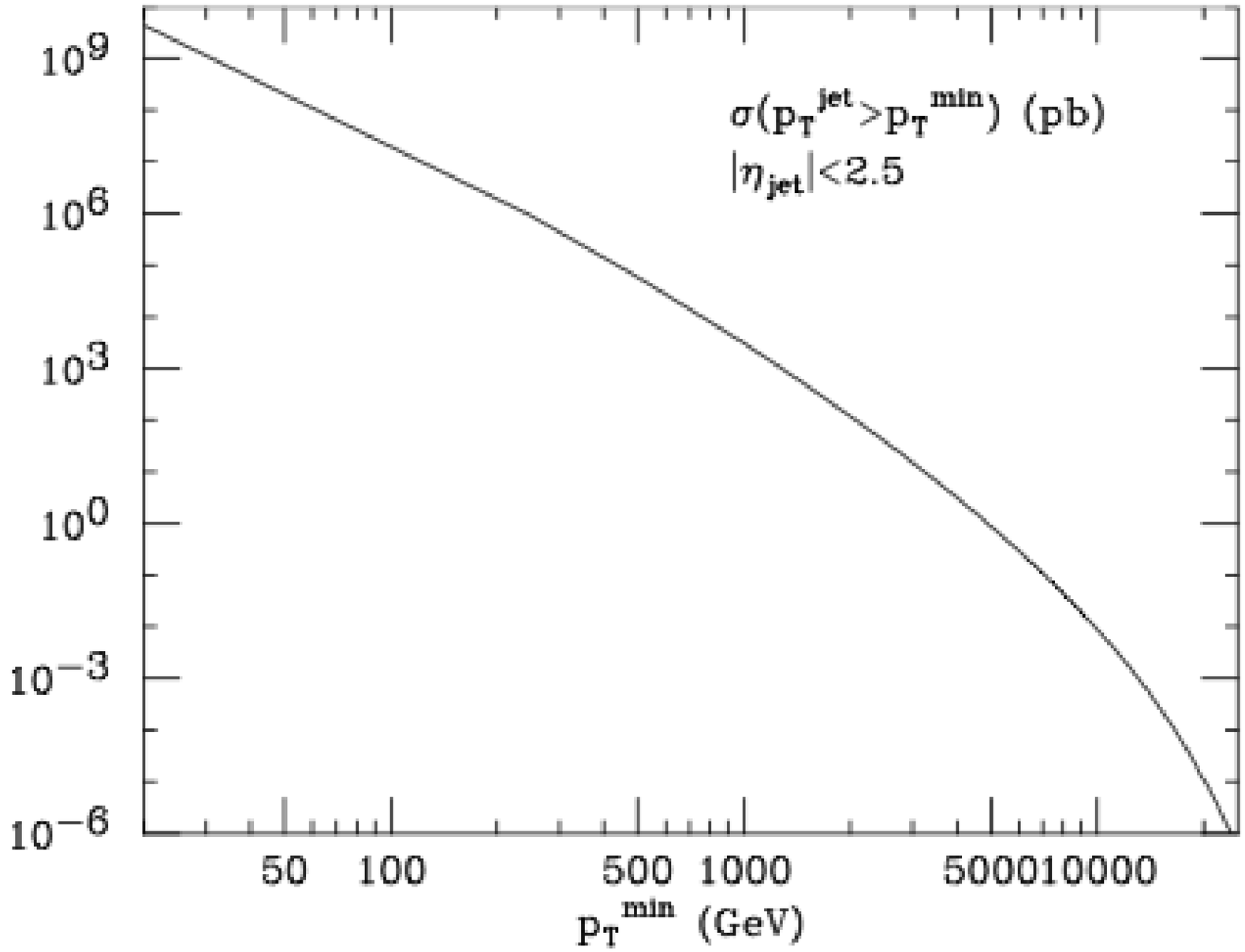
Jets at 100 TeV



- p_T reach out to ~25 TeV:
  - experimentally challenging (energy containment, resolving the internal structure, ...): how important is it to accurately measure these jets?
  - Role of EW corrections (both real and virtual) = see next sessions ...

