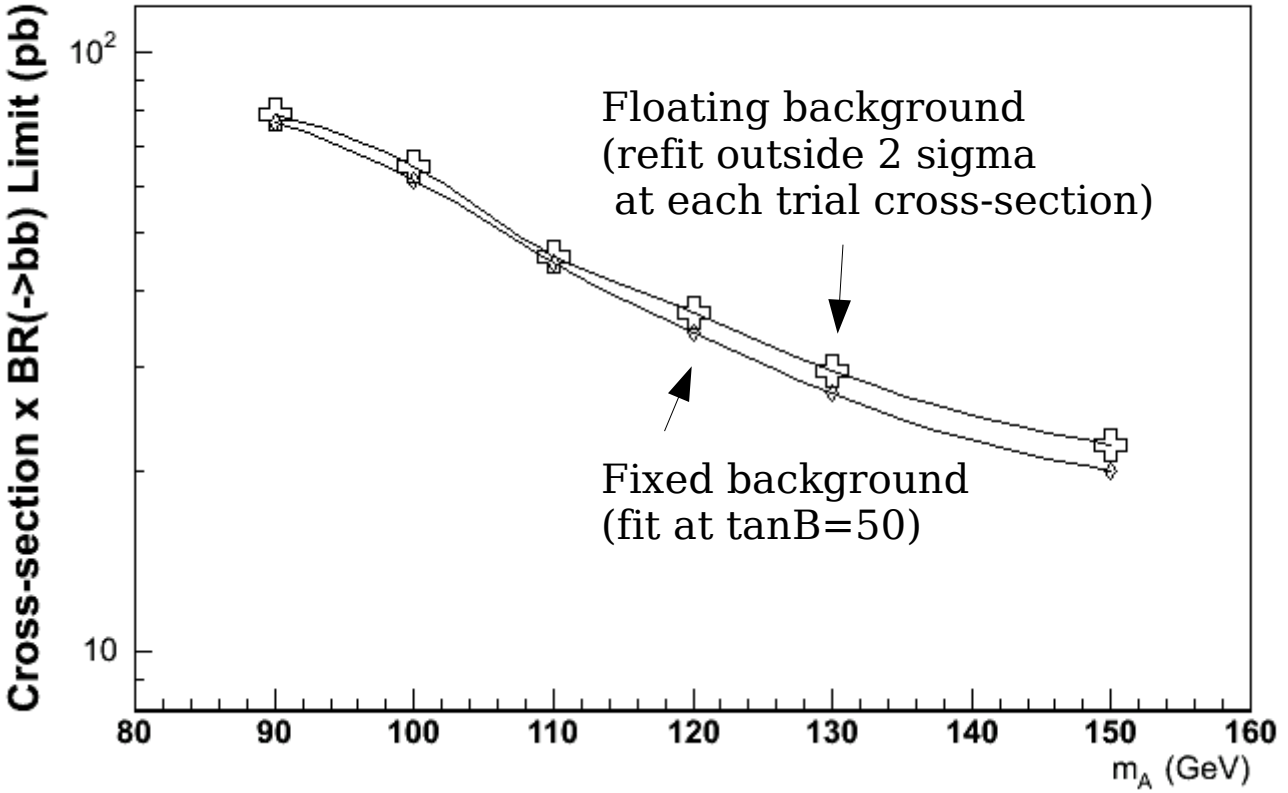
bbh(->bb) Limits

Some previous results were calculated without refitting the background at each trial signal cross-section value. Instead, the background was calculated for a fixed cross-section corresponding to tanB=50 (assuming b-h coupling enhancement proportional to tanB). These previous results are compared to the current results below. The difference in cross-section limits is small (corresponding to tanB values of 1 or 2 units). The background normalization is smaller by 2-3% at the excluded cross-section, depending on mass, when refitting the background at each trial cross-section value.

