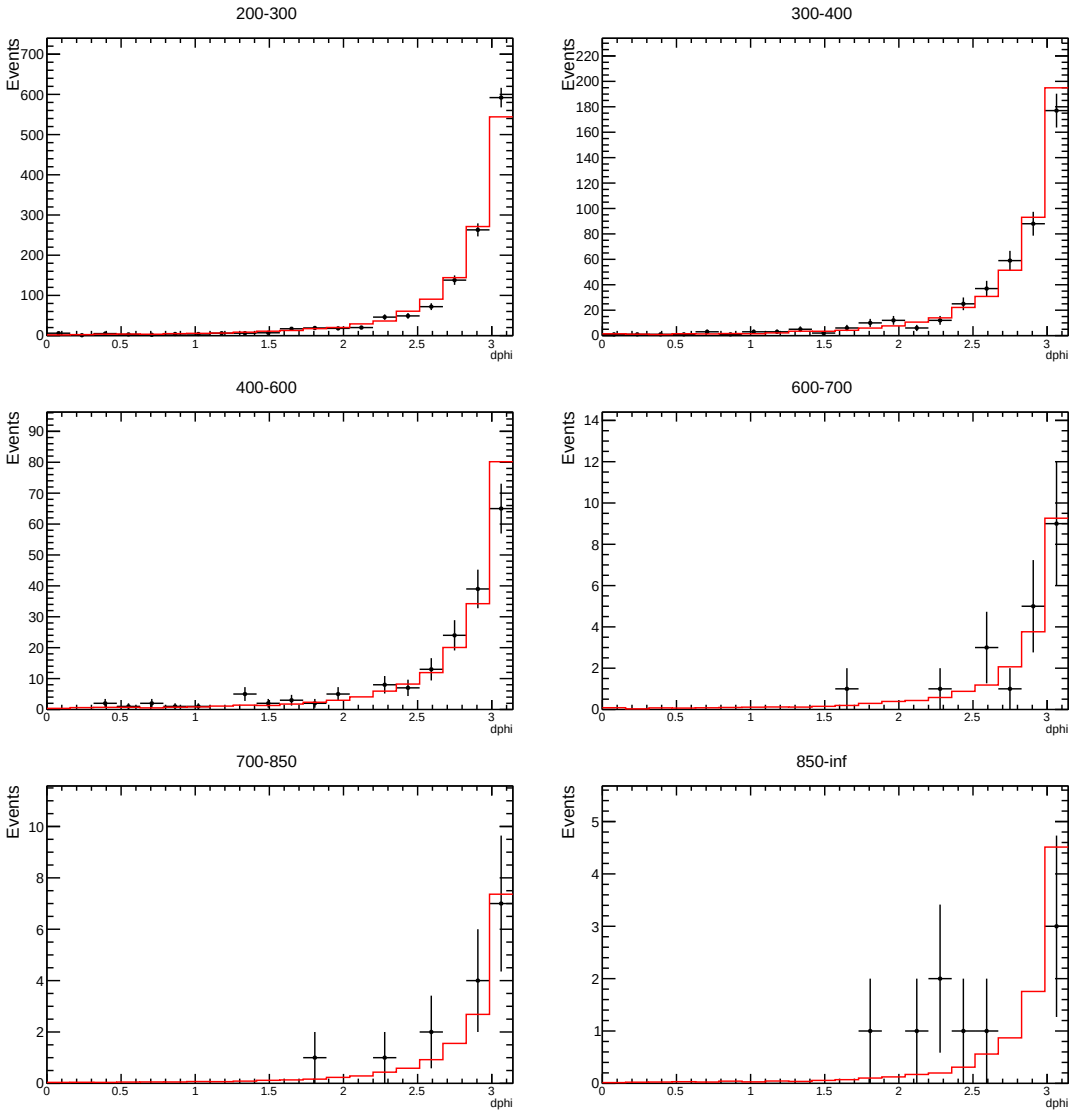
5.3.4 Pt2



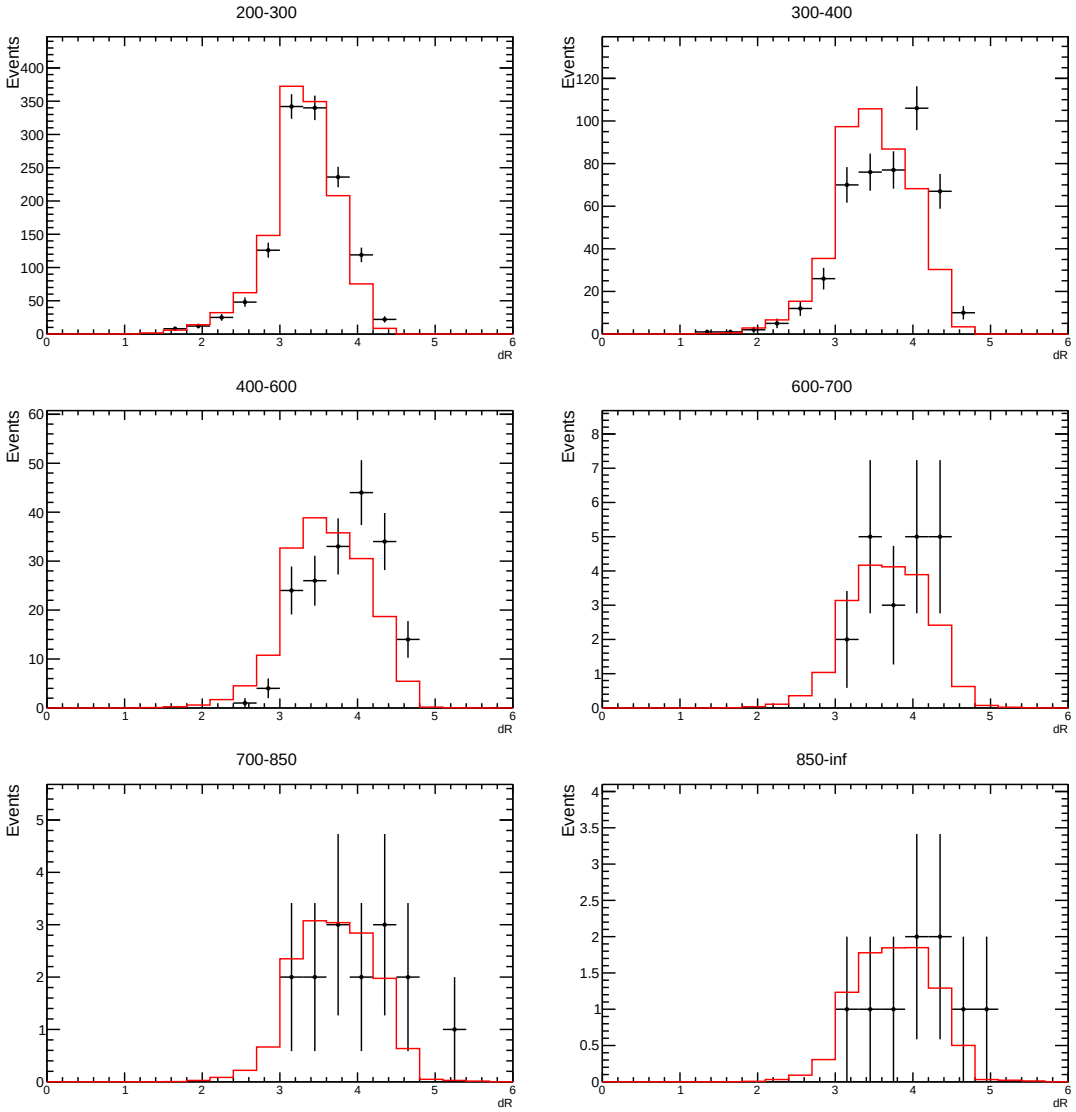
5.3.5 Deta



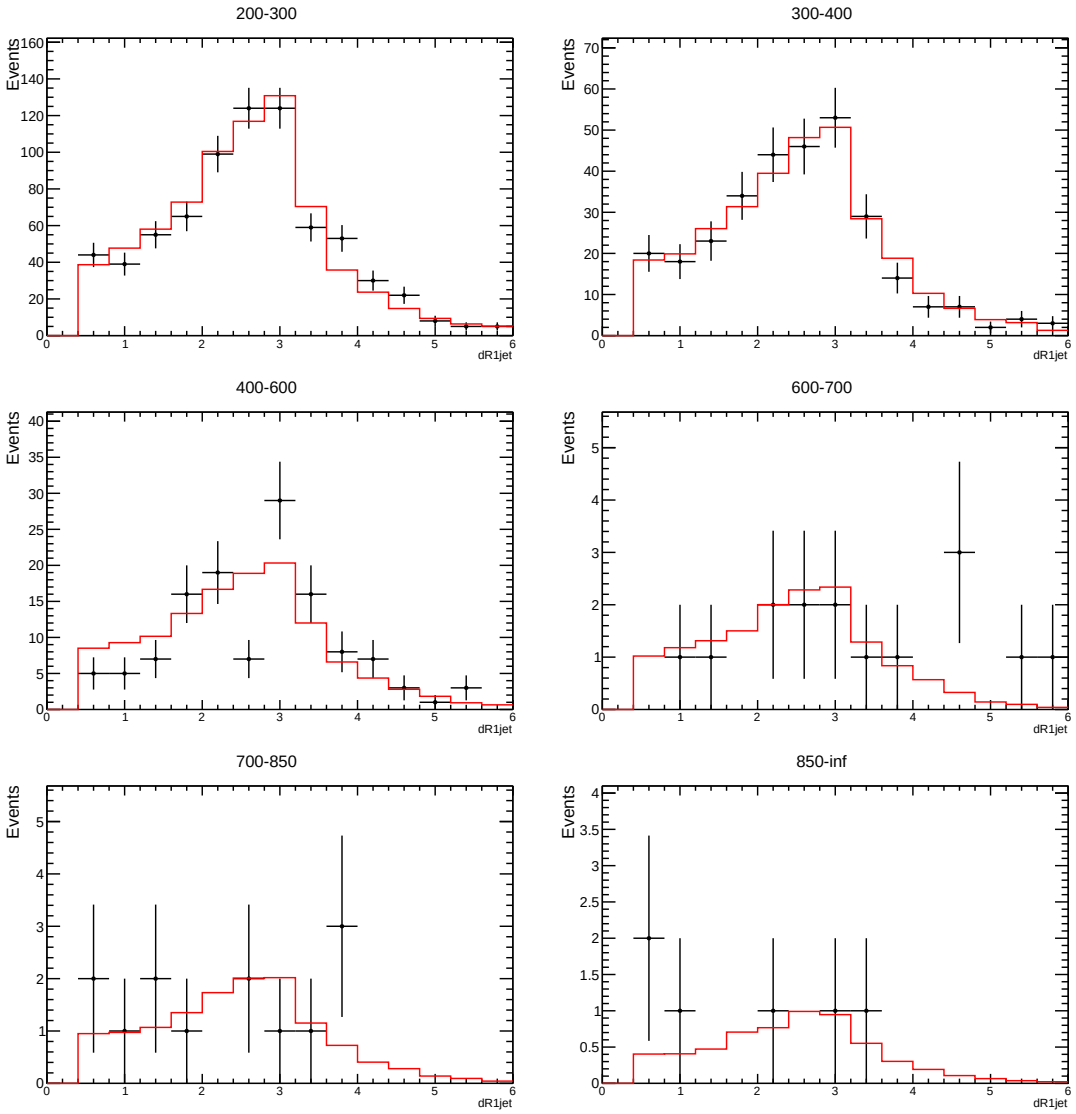
5.3.6 Dphi



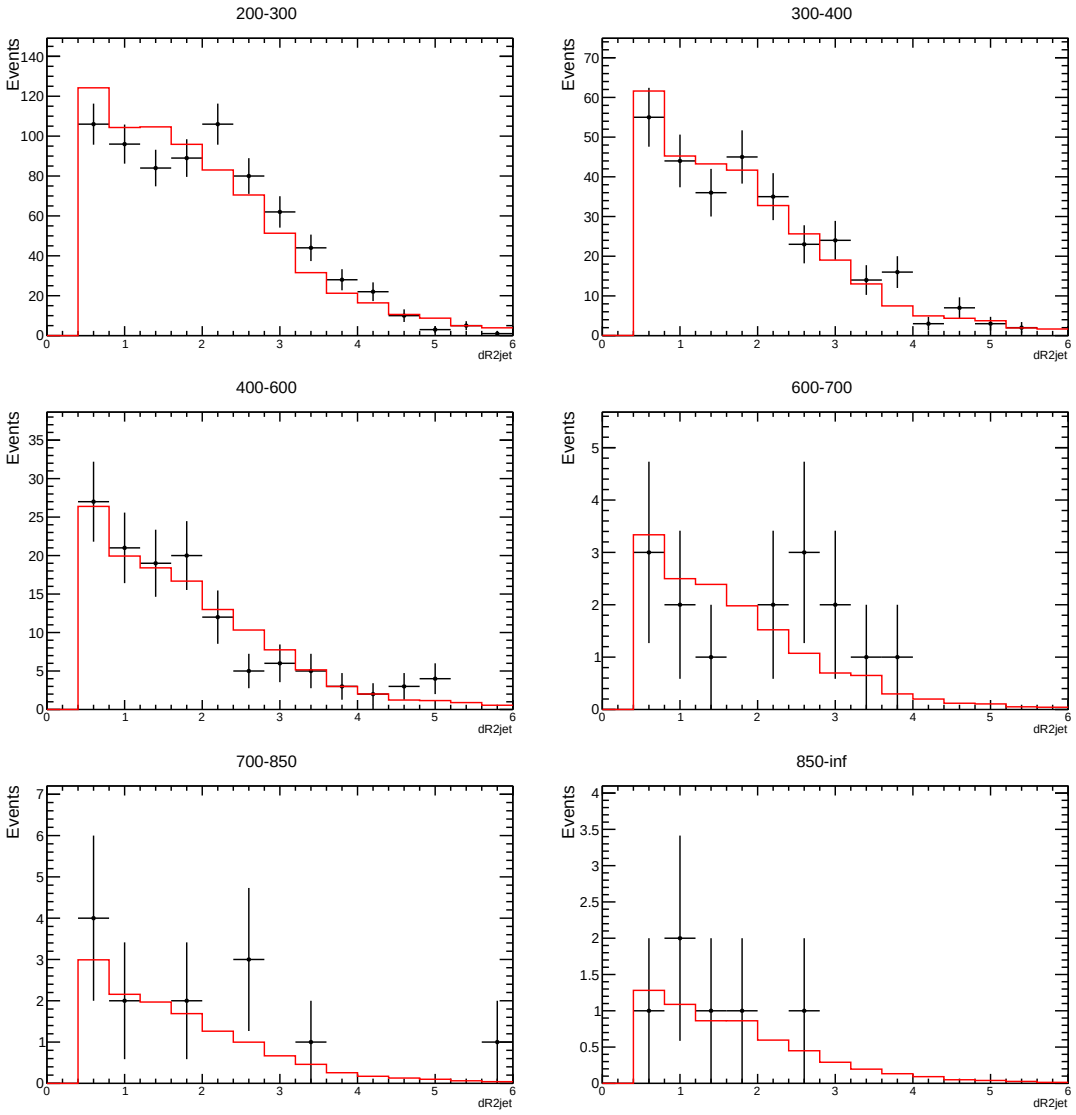
