



Simulation meeting

www-cdf.lbl.gov/~currat/talks/

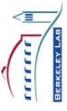
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LBNL

June 5, 2003

- ⌘ First look at v. 4.10.4 data with dijet balance
- ⌘ First comparison between v. 4.10.4 data and v. 4.11.0pre2 MC

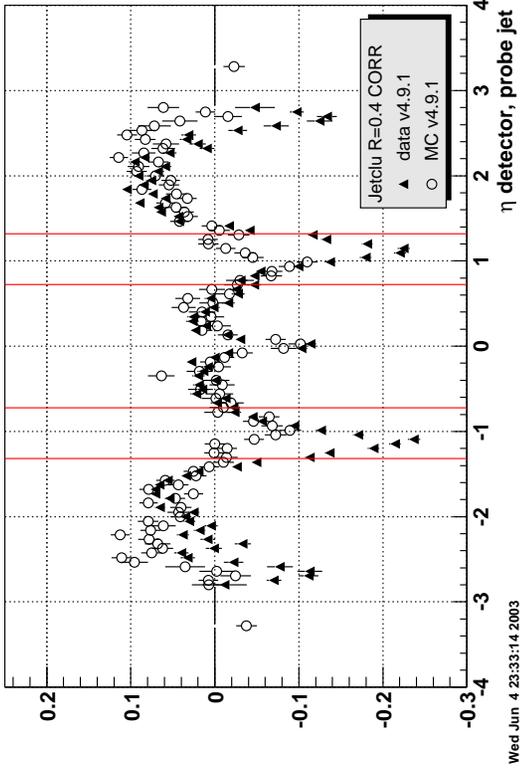


Reminder (4.9.1)

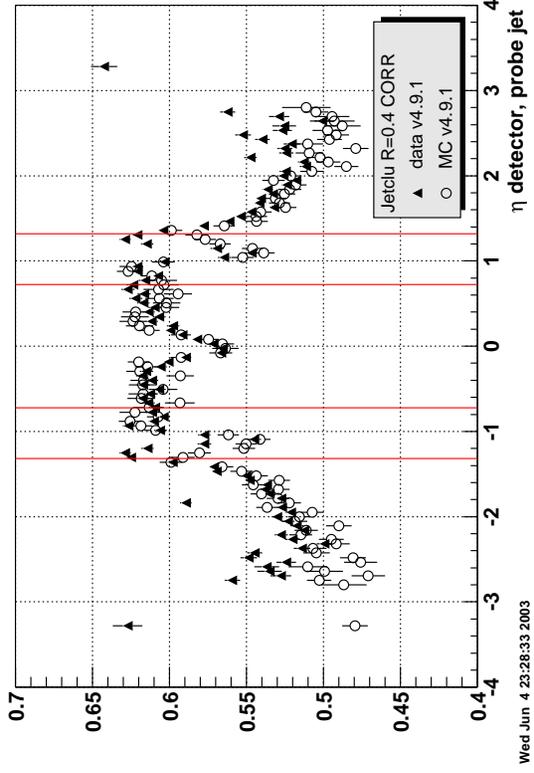


F Plug corrected against time dependence (applied at jet level)

JetAna: dijet balance



JetAna: jet EM fraction

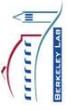


F Disagreement for jets above $|\eta| > 2.0$ (balance + EM fraction)