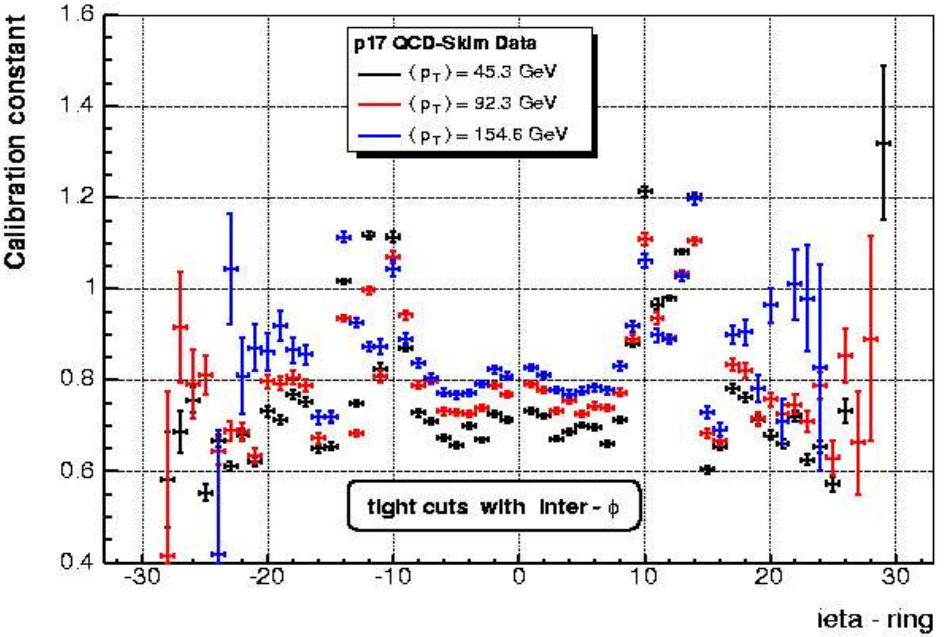
We are planning a private meeting with CDF in response to their complaints about our limit-setting methods. Hopefully we will then receive comments from the PRL reviewers and publish the paper shortly.

