

Effects of Jet Preselection Cuts on Jet Distributions

Lars Linden

LMU Munich

No meeting

2024

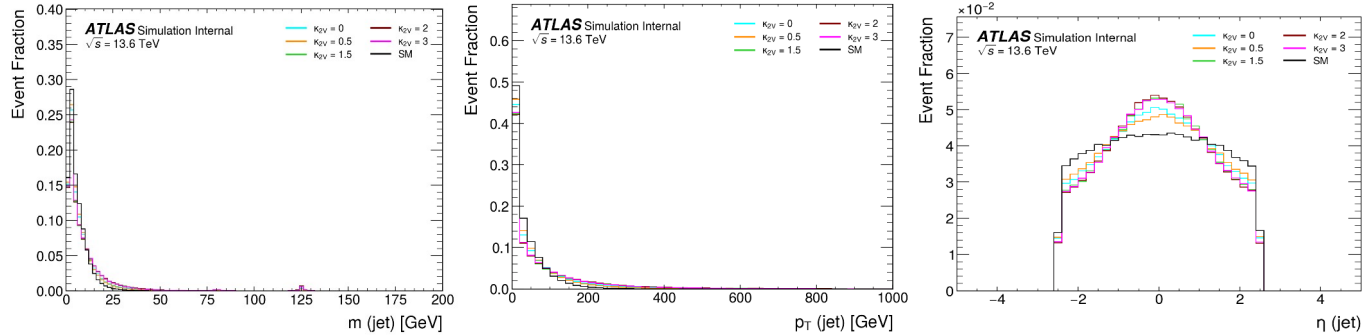


Introduction

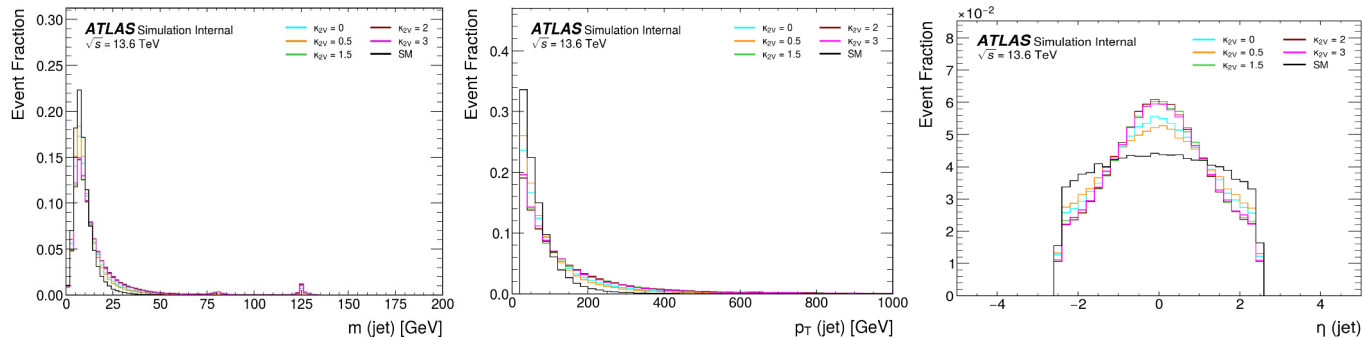
- Comparison only for Run 3 SM and κ_{2V} samples
- Matching of truth jets to truth particles via ΔR
- B-Jets get matched from all Jets and successful matches removed from light jet candidates
- Small-R jet cuts are $p_T > 20$ GeV and $|\eta| < 4.5$
- Large-R jet cuts are $p_T > 200$ GeV and $|\eta| < 2$
- For unmatched jets the VBF jets are identified by a minimum η of 2.5

