

# BToDInu Reskim

---

Status and plans

# What is reskim?

---

- Skim skimmed-collections with additional conditions.
- Input = skims such as BToDInu skims.  
Not AllEvents.
- Output = sub-skim = Data/MC collections.
- Merits
  - Reduce the size of data/MC
    - BToDInu Data skims: 0.7 TB
    - BToDInu MC skims: 2.5 TB, total 3.2 TB
    - If reduced to 40 % -> 1.3 TB, 10 % -> 320 GB
  - Faster than ntuple production.  
Many different streams (reskimming) can be done at once.
  - Sub-skim -> Easy to change conditions and re-run.

# BToDInu reskim: Streams

---

- Double Tag (Kenji)
  - More than two non-overlap DInu candidates
  - Selection rate: ~2-3 %
- Additional Lepton (Silvie, David, ...)
  - More than one non-overlap lepton (electron or muon) in addition to DInu candidates
  - Electron list: PidLHElectrons, eMicroLoose ?  
Momentum cut:  $p^* > 0.5\text{GeV}$  ?
  - Muon list: MuonNNLoose, MuonNNVeryLoose ?  
Momentum cut:  $p^* > 0.8\text{GeV}$  ?
  - Selection rate: ~30-40 %
- BtoXGamma (Michael)
  - FilterTools/BtoXGammaFilter
  - Selection rate: ~6-7 %
- Low-multiplicity (Bipul)
  - $n\text{ChrgTraks} < 5$ ,  $n\text{CarolNeutrals} < 10$ ,  $n\text{NeutralHadrons} < 5$
  - Selection rate: ~80 % ?
- D\*Inu (Eugenio ?)?

# BToDInu reskim: Production

---

- Release 14 skims only
- Use BToDInuMiniUser package
  - Including bug fixes of BToDInu skims
  - Missing B- $\rightarrow$ D\*enu candidates will be added.
  - Missing User Data may be added (not yet ready).
- Data (Run1 – Run4)
  - Kenji will do the production.
- MC (SP5, SP6)
  - Shenjian is going to do the production. (Thanks!)
  - Need one or two more volunteer!!

# BToDInu reskim: Plans

---

- Test production – early next week
  - ~2 fb<sup>-1</sup> of Run4 Data and BpBm SP6 MC sub-skims
  - I need feed back from you!!!
- Sub-skim production
  - Start early February
  - Is going to take
    - 3 - 4 weeks for Data
    - 10 – 12 weeks for MC if only one person does this.
    - Need more help!!!
  - Any idea to save CPU time by re-running CompositionSequences?
  - How to find luminosity of skimmed data/MC?
    - Do we need to keep record of selection rates?