5.3.7 DR



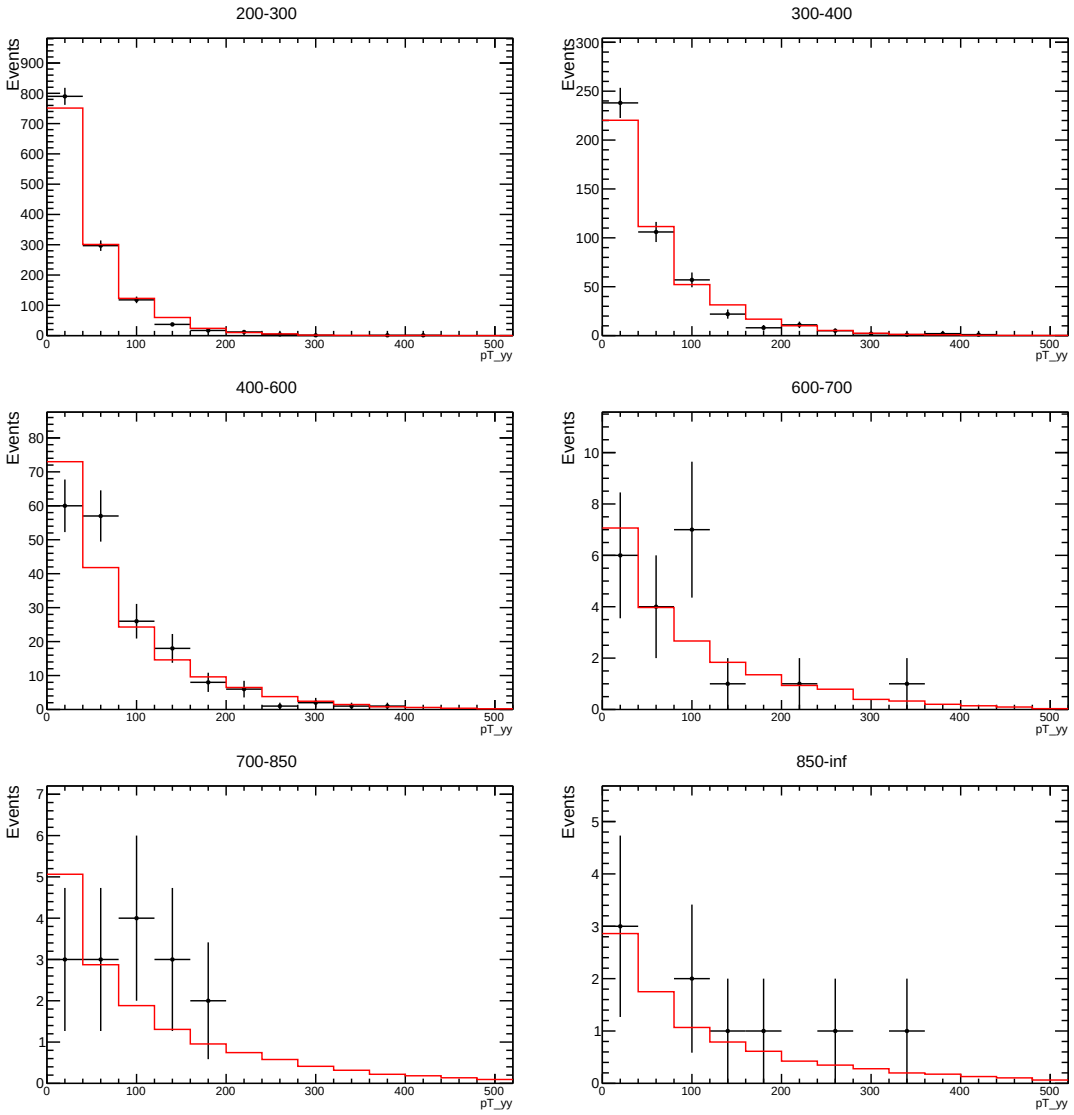
5.3.8 DR1jet



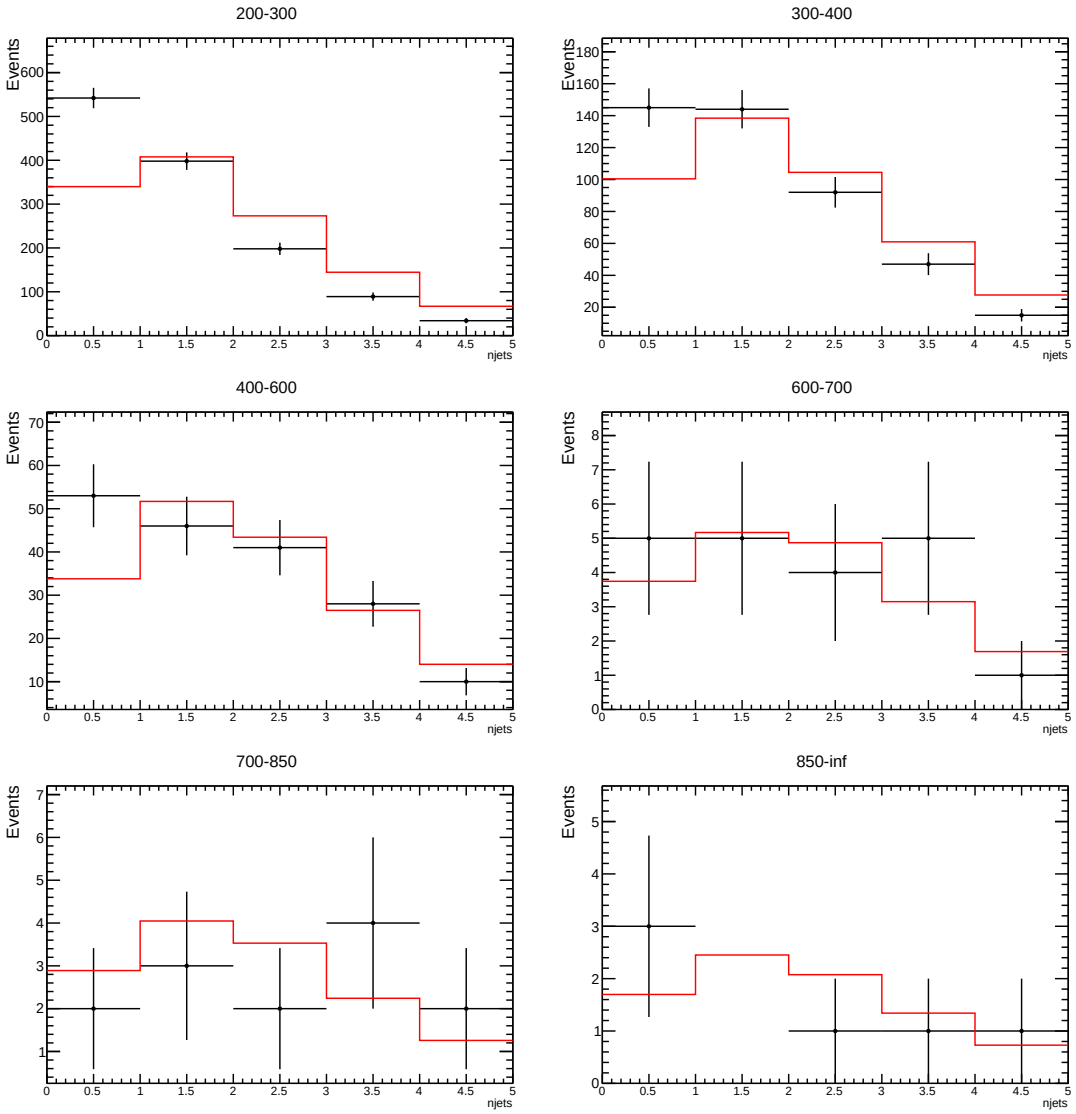
5.3.9 DR2jet



5.3.10 ptyy

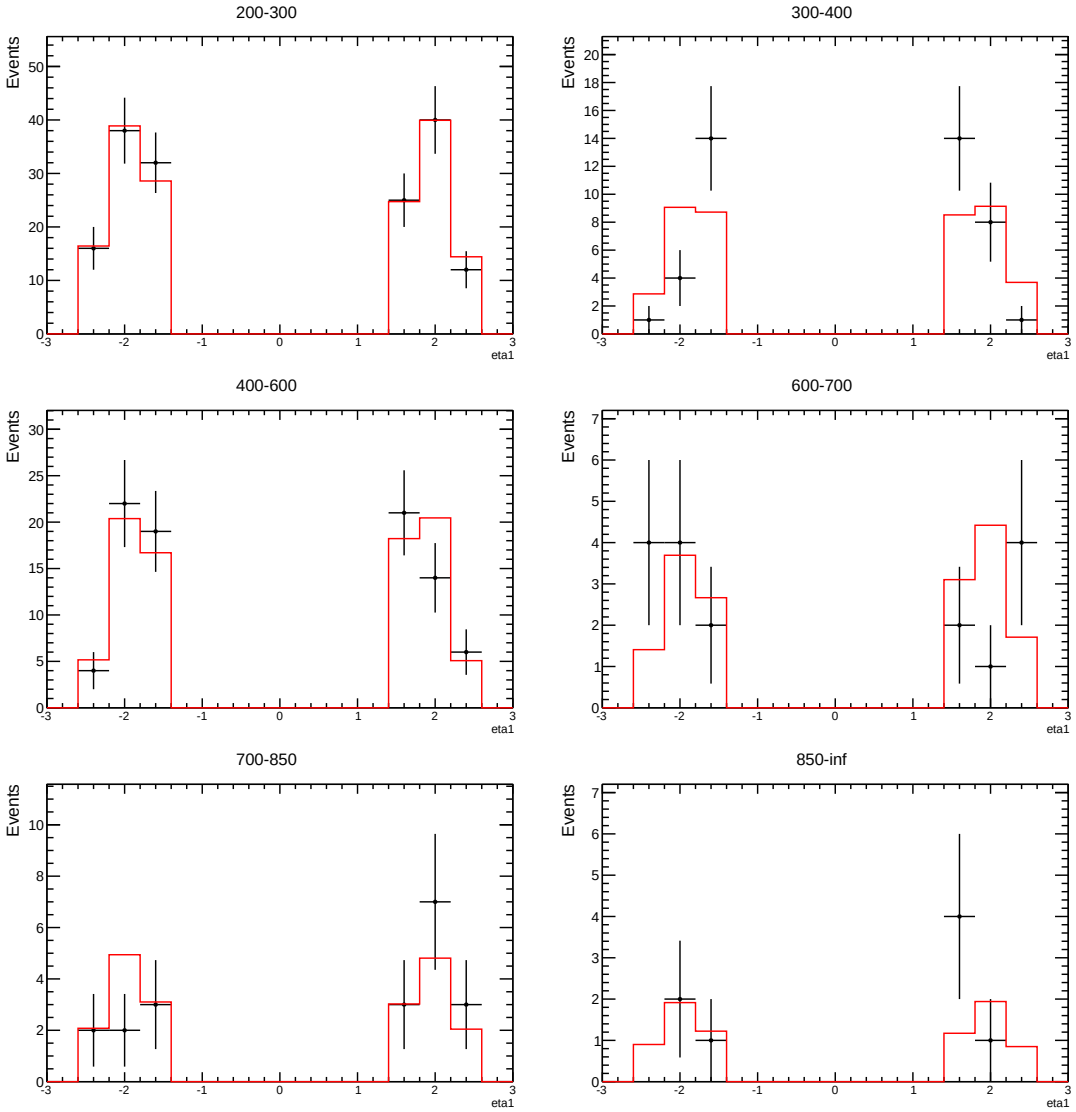


5.3.11 Njets