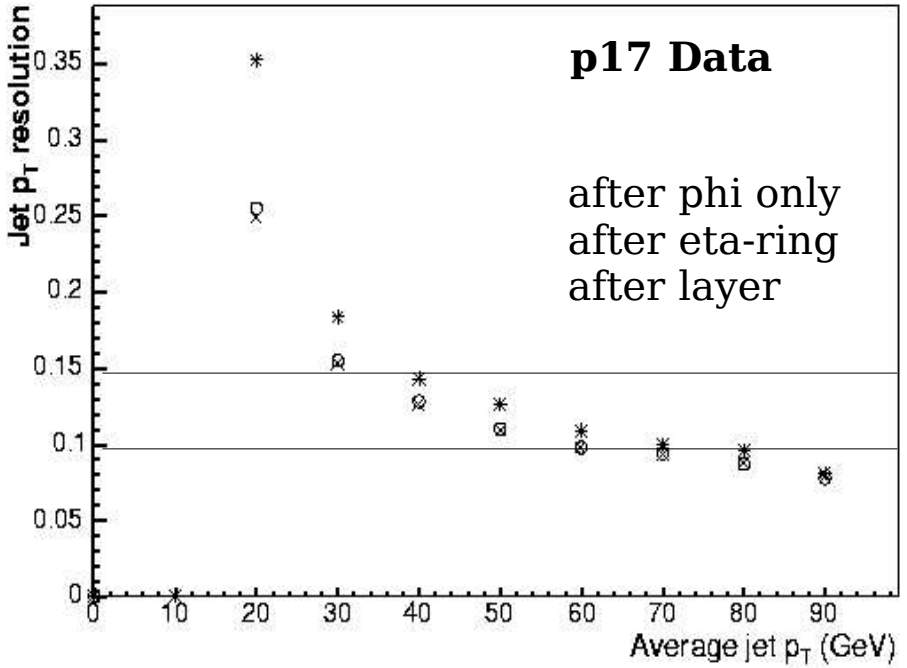


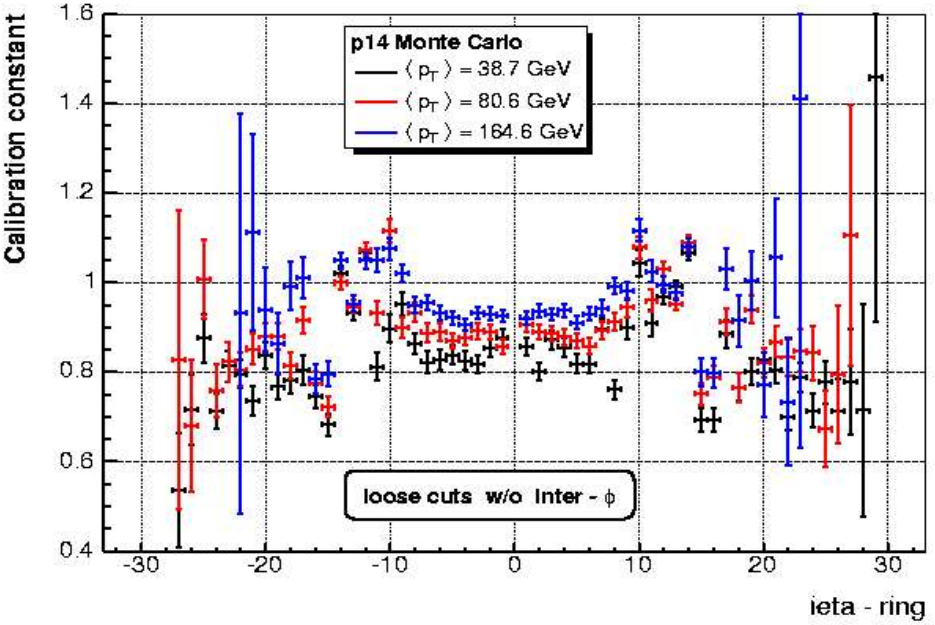
Hadronic Calorimeter Calibration / Jet Resolution

Inter-phi calibration has been completed on 6.5M

Initial eta-ring constants are available...
We're trying to understand 2 issues:
1) Do we re-weight the MC, to obtain optimal resolution? We're leaning towards “yes”.
2) Since constants vary with pT, which to use? For now, I think we'll just use an “average” pT. But I am studying using the pT-dependent weights directly in the jet reconstruction.

