PDF DETERMINATION

AND THE W MASS

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SUMMARY

PDF RECAP SEQUENCE

- PDFS AND THEIR DETERMINATION: AGREEMENT AND DISCORD
- RECENT PDF TOOLS
- PDF4LHC15 COMBINED PDFS

THE W MASS AS A PDF TEST CASE

- IMPACT OF PDF UNCERTAINTIES
- PRECISION VS ACCURACY: THE PROBLEM

PDFS: THE FRONTIER

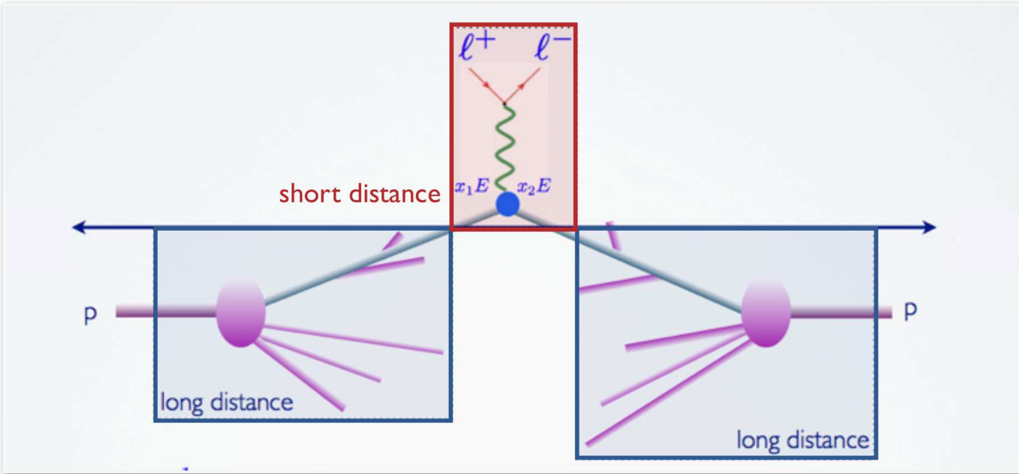
- PRECISION VS ACCURACY: THE STATE OF THE ART
- THE IMPACT OF LHC DATA
- NEW ISSUES: THEORY AND PHENOMENOLOGY

PDFS FROM RUN I TO RUN II

PDFs in HADRONIC COLLISIONS

FACTORIZATION

$$\frac{d\sigma_H^{pp\to ab}}{dX} = \sum_{i,j=1}^{N_f} f_i(x_1,\mu_F)\, f_j(x_2,\mu_F)\, \frac{d\sigma_H^{ij\to ab}}{dX}(x_1 x_2 S_{\rm had}, \alpha_s(\mu_R), \mu_F) + \mathcal{O}\left(\frac{\Lambda_{\rm QCD}^{2n}}{S_{\rm had}^n}\right)$$



THE PARTON LUMINOSITY

$$\mathcal{L}_{ab}(\tau, Q^2) = \int_\tau^1 \frac{dx}{x} f_{a/h_1}(x, Q^2) f_{b/h_2}(\tau/x, Q^2)$$

integral over all momentum fractions with fixed $x_1 x_2 = \tau = \frac{Q^2}{s}$, at fixed Q^2;

$Q^2 \Rightarrow$ hard scale (e.g. M_X^2)

FOR FIXED COLLIDER ENERGY, DEPENDS ONLY ON Q^2 (M_X^2)

- HADRONIC CROSS SECTION $\Rightarrow$ MEASURED
- PARTONIC CROSS SECTION $\Rightarrow$ COMPUTED
- PARTON LUMINOSITY (PDFs) $\Rightarrow$ PARAMETRIZED & FITTED

CONTEMPORARY PDF TIMELINE (PUBLISHED ONLY)

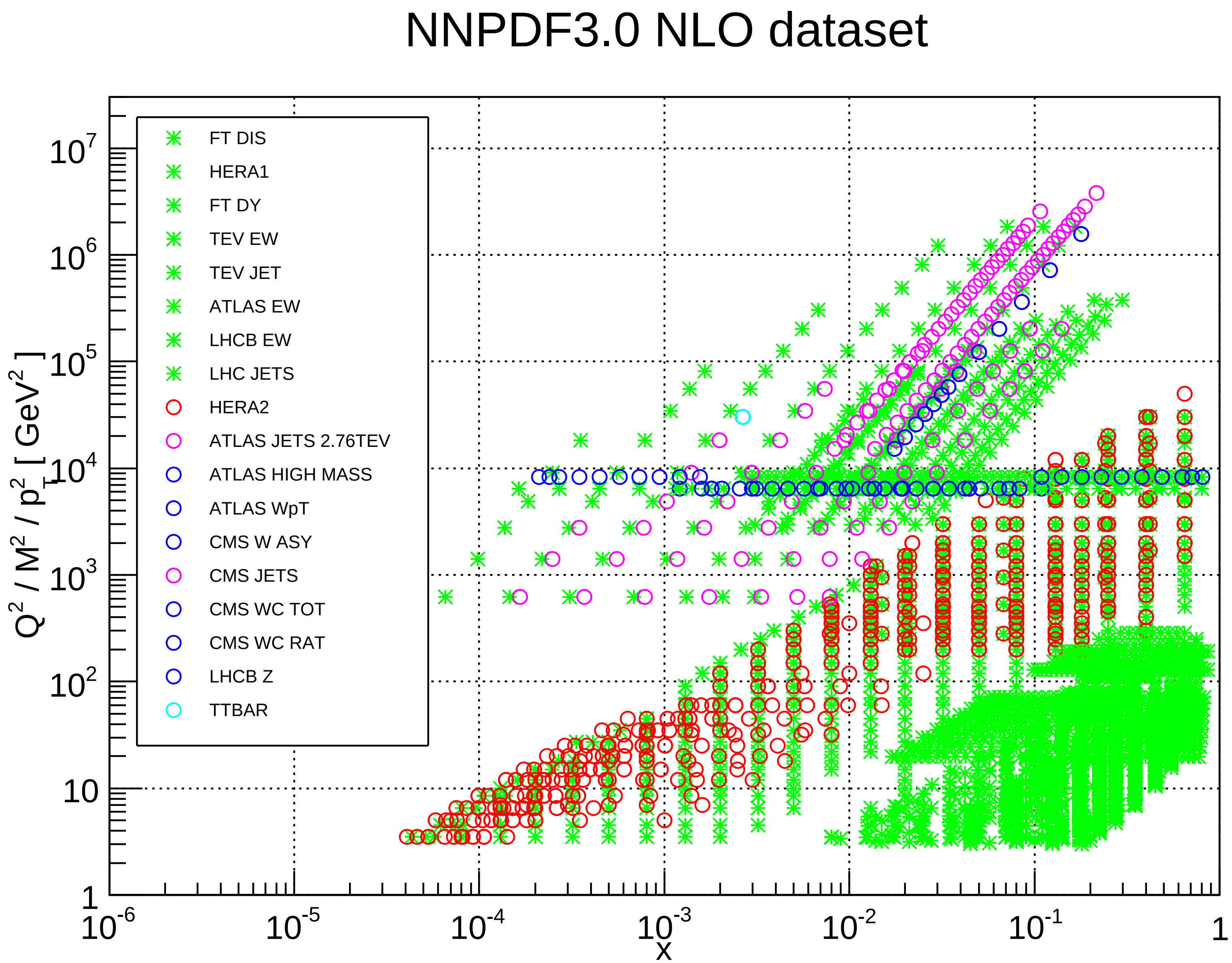
	2008		2009		2010		2011	2012		2013		2014		2015	2016
SET MONTH	CT6.6 (02)	NN1.0 (08)	MSTW (01)	ABKM09 (08)	NN2.0 (02)	CT10(N) (07)	NN2.1(NN) (07)	ABM11 (02)	NN2.3 (07)	CT10(NN) (02)	ABM12 (10)	NN3.0 (10)	MMHT (12)	CT14 (06)	ABMP16 (01)
F. T. DIS	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
H1,ZEUS-I	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
HERA I	✗	✗	✗	✗	✔	✗	✔	✗	✔	✗	✔	✔	✗	✗	✔
H1-ZEUS-II	✗	✗	✗	✗	✗	✗	some	✗	✗	some	✗	✔	✗	✗	✔
HERA	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✔	✗	✗	✔
HERA JETS	✗	✗	✔	✗	✗	✗	✗	✗	✗	✗	✗	✗	✔	✗	✗
F. T. DY	✔	✗	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
TEV. W+Z	✔	✗	✔	✗	✔	✔	✔	✗	✔	✔	✗	✔	✔	✔	✔
TEV. JETS	✔	✗	✔	✗	✔	✔	✗	✔	✔	✔	✗	✔	✔	✔	✗
LHC W+Z	✗	✗	✗	✗	✗	✗	✗	✗	✔	✗	some	✔	✔	✔	✔
LHC JETS	✗	✗	✗	✗	✗	✗	✗	✗	✔	✗	✗	✔	✔	✔	✗
TOP PAIRS	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✔	✔	✗	✗	tot. xsec
SINGLE TOP	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	tot. xsec
W+C	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✔	✗	✗	✗
W p_T	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✔	✗	✗	✗

- INCREASINGLY WIDE DATASET USED FOR PDF DETERMINATION
- HERAPDF: ONLY HERA STRUCTURE FUNCTION DATA ⇒ EXTREME CONSISTENCY
- MANY THEORETICAL AND METHODOLOGICAL IMPROVEMENTS:
  - MSTW, ABKM: ALL NNLO; NNPDF NNLO SINCE 07/11 (2.1), CT SINCE 02/13 (CT10)
  - MSTW, CT ALL MATCHED HEAVY QUARK SCHEMES; NNPDF GM-VFN SINCE 01/11 (2.1), ABMP DIFFERENT MATCHED FFN (EFFECTIVELY VFN)

GLOBAL FITS: THE DATASET IN DETAIL

	NNPDF3.0	MMHT14	CT14
SLAC P,D DIS	✔	✔	✗
BCDMS P,D DIS	✔	✔	✔
NMC P,D DIS	✔	✔	✔
E665 P,D DIS	✗	✔	✗
CDHSW NU-DIS	✗	✗	✔
CCFR NU-DIS	✗	✔	✔
CHORUS NU-DIS	✔	✔	✗
CCFR DIMUON	✗	✔	✔
NUTEV DIMUON	✔	✔	✔
HERA I NC,CC	✔	✔	✔
HERA I CHARM	✔	✔	✔
H1,ZEUS JETS	✗	✔	✗
H1 HERA II	✔	✗	✗
ZEUS HERA II	✔	✗	✗
E605 & E866 FT DY	✔	✔	✔
CDF & D0 W ASYM	✗	✔	✔
CDF & D0 Z RAP	✔	✔	✔
CDF RUN-II JETS	✔	✔	✔
D0 RUN-II JETS	✗	✔	✔
D0 RUN-II W ASYM	✗	✗	✔
ATLAS HIGH-MASS DY	✔	✔	✔
CMS 2D DY	✔	✔	✗
ATLAS W,Z RAP	✔	✔	✔
ATLAS W p_T	✔	✗	✗
CMS W ASY	✔	✔	✔
CMS W +C	✔	✗	✗
LHCB W,Z RAP	✔	✔	✔
ATLAS JETS	✔	✔	✔
CMS JETS	✔	✔	✔
TTBAR TOT XSEC	✔	✔	✗
TOTAL NLO	4276	2996	3248
TOTAL NNLO	4078	2663	3045

