

Comparison of jet algorithms

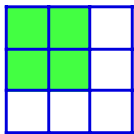
ATLAS Jet Algorithm

Programmable choice of jet window sizes

Window 0.4 x 0.4
Jet element/Slide 0.2 x 0.2

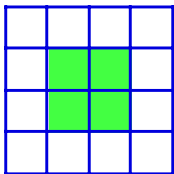


Window 0.6 x 0.6
Jet element/Slide 0.2 x 0.2



De-cluster/Rol region is defined to be a local maximum in E_T

Window 0.8 x 0.8
Jet element/Slide 0.2 x 0.2



Old CMS Jet Algorithm

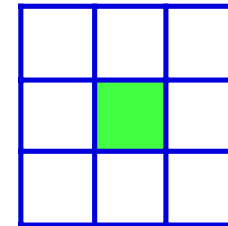
Window 0.348 x 0.348 (4 x 4 towers)
No slide or overlap!



De-cluster region is defined to be a local maximum in E_T

New CMS Jet Algorithm

Window 1.04 x 1.04
Jet element/Slide 0.348 x 0.348 (4 x 4 towers)



De-cluster region is defined to be a local maximum in E_T

- CMS jet algorithm now has (big) sliding windows!
- Sums saturate at 10 bits (1024 GeV).
- Jet is defined as τ -like if ≤ 2 active ECAL or HCAL towers in *each* of the 9 4×4 elements.