Jet and Sum algorithms

- Uli's (draft) Sum implementation
- Sam's (draft) Jet implementation
- Conclusions
  - 16/17 JEM question now pressing … CMM pending
  - Forward jets algorithm important input
    - will probably do more than required
  - 2/4-crate choice … probably small impact, if JEM can support more FPGAs adequately
  - Check loose ends on saturation, error-suppression etc
  - Keep trend of CP/JEP convergence … for labelling too!

Sum algorithm

- Still choosing between 2-crate/4-crate
  - 2-crate option means 4*8 JEM, 2 quads per crate
- Two thresholds *after* em+had summing
- Adding tree described well
  - signed arithmetic at top level
- Treatment of saturation sketchy
- Resolution of Ex,Ey conversion unspecified
- No details of FCAL treatment
- 16/17 JEM question unresolved

Jet algorithms

- Sam has (phi,eta) “start-at-zero” co-ordinates
  - Orthogonal to CP labelling (see co-ordinate talk)
- RoI identification before threshold comparison
  - Impact on latency
  - Reduced comparator infrastructure … CP likewise?
- Saturation flagged by setting multiplicities to 7
  - A little OTT … highest E_T threshold set to 7 is sufficient
- Backplane transmission
  - (b0,b1,b2,b3,b4) parallel, then (b5,b6,b7,b8,b9/p)
  - parity placement “next to” b8 = same line as b4
- No treatment of forward Jets
- No response on >8 multiplicities (to include fwd jets)