All Jets

No Cuts

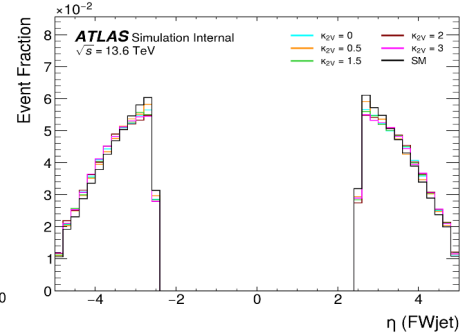
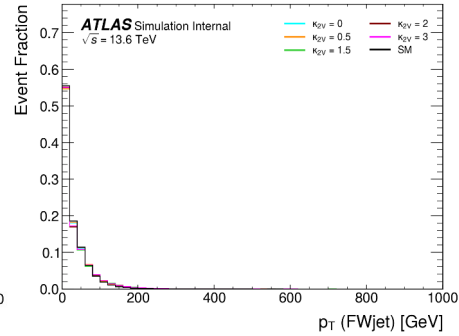
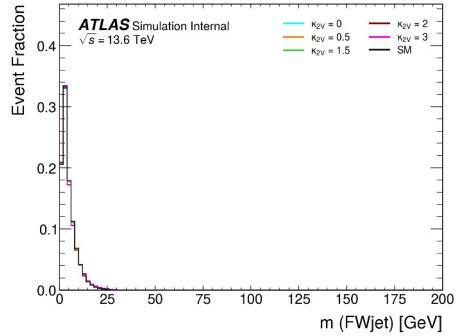


Cuts

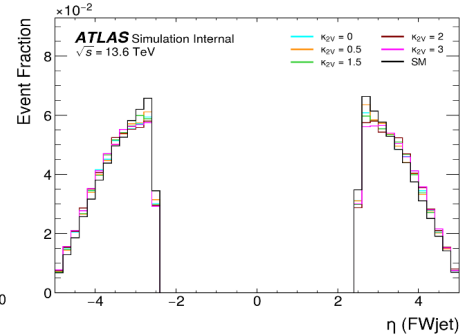
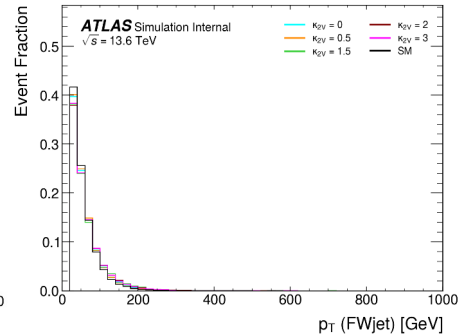
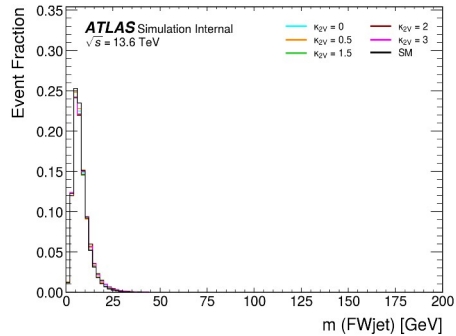


All FWJets

No Cuts

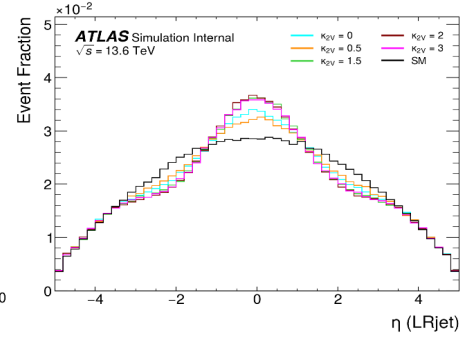
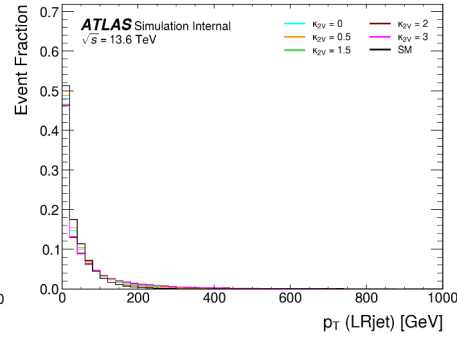
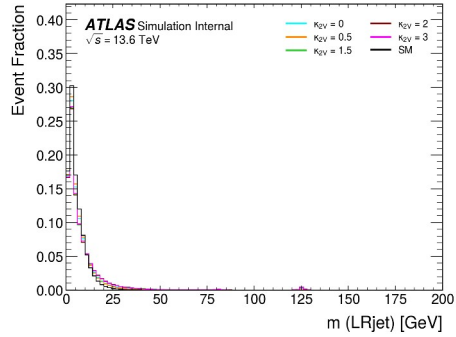