Structure of high-ET jets

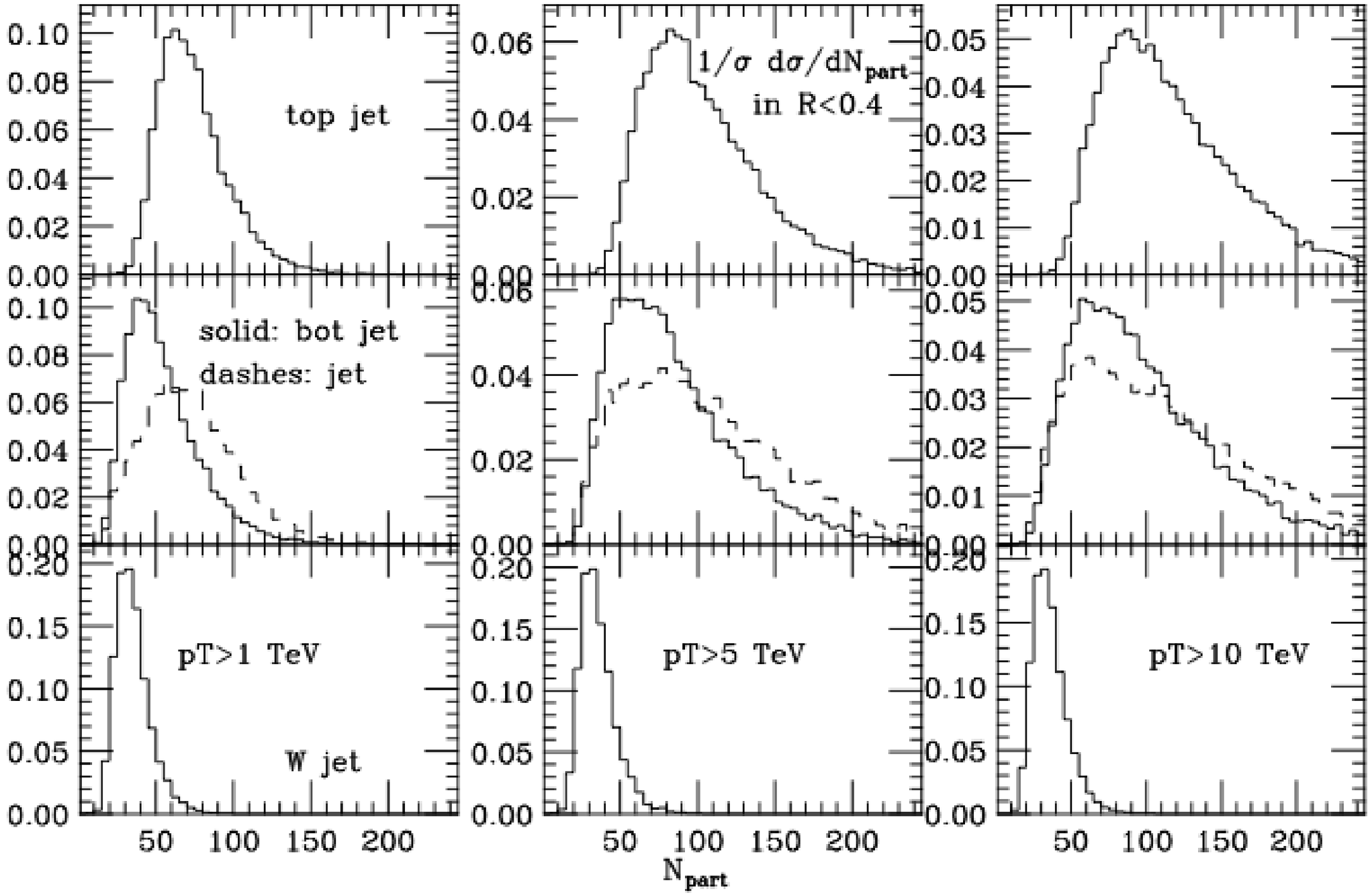
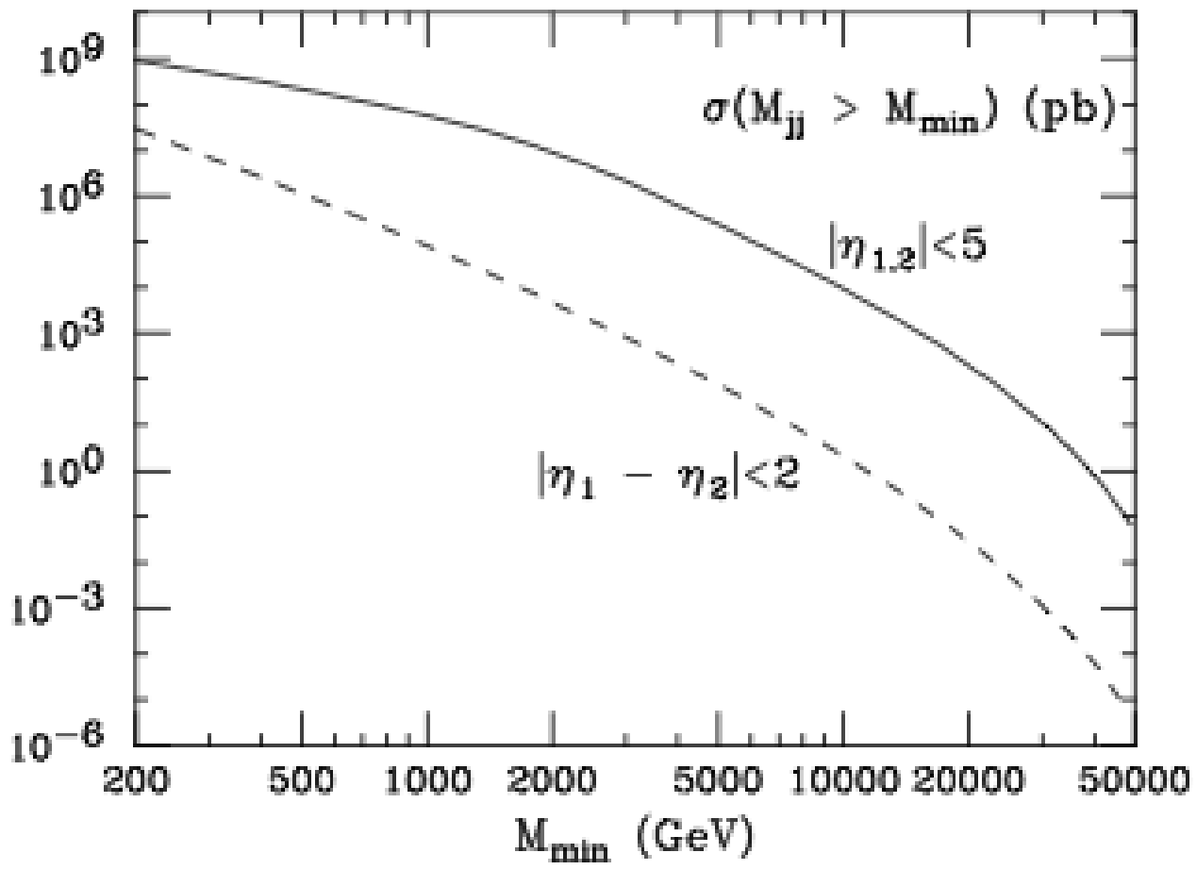