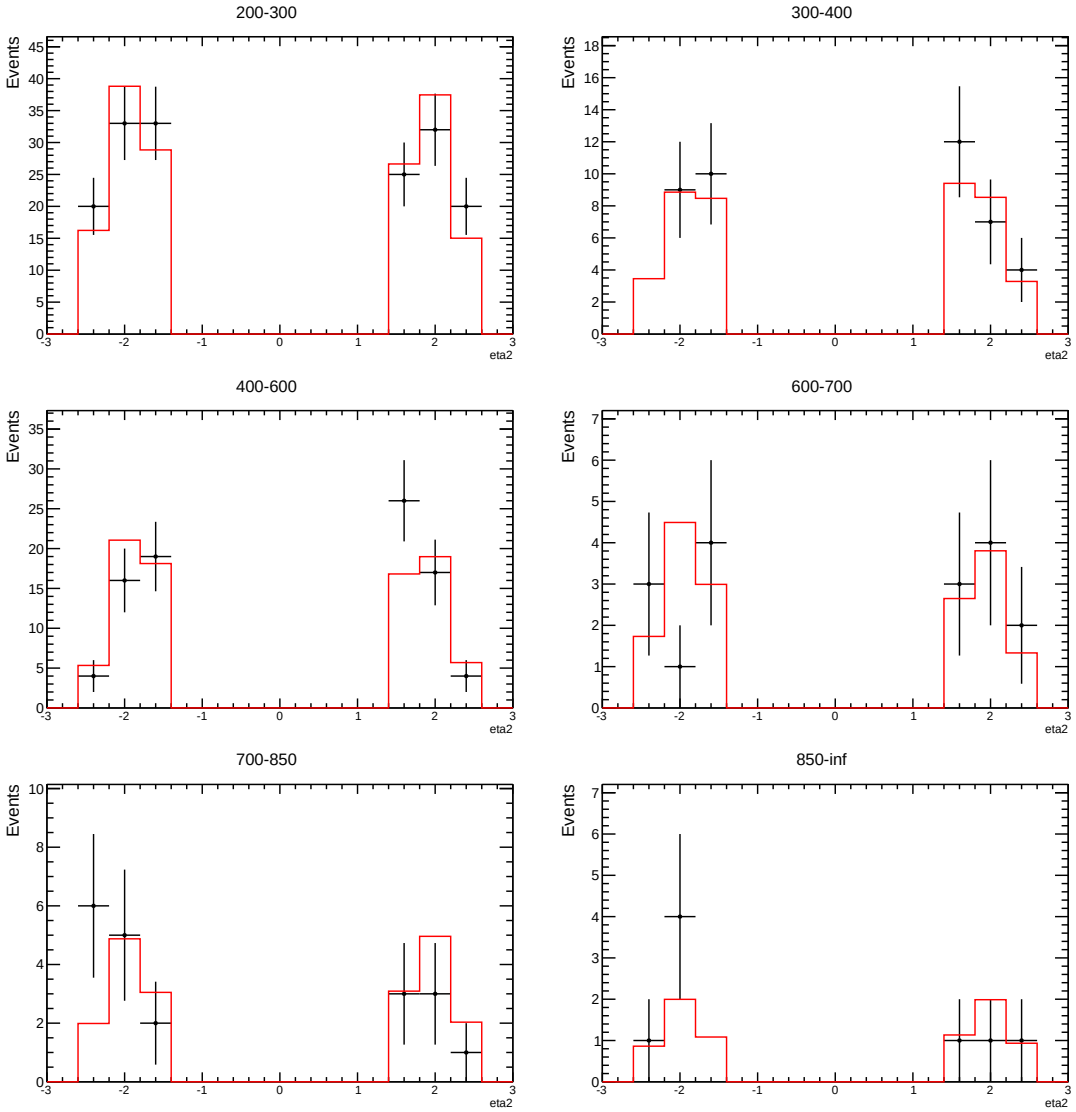


5.4 EE

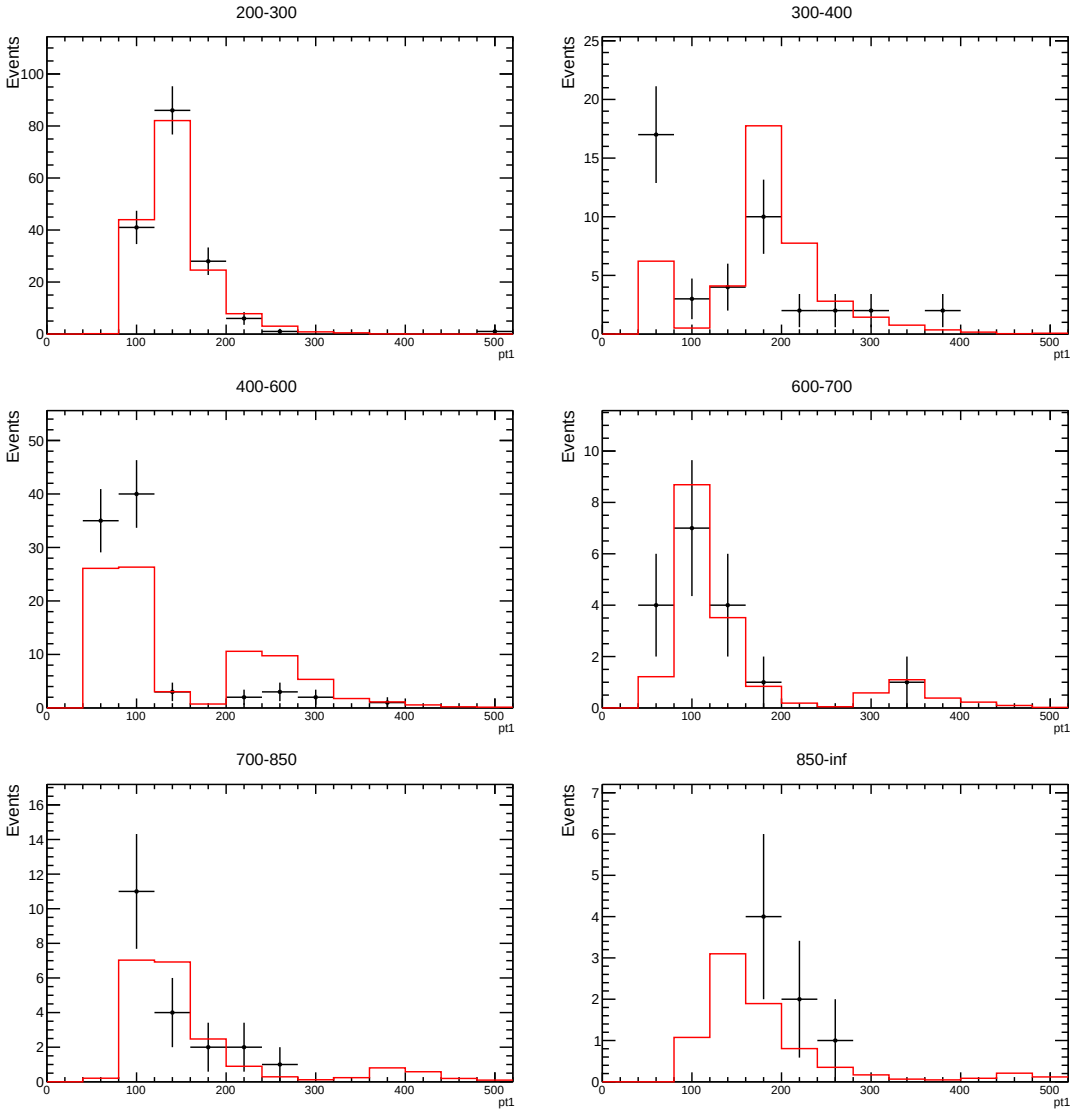
5.4.1 Eta1



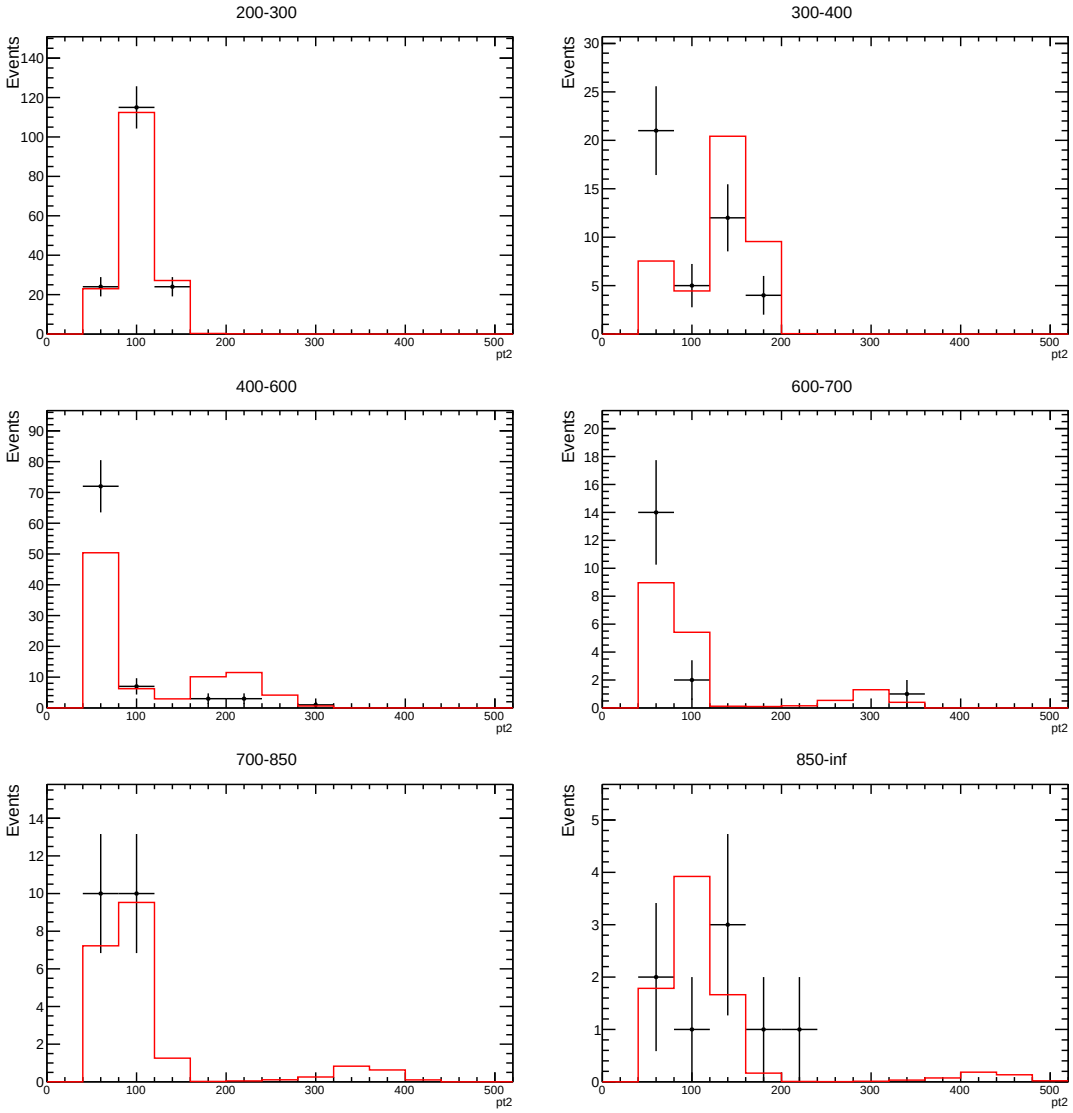
5.4.2 Eta2



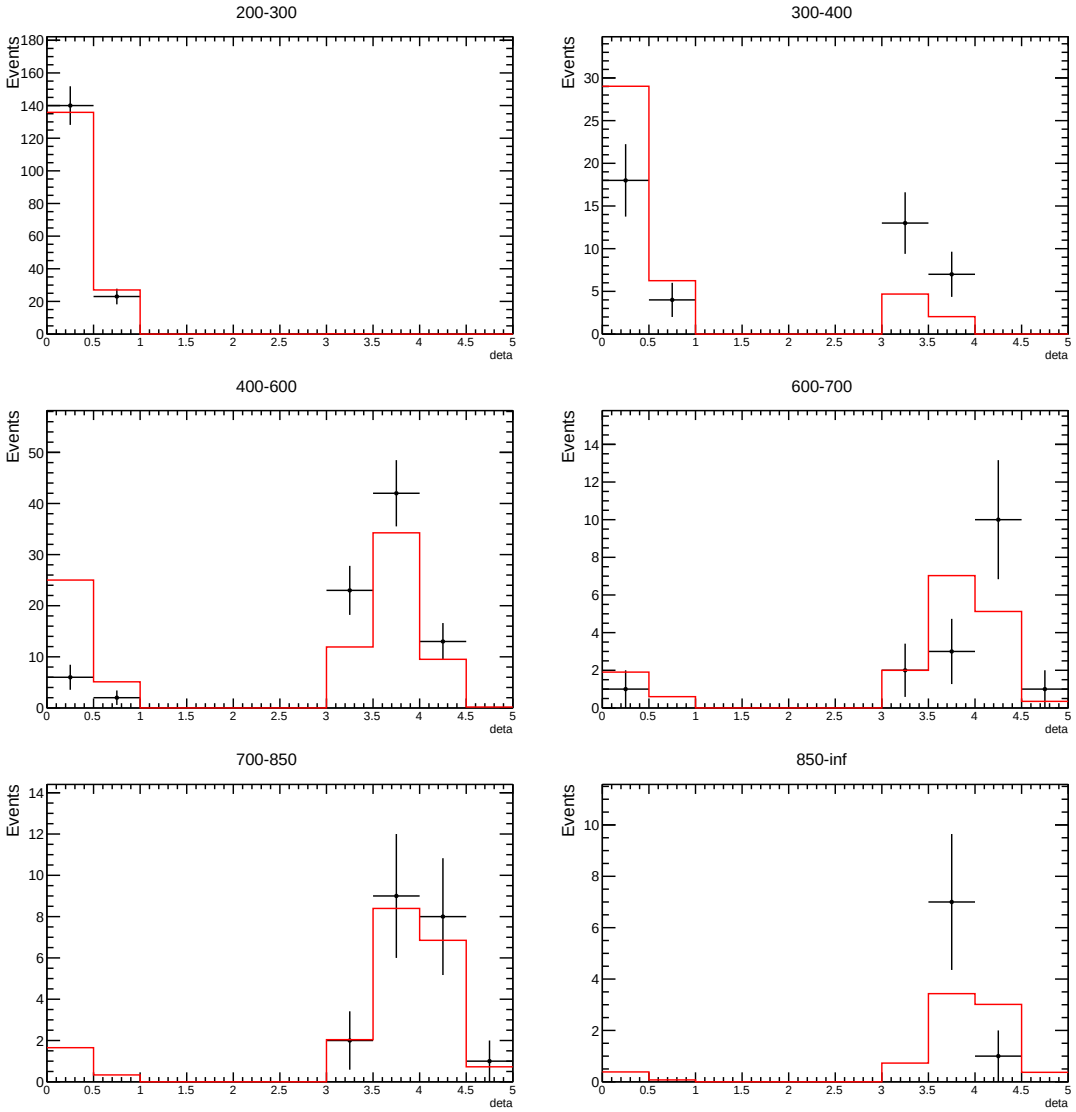