Cuts

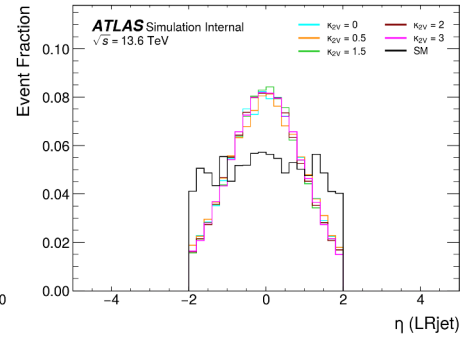
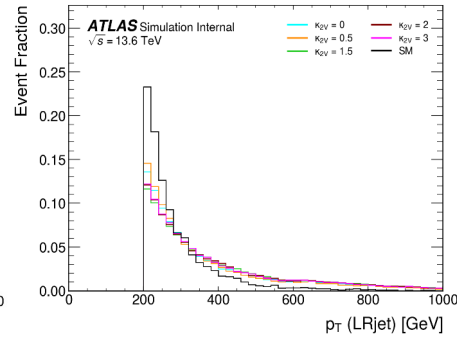
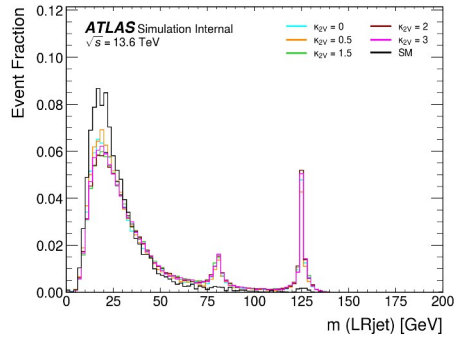


