

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



THE UNIVERSITY
of
WISCONSIN
MADISON



Will Parker

University of Wisconsin – Madison

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Update

- Implemented clustering algorithm from MLM in DbNtuple (finally!)
- Njets(AlpGen+Pythia) \neq Njets(cdfSimg, TrigSim, ProductionExe)
- Studying one such event:

Alp+Py	Et(GeV)	Eta	Phi
Jet 1	67.6	0.66	2.58
Jet 2	19.3	1.61	0.93

MCPProd	Et(GeV)	Eta	Phi
Jet 1	67.2	0.66	2.58
Jet 2	14.7	1.69	0.86

- Second jet slips under threshold after processing (1 jet counted)

Parton Info

- Relevant Alpgen/Pythia partons:

#	Stat	ID	Mo	Et	Eta	Phi
1	3	21	0	18.7	1.69	0.99
23	2	1	1	7.7	1.61	0.93
21	2	21	1	2.3	1.41	0.66
19	2	21	1	4.0	1.40	1.17
24	2	-1	1	5.1	1.78	0.87
17	2	21	1	1.2	1.64	2.93

- Total Et:
20.3 GeV
- Et in jet:
19.1 GeV

- Relevant cdfSim/TrigSim/ProductionExe partons:

#	Stat	ID	Mo	Et	Eta	Phi
6	3	21	4,5	18.3	1.71	0.98
21	2	1	6	7.5	1.64	0.92
22	2	21	6	2.3	1.43	0.64
23	2	21	6	4.0	1.43	1.16
51	2	-1	6	5.0	1.80	0.85
52	2	21	6	1.2	1.64	2.96

- Total Et:
20.0 GeV
- Et in jet:
14.8 GeV

dR = 0.405

- Small momentum discrepancies – parton slips out of cone