

$H \rightarrow W W + 2 \text{ jets}$ Analysis



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Parton Information

Parton Selection

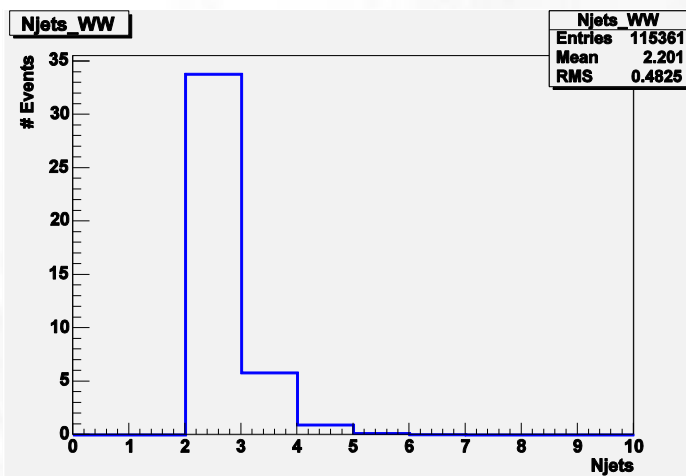
- Must be a quark or gluon (no top quarks)
- $\text{Parton_Et} > 10 \text{ GeV}$
- $|\text{Parton_Eta}| < 2.5$
- No incoming partons (first 6 particles in HEPG bank)
- Cannot have an ancestor that has already been stored

Information Stored

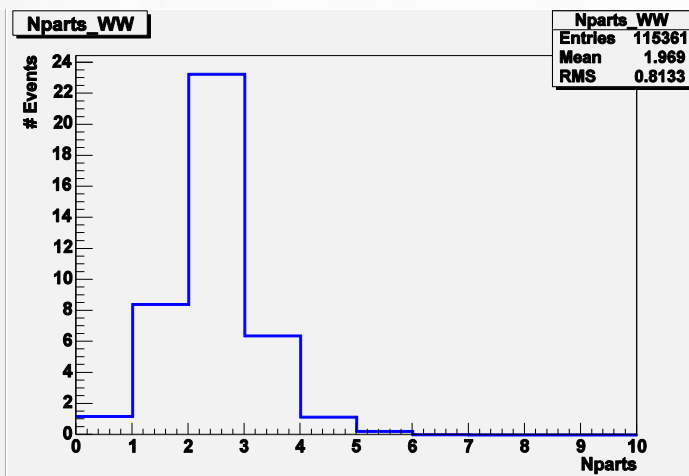
- Kinematics
- Status (1=final state, 2=intermediate state, 3=from Alpgen event)
- Initial collision or underlying event
- Connected to Pythia QCD string

Nparton Distributions

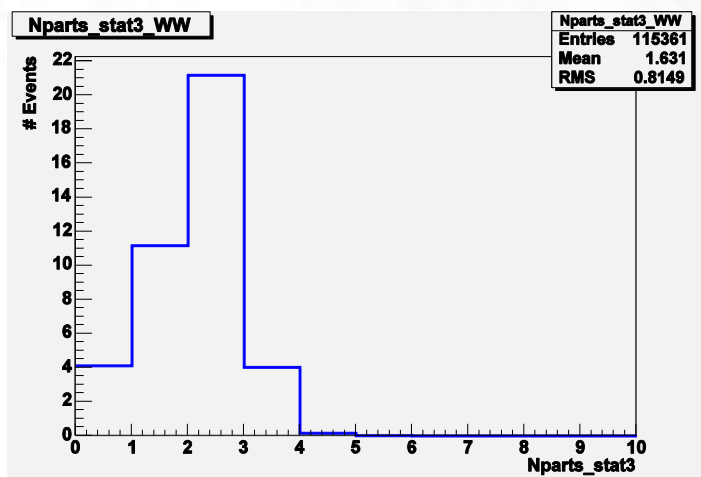
Njets



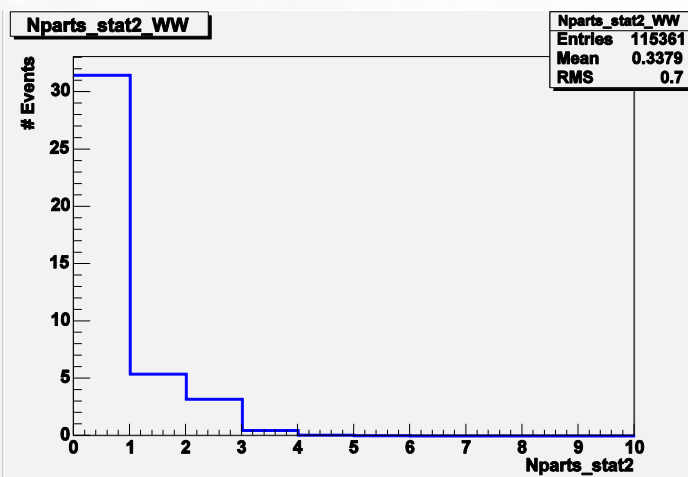
Npartons



Npartons (status 3)