All LRJets

No Cuts

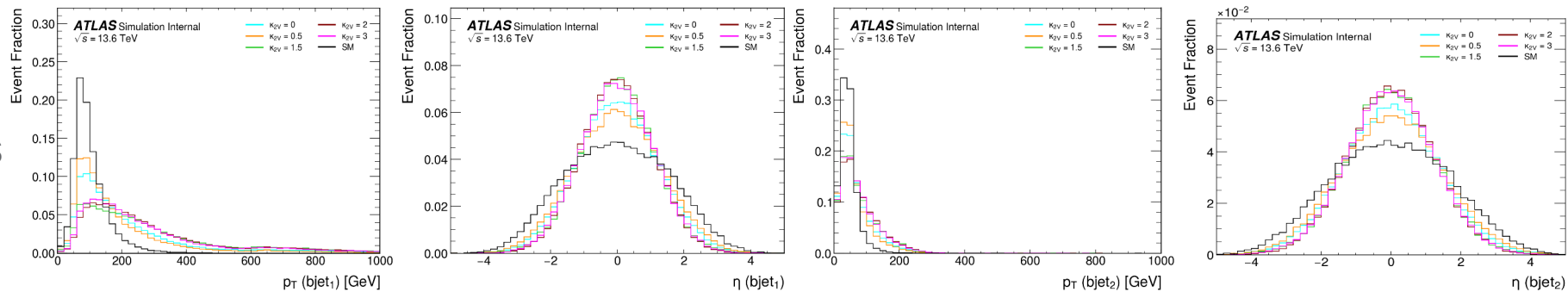


Cuts

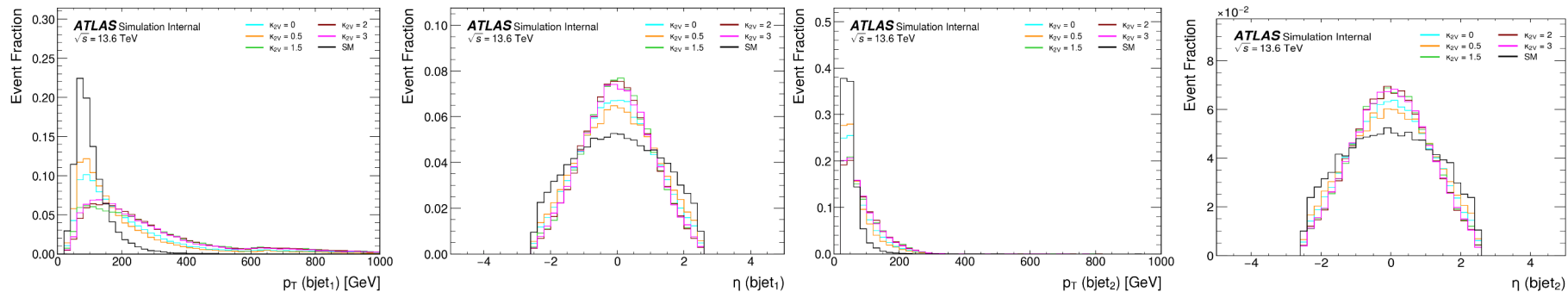


Matched b-Jets

No Cuts

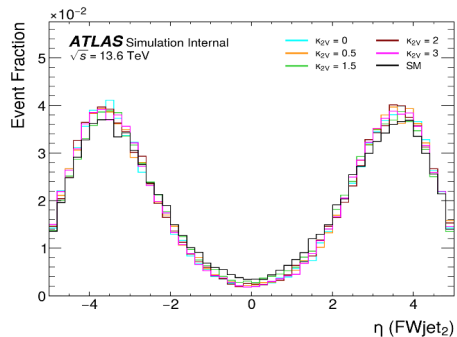
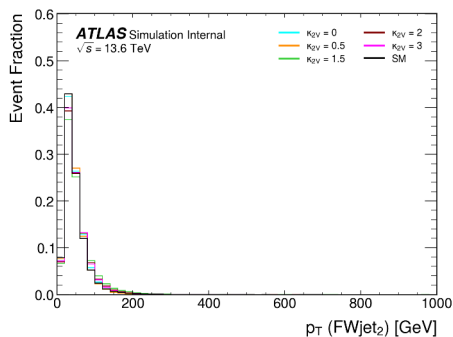
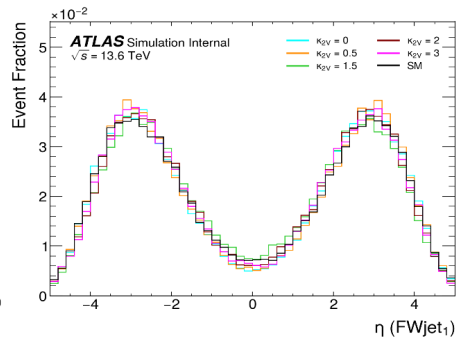
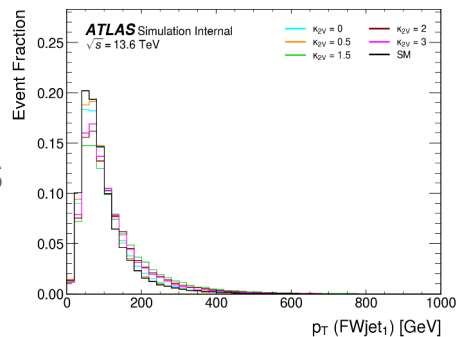


Cuts

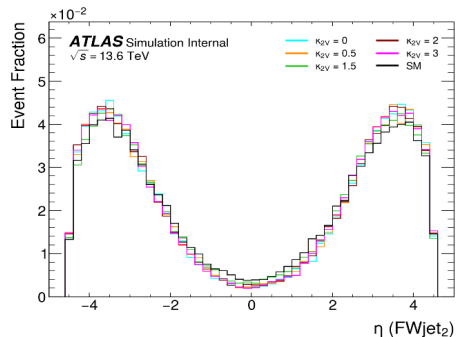
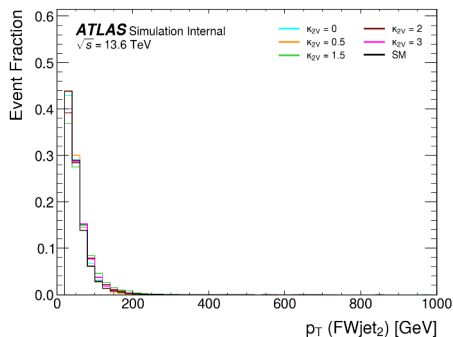
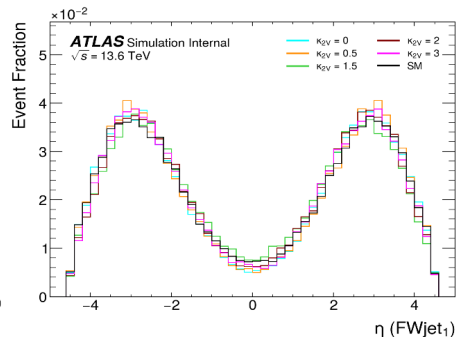
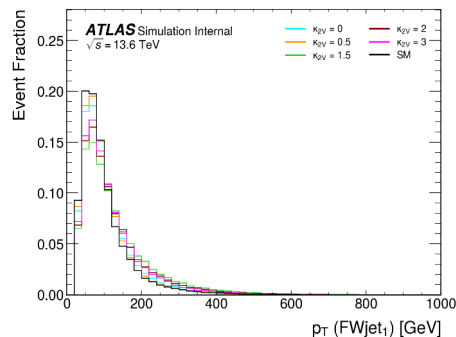


