

Workshop introduction

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- Welcome
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- Timetable and administrative issues
- What happens after the workshop ?

Welcome

Welcome on behalf of the DESY Directorate and the Local Organising Committee to this HERA Workshop.

Had a very interesting HERA Symposium yesterday in which we saw the latest HERA results. We now change gear to look at the future.

Have had regular HERA Symposiums and during a “corridor conversation”, we had the idea to also have something forward looking.

Very pleased at the response we have had from people who were invited to attend; the talks can be quite some work.

And very pleased at having over 70 people registered for the Workshop.

Aims of the workshop

“Future Physics with HERA Data for Current and Planned Experiments”

- We want to fully exploit the unique HERA data
- At this Workshop, bring up interesting topics still not covered.
 - It is not a retrospective, that was the Symposium, but forward-looking.
 - It can be a brand new, novel physics area, analysis technique, theory, etc.
 - We should also state the obvious and come up with a list. Priorities ?
- Could arise new interest and / or form small analysis teams with “outside” people, e.g. theorist or other experimentalists, with potentially outside resources. We are open to people joining the analysis of our data.
- See

<https://indico.desy.de/conferenceDisplay.py?confId=10523>

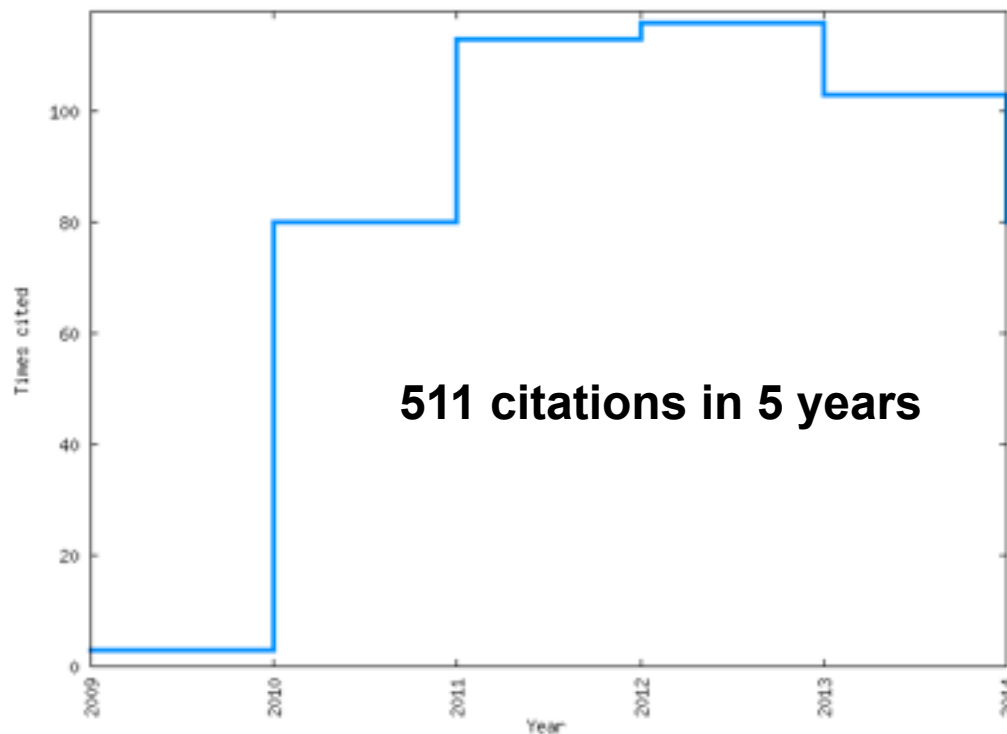
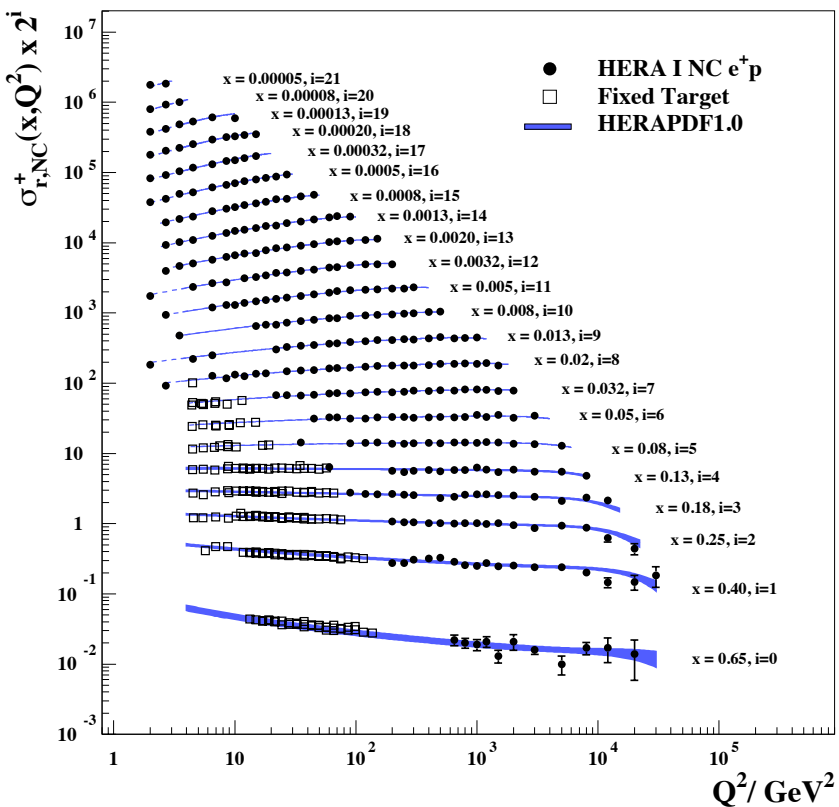
Full programme.