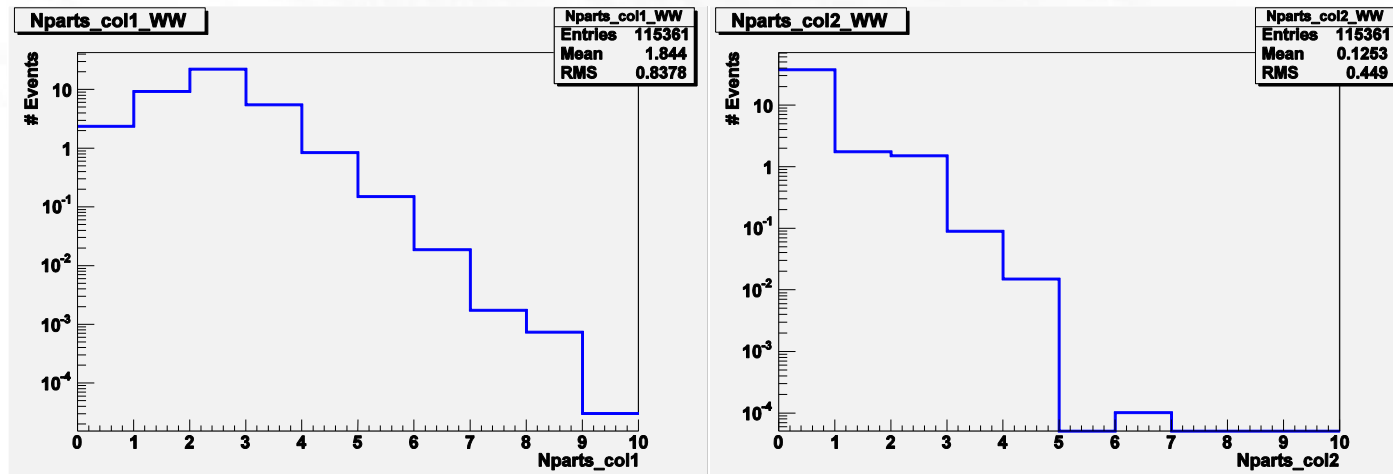
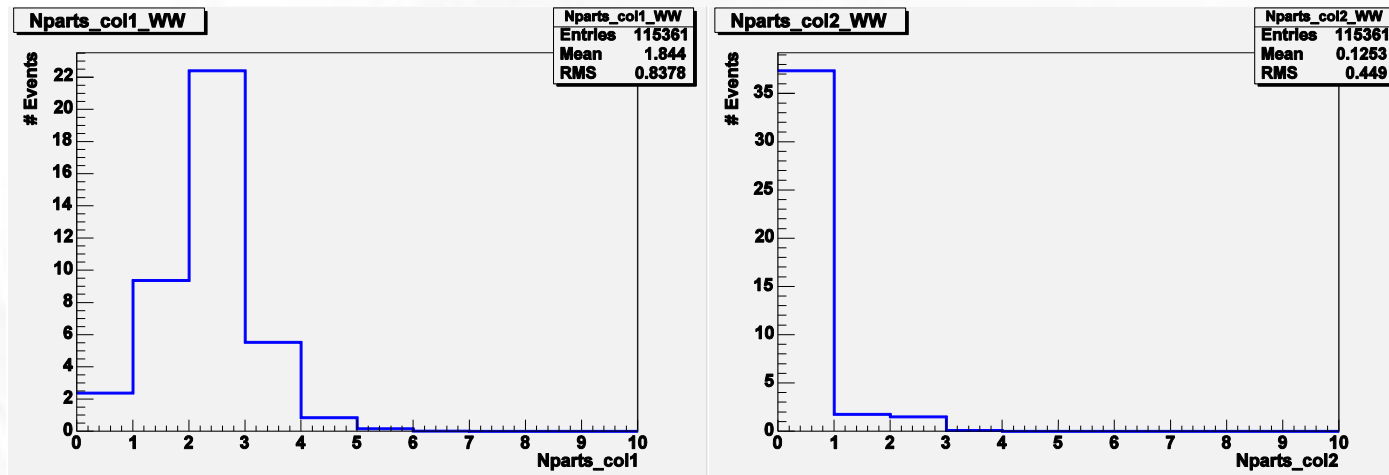
Npartons (status 2)



Underlying Event Partons

First collision

>1 collision



To Do

- Check some events to determine whether jets can be matched to status 2 partons and partons from other collisions.
- Order partons by E_t ? Only necessary if we are interested in parton kinematics