Matched VBF Jets

No Cuts

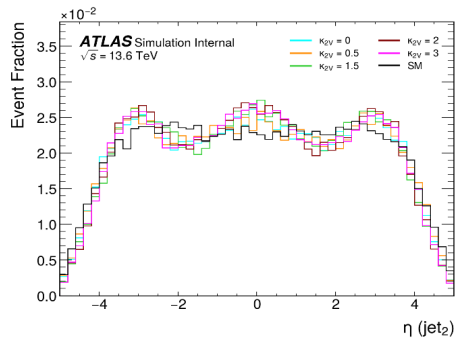
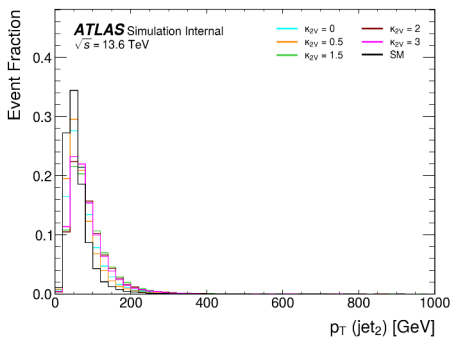
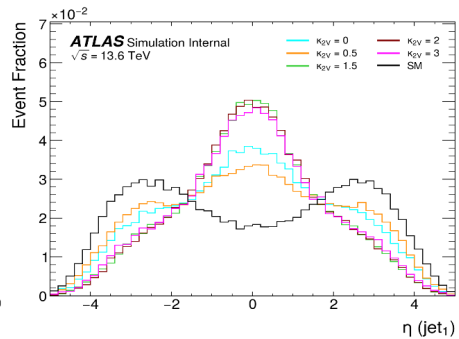
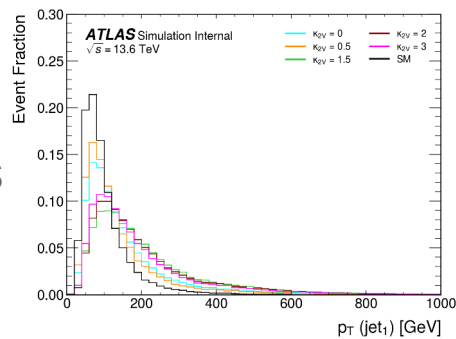


Cuts

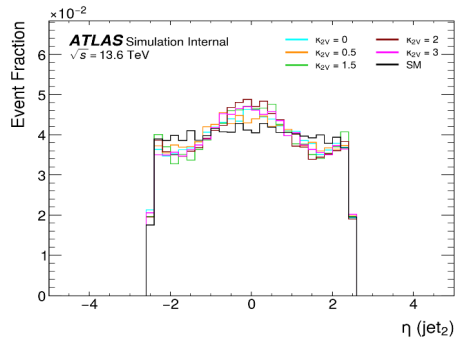
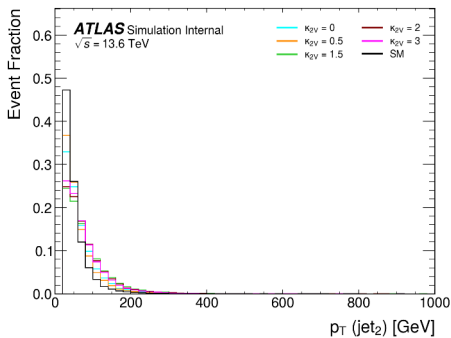
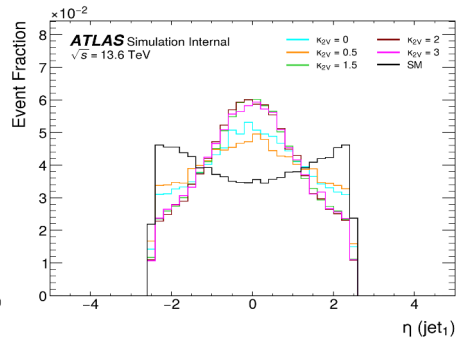
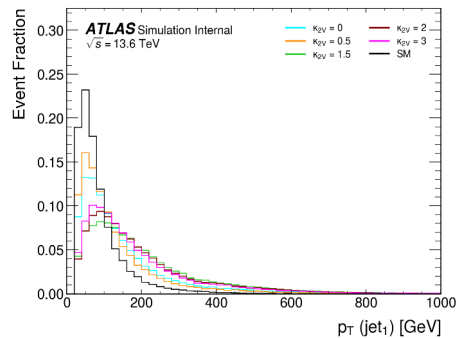