Aims of the workshop

HERA physics is extremely interesting and relevant years after data taking stopped

H1 and ZEUS, Combined measurement and QCD analysis of the inclusive $e^\pm p$ scattering cross sections at HERA, JHEP **1001** (2010) 109.

H1 and ZEUS



Aims of the workshop

From Aharon's talk, there are things we just have to do:

Outlook of Combinations

Papers in editorial process and to publish soonish

- **Combined inclusive HERA I+II data and HERAPDF2.0**
- **Combined D^* cross sections**

These are results we are planning ('wish list', 'dreams'.....)

- **Running mass(charm)**
- **Polarised data and electroweak fits**
- **Contact interaction fits**
- **New combined F_2^{cc} and combined F_2^{bb}**
- **Combined jets and α_s from jets**

+ F_L

+ diffractive structure functions

What about other physics ? E.g.

- Low E_T jets: gluon PDF in photon, multi-parton interactions, etc.
- Have we really got our best measurements of F_2^{cc} and F_2^{bb} ?
- Something completely different ...
- This is the type of thing we should be looking at and asking ourselves in this workshop.

Timetable

- All information should be on the Indico page.
- Some notes
 - Lots of physics talks sorted into themes.
 - Essentially all talks are 20+10 minutes, i.e. plenty of time for discussion.
 - Have some time at the end of each day for more discussion and/or quick presentations on specific ideas.
 - On Thursday at 14:40 have a talk about HERA data preservation.
 - We will have dinner in the DESY bistro this evening at 19:45. Nice food and drink as much as you like !
 - We will have a photo today at lunchtime.
 - We hope you enjoyed the reception after the Symposium – wine provided by your LOC, hence the wide selection and good quality !

Administrative issues

- Reasonably lightweight as most people here know DESY very well.
- Secretariat and LOC are available for any questions you have.
- Please pay your registration fee; it's not much !

What happens after the workshop ?

- Not having an official big collection of proceedings.
- We would encourage speakers to write up a contribution and we will link to the web.
- We as the LOC write a document with
 - an executive summary and list of ideas
 - we encourage all speakers to provide between a paragraph and a page to be incorporate in summary document:
 - then be co-authors of the document;
 - if not, we may summarise their part and they will not be authors.
 - Deadline for contributions 31 January 2015.
 - Editing and finalising to be done by LOC as quickly as possible thereafter.
 - Looking at having this in some sort of nice printed format.
- Contact CERN Courier and see if we can write an article about the event.