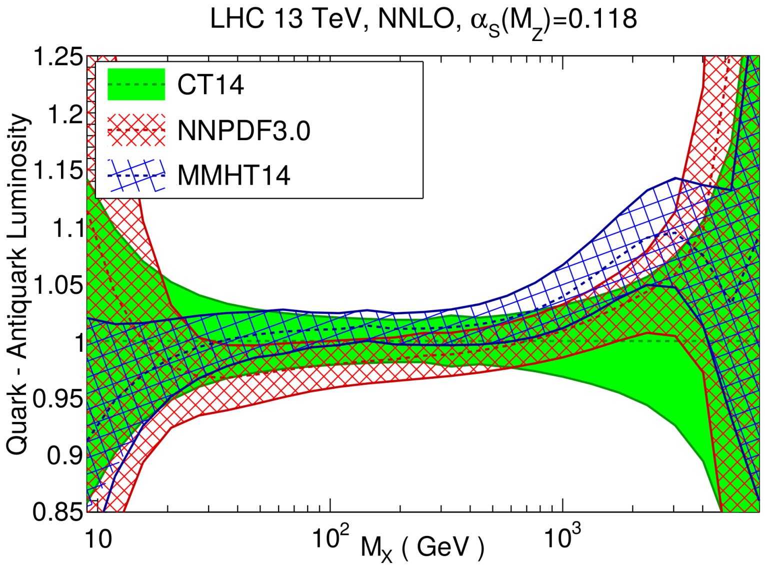
THE NNPDF3.0 DATASET



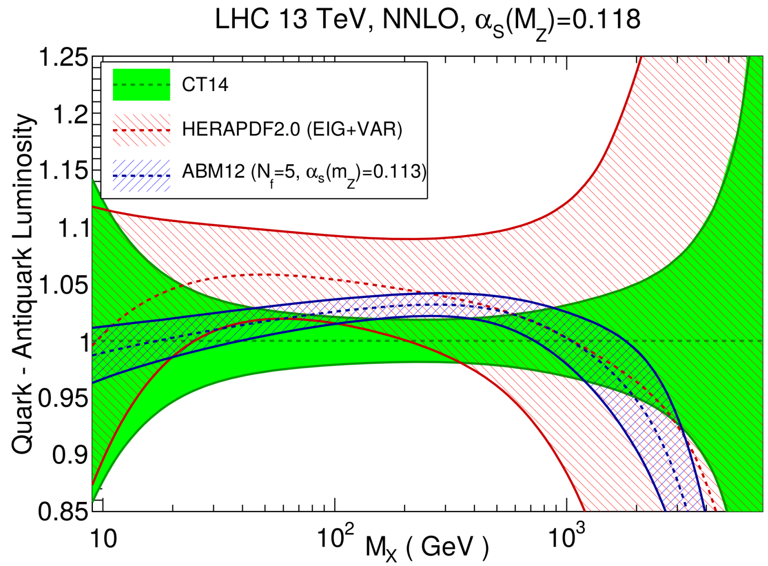
PARTON LUMINOSITIES (LHC 13)

QUARK-ANTIQUARK

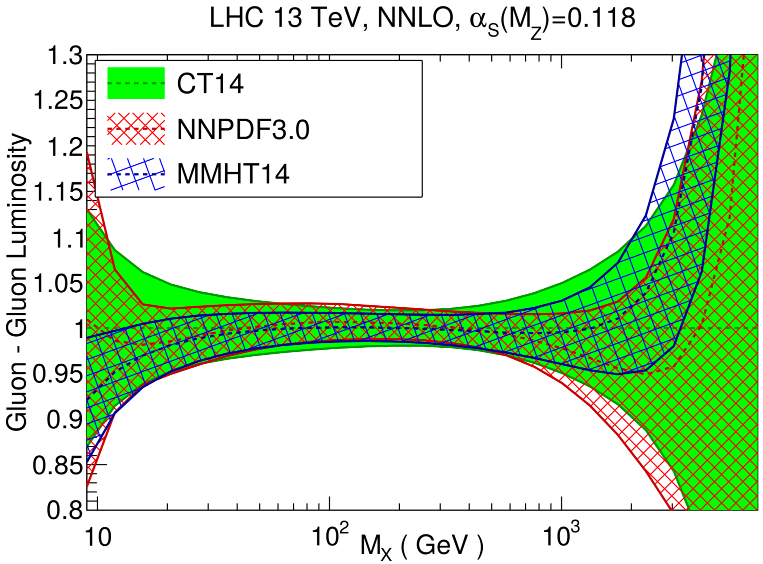
GLOBAL

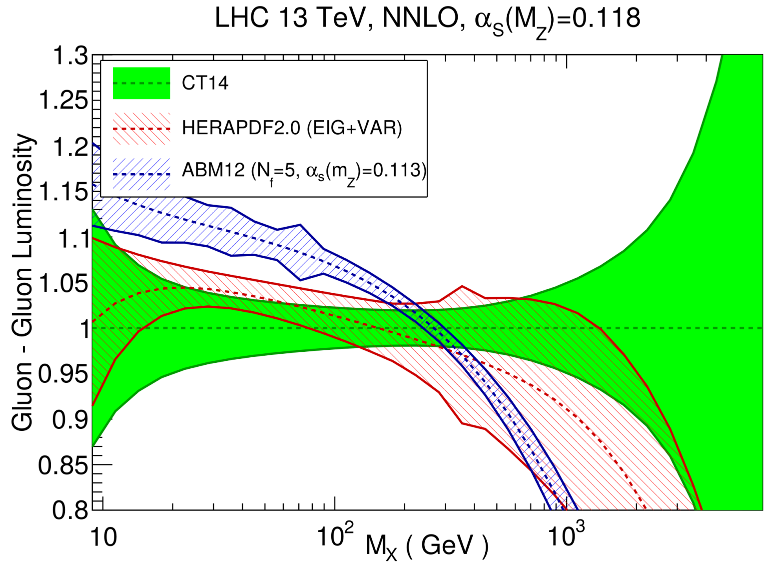


REDUCED



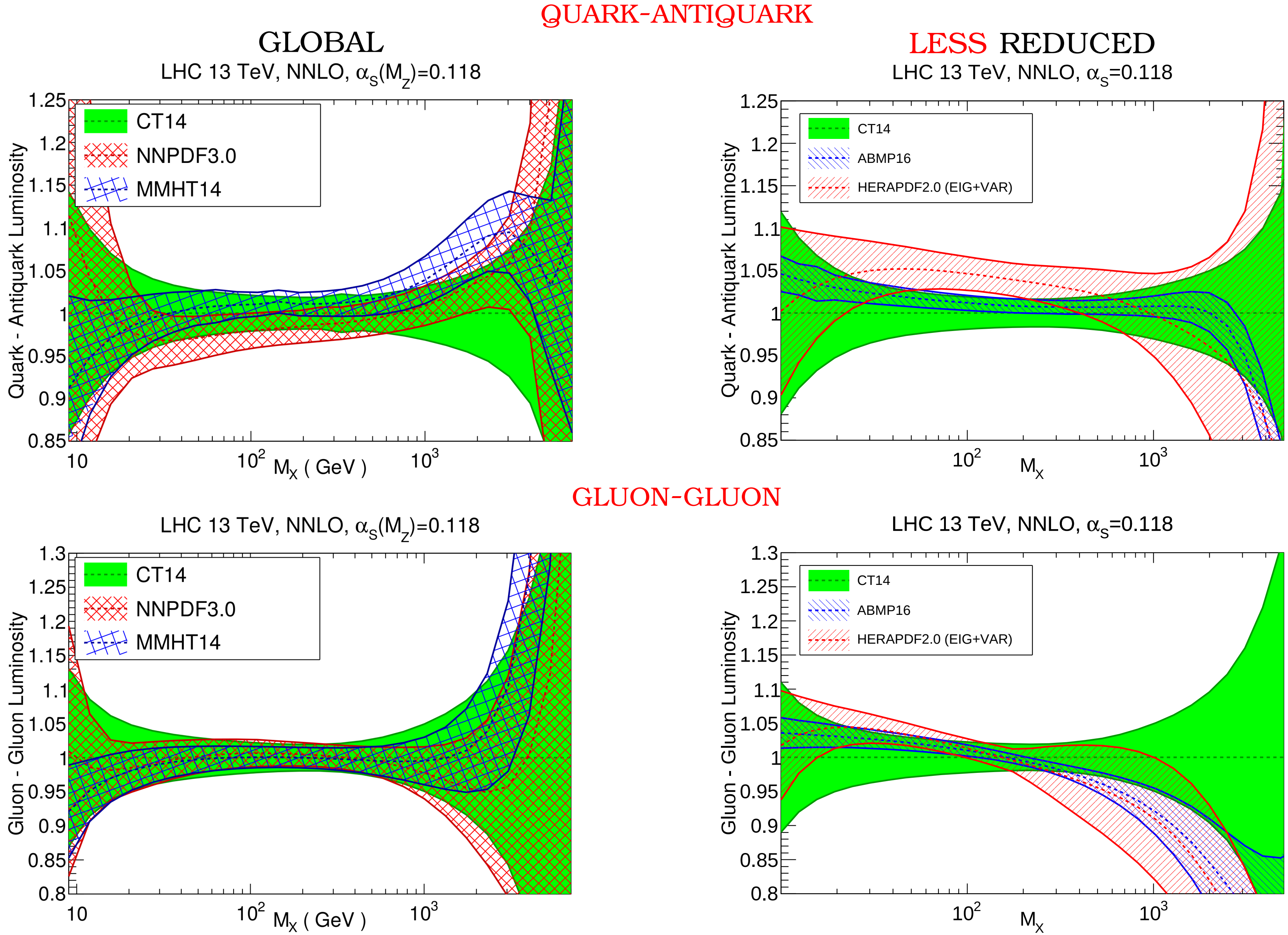
GLUON-GLUON





- GLOBAL FITS AGREE WELL
- FITS BASED ON REDUCED DATASET HAVE EITHER LARGE UNCERTAINTIES OR SHOW SIZABLE DEVIATIONS

PROGRESS I: PARTON LUMINOSITIES (LHC 13)

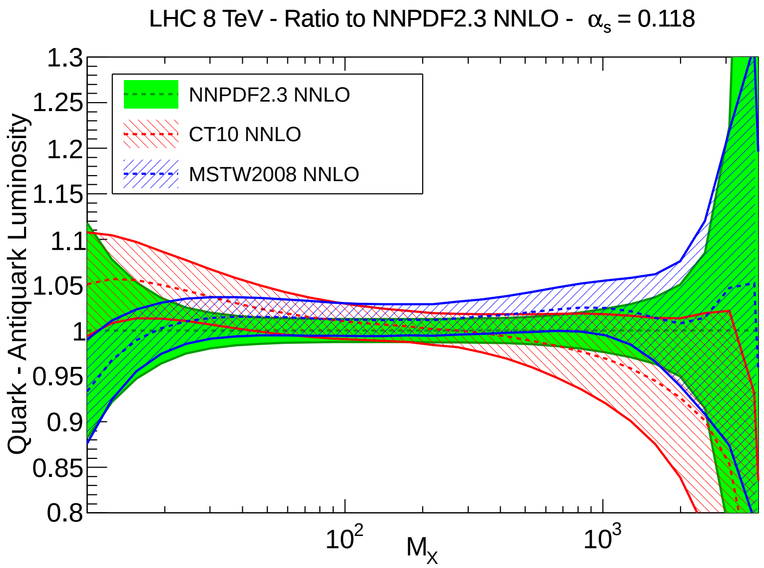


- GLOBAL FITS AGREE WELL
- FITS BASED ON REDUCED DATASET IN BETTER AGREEMENT AS DATASET ENLARGED

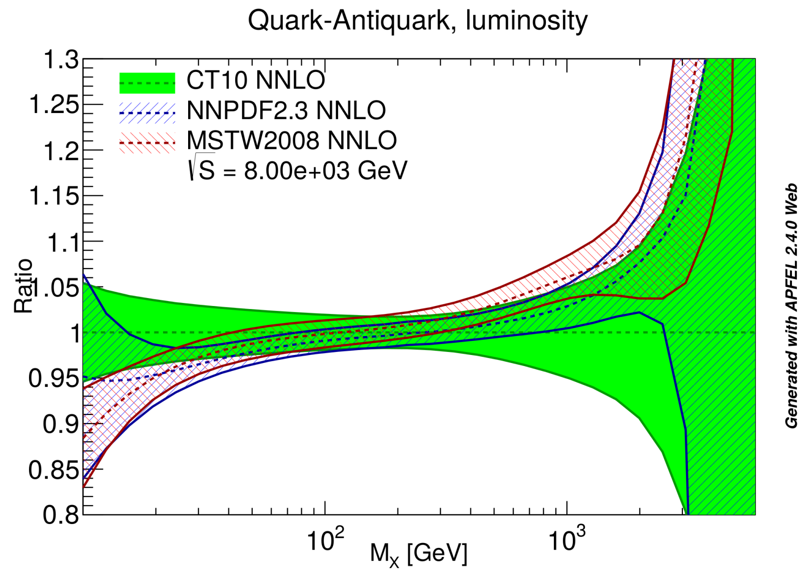
PROGRESS II: PARTON LUMINOSITIES (LHC 8)

