

# H1 and ZEUS combination status

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# News from H1ZEUS combinations



Start

Exotics

EW

Proton Structure

Diffraction

Jets

Heavy Flavours

## **New ZEUS management**

Spokesperson: Mathew Wing

Physics chair: Katarzyna Wichman, Iris Abt

H1+ZEUS coordinator: Achim Geiser

## **New H1+ZEUS coordinator in H1**

Currently trying to get an overview...

... and details of individual combination efforts

## **Recognized for several working groups/combinations**

Man-power and responsibilities unclear

Waiting for (combined) datasets



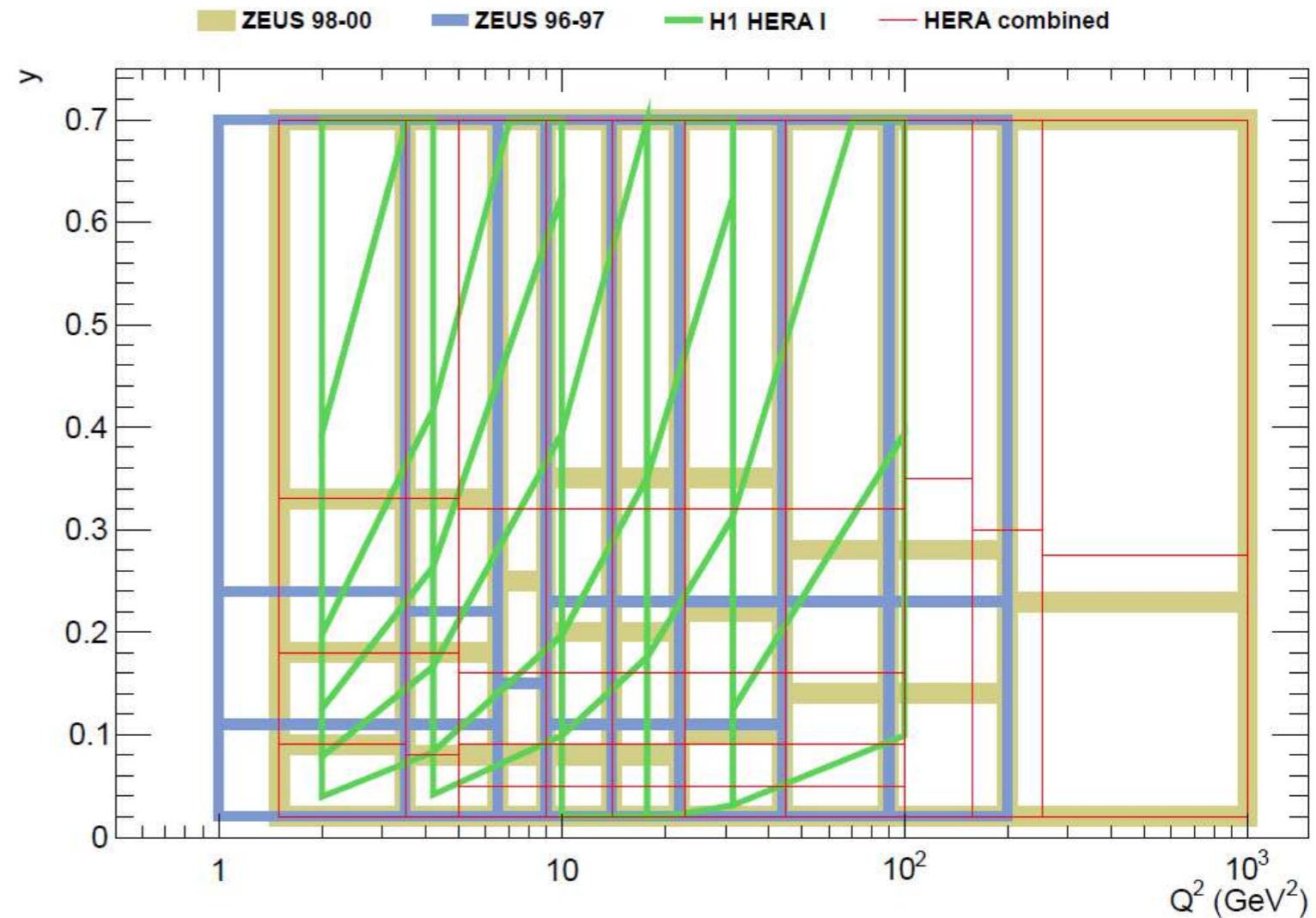
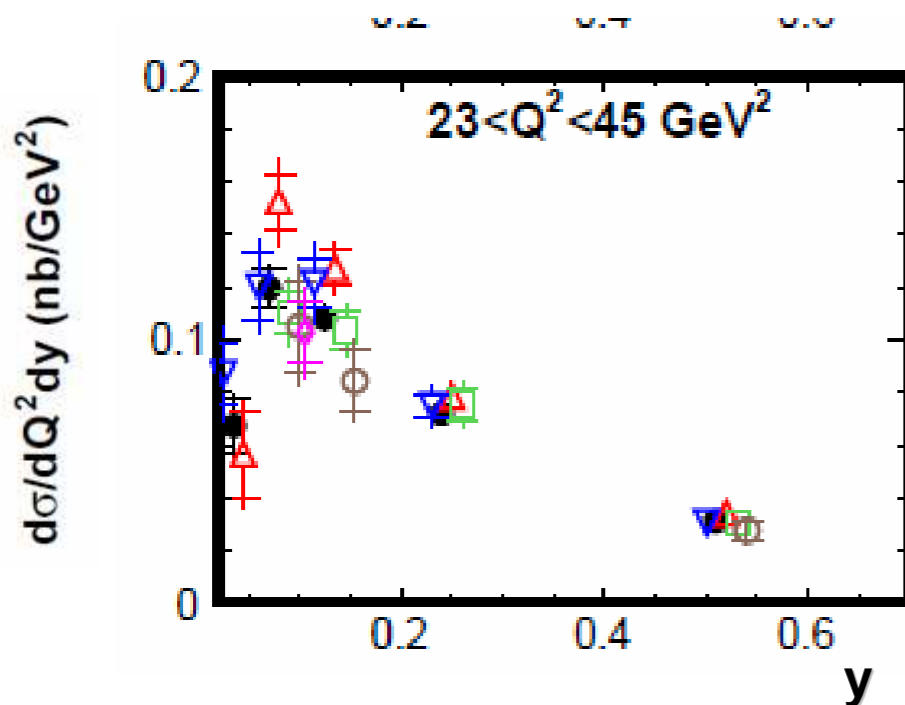
# Recent activities: D\* combination (prel.)

