



NATIONAL
ACCELERATOR
LABORATORY



JetCleansing for anti- k_t $r=0.4$ jets

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Mitigation of pileup effects at the LHC, May 18th 2014

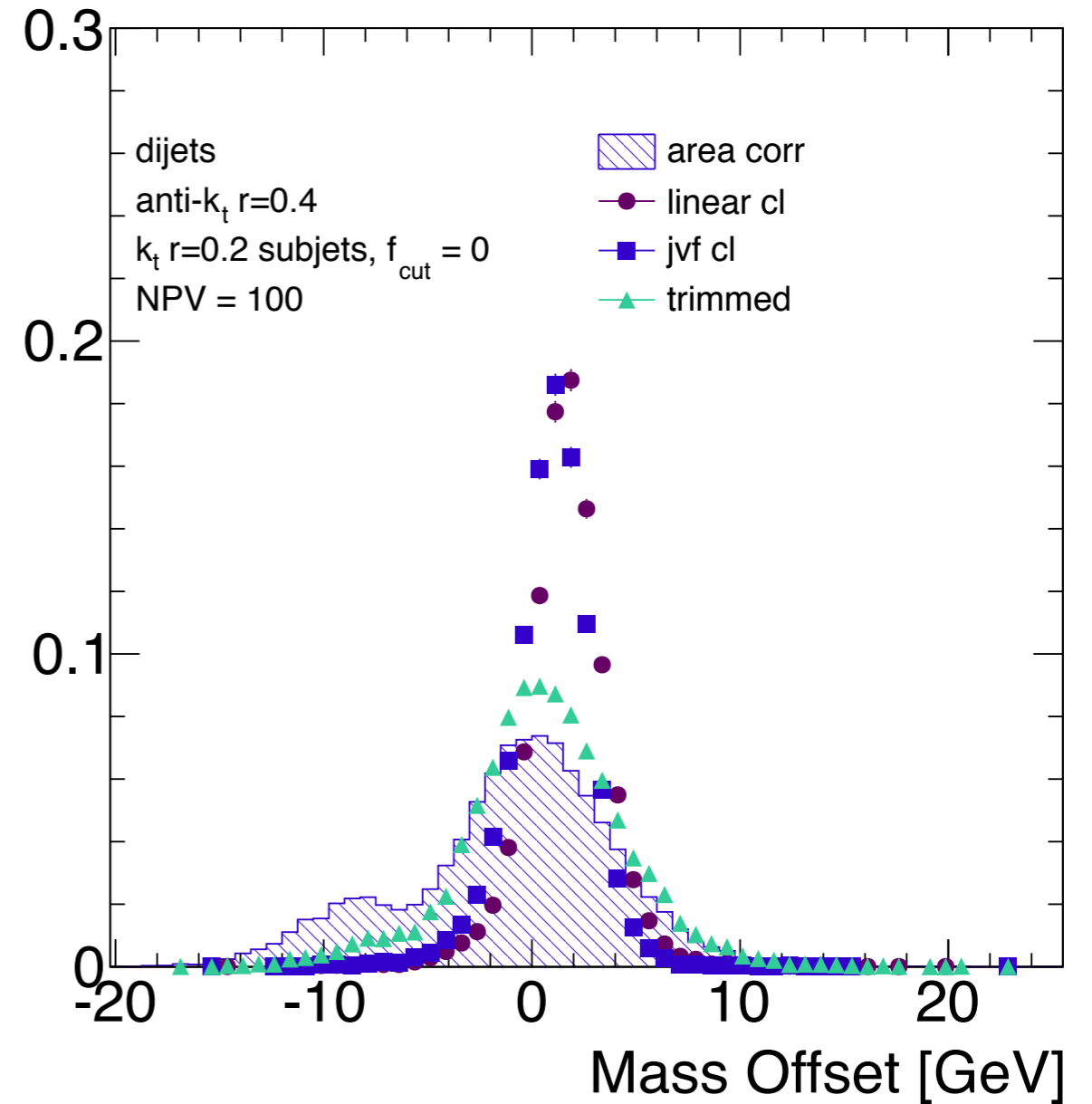