Matched Light Quark Jets

No Cuts

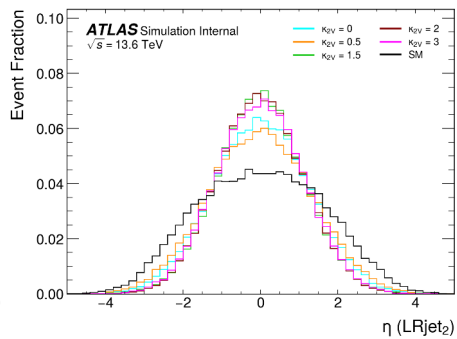
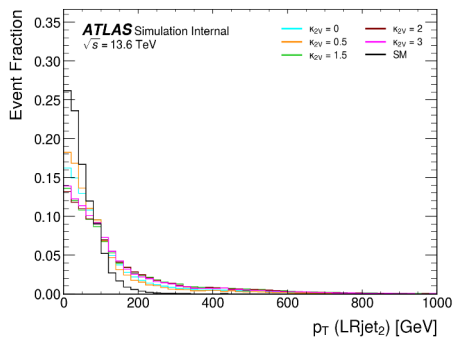
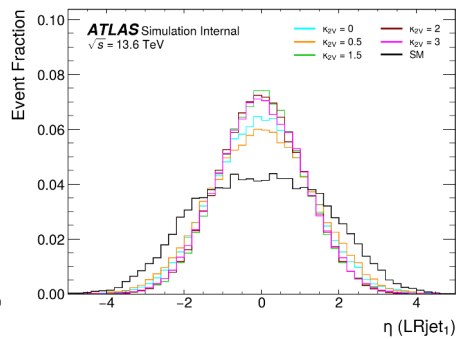
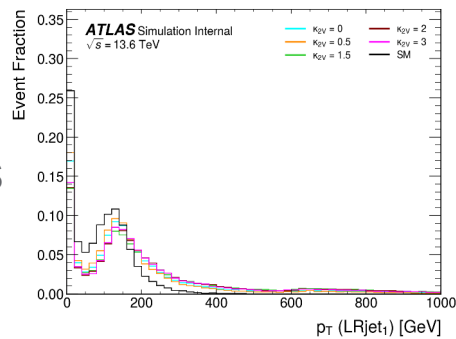


Cuts

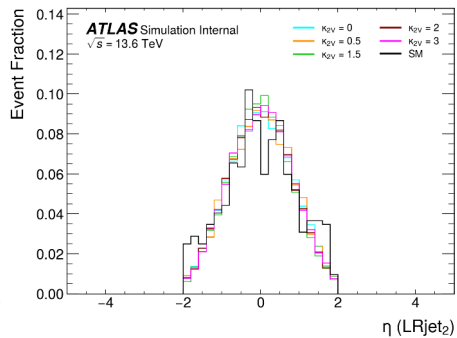
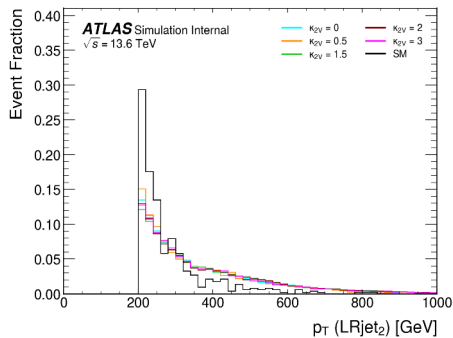
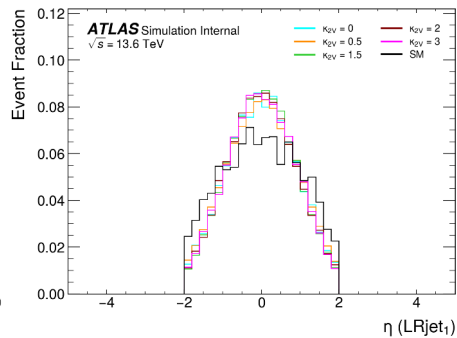
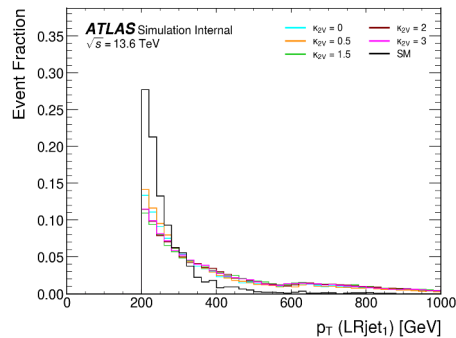