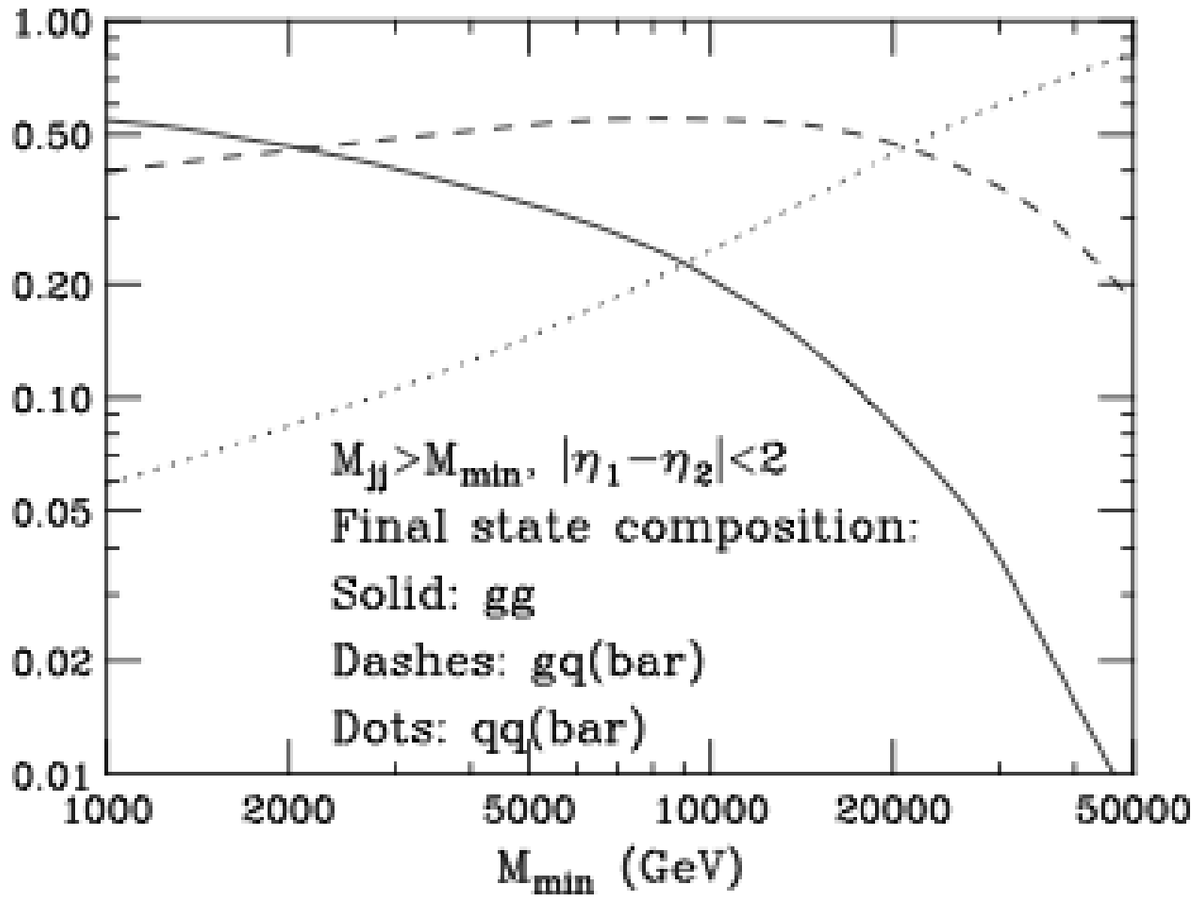
Fig. 17: Multiplicity distribution in high-p_T jets orginating from hadronically decaying top quarks (upper rows), bottom quarks and light partons (central rows) and hadronic decays of W bosons (lower rows).