F Abyssal discrepancy in the WHA

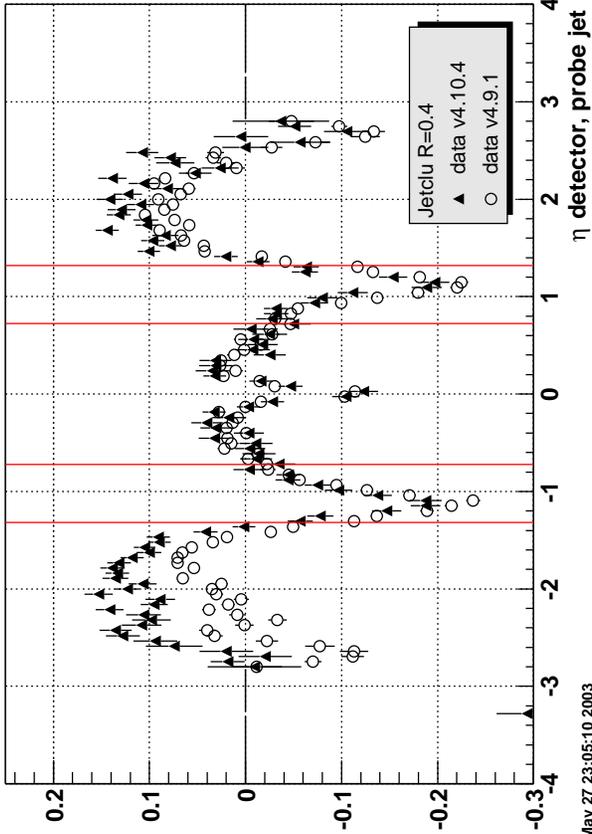


Data/data comparison 1/3

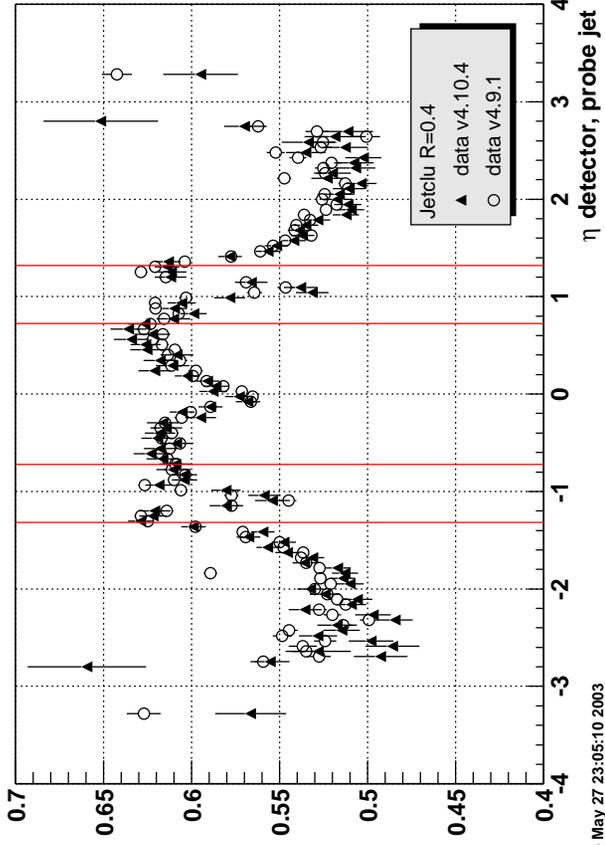


F Preliminary comparison between **data** **STntuples** in 4.9.1 (with plug time correction at jet level / 5.7M evts) and 4.10.4 (partial, about 2.5M evts, **pre-shutdown**)

JetAna: dijet balance



JetAna: jet EM fraction



+ WHA response $\sim 5\%$ higher / wider plateau for $|\eta| > 2$



Data/data comparison 2/3



- F But meantime...
- F Correction for quadrant source calibration issue noticed in C-P $M(Z \rightarrow ee)$
(cf Willis talk, calorimeter-SMX meeting 3/19/03, <http://www-cdf.fnal.gov/internal/cdfoperations/cal/agenda1/docs/willis190303.ps.gz>)

Side	Q1	Q2	Q3	Q4
East	1.0000	1.0058	1.0131	1.0372
West	1.0568	1.0218	1.0478	1.0319

+ effect up to 5–6% !!