## Inclusion of HERA-I data not trivial

- Different phase space
- different binning
- dx vs. dy measurements

Needs some investigation of swimming for proper understanding

or combination with HERA-I data has to be given up



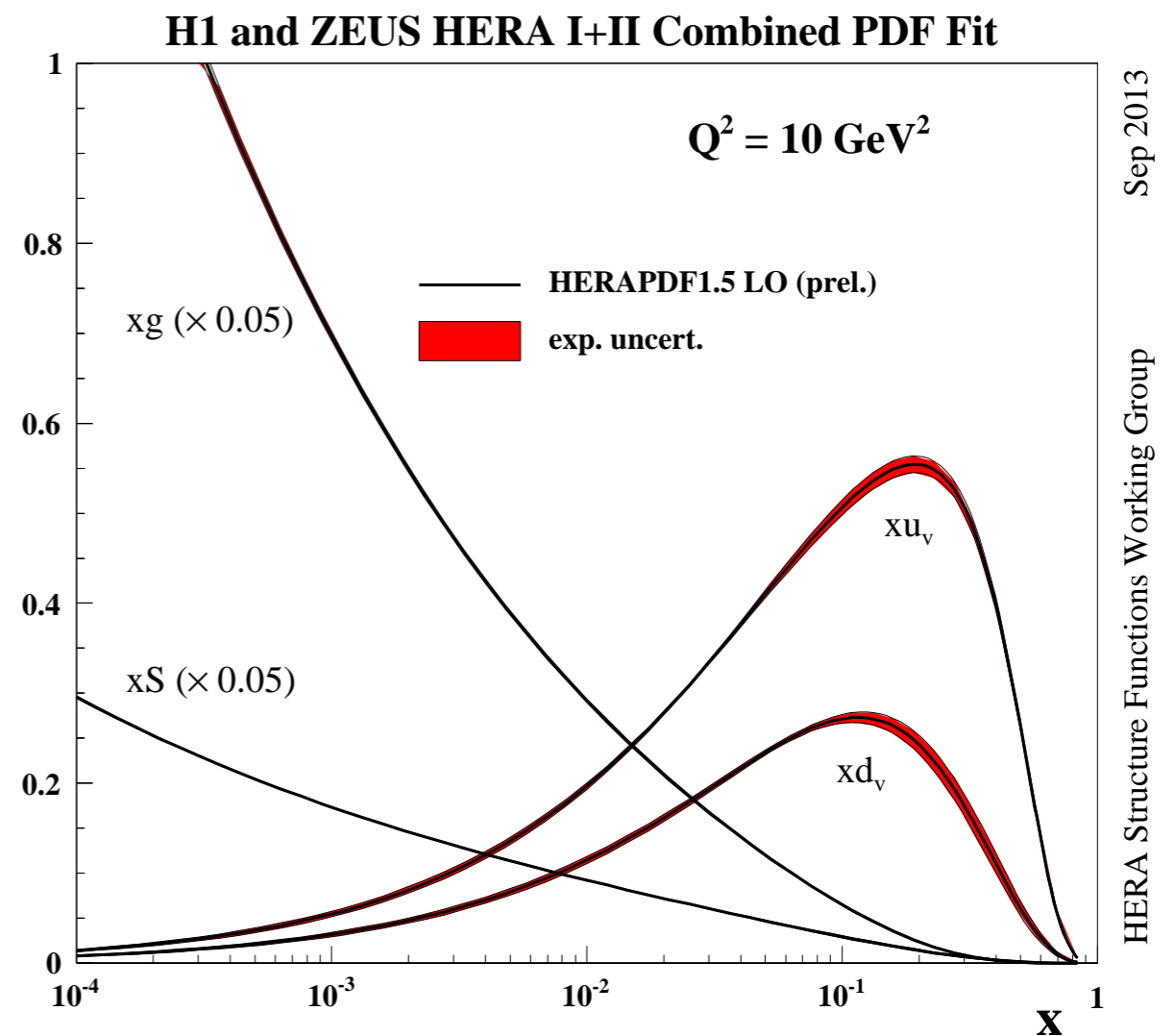
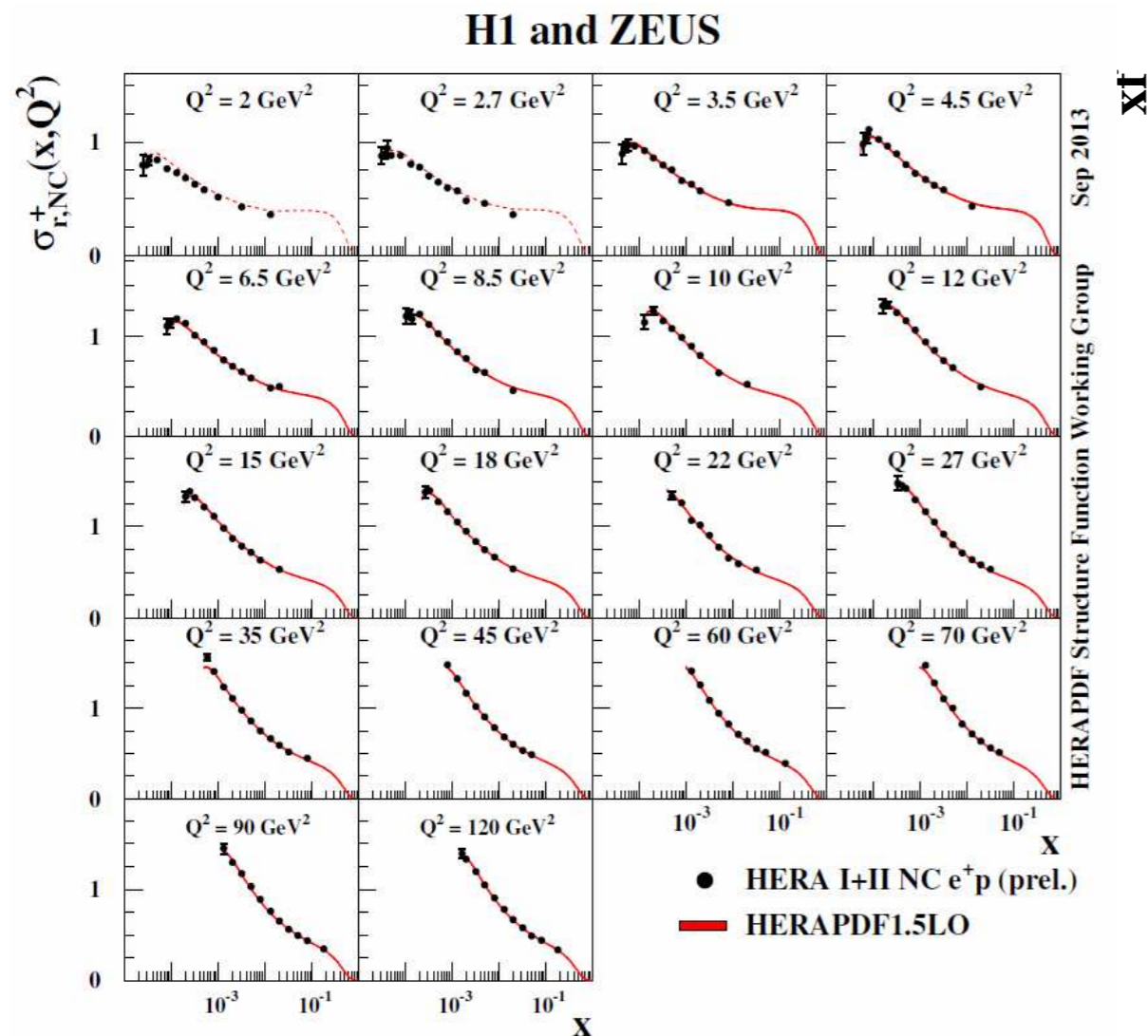
# Recent activities: HERAPDF1.5LO (prel.)