Matched LRJets

No Cuts

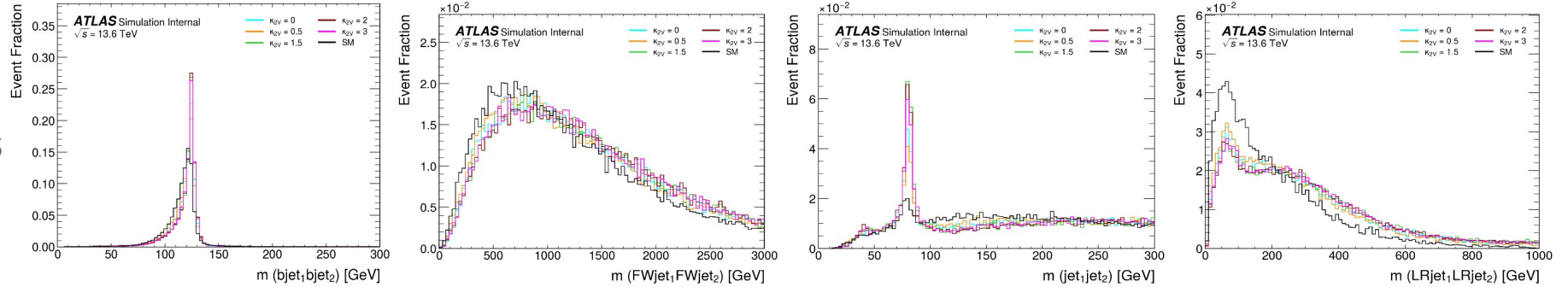


Cuts

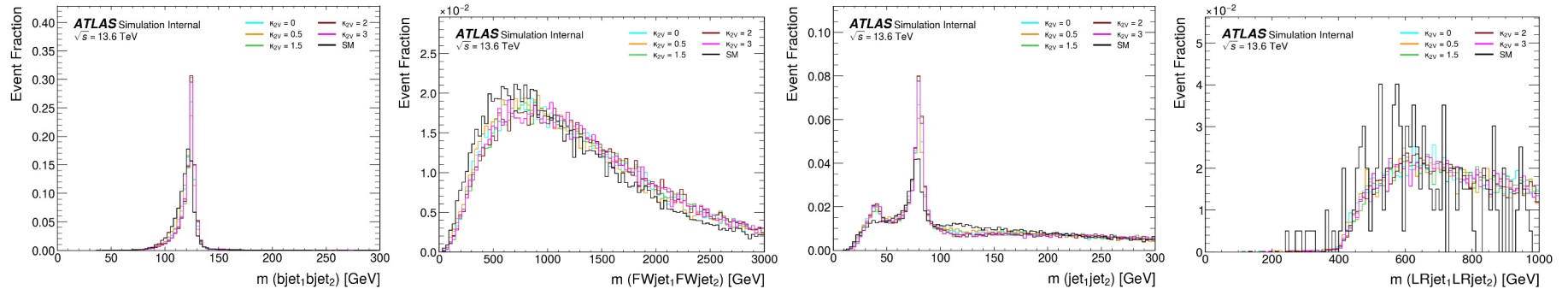


Jet Pair Masses

No Cuts

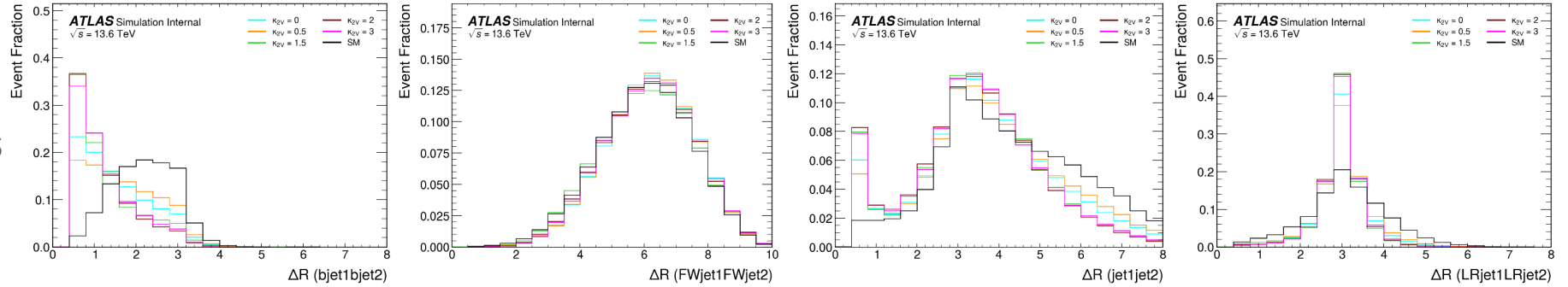