- F Post-4.9.1 correction included now in `getPlugGainCorrections`
- F Gonna apply it by hand at the jet level (i.e. in Root)

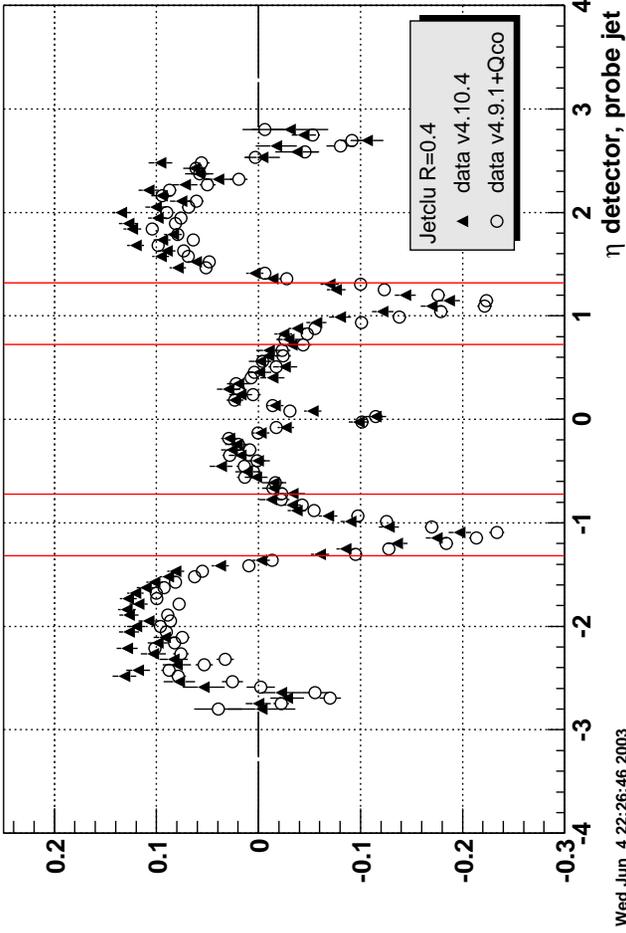


Data/data comparison 3/3

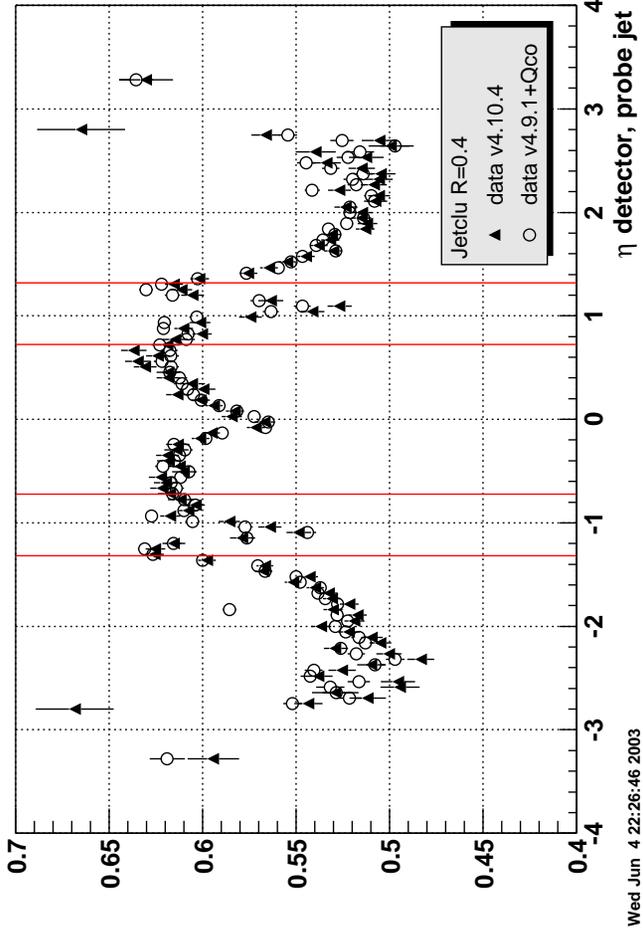


- Dijet balance and jet EM fraction with **quadrant correction**

JetAna: dijet balance



JetAna: jet EM fraction