5.4.3 Pt1



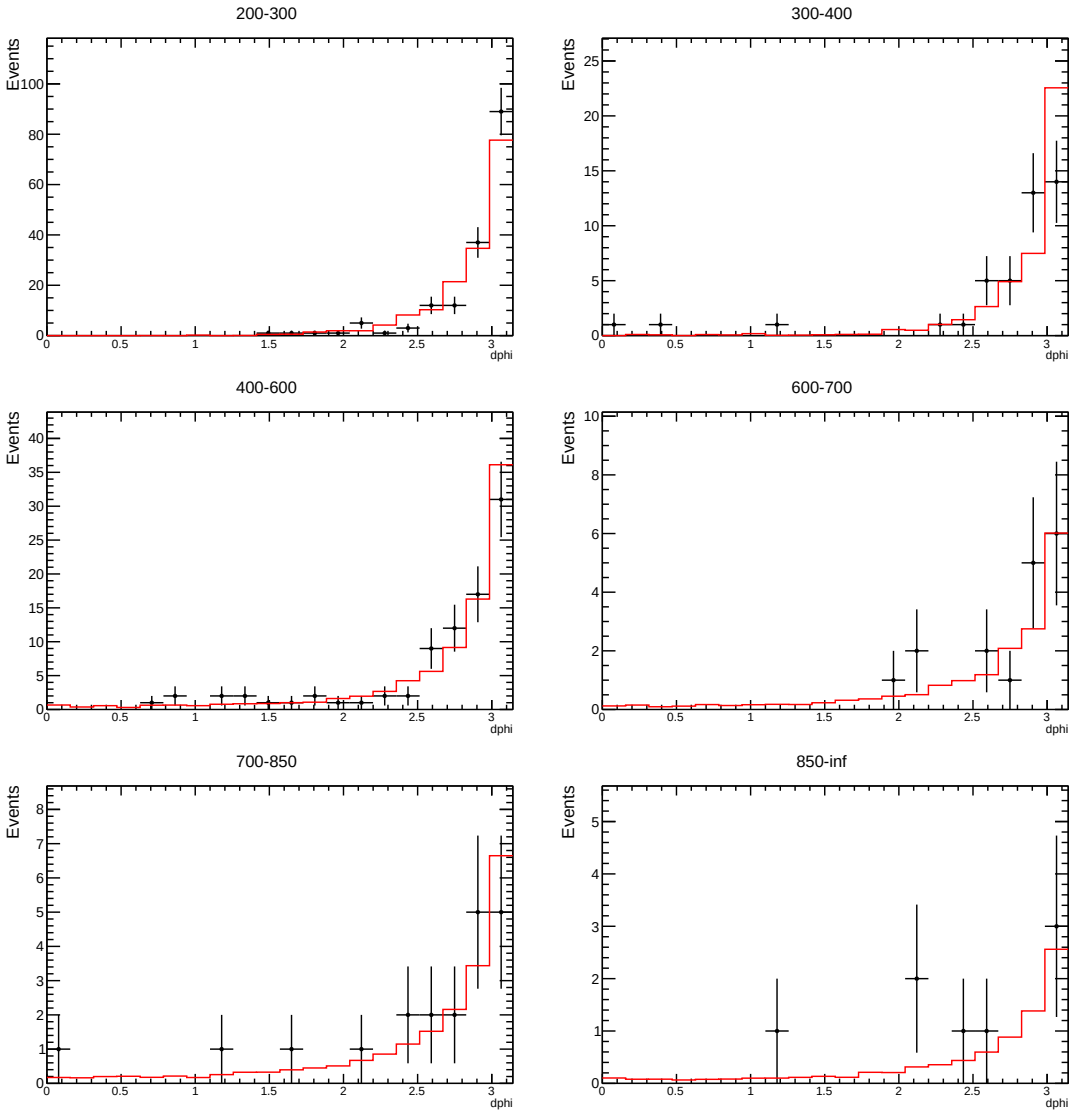
5.4.4 Pt2



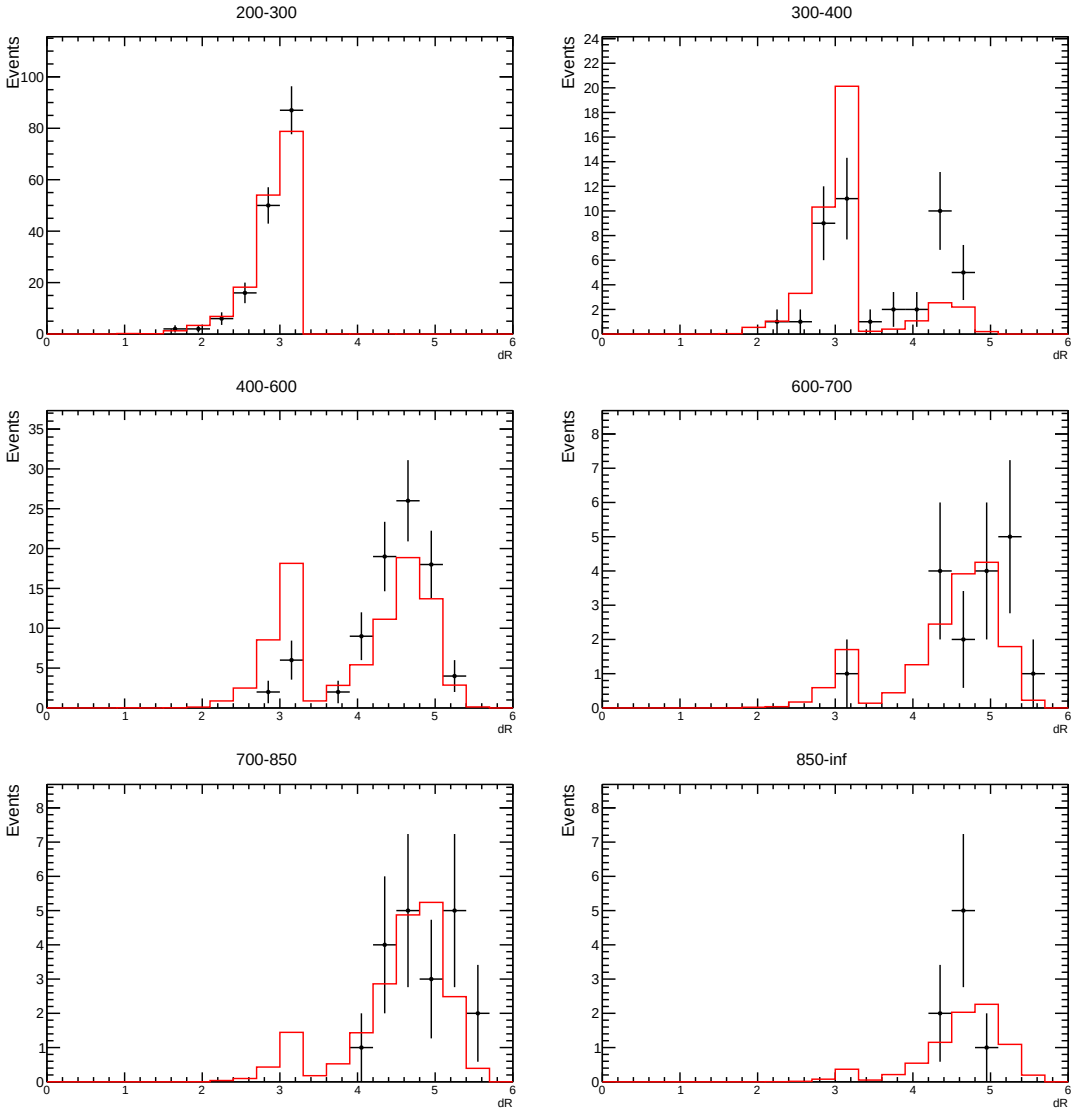
5.4.5 Deta



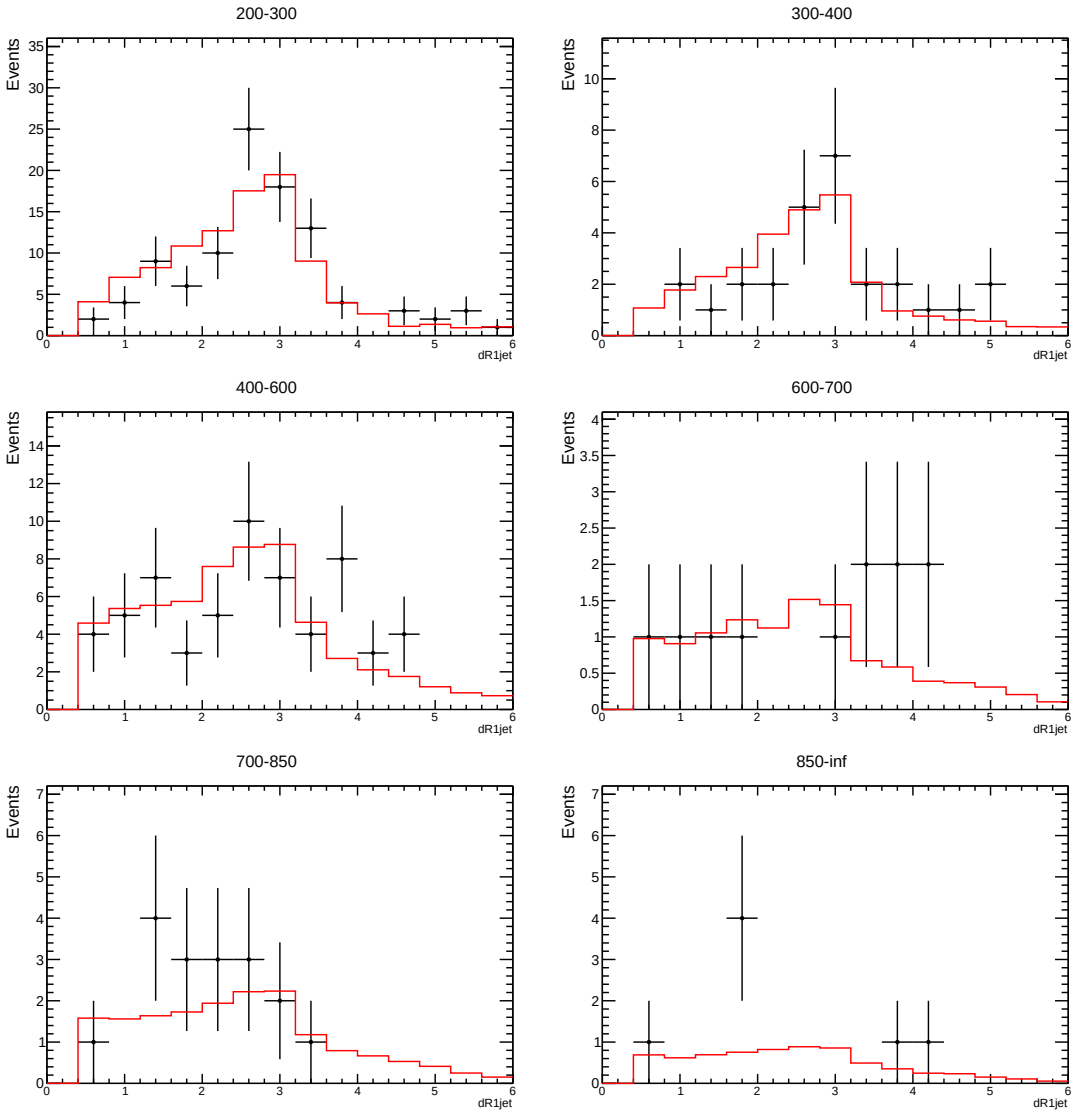
5.4.6 Dphi



