

B-tagging

Post additional questions/links/ideas here. This will be uploaded, with the minutes, in next week's session!

Additional questions - add your own!

- ❑ Are there significant generator dependencies when simulating b-jets?
- ❑ Why is tagging higher p_T b-jets harder?
- ❑ Related with above question, "For p_T greater than about 200 GeV, some dilution arises because the fraction of fragmentation tracks increases, and more b hadrons fly beyond the first pixel layer", can we loose the track selection, why the first layer so important?
- ❑ Muon in bjets...?

Resources - add things you found useful

- *B-quark fragmentation:*
<http://lss.fnal.gov/archive/thesis/2000/fermilab-thesis-2004-50.pdf>
- *Optimisation of the ATLAS b-tagging performance for the 2016 LHC Run*
<https://cds.cern.ch/record/2160731/files/ATL-PHYS-PUB-2016-012.pdf>
- *Handy for the BDT variables:*
<https://cds.cern.ch/record/2037697/files/ATL-PHYS-PUB-2015-022.pdf>
- Nice feynman diagrams:
<https://pmcphysis.biomedcentral.com/articles/10.1186/1754-0410-3-3>
- B-tagging in ITk (slides 16-18):
<https://cds.cern.ch/record/2310669/files/ATL-PHYS-SLIDE-2018-144.pdf>
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