+ East/West back to the same level

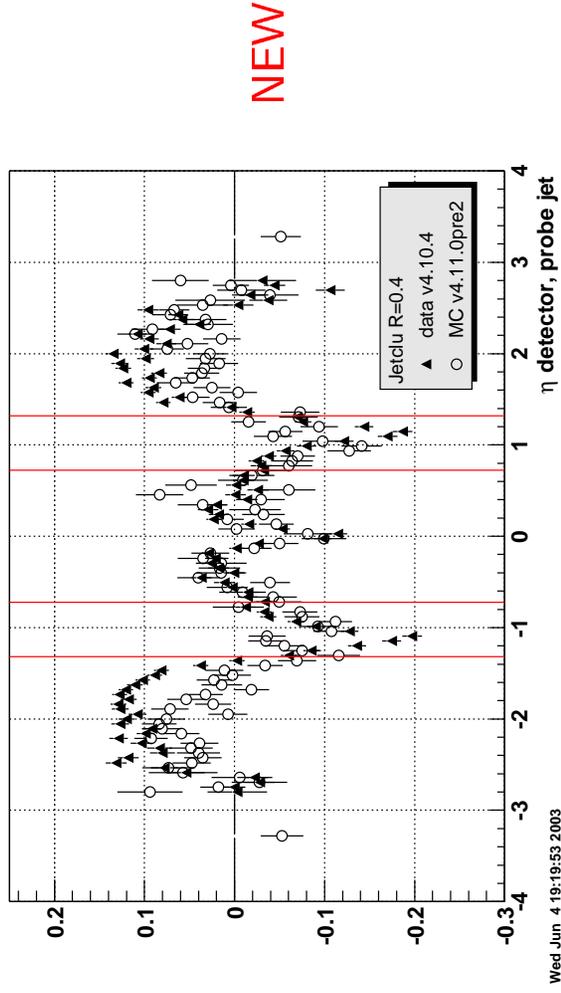


Data/MC dijet balance

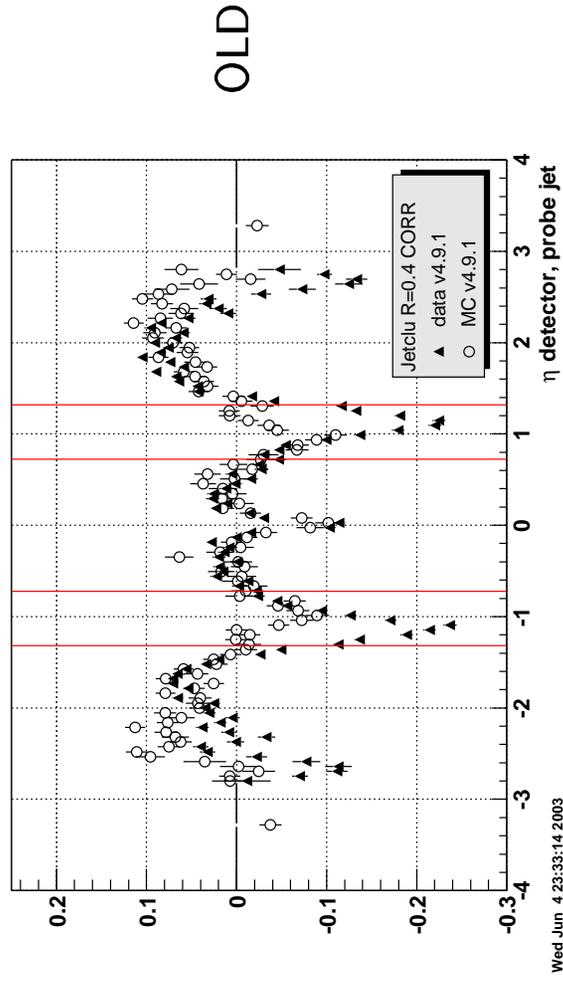


- F First batch of MC STntuple1es (39 files, $\sim 890k$ events)
- F These are v. 4.11.0pre2 $\dot{\iota}$ include previously missing passive material (silicon cables at COT end plate, up to $\sim 1X_0$)

