

News

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LHC Forward Physics WG meeting, Madrid, April 21-24 2015

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Progress on yellow report

- Yellow report is very close to be finalized
- Introduction: N. Cartiglia, C. Royon, J. Bartels - Done
- Background and run plans: C. Royon, V. Avati - to be finalised
- Monte Carlo: L. Harland-Lang - Done
- Soft Diffraction: V. Avati, T. Martin - Done
- Hard Diffraction: M. Ruspa, M. Trzebinski - Done?
- Central Exclusive Production: M. Saimpert, L. Harland Lang, V. Khoze - Done
- Forward Physics: C. Marquet, J. Bartels, H. Jung - being finalised
- Cosmic ray: T. Pierog - Done
- Heavy ions: D. Tapia Takaki - almost done
- Detectors: J. Baechler - almost done
- Conclusion: Short conclusion still needs to be written
- Yellow report almost completed: volunteers for final readings and comments are very welcome
- Presentations of all chapters, last discussions at this Madrid meeting; submission is foreseen by next LHCC meeting (June 3 and 4)
- Last comments very much welcome, to be sent to coordinators by May 4: the last version will be put on svn and also at:http://www-d0.fnal.gov/Run2Physics/qcd/loi_atlas/fpwg_yellow_report.pdf

Agenda of the Madrid meeting

- Tuesday, 21 April 2015
 - 11:00 - 11:30 Registration and coffee break
 - 11:30 - 11:35 Welcome - Agustin Sabio Vera
 - 11:35 - 11:50 Introduction to the workshop - Christophe Royon
 - 11:50 - 12:30 Diffraction at HERA - Alice Valkarova
 - 12:30 - 13:00 RENORM Diffractive Predictions Extended to Higher LHC and Future Accelerator Energies - Konstantin Goulios
 - 13:00 - 15:00 Lunch
 - 15:00 - 15:30 Diffractive production of open charm and bottom mesons at the LHC: theoretical predictions and experimental capabilities - Marta Luszczak
 - 15:30 - 16:00 Forward central correlations in quarkonia production - Roman Pasechnik
 - 16:00 - 16:30 Coffee break
 - 16:30 - 17:10 Summary of the inclusive diffraction chapter - Ksenia Shchelina
 - 17:10 - 17:40 Discussion on pomeron structure, medium lumi program (Christophe, Alice, Dino, Leszek)
 - 18:00 - 20:00 Reception

Agenda of the Madrid meeting

- **Wednesday, 22 April 2015**
 - 10:00 - 10:40 Summary of the Soft Diffraction and Total cross section chapter - Tim Martin
 - 10:40 - 11:10 Impact picture for near-forward elastic scattering up to LHC energies - Jacques Francis Soffer
 - 11:10 - 11:40 Coffee break
 - 11:40 - 12:20 Total cross section measurements - Per Grafstrom
 - 12:20 - 13:00 Diffraction as a Saturation Signature - Uri Maor
 - 13:00 - 13:30 Superchic 2: a new Monte Carlo for central exclusive production - Lucian Harland-Lang
 - 13:30 - 15:20 Lunch
 - 15:20 - 15:50 Testing Pomeron flavour symmetry with diffractive W charge asymmetry - Annabelle Julia Chuinard
 - 15:50 - 16:30 Summary of the detector chapter - Joachim Baechler
 - 16:30 - 17:00 Coffee break
 - 17:00 - 17:30 Herschel, the forward shower counters at LHCb - Akiba Kazuyoshi
 - 17:30 - 18:00 Background and running plans -' Valentina Avati
 - 18:00 - 18:30 Discussion on low lumi program, total cross section, detectors (Tim, Valentina, Joachim, Per)
 - 20:40 - 22:40 Dinner

Agenda of the Madrid meeting

- Thursday, 23 April 2015
 - 10:00 - 10:30 Resumming Double Logarithms in the Balitsky-Kovchegov Equation - Jose Daniel Madrigal
 - 10:30 - 11:00 Forward jets at LHC: matching BFKL with NLO - Dimitri Colferai
 - 11:00 - 11:30 Coffee break
 - 11:30 - 12:00 High-energy resummation effects in Mueller-Navelet jets production at the LHC - Bertrand Ducloue
 - 12:00 - 12:30 Hard scale dependent gluon density, saturation and forward-forward dijet production at the LHC - Krzysztof Kutak
 - 12:30 - 13:00 Exclusive BFKL observables with a MC approach - Grigorios Chachamis
 - 13:00 - 15:00 Lunch
 - 15:00 - 15:40 Summary of the exclusive diffraction chapter - Lucian Harland-Lang
 - 15:40 - 16:10 Anomalous coupling studies - Christophe Royon
 - 16:10 - 16:40 Coffee break
 - 16:40 - 17:10 WW cross section contributions - Marta Luszczak
 - 17:10 - 17:40 Discussion on exclusive processes, high lumi program (Christophe, Lucian, Valery)
 - 20:30 - 22:30 Dinner

Agenda of the Madrid meeting

● Friday, 24 April 2015

- 10:00 - 10:40 Summary of the BFKL and saturation chapter - Jochen Bartels
- 10:40 - 11:10 LHCf: Results and plan for Run II - Takashi Sako
- 11:10 - 11:40 Coffee break
- 11:40 - 12:20 Summary of the cosmic ray, multiplicity and particle specter chapter - Tanguy Pierog
- 12:20 - 12:50 Twist analysis of the forward Drell-Yan process - Leszek Motyka
- 12:50 - 13:20 Exclusive production at LHCb: recent results and prospects for Run-II - Daniel Johnson (CERN)
- 13:20 - 15:10 Lunch
- 15:10 - 15:40 BFKL vs DGLAP in Mueller-Navelet jets at LHC - Beatrice Murdaca
- 15:40 - 16:10 Status of CEP and plans for run II - Ronan McNulty
- 16:10 - 16:40 Coffee break
- 16:40 - 17:10 Discussion on BFKL, saturation (Agustin, Jochen)
- 17:10 - 17:50 Discussion: yellow report, follow up of LHC Forward Physics WG (Christophe, all)
- 20:30 - 22:30 Dinner

Next meetings

- Following the LHCC/LPCC recommendations, we will keep the LHC Forward Physics WG meetings as a forum to discuss forward physics between the different LHC experiments and the theorists with 3 meetings per year (2 at CERN and 1 outside)
- Next meeting related to forward physics: Workshop on forward physics and high-energy scattering at zero degree
 - Nagoya, Japan September 9-12 2015:
http://www-d0.fnal.gov/royon/forward_nagoya/
 - We will focus of diffraction and forward physics at LHC and RHIC following the experience of HERA and Tevatron: LHC results (TOTEM, LHCf, ATLAS, CMS, LHCb, Alice), RHIC results, theory aspects of diffraction, BFKL and saturation, heavy ions, photon exchanges, CEP, cosmic rays, detectors..
 - Registration is now opened on the web page
- Next LHC Forward Physics meeting at CERN: foreseen for October 27-28
- School on diffractive and electromagnetic processes at high energies, <http://school-diff2015.physi.uni-heidelberg.de/>, August 17-21, Bad Honef, Germany, organised by Rainer Schicker and Antoni Szczurek