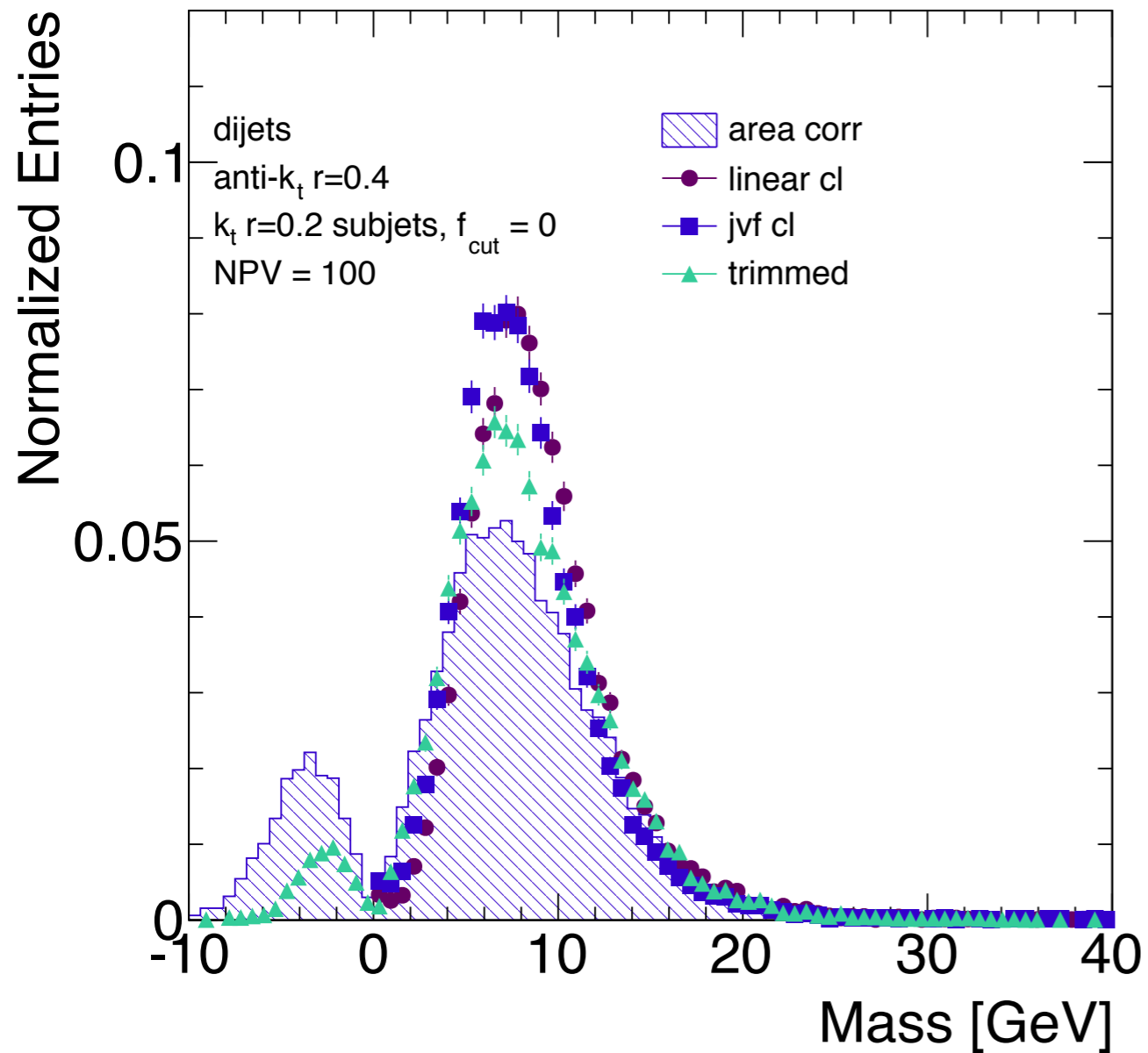
Setup

```
contrib::JetCleanser cleanser(JetDefinition(kt_algorithm, 0.2), mode, contrib::JetCleanser::input_nc_together);
if ( mode == contrib::JetCleanser::jvf_cleansing){