JetAna: dijet balance



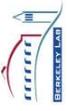
JetAna: dijet balance



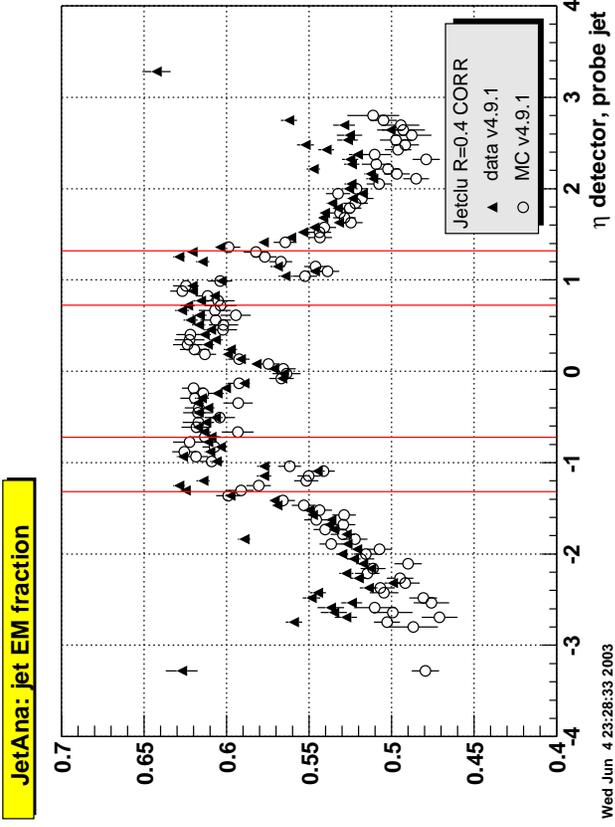
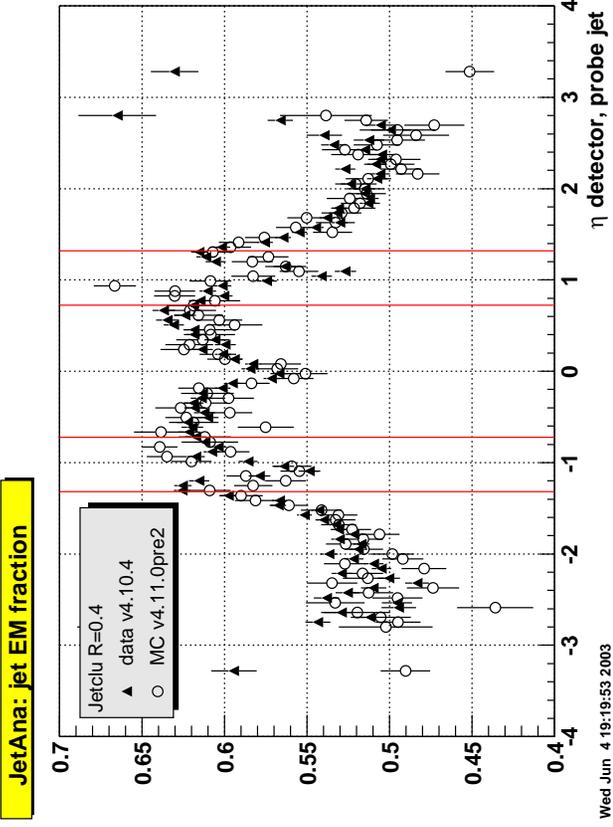
+ WHA response $\sim 5\%$ higher / plateau falls for $|\eta| > 2$ in MC



Data/MC jet EM fraction



- F First batch of MC STntuple1es (39 files, ~ 890k events)
- F These are v. 4.11.0pre2 í include previously missing passive material (silicon cables at COT end plate, up to $\sim 1X_0$)



+ better match for $|\eta| > 2$



Comments/plans



- F Waiting to access more data. Issue with Stntuples on CAF disks (files corrupted during copy... Anwar is gonna remake them)
- F Comparison plots with other cone radii
- F Adapt binning to match 1 bin/tower
- F Pre- vs post-shutdown comparison