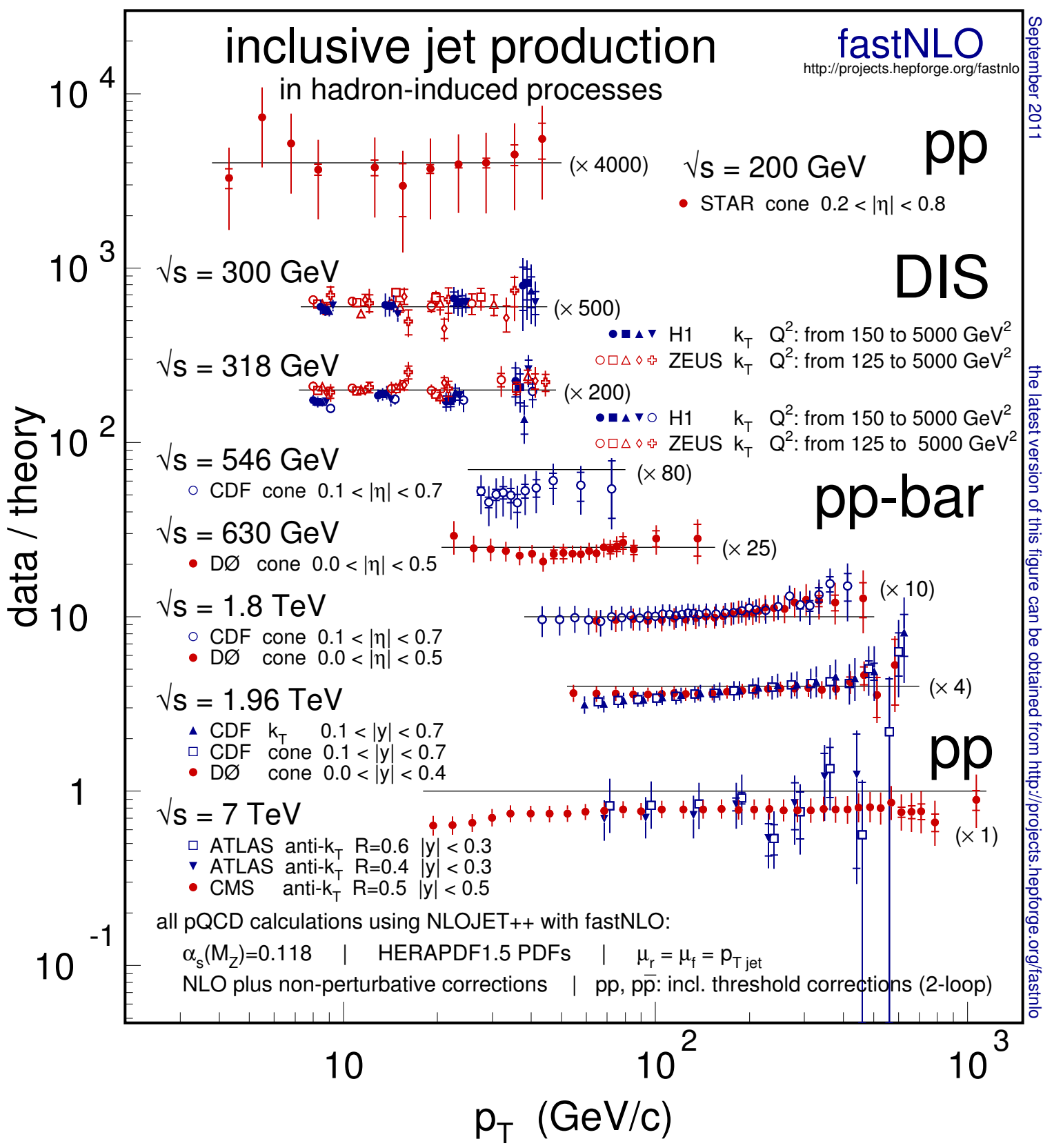
inclusive jet production
in hadron-induced processes
fastNLO
http://projects.hepforge.org/fastnlo
September 2011
the latest version of this figure can be obtained from http://projects.hepforge.org/fastnlo
pp
√s = 200 GeV
STAR cone 0.2 < |η| < 0.8
(× 4000)
DIS
√s = 300 GeV
(× 500)
H1 k_T Q²: from 150 to 5000 GeV²
ZEUS k_T Q²: from 125 to 5000 GeV²
√s = 318 GeV
(× 200)
H1 k_T Q²: from 150 to 5000 GeV²
ZEUS k_T Q²: from 125 to 5000 GeV²
pp-bar
√s = 546 GeV
CDF cone 0.1 < |η| < 0.7
(× 80)
√s = 630 GeV
DØ cone 0.0 < |η| < 0.5
(× 25)
√s = 1.8 TeV
CDF cone 0.1 < |η| < 0.7
DØ cone 0.0 < |η| < 0.5
(× 10)
√s = 1.96 TeV
CDF k_T 0.1 < |y| < 0.7
CDF cone 0.1 < |y| < 0.7
DØ cone 0.0 < |y| < 0.4
(× 4)
pp
√s = 7 TeV
ATLAS anti-k_T R=0.6 |y| < 0.3
ATLAS anti-k_T R=0.4 |y| < 0.3
CMS anti-k_T R=0.5 |y| < 0.5
(× 1)
all pQCD calculations using NLOJET++ with fastNLO:
α_s(M_Z)=0.118 | HERAPDF1.5 PDFs | μ_r = μ_f = p_T jet
NLO plus non-perturbative corrections | pp, pp̄: incl. threshold corrections (2-loop)
data / theory
p_T (GeV/c)