    cleanser.SetTrimming(0.);
}else if ( mode == contrib::JetCleanser::linear_cleansing){
    cleanser.SetLinearParameters(0.65);
}else if ( mode == contrib::JetCleanser::gaussian_cleansing){
    cleanser.SetGaussianParameters(0.67,0.62,0.20,0.25);
}
```

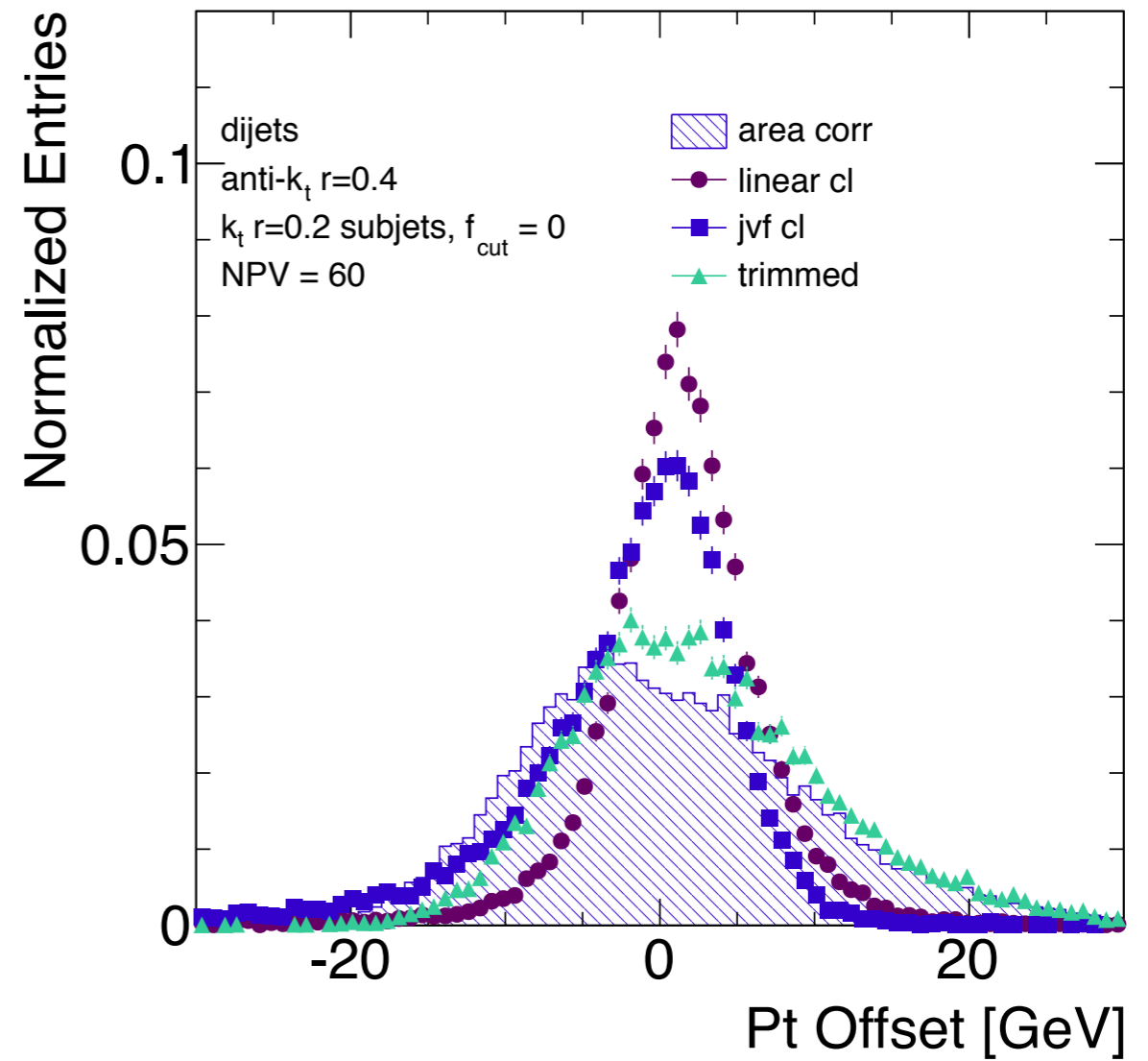
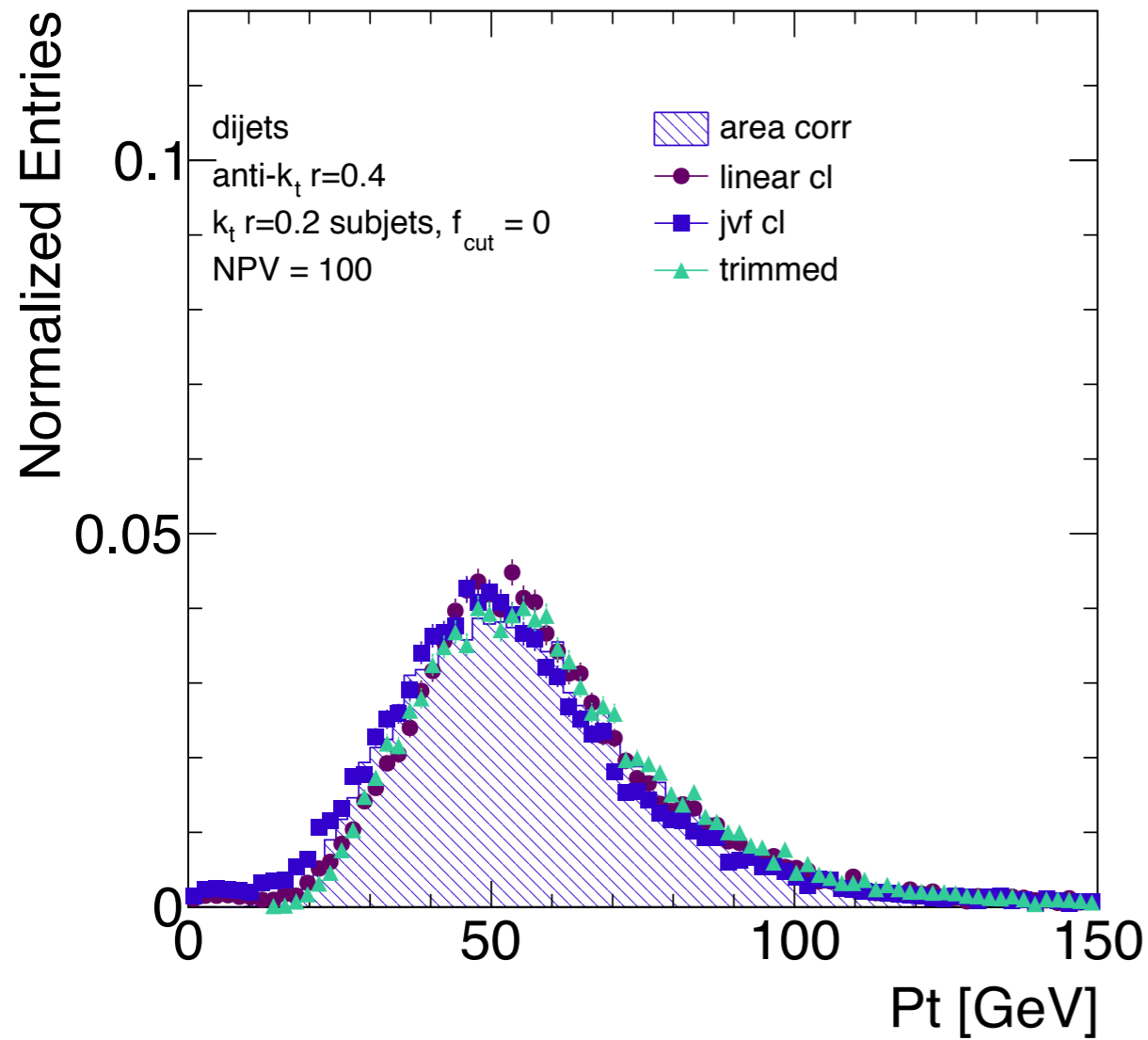
// trimming

```
fastjet::Filter trimmer (fastjet::JetDefinition(fastjet::kt_algorithm, 0.2), fastjet::SelectorPtFractionMin(0.0));
