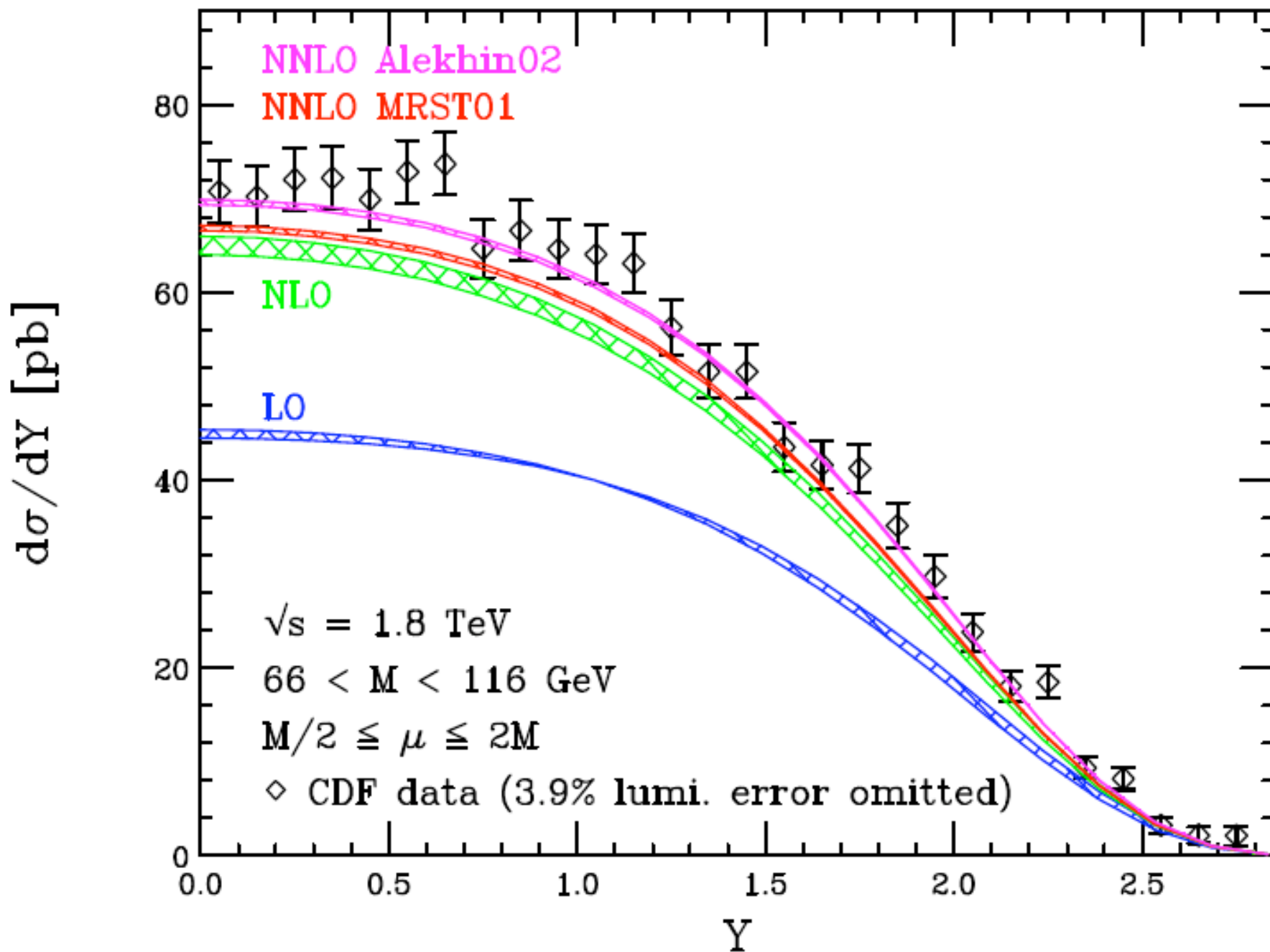


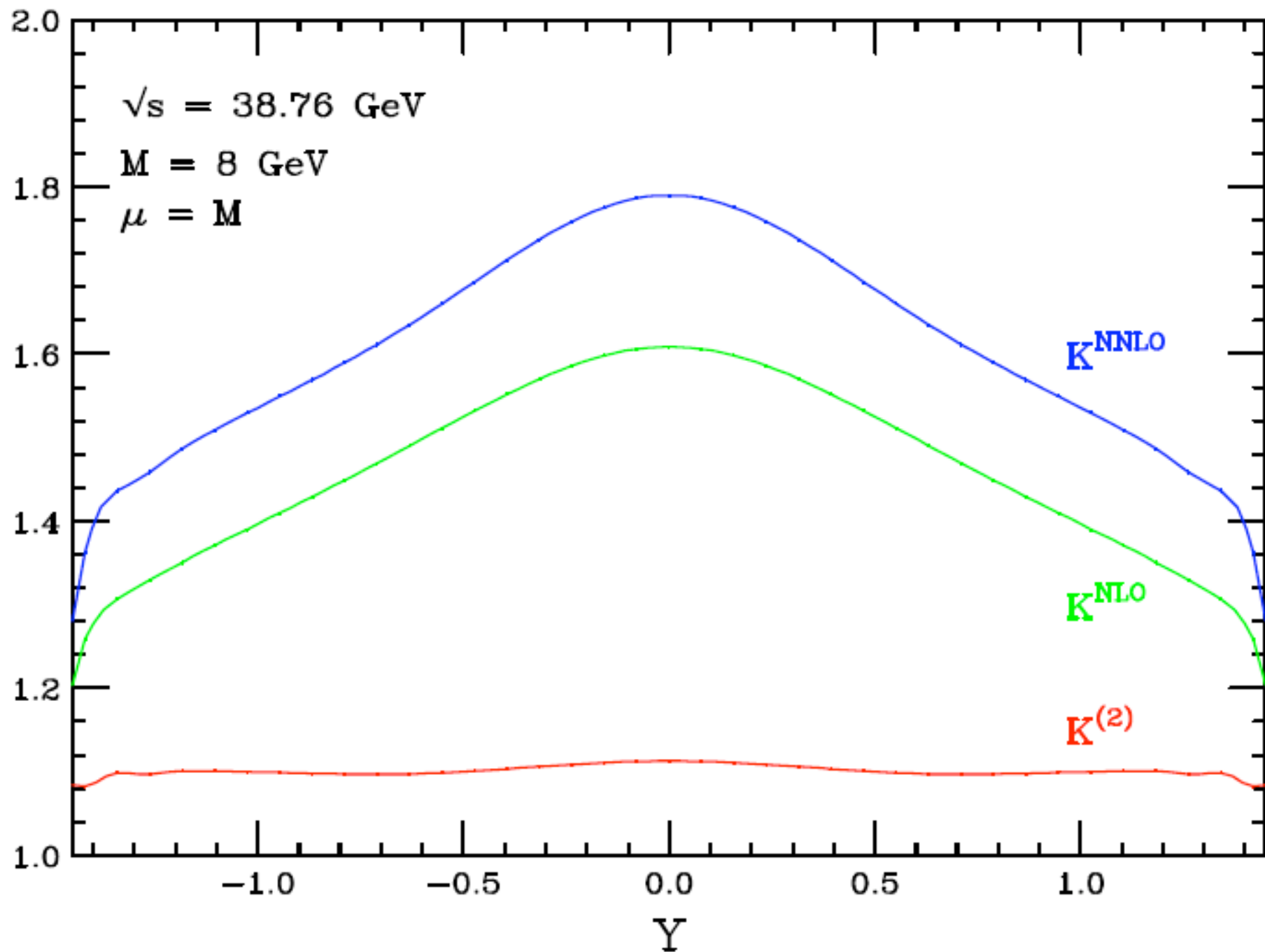
Physics 450:
Particle Physics at the Large
Hadron Collider

