



UCL

ZEUS news

Matthew Wing (UCL/DESY)

- ZEUS papers / analyses
- H1+ZEUS analyses
- Parity violation in gravity result
- PRC & Conferences

ZEUS papers / analyses

- ZEUS Coll., “Limits on contact interactions and leptoquarks at HERA”, DESY-19-022, submitted to Phys. Rev. D, received referee comments.
- ZEUS Coll., “Charm production in charged current deep inelastic scattering at HERA”, comments to post-reading draft being implemented.
- H1/ZEUS Coll., NNLO QCD fits with jets and extraction of α_s , expect preliminary for DIS 2019.
- On our radar:
 - (H1+ZEUS, W mass measurement).
 - (H1+ZEUS, contact interactions fits).
 - $\psi' / J/\psi$ in photoproduction.
 - Collective effects.
 - Fits to high- x data.
 - b cross sections using double tag.
 - Event shapes.
 - Jets in DIS.
 - Scaled momentum distributions.
 - Lorentz invariance in DIS data.
 - Others ?

Seven talks
at DIS 2019

H1+ZEUS and other analyses

- H1+ZEUS meeting on Thu 4 April at 10:00 to approve NNLO QCD fits for DIS 2019.
- Our contact interaction paper is out and almost done; potential for H1+ZEUS paper looking at other models, EW and HFL effects and 2D fits.
- On 8 August, Vahagn Gharibyan (Hermes and DESY-M) circulated a paper on “Evidence for parity violation in gravitational fields”.
 - <http://www-library.desy.de/cgi-bin/showprep.pl?DESY18-171>
 - Sent to a journal and being peer reviewed (?)

Evidence for parity violation in gravitational fields

V. Gharibyan,¹ V. Adler,¹ P.D. Allfrey,² M.A. Bell,² B.D. Belusic,¹ A. Block,¹ Y. Bozhko,¹ J.A. Coughlan,³ R.K. Dementiev,⁴ A. Deshpande,⁵ J. Ferencei,⁶ R. Gonçalo,⁷ K.H. Hiller,⁸ R. Kaiser,⁹ R. Kammering,¹ B. Krause,¹ B.-Q. Ma,¹⁰ M.C.K. Mattingly,¹¹ S. Padhi,¹² A. Perieanu,¹³ D. Protopopescu,¹⁴ P. Ryan,¹⁵ J. Schaffran,¹ P. Schmid,¹ M. Seebach,¹ E. Sombrowski,¹ G. Susinno,¹⁶ M. Wang,¹⁷ K. Wick,¹³ M. Wobisch,¹⁸ and A. Zichichi¹⁹

- Stefan Schmitt has written a note outlining the issues with Gharibyan’s analysis, e.g. false asymmetries, correlation with running parameters, systematic effects.

Miscellaneous

PRC meeting

- The next PRC meeting is 21–22/May, but does not involve HERA.

Conferences

- As mentioned we have seven talks at DIS 2019.
- We will be submitting abstracts to EPS HEP 2019 in Ghent, 10–17/Jul.
- Usual other mix of conferences, Low x meeting, Photon 2019, etc.
 - Let me know if you would like to attend any given conference.