## HERAPDF1.5LO

PDF fit using preliminary HERA I+II combined inclusive data

Leading-order fit

Data very well described



See overview on fitting activities (HERAPDF 2.0) by Voica

# Combination plan

‘Combination plan’ (not a ‘publication plan’)

Sometimes person power unclear

1<sup>st</sup> version of combination plan (probably not yet perfect) !

## H1 and ZEUS combination plan

| Exotics                    | EW                                     | Proton Structure  | Diffraction  | Jets  | Heavy Flavours   |
|----------------------------|--|---|--|---|--|
| Limits using combined data | Polarized cross sections<br><br>EW fit | Inclusive cross section<br>PDF fits using inclusive data<br><br>PDF fits (DIS+charm+jets)<br>low-E data<br>PDF with low-E | <br><br><br><br>Inclusive CS (?)<br>F2D3 (?)<br>DPDF (?) | Dijet cross section<br><br>Alpha_s<br>PDF fits (DIS+charm+jets) | D* cross section in DIS<br><br>charm+beauty<br>red. cross section<br>PDF fits (DIS+charm+jets) |

↑  
↑  
Time  
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### Preliminary results

|  |   |  |  |   |  |
|--|---|--|--|---|--|
|  | EW (xF3)<br>[H1prelim-06-142, ZEUS-prel-06-022] | PDF fits (low-E+charm) (HERAPDF1.7)<br>[H1prelim-11-143, ZEUS-prel-11-010]<br>HERAPDF1.5LO<br>[H1prelim-13-xxx, zeus-prel-13-003 ]<br>HERAPDF1.5NNLO<br>[H1prelim-11-042, ZEUS-prel-11-002 ]<br>HERAPDF1.5NLO<br>[H1prelim-10-142, ZEUS-prel-10-018 ]<br>HERAPDF1.0 + low-E<br>[H1-prelim-10-044, ZEUS-prel-10-008]<br>Inclusive cross section<br>[H1-prelim-10-141, ZEUS-prel-10-017]<br>FL<br>[H1-prelim-10-043, ZEUS-prel-10-001] |  | PDF+alpha_s fits with jets<br>(HERAPDF1.6)<br>[H1prelim-11-034, ZEUS-prel-11-001]<br>Alpha_s<br>[H1prelim-07-132, ZEUS-prel-07-025] | D* cross section in DIS<br>[H1prelim-13-141, ZEUS-prel-13-002] |
|--|---|--|--|---|--|

# Needed updated structure

## Current situation in H1 and ZEUS

H1 does not have any longer physics working groups

ZEUS has also merged their working group meetings

Several combination subworking groups have poor person power and irregular activities

## We could have a similar structure for combination efforts

### Propose:

Fixed weekly space and time for all combination groups to hold meetings

- fixed reservation of seminar room (e.g. take over from Inclusive working group)
- Space and time for 'combination' meetings – independent of subworking group
- Bi-weekly meetings would be appreciated (or e.g. 1<sup>st</sup> and 3<sup>rd</sup> week of month)
- Some combination efforts are subject to multiple working groups (global PDF fits, searches, etc...)

Monthly H1+ZEUS plenaries ( + when necessary)

- if possible close to collaboration gatherings
- Probably announced on long time scales similar to collaboration meetings

Structure of working groups must be discussed with H1 and ZEUS management

- Several conveners have left
- Do we need 4 (6) working groups: Several efforts (e.g. global fits) are related to multiple WGs
- Partly no activity in subworking groups (however: I do not yet have full overview)