QUARK-ANTIQUARK

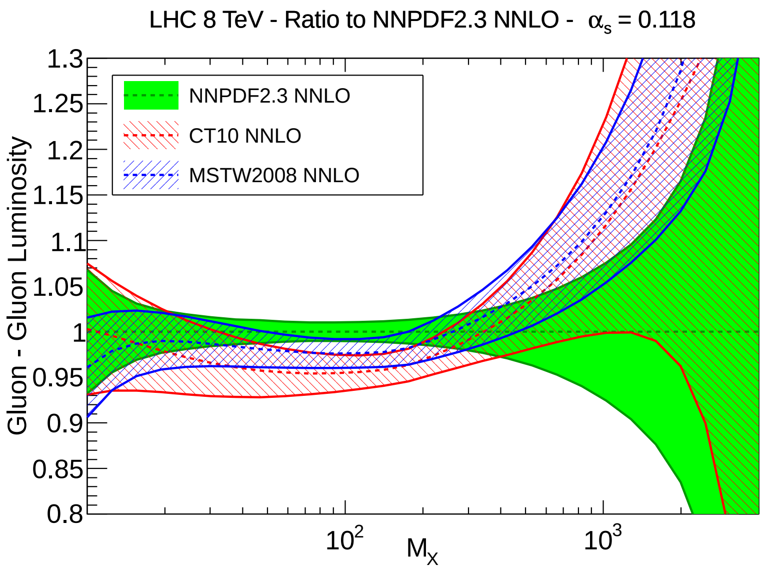
2012

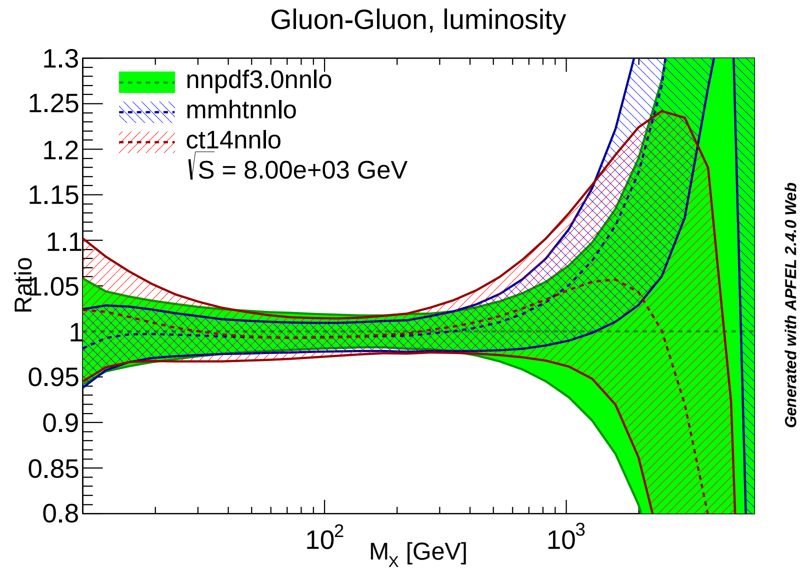


2015



GLUON-GLUON





- LONGSTANDING DISCREPANCY BETWEEN GLUON LUMINOSITIES IS GONE $\Rightarrow$ IMPACT ON HIGGS
- UNCERTAINTIES BLOW UP FOR LIGHT ($\lesssim$ 10 GeV) OR HEAVY ($\gtrsim$ 1 TeV) FINAL STATES $\Rightarrow$ IMPACT ON SEARCHES

AGREEMENT AND DISCORD

METHODOLOGY

	NNPDF3.0	MMHT14	CT14
No. of fitted PDFs	7	7	6
Parametrization	neural nets	$x^a(1-x)^b\times$ Chebyschev	$x^a(1-x)^b\times$Bernstein
Free parameters	259	37	30-35
Uncertainties	Replicas	Hessian	Hessian
Tolerance	None	Dynamical	Dynamical
Closure test	✔	✗	✗

- Q: why are PDF uncertainties on global fits of similar size?
  - similar datasets
  - but different procedures
- A: uncertainty tuned to data through tolerance (MMHT & CT) or closure testing (NNPDF)
- Q: what has driven the improved agreement of global fits
  - similar datasets
  - but different procedures
- A: DATA+METHODOLOGY

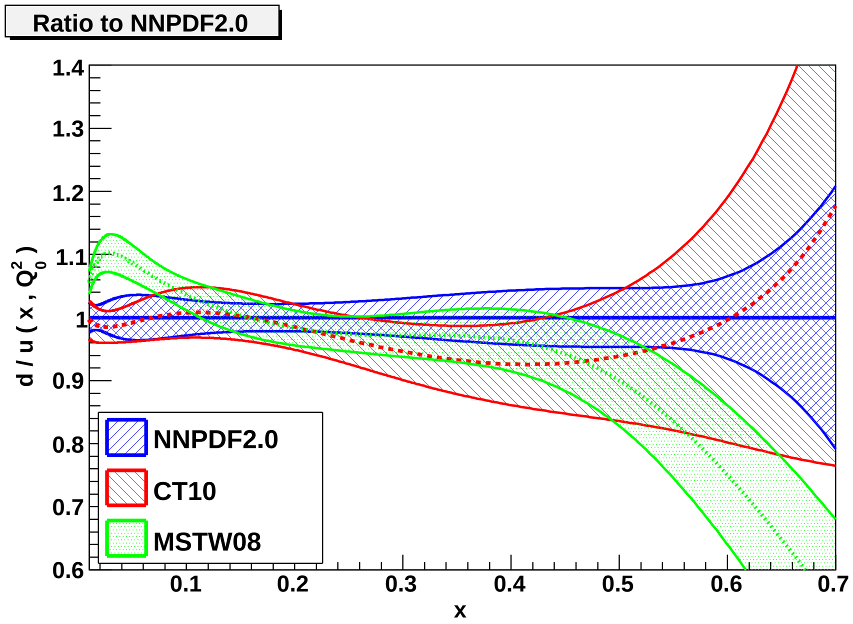
METHODOLOGICAL IMPROVEMENTS

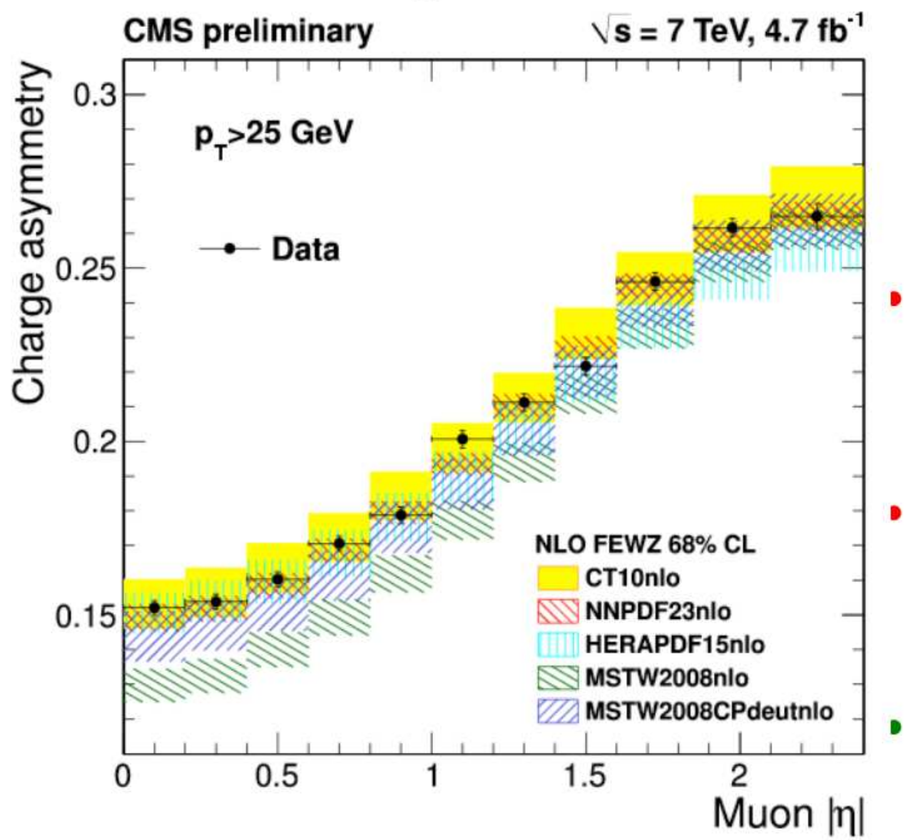
- MMHT, CT10 larger # of parms., orthogonal polynomials
- NNPDF closure test

EXAMPLE OF DATA-DRIVEN PROGRESS
MSTW/MMHT: THE d/u RATIO

THE CMS W ASYMMETRY

THE d/u RATIO





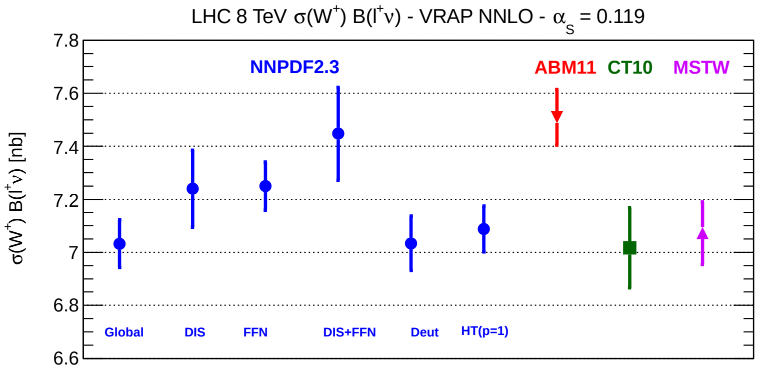
- LONG-STANDING DISCREPANCY IN THE d/u RATIO BETWEEN MSTW AND OTHER GLOBAL FITS
- RESOLVED BY W ASYMMETRY DATA
- EXPLAINED BY INSUFFICIENTLY FLEXIBLE PDF PARAMETRIZATION $\Rightarrow$ FIXED IN MSTW08DEUT/MMHT

WHY DO SOME PDF SETS DISAGREE?