Oct. 30 lecture: figures

M. E. Peskin
Fall Term 2008

$$p\bar{p} \rightarrow (Z, \gamma^*) + X$$

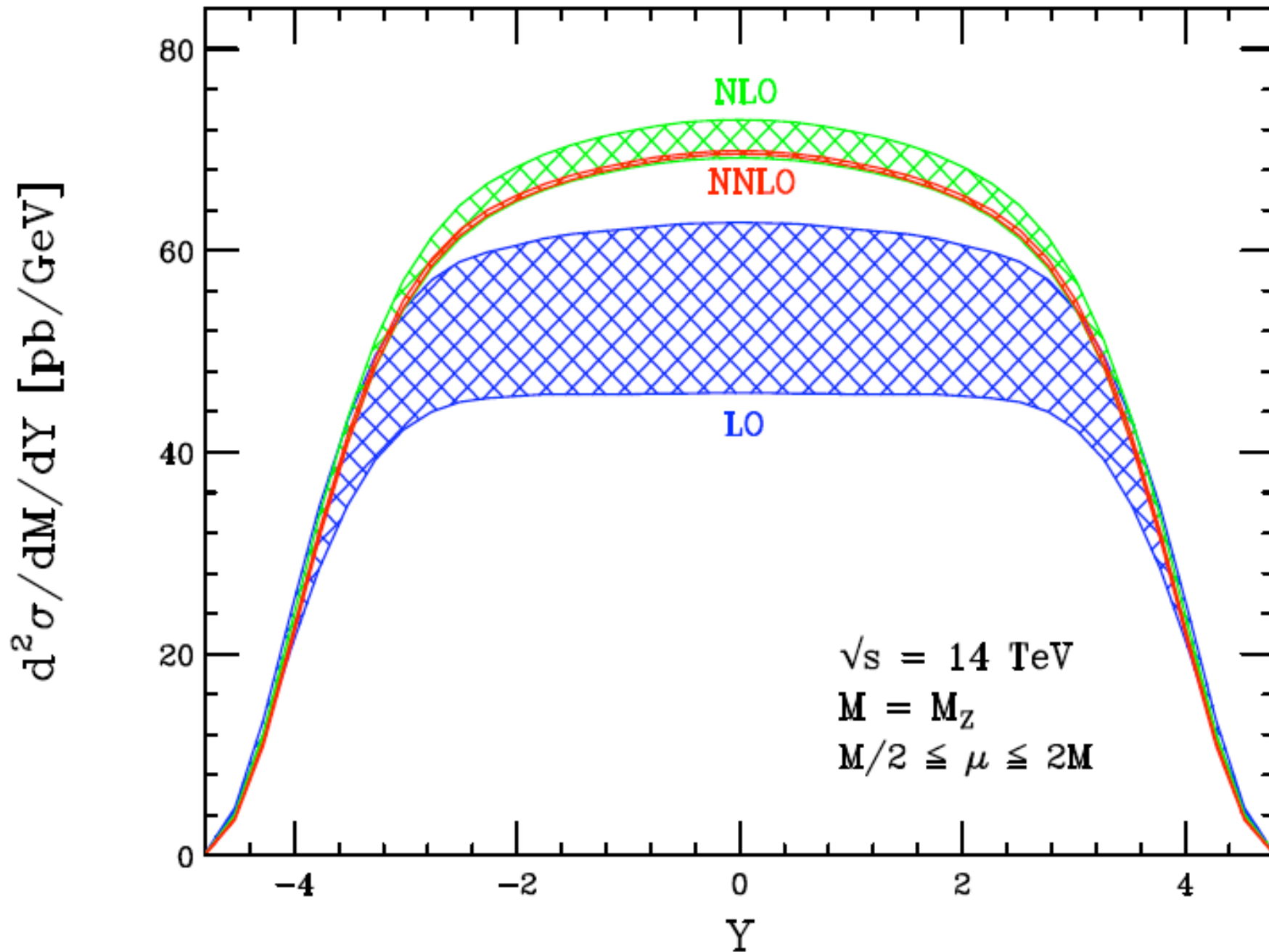




Anastasiou, Dixon, Melnikov, Petriello

LHC

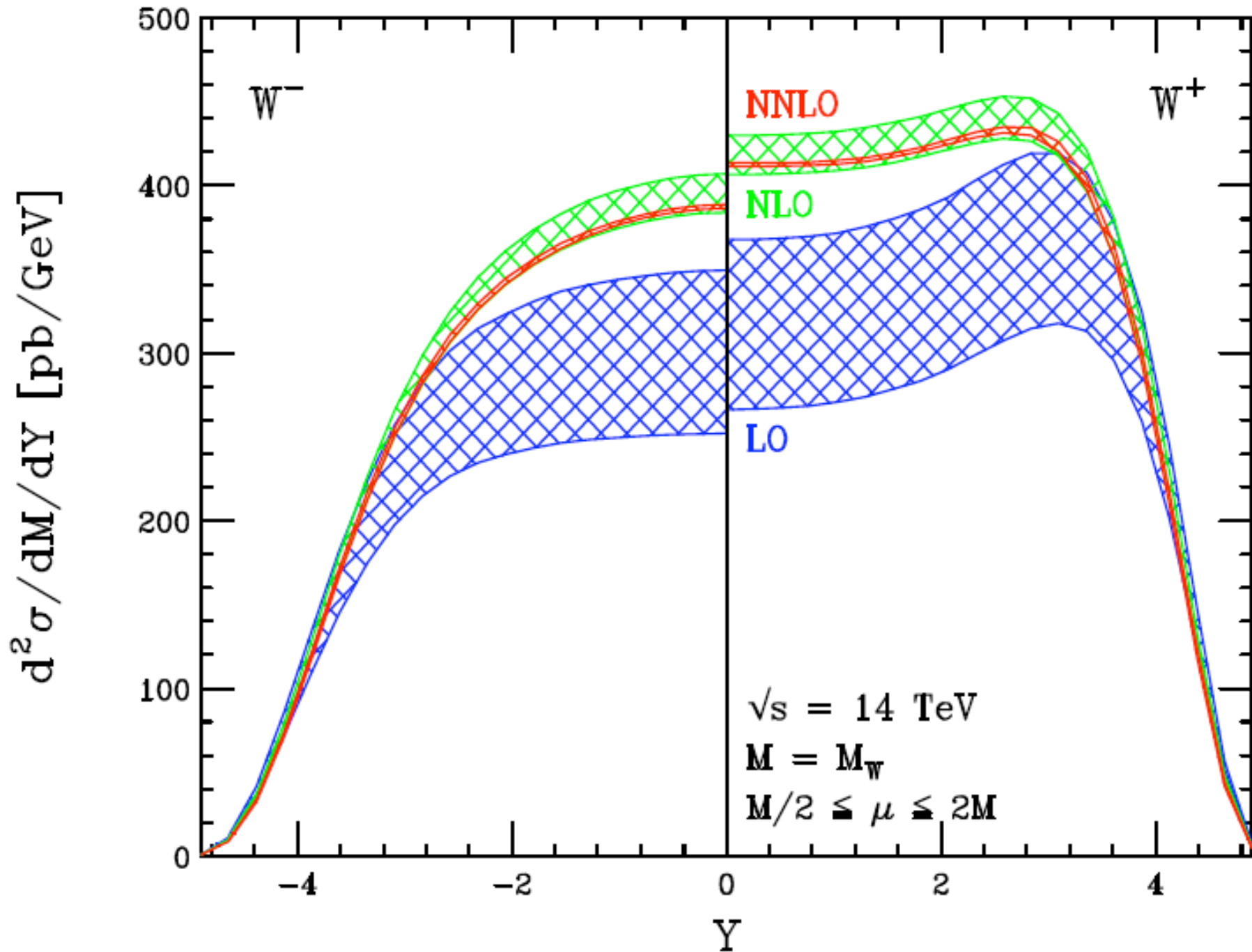