- document jet properties like multiplicity, fragmentation functions, number of particles above a given p_T threshold, etc: these are useful inputs to
  - the discussion of the features of detectors
  - discussion of jet-substructure studies

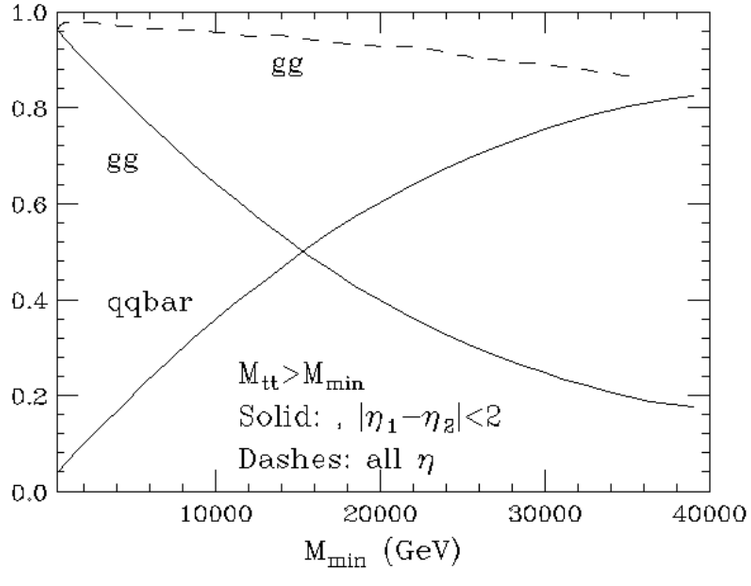
=> compare different MC codes!!