FFN PDFs

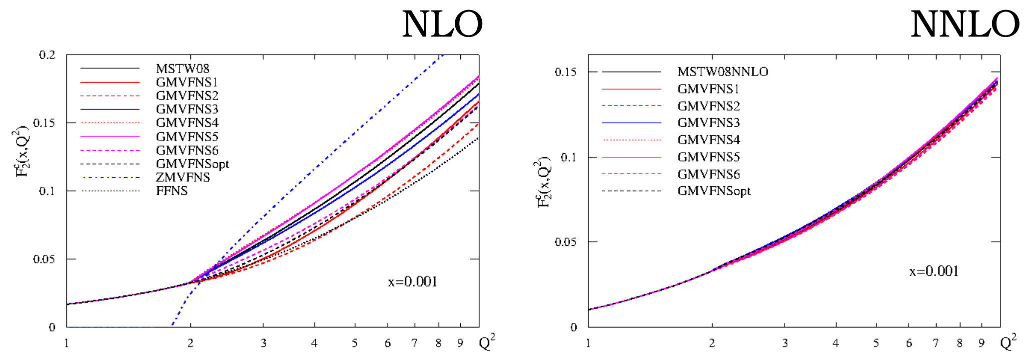
- SOME PDF SETS ADOPT A FFN SCHEME (ABM, JR)
- ALSO, ABM MOSTLY BASED ON DIS DATA
- NNPDF WITH FFN &DIS DATA SET AGREES WITH ABM
- FFN EVOLUTION WEAKER $\Rightarrow$ GLUON DISTORTED analytic argument by R.Thorne, 2012
- ABM, ABMP $\Rightarrow$ NO TOLERANCE

W^+



(NNPDF, 2013)

F_2 FFN VS VFN

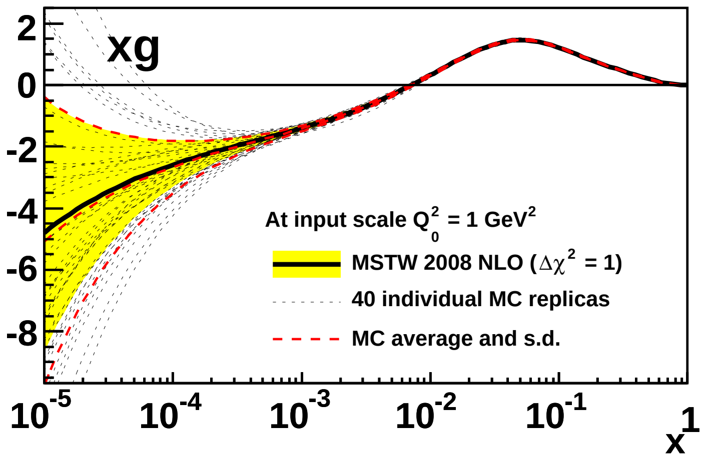


(Thorne, 2012)

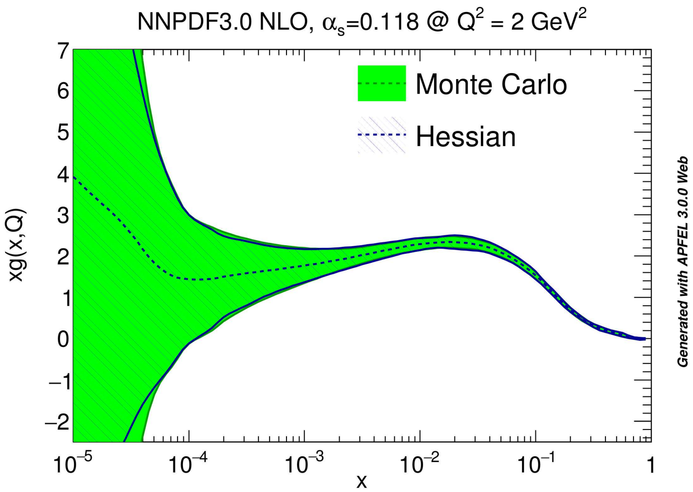
- ABMP $\Rightarrow$ COLLIDER DATA, $n_f = 5 \Rightarrow$ DISCREPANCIES REDUCED
- ABM $\Rightarrow \alpha_s(M_z) = 0.113 \pm 0.001$;QUAD ABM $\Rightarrow \alpha_s(M_z) = 0.115 \pm 0.001$

CONVERSION TOOLS
MC $\Leftrightarrow$ HESSIAN

- TO CONVERT HESSIAN INTO MONTECARLO GENERATE MULTIGAUSSIAN REPLICAS IN PARAMETER SPACE
- ACCURATE WHEN NUMBER OF REPLICAS SIMILAR TO THAT WHICH REPRODUCES DATA



(Thorne, Watt, 2012)

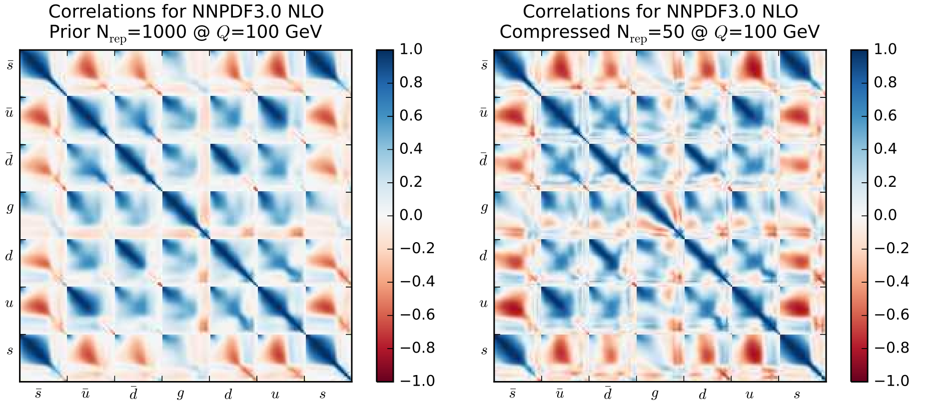


(Carrazza, SF, Kassabov, Rojo, 2015)

- TO CONVERT MONTE CARLO INTO HESSIAN, SAMPLE THE REPLICAS $f_i(x)$ AT A DISCRETE SET OF POINTS & CONSTRUCT THE ENSUING COVARIANCE MATRIX
- EIGENVECTORS OF THE COVARIANCE MATRIX AS A BASIS IN THE VECTOR SPACE SPANNED BY THE REPLICAS BY SINGULAR-VALUE DECOMPOSITION
- NUMBER OF DOMINANT EIGENVECTORS SIMILAR TO NUMBER OF REPLICAS $\Rightarrow$ ACCURATE REPRESENTATION

COMPRESSION TOOLS

MONTECARLO



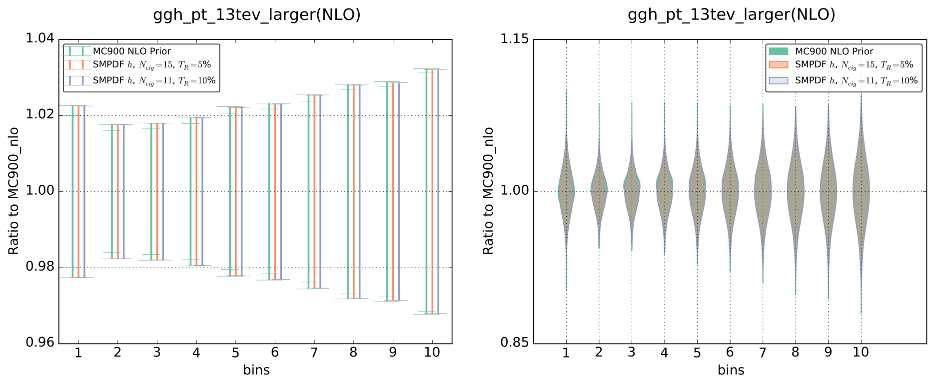
(Carrazza, Latorre, Kassabov, Rojo, 2015)

- CONSTRUCT A VERY LARGE REPLICA SAMPLE
- SELECT (BY GENETIC ALGORITHM) A SUBSET OF REPLICAS WHOSE STATISTICAL FEATURES ARE AS CLOSE AS POSSIBLE TO THOSE OF THE PRIOR
- $\Rightarrow$ FOR ALL PDFs ON A GRID OF POINTS// MINIMIZE DIFFERENCE OF: FIRST FOUR MOMENTS, CORRELATIONS; OUTPUT OF KOLMOGOROV-SMIRNOV TEST (NUMBER OF REPLICAS BETWEEN MEAN AND σ, 2σ, INFINITY)
- 50 COMPRESSED REPLICA REPRODUCE 1000 REPLICA SET TO PRECENT ACCURACY

CAN REPRODUCE NONGAUSSIAN FEATURES WITH REASONABLY SMALL REPLICA SAMPLE

HESSIAN

- SELECT SUBSET OF THE COVARIANCE MATRIX CORRELATED TO A GIVEN SET OF PROCESSES
- PERFORM SVD ON THE REDUCED COVARIANCE MATRIX, SELECT DOMINANT EIGENVECTOR, PROJECT OUT ORTHOGONAL SUBSPACE
- ITERATE UNTIL DESIRED ACCURACY REACHED
- CAN ADD PROCESSES TO GIVEN SET; CAN COMBINE DIFFERENT OPTIMIZED SETS
- 15 EIGENVECTORS DESCRIBE ALL HIGGS MODES + JETS + W, Z PRODUCTION



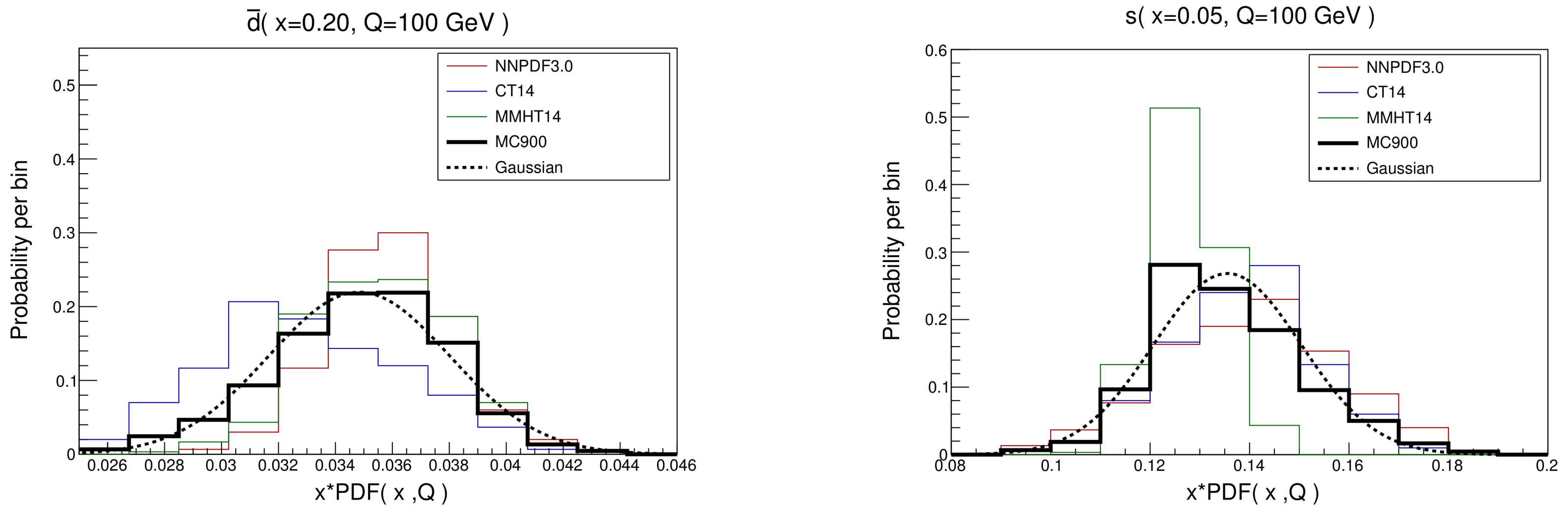
(Carrazza, SF, Kassabov, Rojo, 2016)

VERY SMALL NUMBER OF EVECS; CAN COMBINE WITH NUISANCE PARMS

MONTE CARLO COMBINATION

- MAY COMBINE DIFFERENT PDF SETS, AFTER MC CONVERSION OF HESSIAN SETS
- COMBINE MONTE CARLO REPLICAS INTO SINGLE SET
- COMBINED SET APPROXIMATELY GAUSSIAN

COMBINED PDF4LHC SETS FOR ANTIDOWN & STRANGE

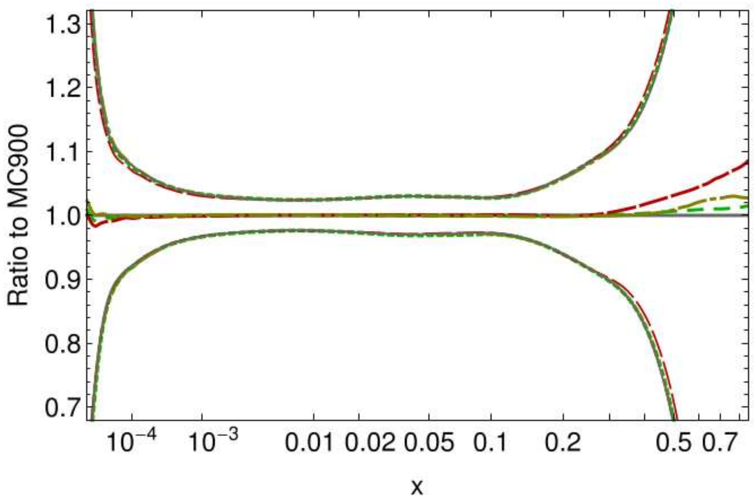


THE PDF4LHC15 COMBINED PDF SET

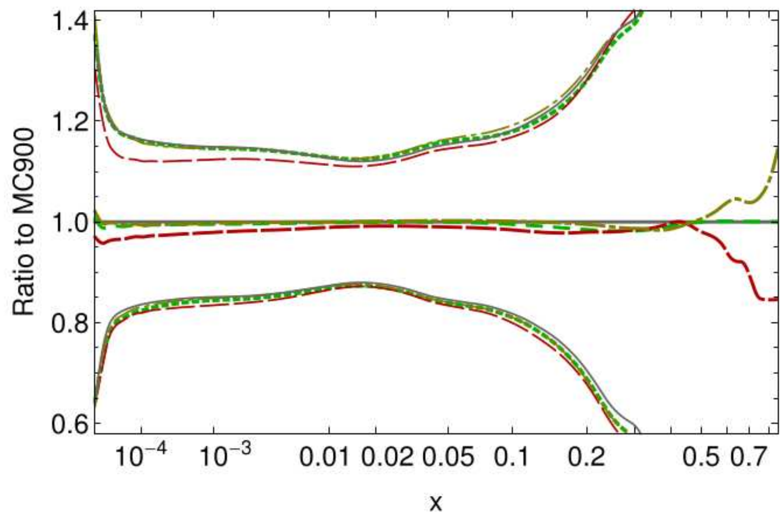
- INCLUDES CT14, MMHT, NNPDF3.0
- 900 REPLICAS (300 FOR EACH SET) ENSURE PRECENTAGE ACCURACY ON ALL QUANTITIES