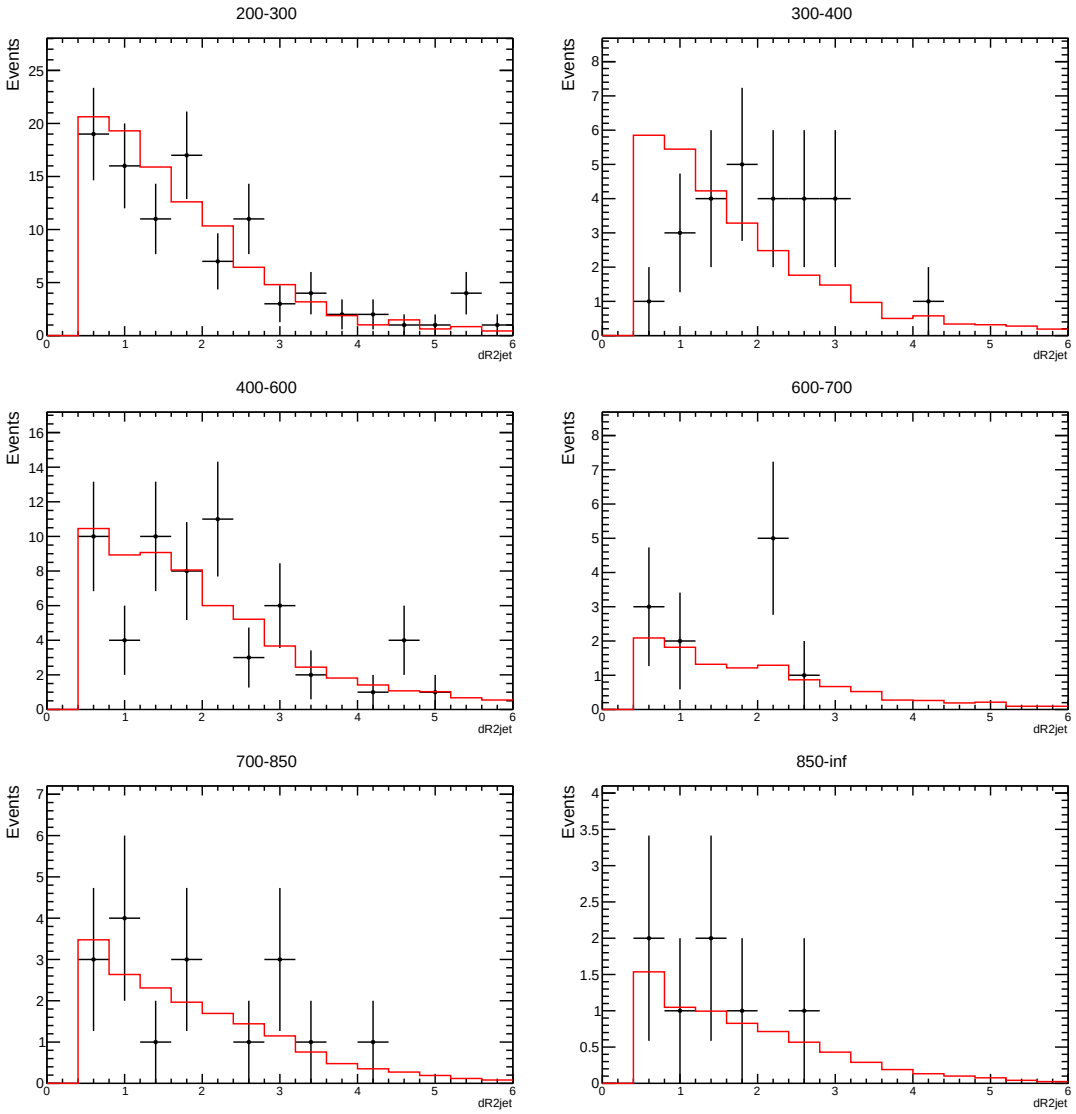
5.4.7 DR



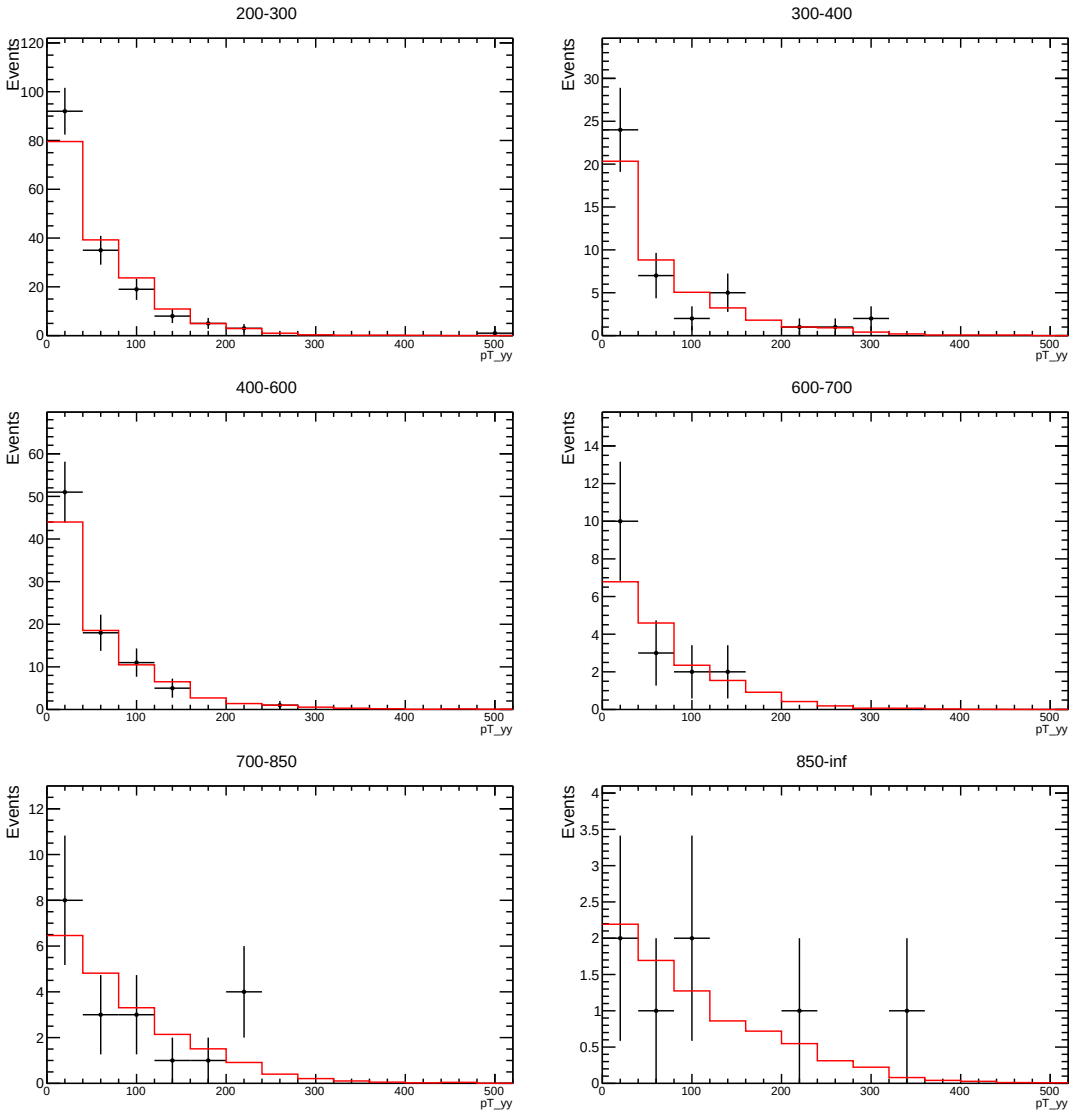
5.4.8 DR1jet



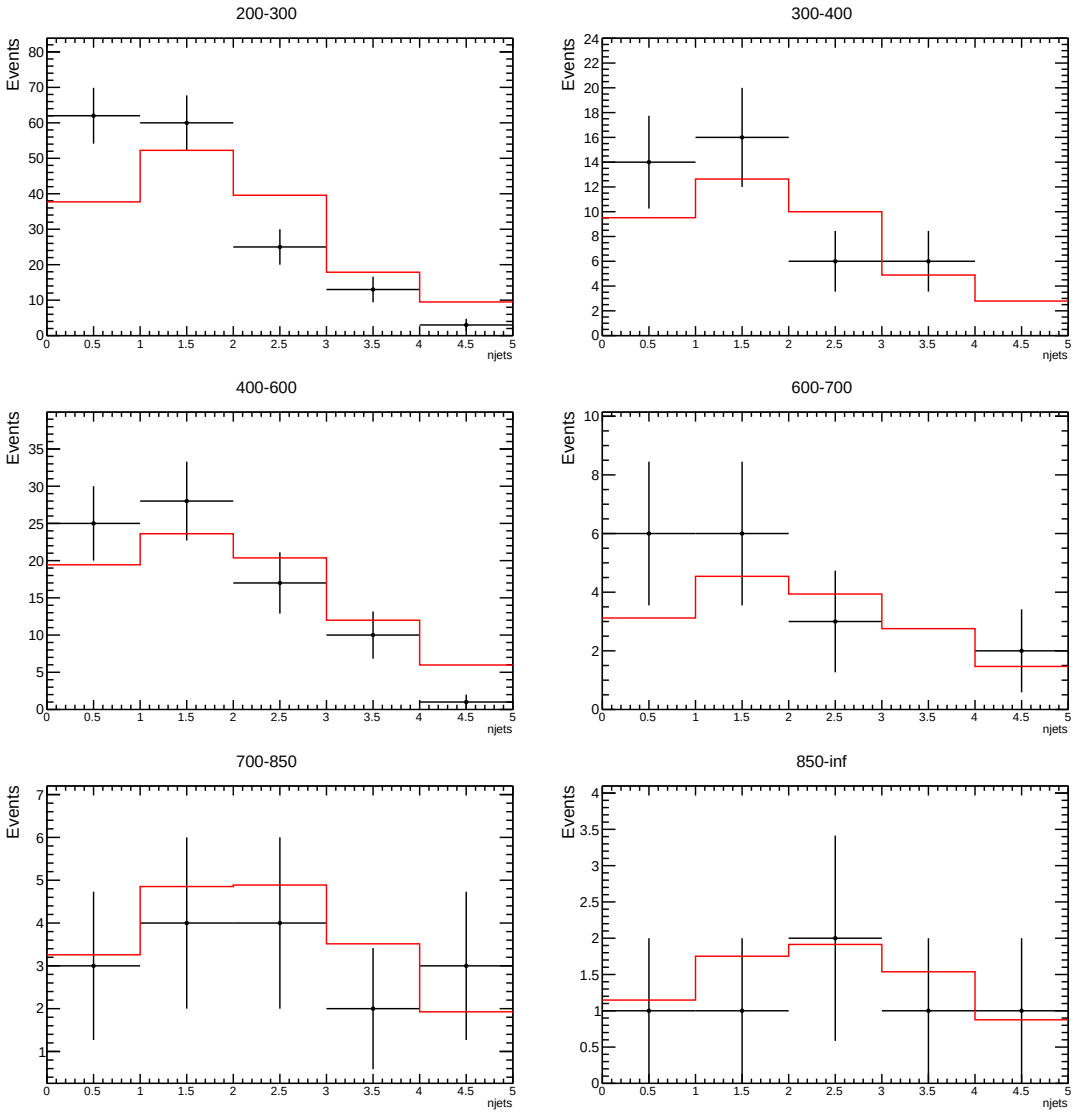
5.4.9 DR2jet



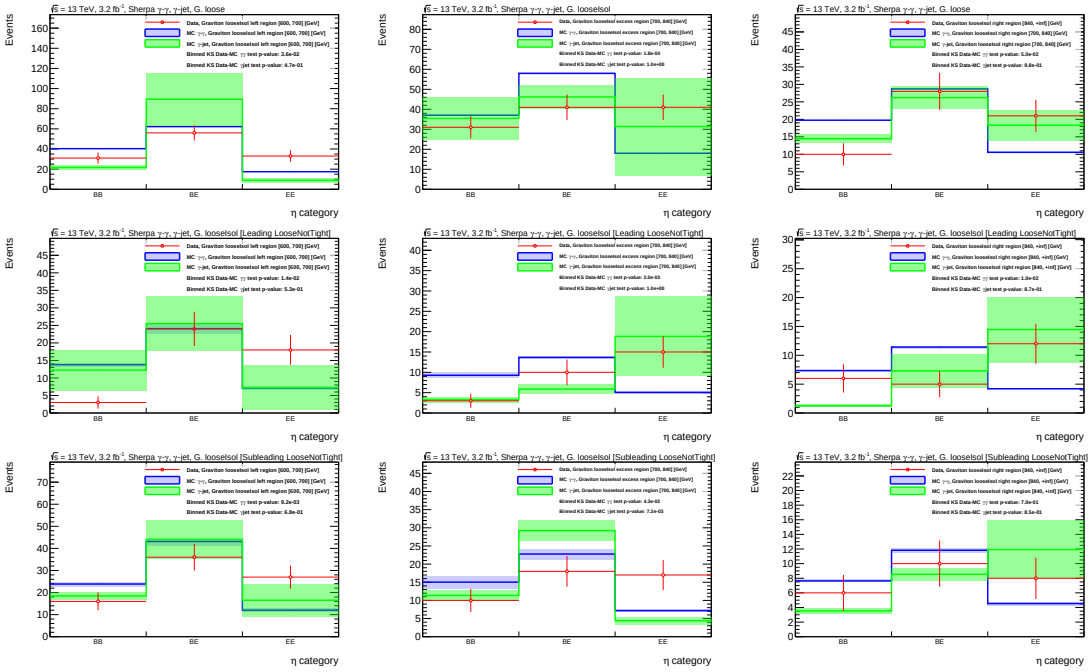
5.4.10 ptyy



5.4.11 Njets



6 EE


√s = 13 TeV, 3.2 fb⁻¹, Sherpa γ-γ, γ-jet, G. loose
√s = 13 TeV, 3.2 fb⁻¹, Sherpa γ-γ, γ-jet, G. looselsol
√s = 13 TeV, 3.2 fb⁻¹, Sherpa γ-γ, γ-jet, G. loose
√s = 13 TeV, 3.2 fb⁻¹, Sherpa γ-γ, γ-jet, G. looselsol [Leading LooseNotTight]
√s = 13 TeV, 3.2 fb⁻¹, Sherpa γ-γ, γ-jet, G. looselsol [Leading LooseNotTight]
√s = 13 TeV, 3.2 fb⁻¹, Sherpa γ-γ, γ-jet, G. looselsol [Leading LooseNotTight]
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√s = 13 TeV, 3.2 fb⁻¹, Sherpa γ-γ, γ-jet, G. looselsol [Subleading LooseNotTight]
Events
η category
BB
BE
EE