Proceedings of HERA-LHC workshop

Heavy quarks (charm and beauty) chapter

1. HERA-LHC proceedings will be published electronically but also in printed form as a joint DESY/CERN report.
2. General layout: Introduction and Chapters for WG1-WG5. Each chapter 100 pages
3. Each Chapter consist of Introduction (which maybe outside the page budget) and individual subchapters

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Authorship policy: conditions to become an author

- Everybody who made a presentation, presenting original results or an overview of data, or results published earlier elsewhere.
- Everybody who was a direct contributor to any presentation. This does not include people or teams whose results - published earlier! - were shown in a presentation. In this case authors must make sure that they correctly the make references to the original publications.
- Everybody who substantially contributed to discussions at the meetings or by mail
- We can consider also cases when a person who prepared original calculation for WG3 (original = not published earlier) was for some reason not be able to present his/her work at the workshop, however wg3 conveners find that the work would make an important contribution to proceedings.

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Time line of further meetings and proceedings

- 11-13 October 2004 meeting in CERN
- do we want to attend one more meeting in between?
- meeting January 2005
- *Final March2005*
- dead-line for proceedings end of June 2005
- this will mean the internal dead-line for individual contributors to WG3 chapter – earlier 20.May 2005

Heavy quarks (charm and beauty) chapter

First proposal on WG3 chapter layout

comments, suggestions at any time to WG3 conveners

- Author list of WG3 chapter to appear at the beginning

  Conveners; Contributing authors; Acknowledgments.

  2 Editors tbd, responsible for the WG3 as a whole probably not more that 2 ?

1. Introduction Theoretical, phenomenology

   subjects, motivations, goals of the WG3 chapter

   2 Editors: tbd (M.C., …?)

2. HERA experimental overview relative to HQ measurements, present and future

   to be specified by HERA people

   3 Editors: tbd

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3. LHC experimental overview relative to HQ physics

a) Luminosity, event rates, uncertainties in rates

b) Triggers for HF, strategies

c) Backgrounds determination, elimination at trigger and in the offline

d) Methods of normalizations, cross checks

e) Physics Performance

3 Editors tbd (for instance A.D., M. S., Ch.W. …?)

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4. Heavy Quark (HQ) production: charm, beauty, quarkonia

a) Theory: massive vs massless approach, kT factorization.

b) Measurements-HERA: results and comparison with theory.

c) Measurements-LHC: strategies, potential and uncertaintes.

d) QQbar correlations: tests for theory, HERA ccbar, LHC perspectives.

e) MC tuning with HERA data (using Jetweb).

f) Nonlinear effects in gluon evolution: fits to HERA data, possible detection at LHC via charm

3 editors, tbd

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5. Fragmentation

a) HERA fragmentation measurements and future potential

b) Tests of fragmentation descriptions in a hadronic environment

c) HF Fragmentation tuning in MC on HERA+LEP data and how to use it for LHC

Editors how many?

6. HQ PDF's

1. Overview of HERA HF str. functions measurements and future HERA potential.
2. Theory vs HERA data. Predictions&uncertaintes for LHC.
3. Kinematical coverage of LHC experiments.
4. New processes sensitive to HQ PDF e.g. bbar -> Higgs, etc..

Editors how many?

Heavy quarks (charm and beauty) chapter

comments, suggestions, subscribe

1. Write to WG3 conveners to which subchapters you want to contribute
2. Send your suggestions on the WG3 Chapter layout and to content of subchapters.
3. Editors of subchapter must be defined on January meeting or earlier.
4. They should estimate the space for their subchapters.
5. In average we have 20 pages per 5 subchapters. But some of them may have more Figures.