300, 900,1800 REPLICAS
(RATIO TO 900)

gluon



strange



DELIVERY

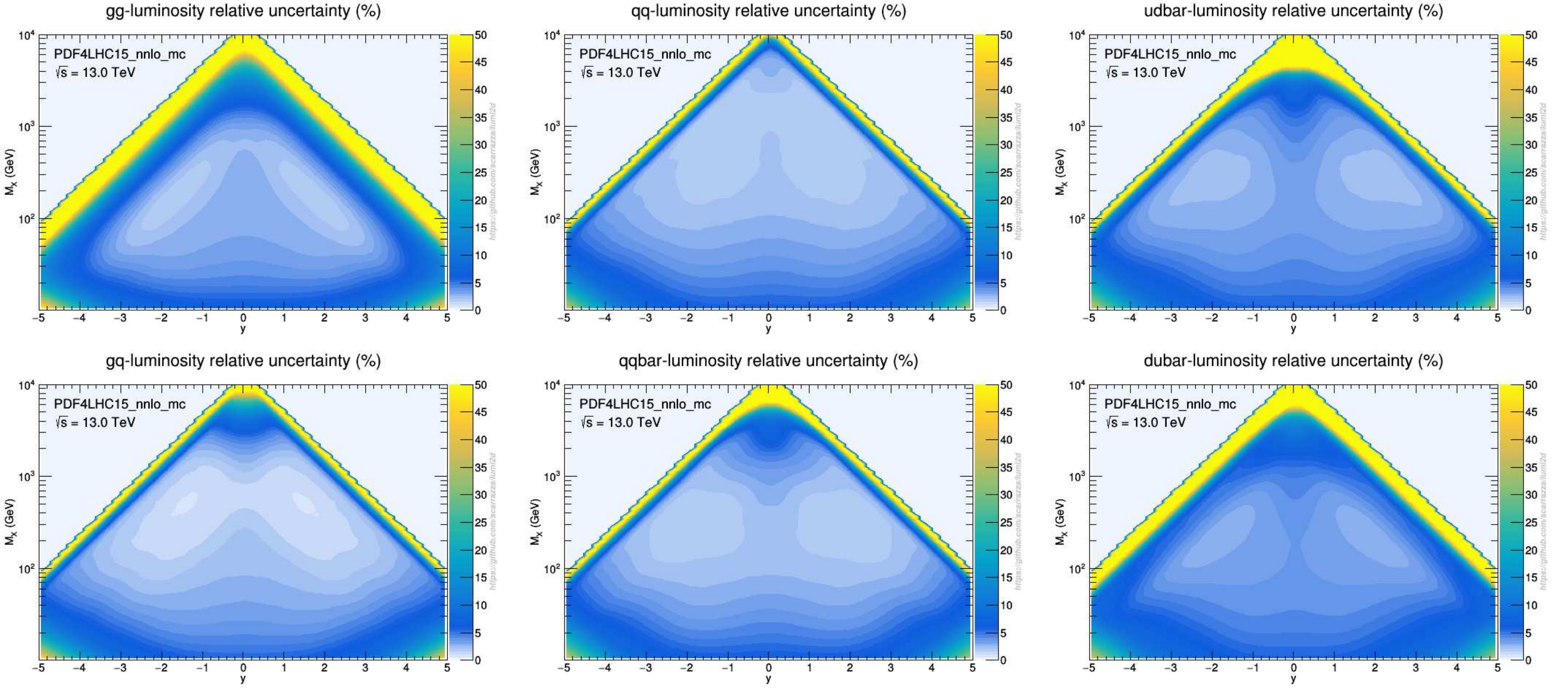
- 100 REPLICA COMPRESSED MONTE CARLO
- 100 EIGENVECTOR AND 30 EIGENVECTOR HESSIAN SETS

THE STATE OF THE ART

THE KARLSRUHE PLOTS

THE STATE OF THE ART: PDF4LHC15, NNLO

GLUON SINGLET FLAVORS



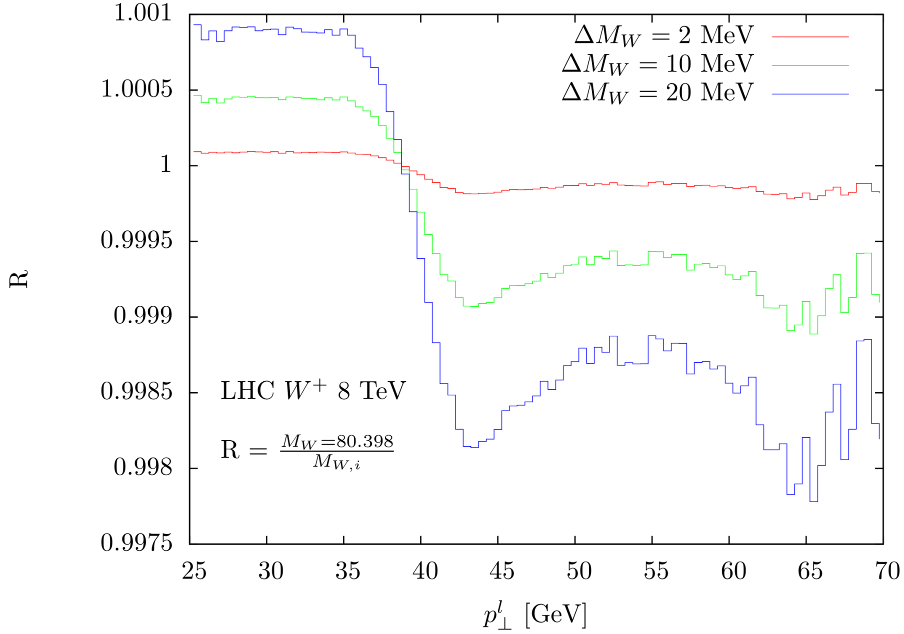
- GLUON BETTER KNOWN AT SMALL x, VALENCE QUARKS AT LARGE x, SEA QUARKS IN BETWEEN
- SWEET SPOT: VALENCE Q - G; UNCERTAINTIES DOWN TO 1%
- UP BETTER KNOWN THAN DOWN; FLAVOR SINGLET BETTER THAN INDIVIDUAL FLAVORS
- NO QUALITATIVE DIFFERENCE BETWEEN NLO AND NNLO

CAN WE BELIEVE IN 1% PDF UNCERTAINTIES?

PDFs AND THE W MASS

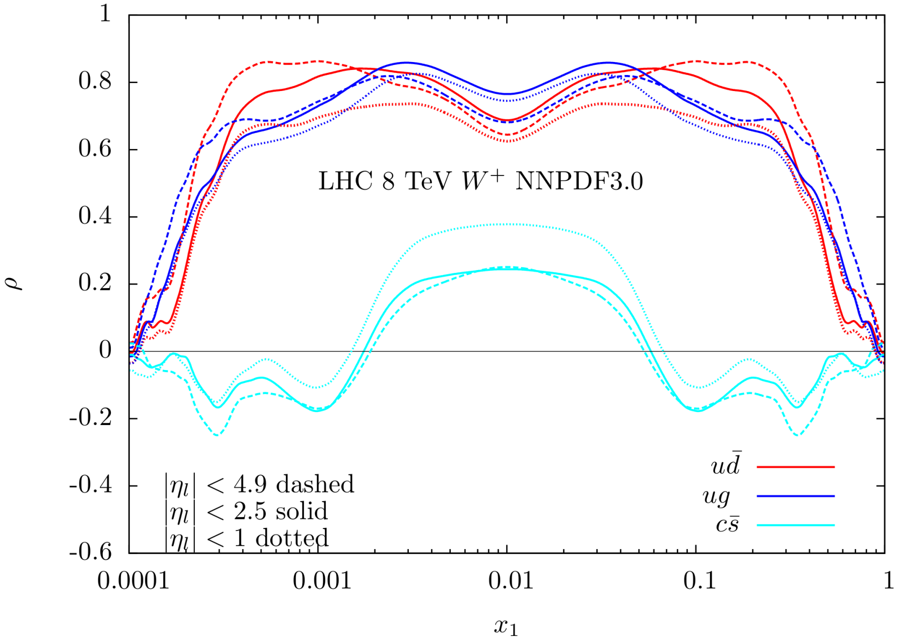
DETERMINING THE W MASS
THE TEMPLATE METHOD

p_T SHAPE VS. M_W



CORRELATION OF XSECT TO LUMI

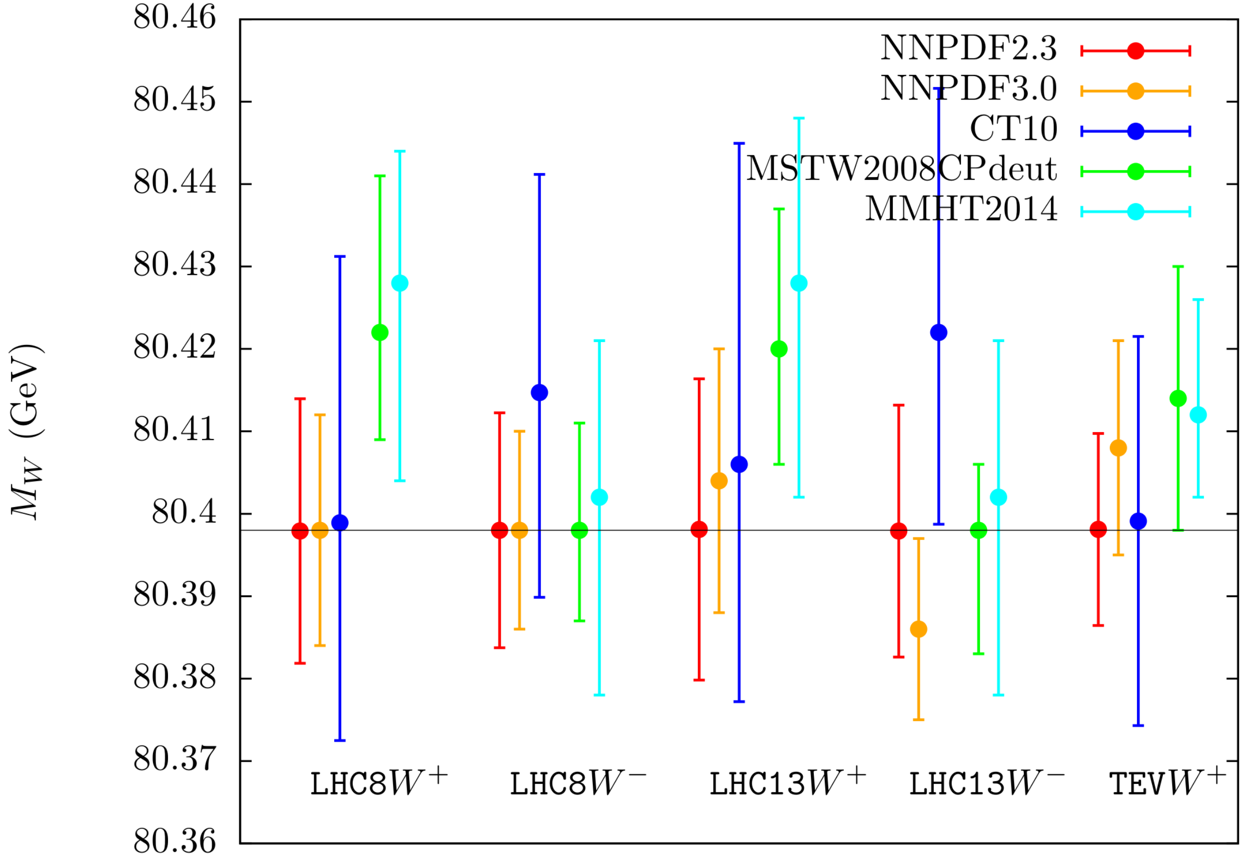
($p^l_t = 40.5$ GEV, $p^W_T < 15$ GEV)



