

Update to the D0 conference note 5087,  
"Measurement of the Inclusive Jet Cross Section in pbarp Collisions at  $\sqrt{s}=1.96$  TeV",  
March 1, 2007

- The luminosity has been updated to the final Run IIa luminosity. This corresponds to a +15% change with respect to the preliminary numbers for JT\_125TT,  $768 \text{ pb}^{\{1\}} \rightarrow 883 \text{ pb}^{\{-1\}}$ . Other triggers are matched with respect to JT\_125TT, and hence have relative luminosities automatically correct. The uncertainty on the final Run IIa luminosity is 6%, is fully correlated for all pT, and is not included in the error bands.
- The previous plots we're scaled by a factor  $1/1.1594$  to match the measurement to theory at  $pT=100$  GeV/c. This relative normalization has been removed and replaced with the absolute normalization using final Run IIa luminosity.
- On the EB request, we would like to emphasize the fact that the NLO theory calculations we use include the leading logarithm resummation from Kidonakis et al., a first step toward NNLO calculations. These are referred to as threshold corrections in the 2-loop approximation on the plots. An extract from the conference note:  
*"It is known that the phase space limitations on gluon emission as one goes to large transverse momentum and large rapidity can lead to potentially large contributions to the jet inclusive cross sections. Such corrections have been computed using threshold resummation techniques. These calculations have shown that the two loop contributions to the next-to-leading-logarithm are 5-15% [11] and are included in our predictions, except where noted."*