



# HERAFitter User's Meeting status report



## Outline:

- Announcements
- List of recent results and conference participation
- Latest Developments for next release
- Today's Agenda



# Announcements

June 2014						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	<u>24</u>	<u>25</u>	26	27	28
29	<u>30</u>	<u>1</u>	2	3	4	5

- ◆ Next Users meeting: please fill in the doodle:

- ▶ <http://doodle.com/hug3wc7si8tqxcsr>

- ◆ Upcoming event where HERAFitter place a key role:

## Proton Structure in the LHC Era - School and Workshop

from 29 September 2014 to 02 October 2014 (Europe/Berlin) *DESY Hamburg*  
Europe/Berlin timezone

<b>Overview</b>
Scientific Programme
Timetable
Contribution List
Author index

[✉ Contact and support](#)

More details coming soon - timetable is still under heavy development.

**Dates:** from 29 September 2014 08:00 to 02 October 2014 18:00  
**Timezone:** Europe/Berlin  
**Location:** *DESY Hamburg*  
Notkestr. 85  
D-22607 Hamburg  
Germany  
**Additional info:** Main organisers:  
Katerina Lipka  
Ringaile Placakyte  
Voica Radescu  
Thomas Schoerner-Sadenius  
Fred Olness (CTEQ)



# New Results based on HERAFitter

- ◆ There are new results from LHC (CMS, ATLAS) and independent users:

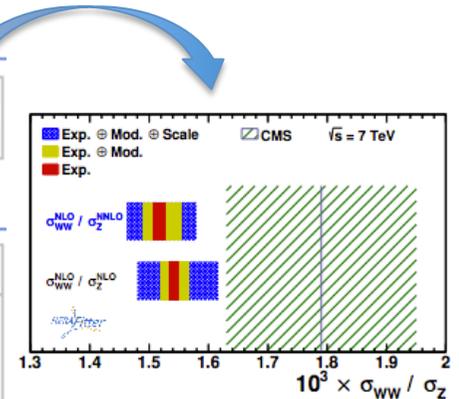
<https://www.herafitter.org/HERAFitter/HERAFitter/results>

## List of analyses by HERAFitter

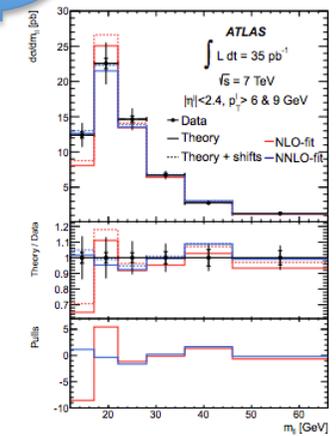
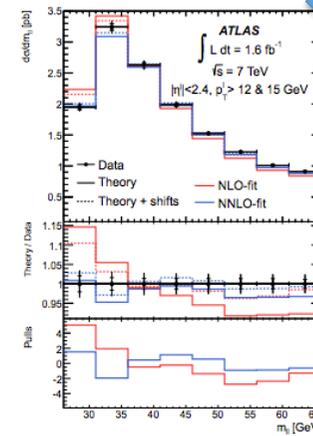
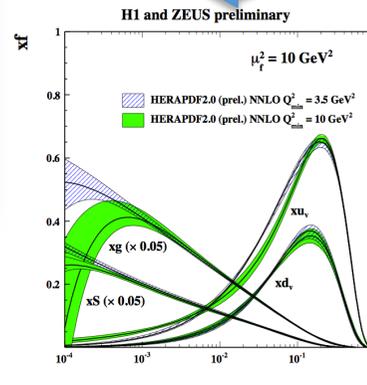
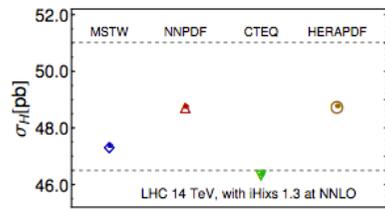
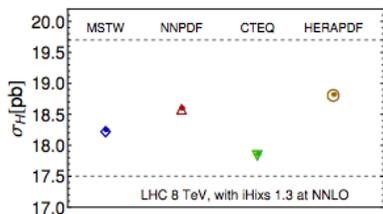
<b>NEW</b> 04.2014	<b>HERAFitter team</b>	arXiv:1404.4234	Parton distribution functions at LO, NLO and NNLO with correlated uncertainties between orders	Material
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## List of analyses using HERAFitter