(Bozzi, Citelli, Vicini, 2015)

- TEMPLATE METHOD: W MASS EXTRACTED BY COMPARING OBSERVED SPECTRA TO THEORY: LEPTON PAIR TRANSVERSE MASS, LEPTON p^l_T
- SHAPE DEPENDS ON p^l_T: LARGER M_W, FASTER DROP AT HIGH p^l_T, LARGER XSECT AT SMALL p^l_T
- STRONG CORRELATION TO LEADING PARTON LUMIS ($u\bar{d}$ & $c\bar{s}$ FOR W^+) BUT ALSO TO NL LUMI (GLUON-INDUCED: ug)

DETERMINING THE W MASS
RESULTS



(Bozzi, Citelli, Vicini, 2015)

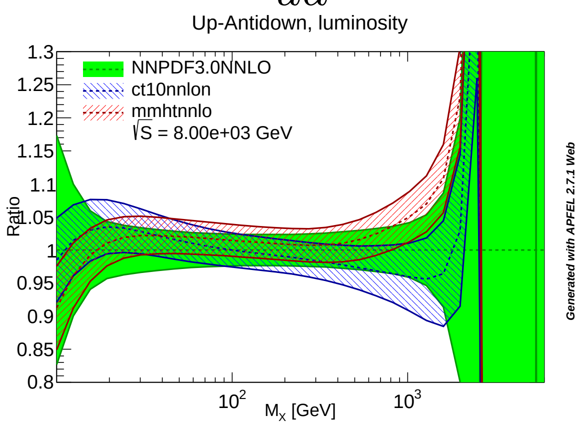
- STRONG DEPENDENCE ON PDF SET OF BOTH CENTRAL VALUE & UNCERTAINTY
- PECULIAR ASYMMETRY BETWEEN W^+ & W^-
- DIFFERENCE LARGE IN COMPARISON TO PDF UNCERTAINTY

WHAT'S GOING ON?

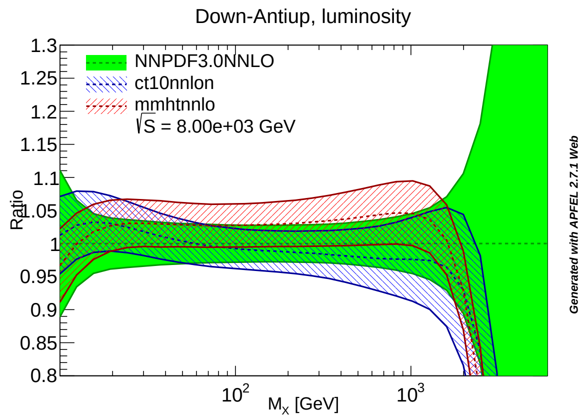
THE W MASS AND PDFs

LUMINOSITIES

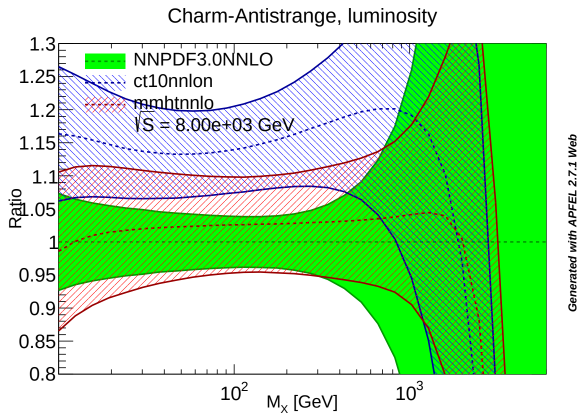
$u\bar{d}$



$d\bar{u}$



$c\bar{s}$



- FOR THE W p_T DISTRIBUTION THE HARD SCALE IS $M_X = \left(\sqrt{{p_T^W}^2 + m_W^2} + p_T\right)$
- DIFFERENT SETS HAVE SIGNIFICANTLY DIFFERENT M_X SLOPES $\Rightarrow$ DIFFERENT M_W
- UNCERTAINTIES IN $c\bar{s}$ LUMI SIGNIFICANTLY DIFFERENT

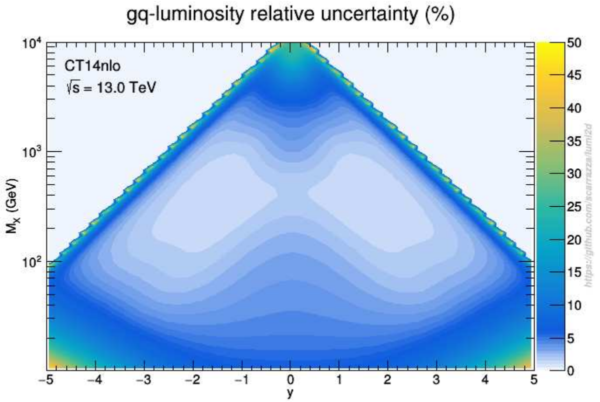
SMALL DIFFERENCES IN PDF AMPLIFIED TO LARGER DIFFERENCES IN SLOPE

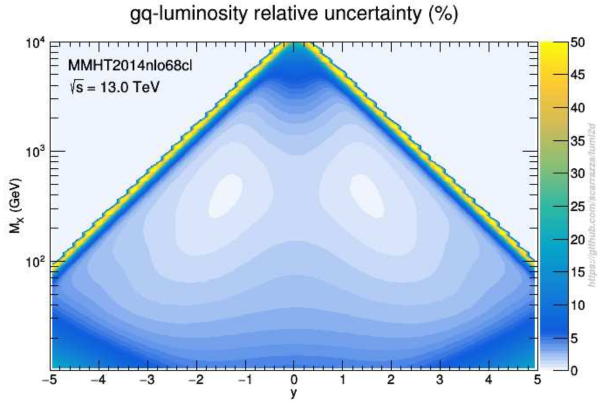
CHALLENGES

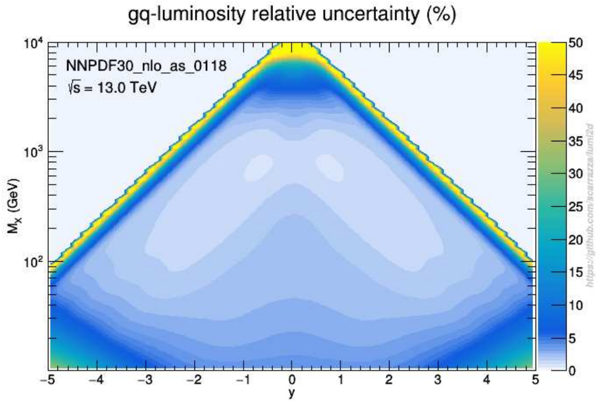
PRECISION VS. ACCURACY

qg

CT14 | MMHT | NNPDF3.0







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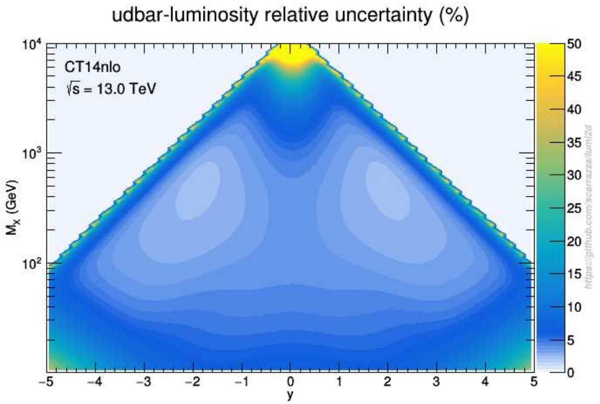
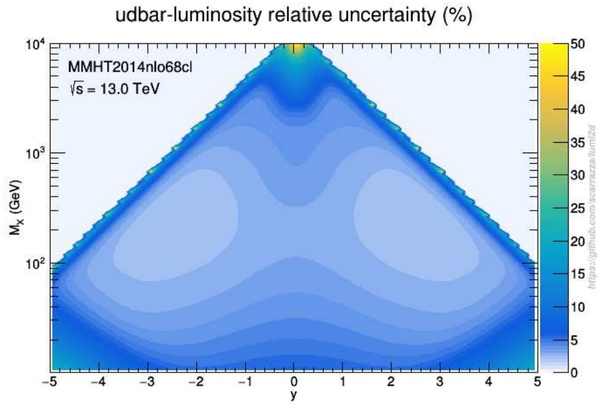
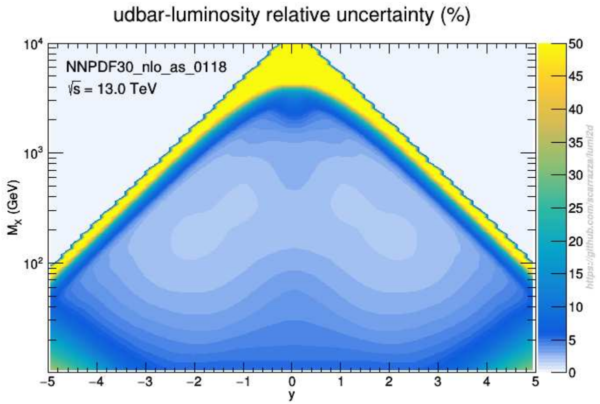






- PDF UNCERTAINTIES AS LOW AS 1%
- YET DIFFERENCES IN UNCERTAINTIES BETWEEN GLOBAL FITS ALWAYS OF ORDER OF SEVERAL PERCENT
- DOES THE PRECISION MATCH THE ACCURACY?