Dijets at large invariant mass





cfr composition vs M(t-tbar):



Jets' detector acceptance

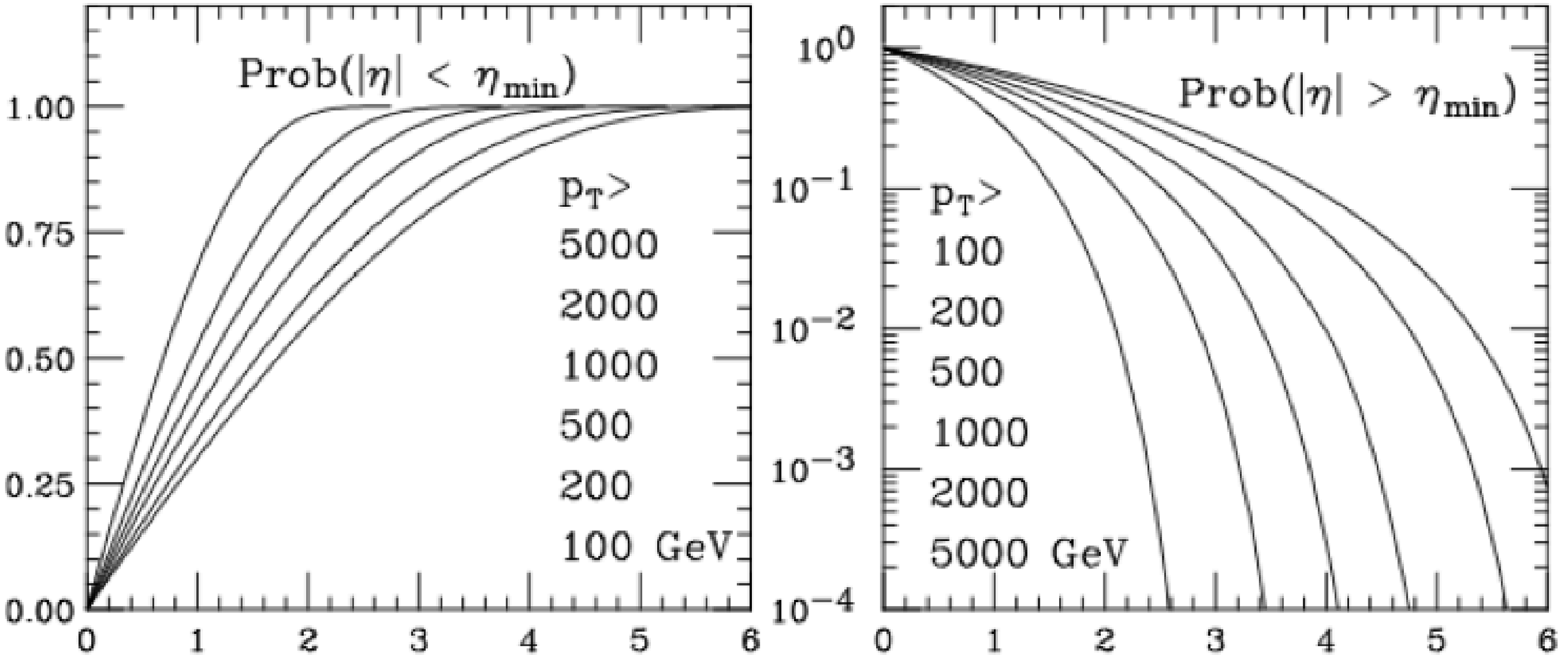


Fig. 6: Left: acceptance, for jets above various p_T thresholds, to be contained within $|\eta_j| < \eta_{min}$. Right: probability to be outside the η_{min} acceptance.