Date	Group	Reference	Title
<b>NEW</b> 05.2014	ggH benchmark HERAPDF, CT, NNPDF, MSTW	arxiv:1405.1067	Les Houches 2013: Physics at TeV Colliders: Standard Model Working Group Report
<b>NEW</b> 04.2014	LHC/ATLAS	arXiv:1404.1212	Measurement of the low-mass Drell-Yan differential cross section at sqrt(s)=7 TeV using the ATLAS detector



+ preliminary results from HERA: HERAPDF2.0



ATLAS LMDY+HERA I data:  
NNLO good description

Exercise based on HERA I data only



# List of conferences and ongoing projects

## ◆ Recent conferences:

### List of Presentations

Date	Conference/Workshop	Presenter	Link	Remarks
17.11-21.11.2014	<a href="#">HX2014</a>	V. Radescu (TBC)	HERAFitter talk	invited talk
29.09-03.10.2014	Proton Structure in the LHC era	HERAFitter team	lecture/tutorials	PDF event at DESY
28.7-06.08.2014	<a href="#">ICNFP2014</a>	speaker	HERAFitter talk/poster	abstract submitted
21-26.07.2014	<a href="#">BEACH2014</a>	A. Saproinov	HERAFitter talk/poster	abstract submitted
2-9.07.2014	<a href="#">ICHEP2014</a>	speaker	HERAFitter talk/poster	abstract accepted
17-21.06.2014	<a href="#">LowX2014</a>	R. Placakyte	HERAFitter talk	abstract accepted
16-19.06.2014	<a href="#">QCD@WORK2014</a>	H. Pirumov, M. Guzzi	PDF talk	HERAFitter slides adverts
2-7.06.2014	<a href="#">LHCP2014</a>	P. Starovoitov	HERAFitter talk	abstract accepted
18-23.05.2014	<a href="#">Blois2014</a>	O. Kuprash	HERAFitter talk	abstract accepted
16.05.2014	<a href="#">PDF4LHC</a>	H. Pirumov	HERAFitter talk on PDF correlations between orders	abstract accepted
5-8.05.2014	<a href="#">Pheno2014</a>	S. Glazov	HERAFitter talk	HERAFitter project and studies
28.04-02.05.2014	<a href="#">DIS2014</a>	H. Pirumov, M. Lisovyi	<a href="#">HERAFitter talk</a> , <a href="#">talk on PDF correlations between orders</a>	2 abstracts accepted: HERAFitter project and studies