Cuts

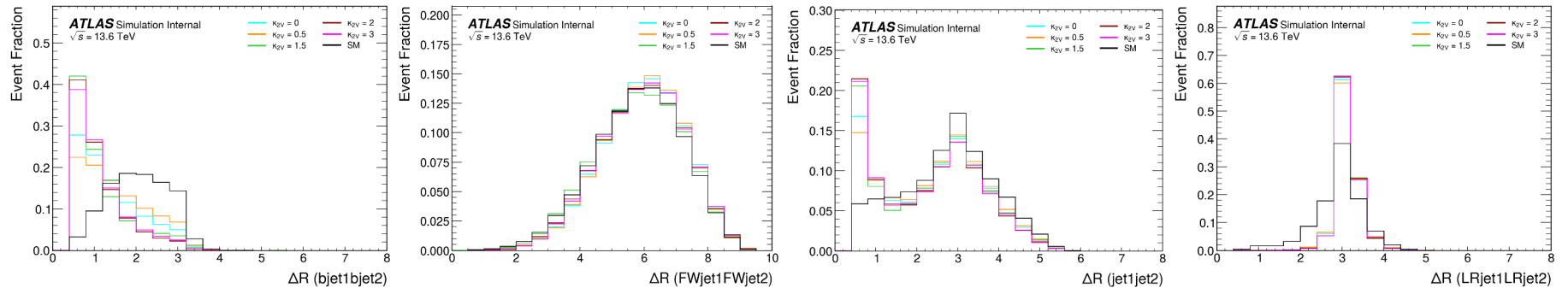


Jet Pair Distances

No Cuts

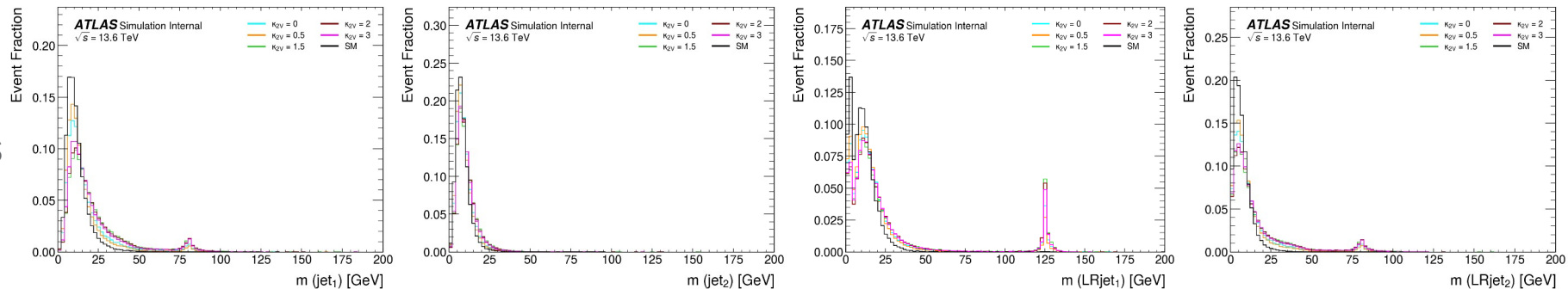


Cuts



Light Quark Jet & LRJet Masses

No Cuts



Cuts