Jets' detector acceptance: implications for missing E_T sources

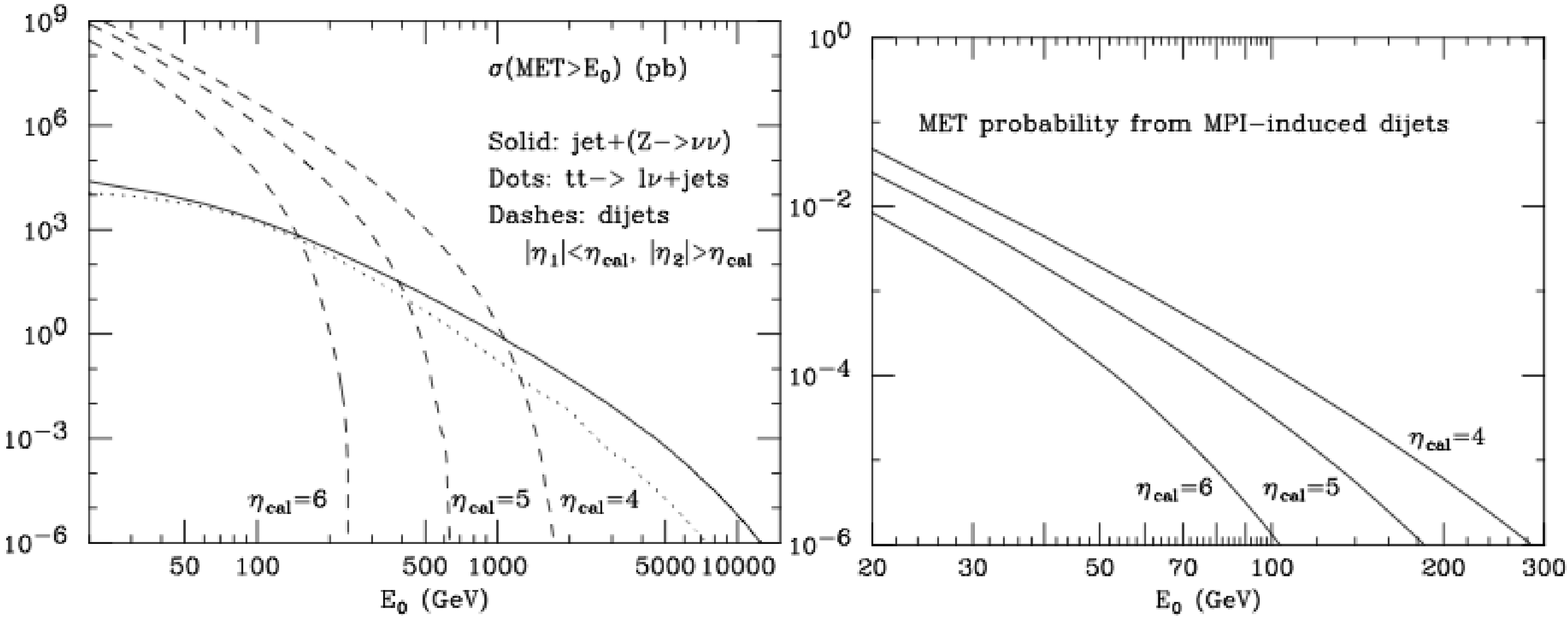


Fig. 16: Left: Missing transverse energy rates, from jet+($Z \rightarrow \nu\bar{\nu}$) events and from dijets, with a jet escaping undetected at large rapidity. Right: Missing transverse energy probability induced by multiple-parton interactions, for different values of the jet rapidity acceptance.

Jets in the report

... see afternoon session

... and precision QCD measurements with high-E_T jets => Larkoski

we may decide to reshuffle things/reorganize sections
following discussion, or once we see the material available

Other topics?

- jets and PDF => PDF section?
- forward jets and small-x (Mueller-Navelet, etc) ?