## More publications planned in the future

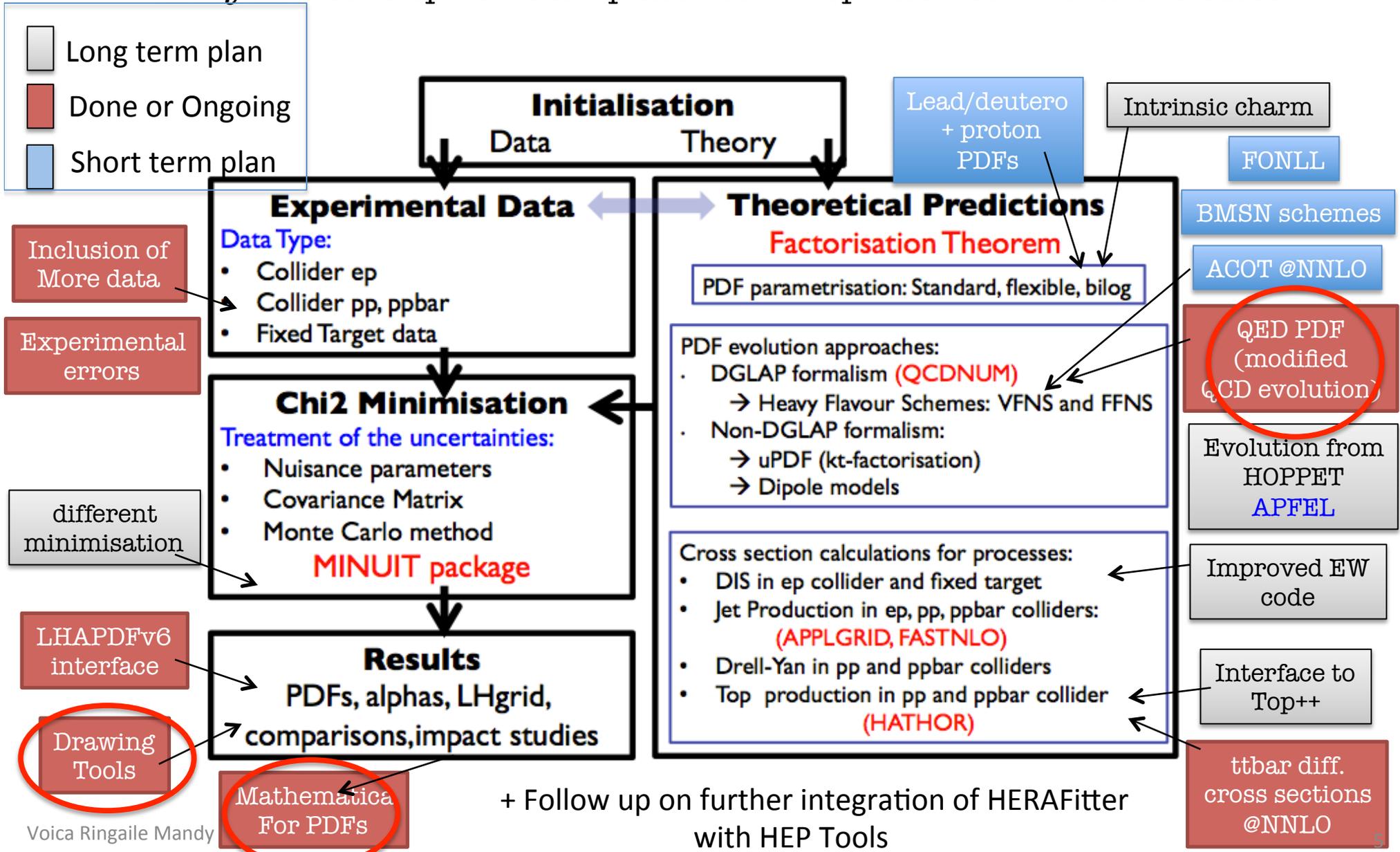
### Candidate Analyses

Date	Project Name	Main Analysers
Jan 2014	<a href="#">Impact of LO/NLO/NNLO PDF correlations</a>	H. Pirumov, M. Lisovyi, A. Gizko, S. Glazov
Feb 2014	<a href="#">Study data compatibility and impact on PDFs from Tevatron</a>	S. Camarda, Andreas Jung (Tevatron)
May 2014	<a href="#">PDF parametrisation studies using various regularisation methods</a>	H. Pirumov, V. Radescu, S. Glazov, A. Schoeningh



# HERAFitter Developments

- Many new developments are planned to be implemented in future releases:





# Today's Agenda

Tuesday, 27 May 2014

- |               |   |
|---------------|---|
| 14:30 - 14:50 | <b>Status 20'</b>                                    |
|               | Speakers: Voica Ana Maria Radescu (Deutsches Elektronen-Synchrotron (DE)), Ringaile Placakyte (Deutsches Elektronen-Synchrotron (DE))   |
| 14:50 - 15:10 | <b>Progress in Drawing Tools 20'</b>                 |
|               | Speaker: Stefano Camarda (Deutsches Elektronen-Synchrotron (DE))  |
| 15:10 - 15:30 | <b>QED PDFs in HERAFitter 20'</b>                    |
|               | Speaker: Renat Sadykov (Joint Inst. for Nuclear Research (RU))  |
| 15:30 - 15:50 | <b>Update from Mathematica Package for PDFs 20'</b>  |
|               | Speaker: Fred Olness (Southern Methodist University (US))   |
|               | Material: <a href="#">Slides</a>                      |