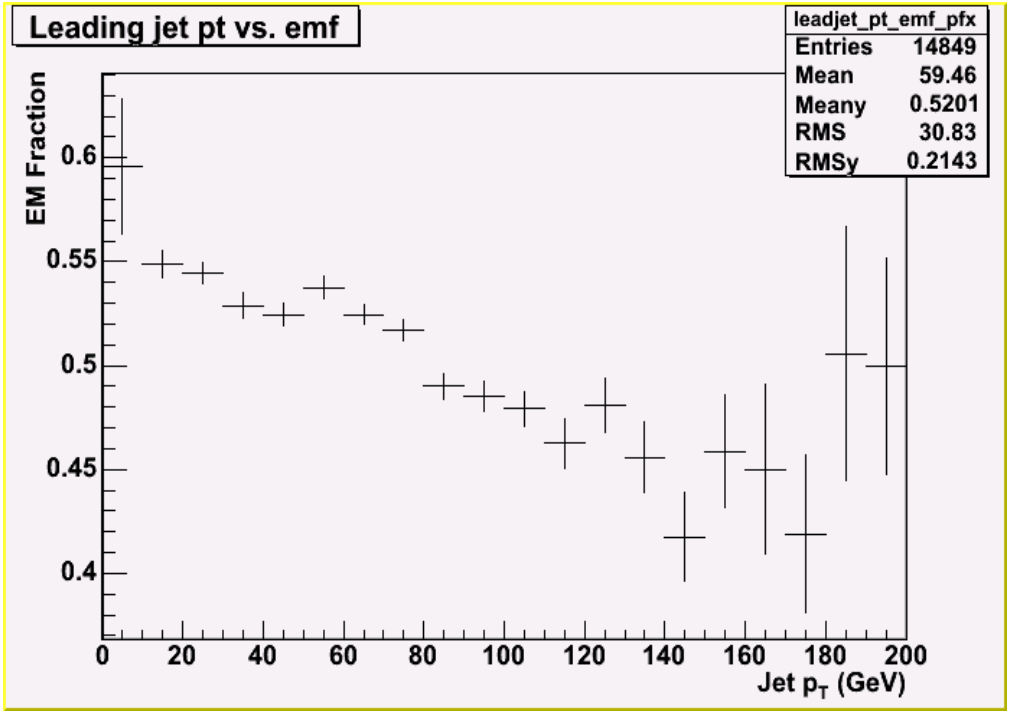


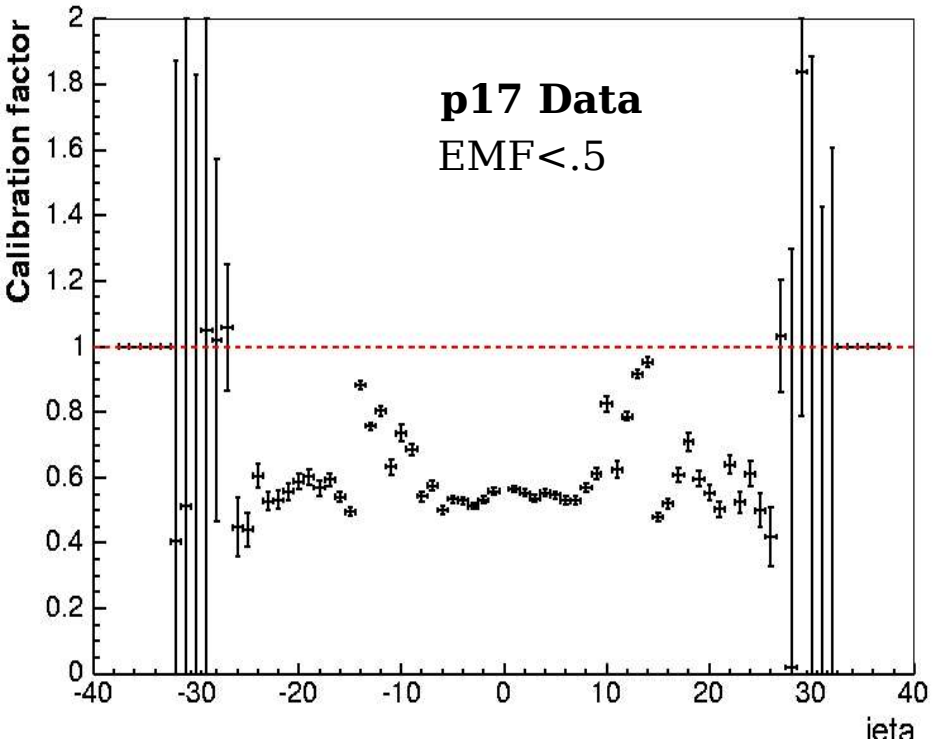


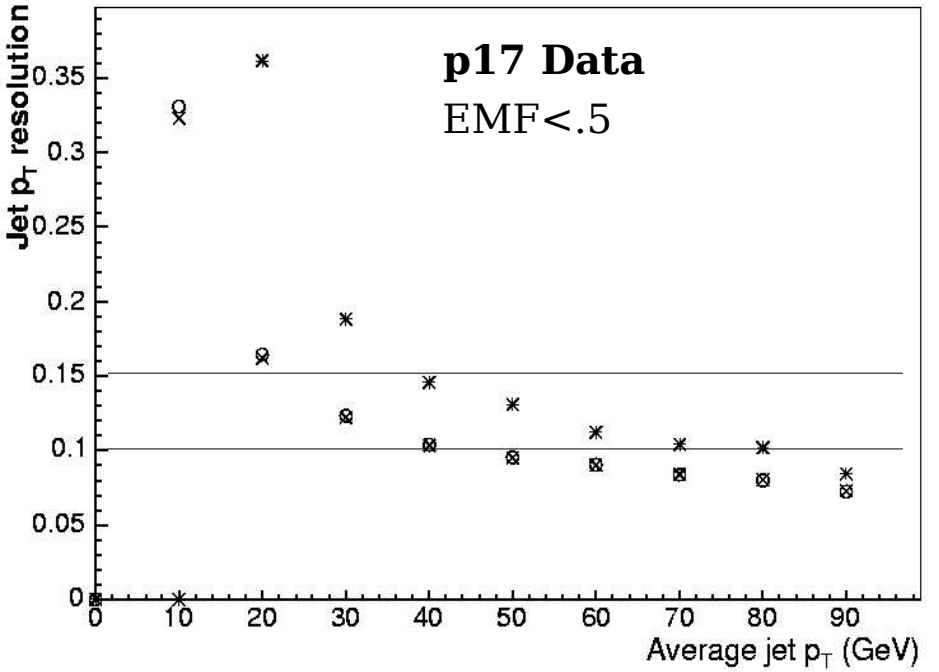


Most recent hadronic calibration studies:

How about MET resolution?
What is the dependence on EM fraction?
If the hadcal has become non-compensating, can we correct for it by identifying EM and hadronic subclusters? (ATLAS-style!)







Other things going on

I've agreed to be co-BID-convenor for the next 2 years.
First task will be to oversee the certification of the NN tagger for JES 5.3 and p14.
Next will be to expedite the certification of the taggers for p17 – to be done on CAF.

I've got to get the d0ve event display working in the CR, in online release p17.05.00

Per and I talked in Vancouver and agreed to complete the Z->bb analysis note and get a conference note approved ASAP. In time for EPS?