trimmer.set_subtractor(&sub);
```

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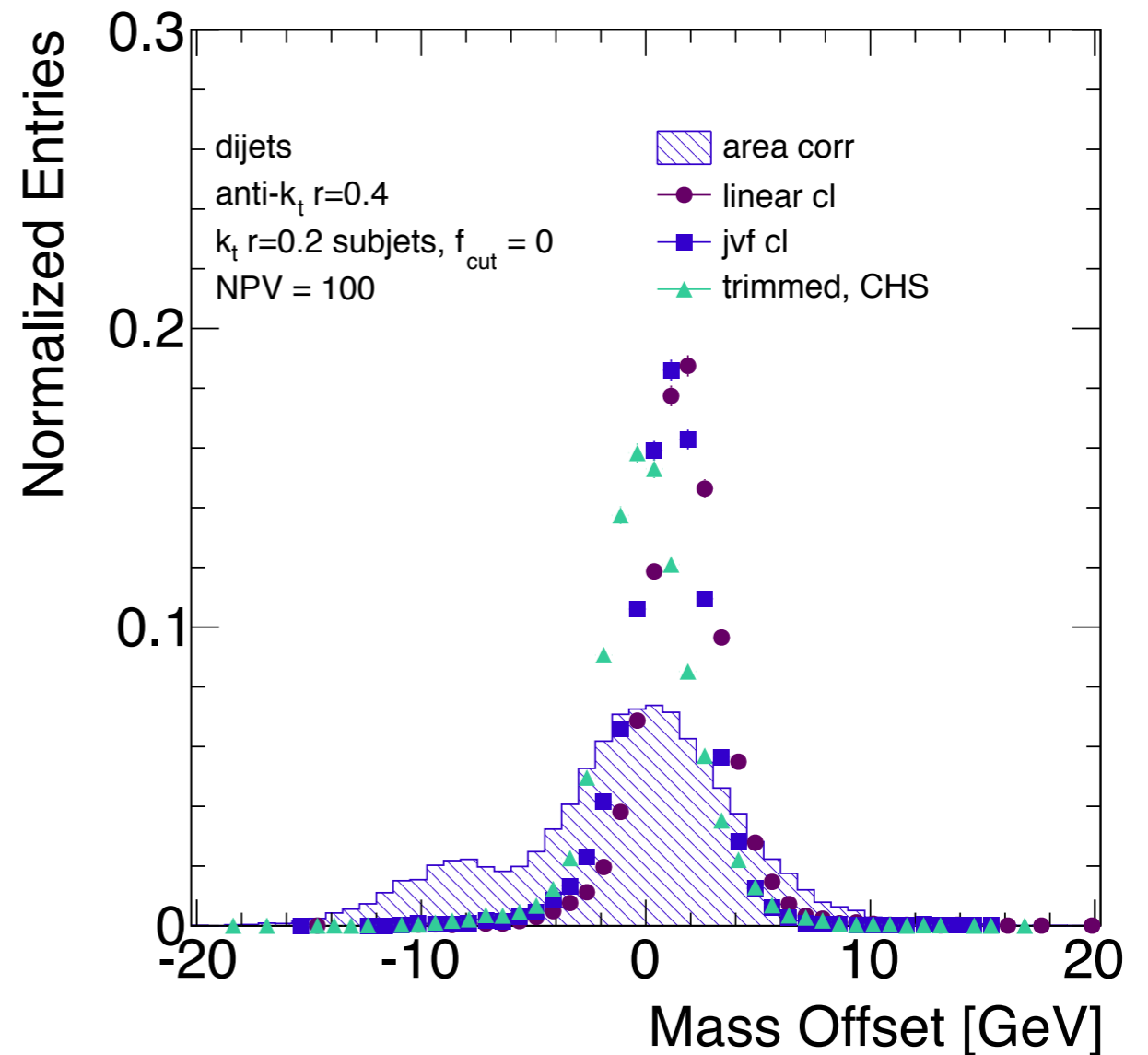
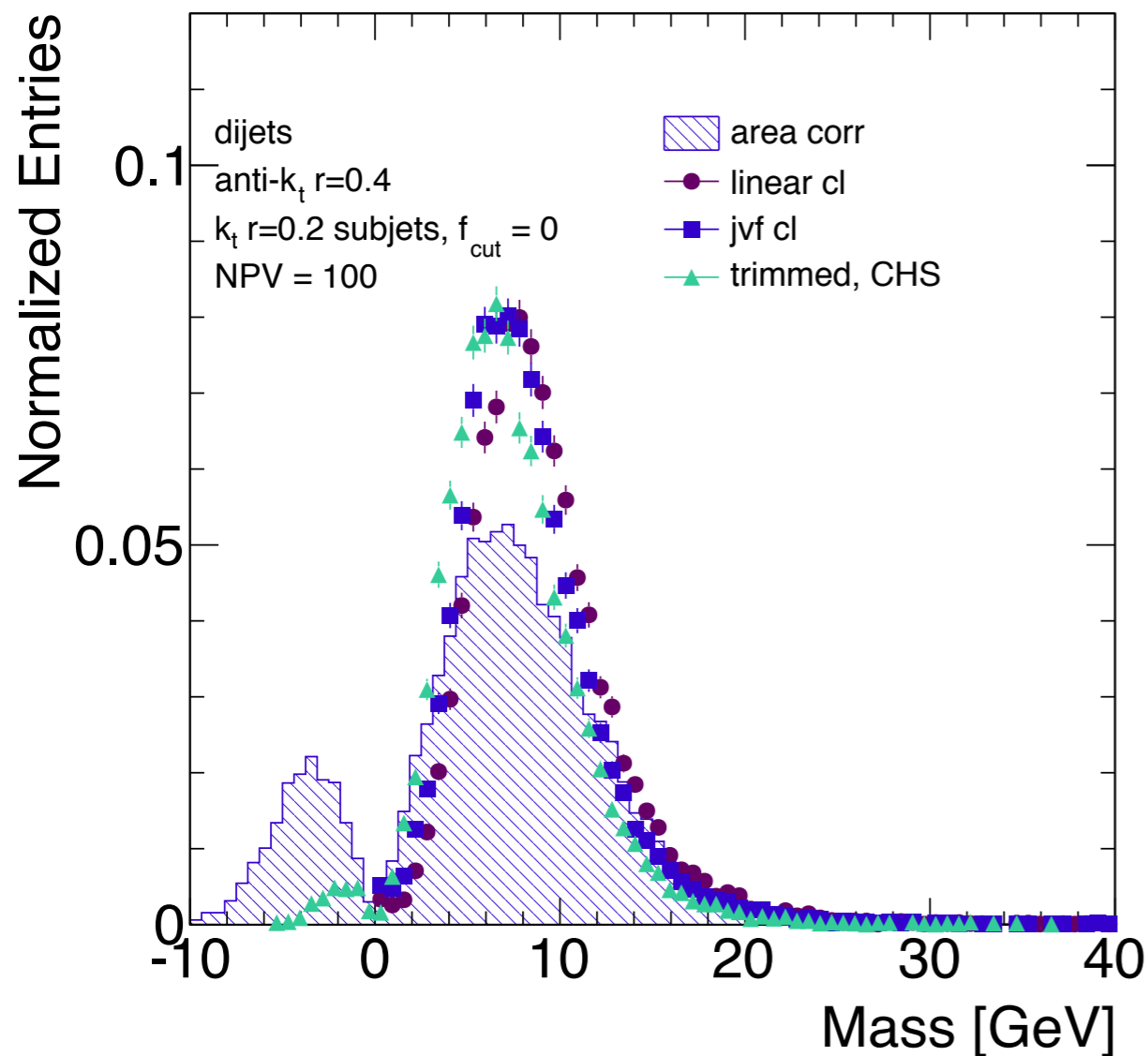
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using CHS for trimming

JetCleansing for anti- k_t $r=0.4$ jets

- same as slide 3, but with CHS for trimming



JetCleansing for anti- k_t $r=0.4$ jets

- same as slide 4, but with CHS for trimming