A SOLUTION: NEXT GENERATION PDFs

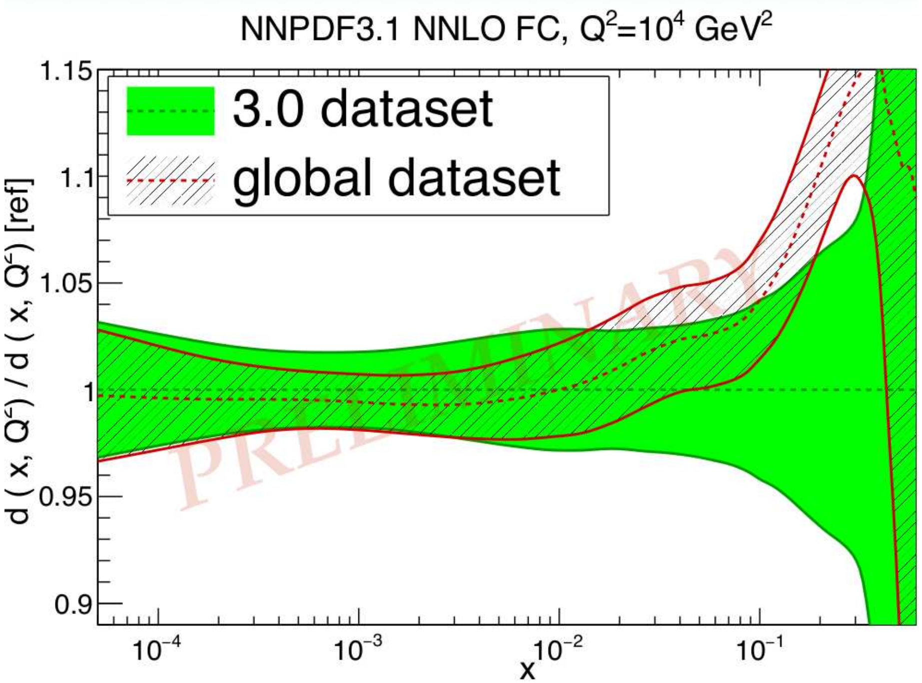
AN EXAMPLE: NNPDF3.1

NNPDF3.0 DATASET SUPPLEMENTED BY

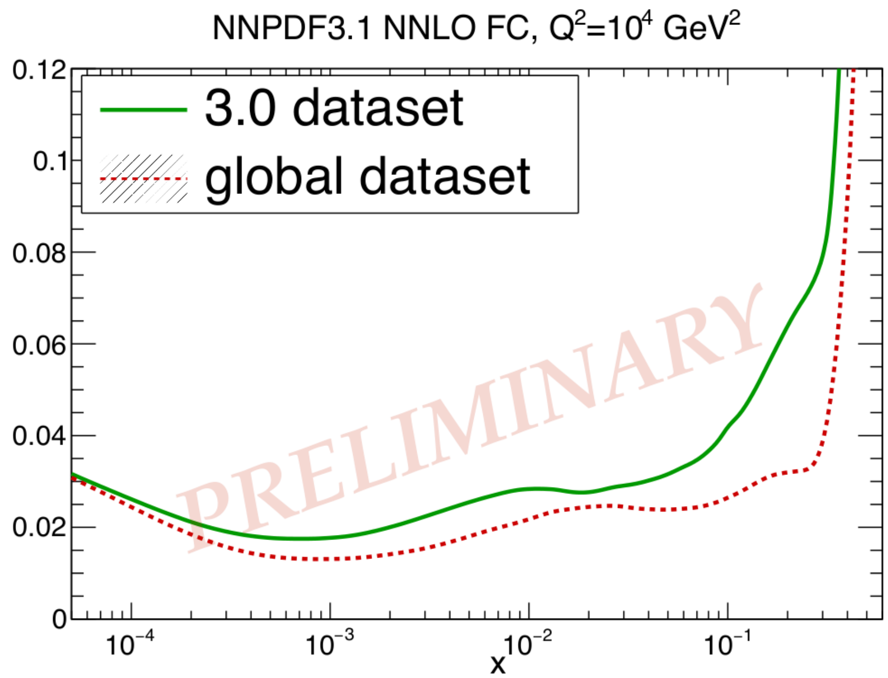
- Tevatron legacy Z rapidity, W asymmetry & jet data
- ATLAS W, Z rapidity, and total xsect (incl. 13TeV), high and low mass DY, jets
- CMS W asymmetry, $W + c$ total & ratio, double-differential DY and jets
- LHCb W and Z rapidity distributions
- ATLAS and CMS Z p_T distributions
- ATLAS and CMS top total cross-section & differential rapidity distribution

NNPDF3.1 (PRELIM.)

D PDF



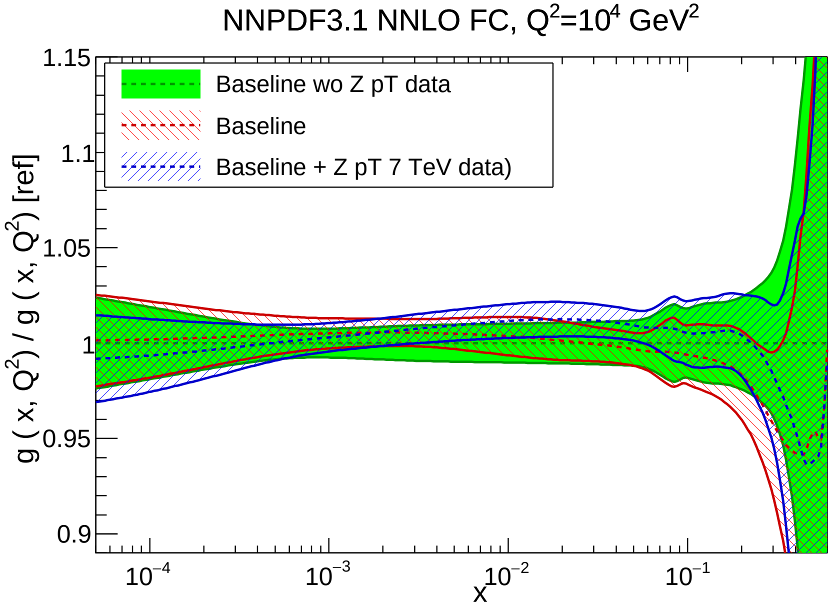
RELATIVE UNCERTAINTY



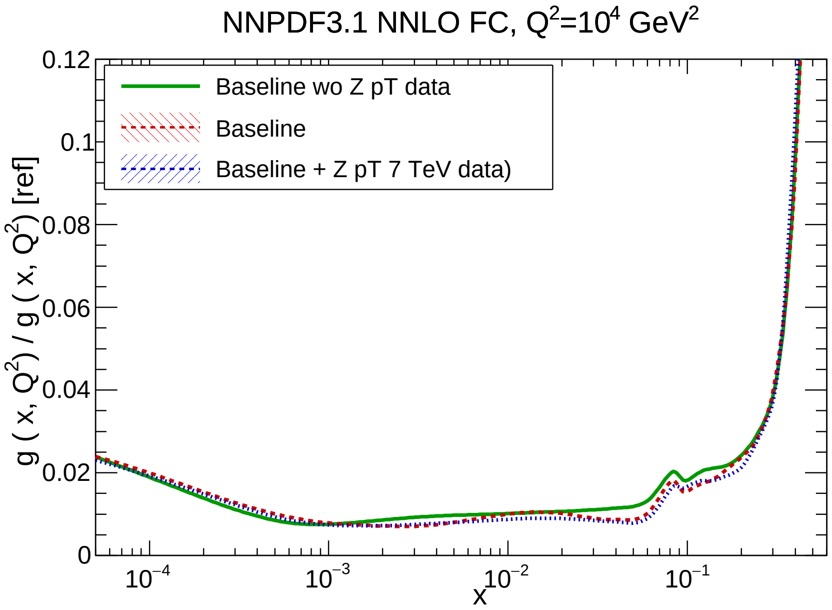
- SURELY HIGHER PRECISION
- HOPEFULLY BETTER ACCURACY

NEXT GENERATION PDFs CHALLENGES
AN EXAMPLE: THE Z p_T DISTIBUTION
NNPDF3.1: IMPACT OF THE Z p_T DATA

G PDF



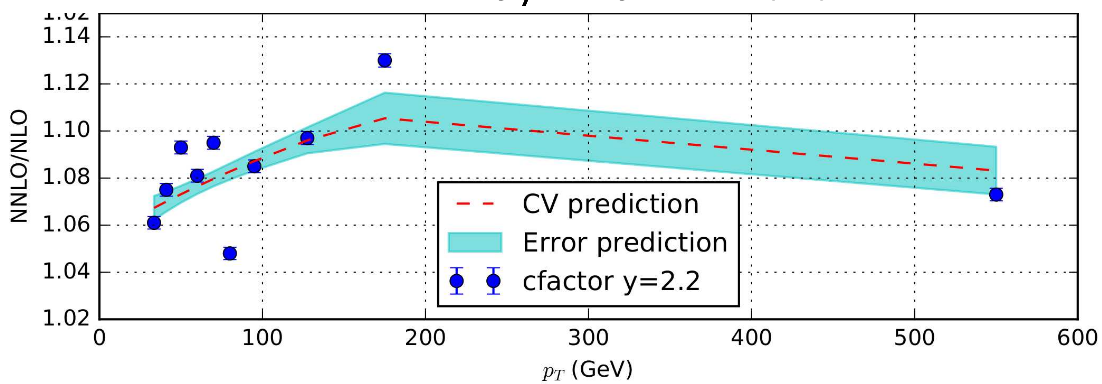
RELATIVE UNCERTAINTY



- 8 TeV ATLAS+CMS ⇒ GOOD FIT, INCREASE IN PRECISION ✔
- 7 TeV ATLAS ⇒ POOR FIT, NO INCREASE IN PRECISION ✗
- DETAILED STATISTICAL ANALYSIS NEEDED IN ORDER TO DECIDE WHICH DATASET MAY BE INCLUDED
- THEORY, EXPERIMENTAL, AND PHENO ISSUES

THEORY CHALLENGES
ESTIMATING THE UNCERTAINTY IN THEORY CALCULATIONS

AN EXAMPLE: ATLAS 7 TeV p_T DISTRIBUTION
THE NNLO/NLO K-FACTOR



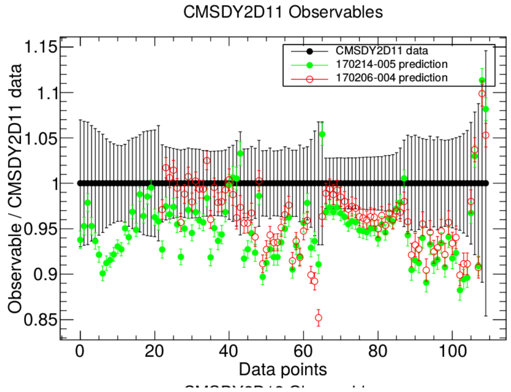
(Boughezal, Liu, Petriello, 2016-2017)

- UNCORRELATED STATISTICAL UNCERTAINTIES AT PERMILLE LEVEL
- LARGE NNLO CORRECTIONS $\sim 10\%$
- NOMINAL K-FACTOR UNCERTAINTIES VERY SMALL: UNDERESTIMATED?
- FIT ONLY POSSIBLE WITH RELIABLE ESTIMATE OF UNCERTAINTY ON THEORY PREDICTION
- NNPDF3.1: EXTRA 1% THEORY UNCERTAINTY ESTIMATED BASED ON FLUCTUATIONS W.R. TO INTERPOLATION (SHADED IN PLOT)

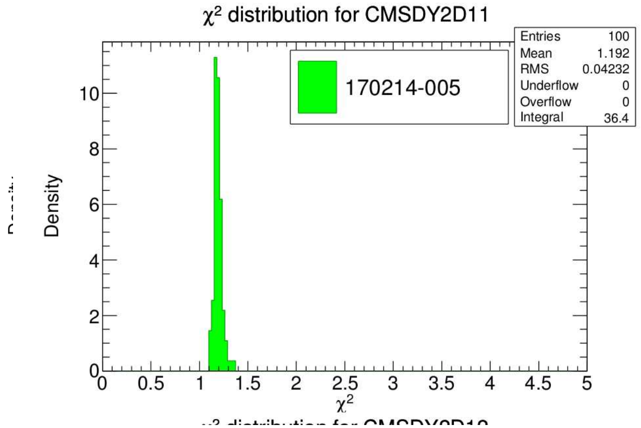
EXPERIMENTAL CHALLENGES
ESTIMATING THE UNCERTAINTY ON THE COVARIANCE MATRIX
AN EXAMPLE: THE CMS 2D DY DISTRIBUTION