$pp \rightarrow (Z, \gamma^*) + X$



Anastasiou, Dixon, Melnikov, Petriello

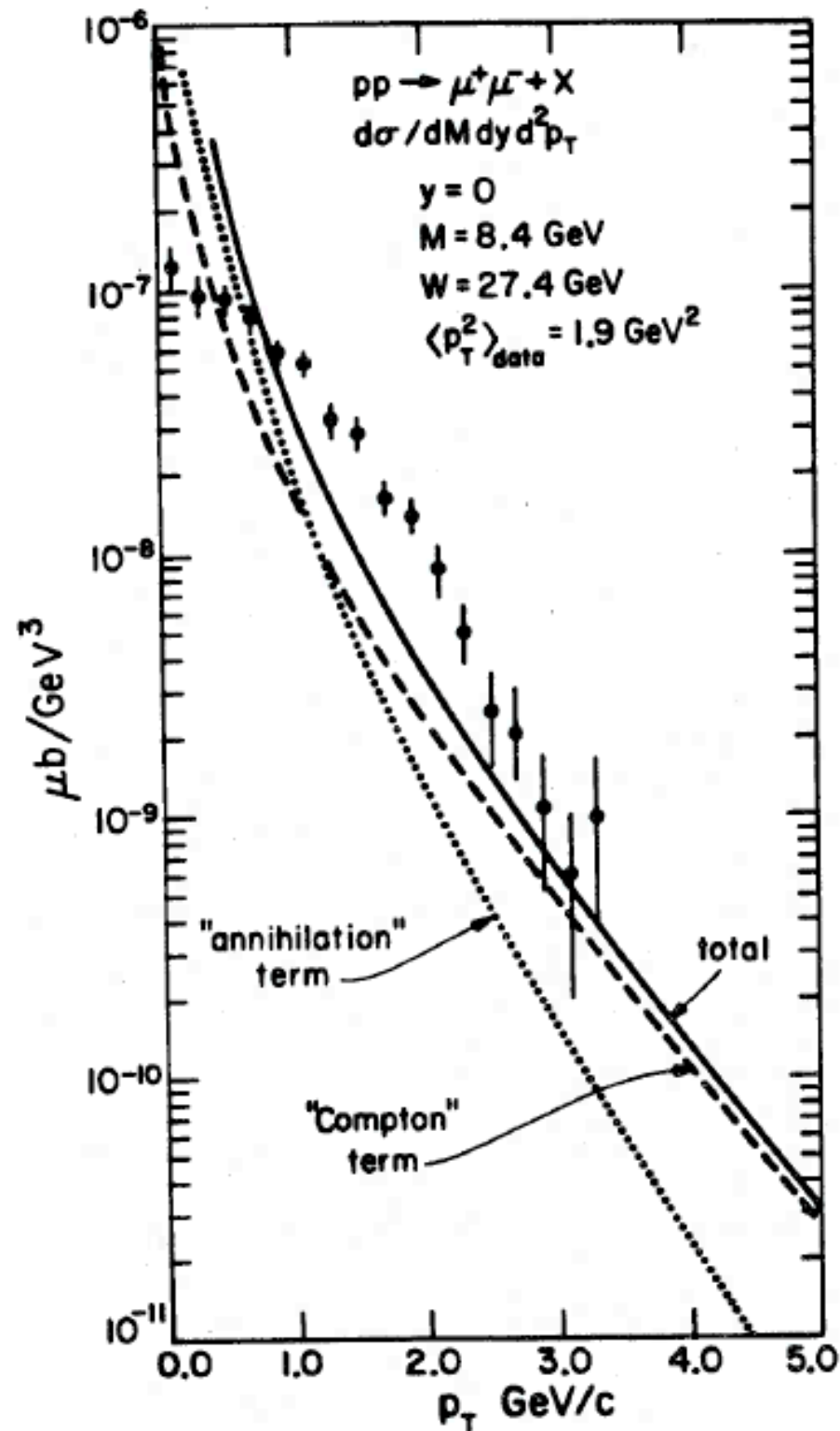
LHC

$pp \rightarrow W+X$

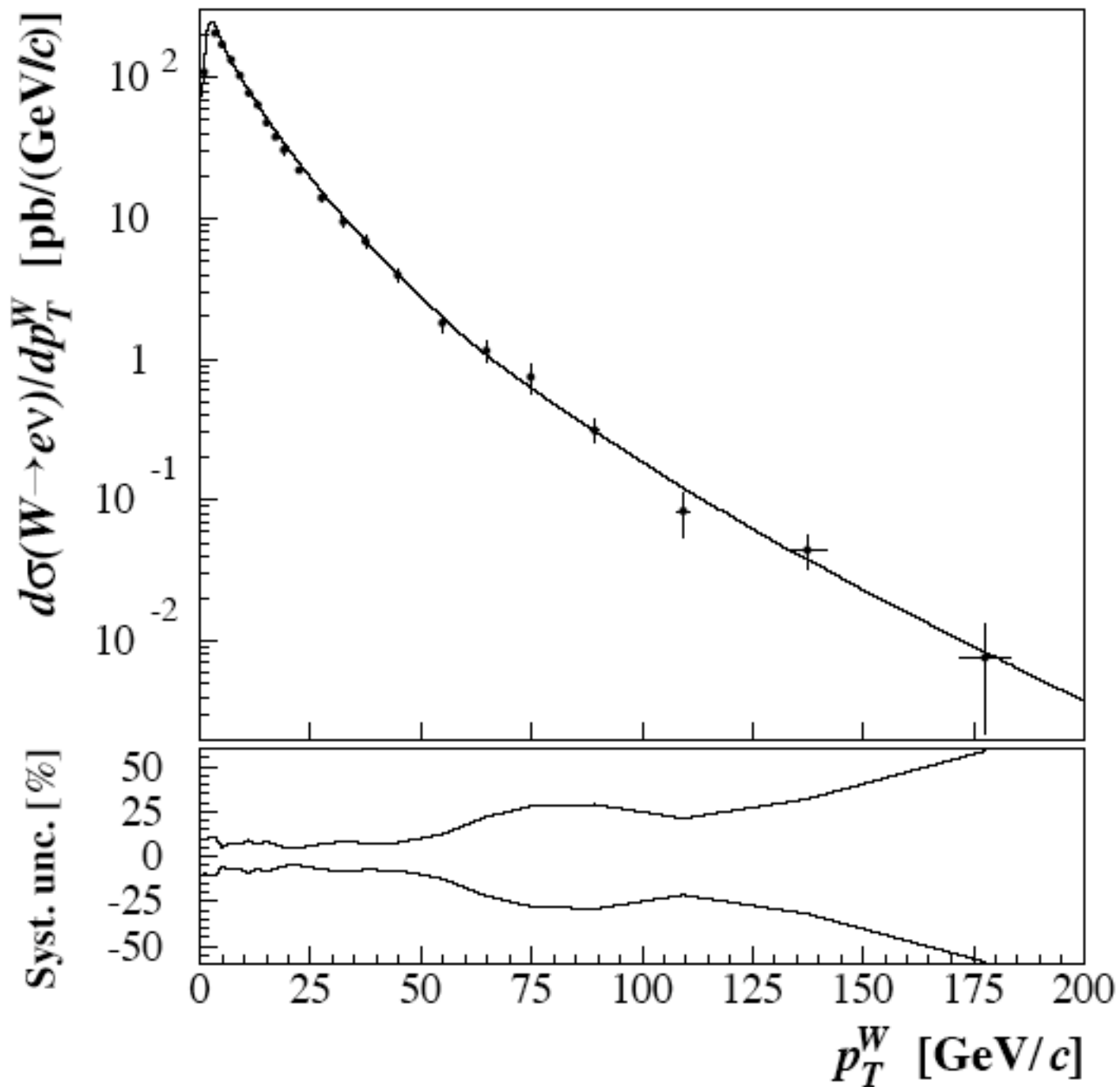


Anastasiou, Dixon, Melnikov, Petriello

QCD mechanisms
of large- p_T mu
pair production,
from Field's book,
compared to data
from the ISR
(Antreasyan et al.)



DO (run I)
measurement
of the W
transverse
momentum
distribution,
compared to
the NLO QCD
calculation of
Arnold and
Kauffman



DO (run I)
 measurement of
 the W transverse
 momentum
 distribution,
 compared to
 several
 “resummation”
 estimates of the
 behavior at low p_T .