2011

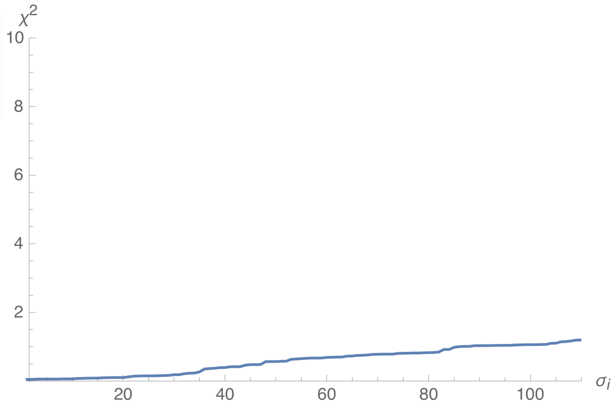
DATA/THEORY VS. DATA BIN



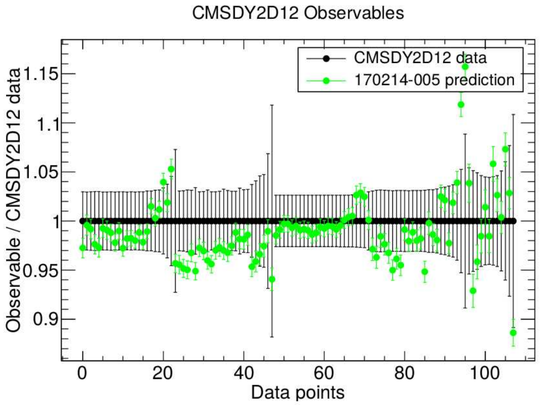
χ^2/dof HIST. OVER REPLICAS

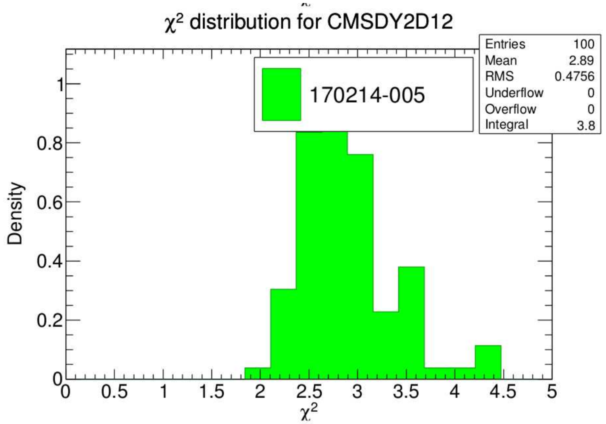


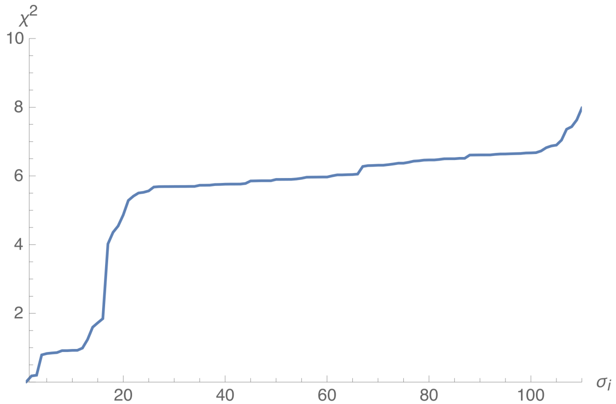
χ^2 AS COVMAT EIGVECS ADDED



2012







- UNCORRELATED STATISTICAL UNCERTAINTIES AT PERMILLE LEVEL
- 2011 DATA WELL FITTED, 2012 IMPOSIBLE TO FIT
  HIGH MEAN χ^2, DISTRIBUTION OF χ^2 OVER REPLICAS STRONGLY DISTORTED
- ANOMALOUS DEP. OF χ^2 ON EIGENVECTORS $\Rightarrow$ PROBLEMATIC COV. MATRIX
- BREAKDOWN OF COVARIANCE MATRIX INTO INDIVIDUAL SYSTEMATICS NOT AVAILABLE
- WHAT IS THE UNCERTAINTY ON THE COVARIANCE MATRIX?

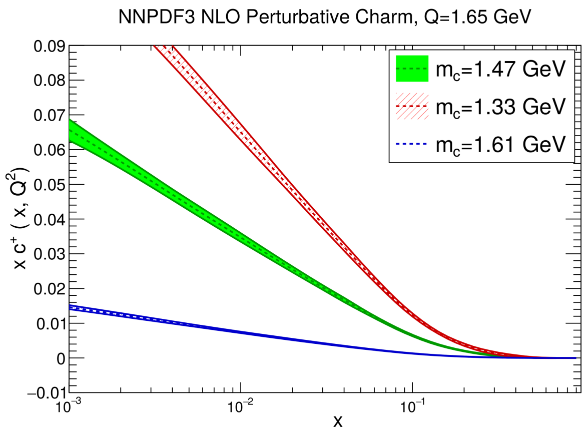
PHENOMENOLOGY CHALLENGES
FITTING HEAVY QUARK PDFs

- HEAVY QUARK PDFs USUALLY GENERATED BY PERTURBATIVE EVOLUTION $\Rightarrow$ DEPEND SIGNIFICANTLY ON THE MASS WHICH SETS THE PHYSICAL THRESHOLD
- DEPENDENCE SEEN BOTH AT LOW AND HIGH SCALE
- SHAPE SEVERELY LIMITED (BIASED) BY LOW-ORDER PERTURBATIVE APPROXIMATION
- SOLUTION: FIT HQ PDFs

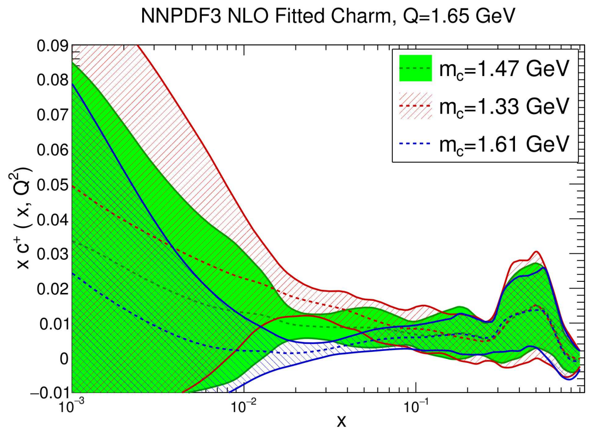
THE CHARM PDF

LOW SCALE

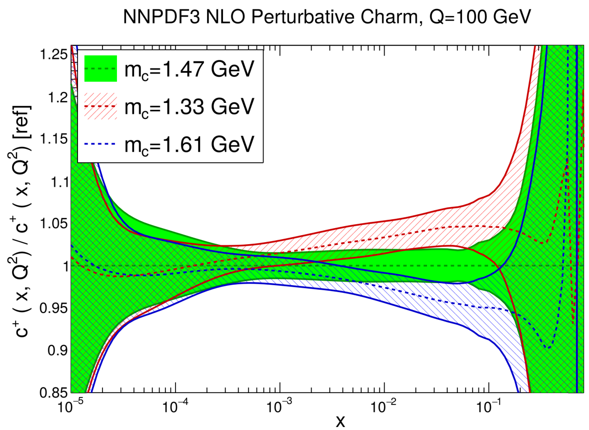
PERTURBATIVE

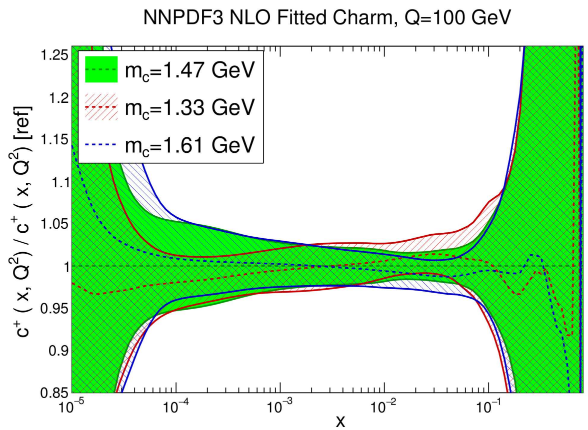


FITTED



HIGH SCALE





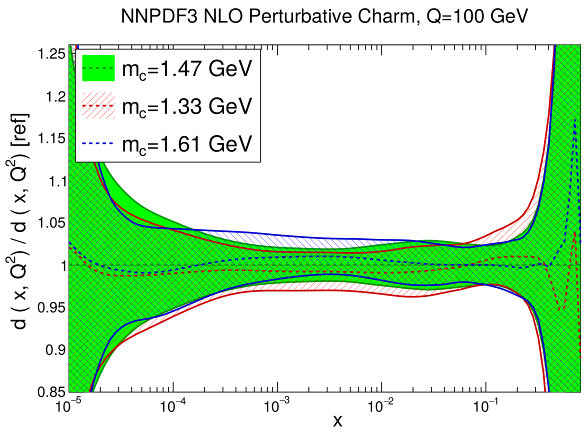
(Ball et al; NNPDF, 2016)

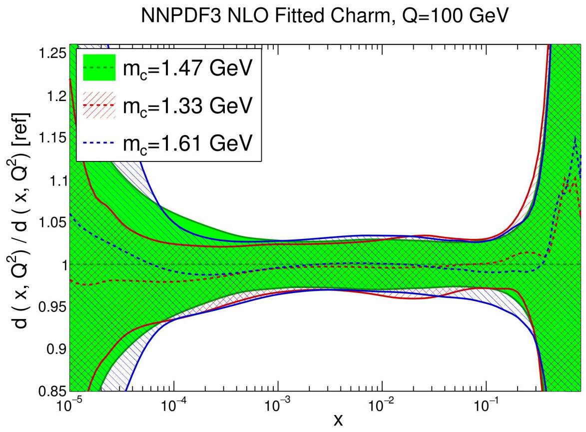
THE LIGHT QUARKS

DOWN

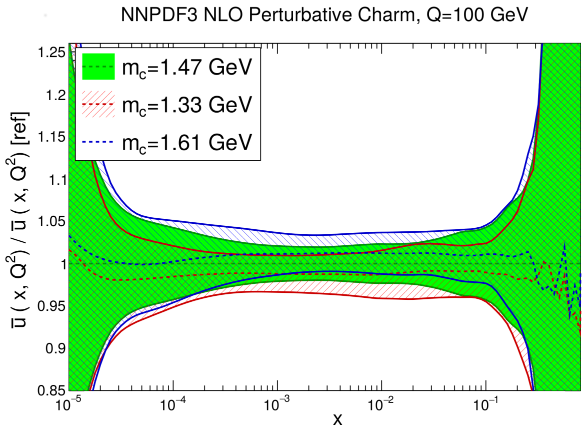
PERTURBATIVE

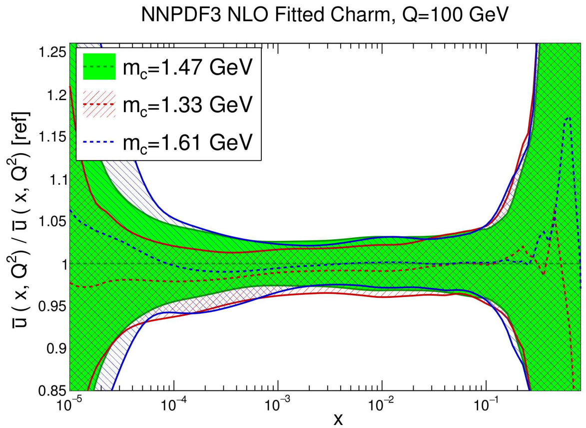
FITTED





ANTIUP





- PERTURBATIVE CHARM: PDFS DEPEND SIGNIFICANTLY ON THE MASS WHICH SETS THE PHYSICAL CHARM THRESHOLD; DEPENDENCE SEEN BOTH AT LOW AND HIGH SCALE, FOR ALL QUARKS, LIGHT AND HEAVY;
- FITTED CHARM: LIGHT QUARKS INDEPENDENT OF CHARM MASS
- m_c UNCERTAINTY REABSORBED IN PDF UNCERTAINTY
- HEAVY QUARK PDFS SHOULD BE FITTED IN ORDER TO AVOID BIAS

SUMMARY

- IMPORTANT MEASUREMENTS SUCH AS THE W MASS STRONGLY DEPEND ON PDFs
- CURRENT PDF UNCERTAINTIES ARE AT THE PERCENT LEVEL, REFELECTING PRECISE UNDERLYING DATA
- ACCURACY ISSUES:
  - UNCERTAINTY ON THEORY PREDICTIONS
  - UNCERTAINTY ON THE EXPERIMENTAL UNCERTAINTY
  - SOURCE OF THEORETICAL BIAS (HEAVY QUARKS, ELECTROWEAK CORRECTIONS, PARTON SHOWERING....)
- EVENTUALLY, PDF UNCERTAINTIES WILL HAVE TO INCLUDE THEORY UNCERTAINTIES

NO EFFECT THAT REQUIRES MORE THAN 10% ACCURACY IN MEASUREMENT IS WORTH INVESTIGATING

Walther Nernst

~~NO EFFECT THAT REQUIRES MORE THAN 10% ACCURACY IN MEASUREMENT IS WORTH INVESTIGATING~~

Walther Nernst

ACCURACY OF OBSERVATION IS THE EQUIVALENT OF ACCURACY OF THINKING

Wallace Stevens