

Forward Physics Working Group Meeting: News

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February 18-19 2014, CERN

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Yellow Report

- **General instructions:** This report is not aimed to be proceedings of existing results. The aim is to define the future program of the LHC in terms of forward physics, namely what you write will have a direct impact on the LHC operation. We want to define the physics case, the needed amount of luminosity, the beam conditions to perform this physics program, so that it can be defended in front of the LHCC and the different LHC experiments.
- **For each experiment driven contribution, please provide the following information**
 - **present situation:** existing analyses and possible analyses which would use present accumulated data
 - **what is the physics motivation, and how can the analysis be improved with present (2015) detector configuration, having for instance special low/medium luminosity runs** (this will include the amount of luminosity needed such as 1 pb^{-1} , 10 pb^{-1} , 100 pb^{-1} and the beam conditions such as $\mu=0.1, 0.5, 1\dots$)?
 - **how can it be improved with better/new detectors** (such as Rad hard Si detectors, AFP, new scintillators, timing detectors...)?

Yellow Report

- For more theoretical contributions, please provide the following information
 - physics case interest and added value of the new measurements
 - explanation of the observables and kinematic phase space needed to make the measurement
 - please try to translate these conditions into beam conditions, luminosity, detector options
- This information should be provided by the February meeting in a talk or latest March 15 by email to the people responsible for each chapter. We are also asking for a written contribution for the yellow report. Since the final version of the yellow report is due in the beginning of September, we ask the written contributions to be sent to the people responsible for each chapter by July 31

Yellow Report: Chapters

- Chapter 1: Introduction Christophe Royon, Nicolo Cartiglia, Jochen Bartels
- Chapter 2: Monte Carlo Lucian Harland Lang, Paula Collins
- Chapter 3: Soft diffraction and total cross section Tim Martin, Valentina Avati
- Chapter 4: Inclusive hard diffraction Maciej Trzebinski, Marta Ruspa
- Chapter 5: Central exclusive production Matthias Saimpert, Oldřich Kepka, Paula Collins, Lucian Harland-Lang
- Chapter 6: Forward physics (saturation, BFKL, Mueller Navelet jets, jet gap jets Cyrille Marquet, Jochen Bartels, Hannes Jung
- Chapter 7: Cosmic ray physics, particle multiplicities, correlations and spectra Tanguy Pierog
- Chapter 8: Heavy ion physics Daniel Takaki
- Chapter 9: Detectors Joachim Baechler, Michael Rijssenbeek
- Chapter 10: Summary and conclusion Nicolo Cartiglia, Christophe Royon
- Status of each chapter to be discussed at this meeting, discussion and presentations in Trento as well


Future meetings

**WORKSHOP ON PICOSECOND PHOTON
SENSORS**

**FOR PHYSICS AND MEDICAL
APPLICATIONS, MARCH 12-13-14 2014**



Future meetings



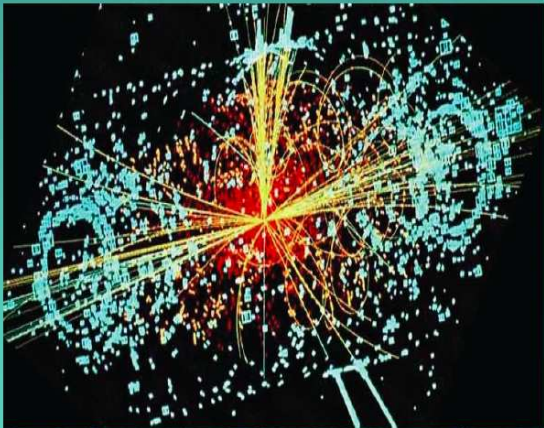
**2nd Workshop on
Detectors for Forward Physics at LHC**

*La Biodola, Isola d'Elba (Italy), Hotel Hermitage
May 28-30, 2014*

*Forum for discussion on R&D and technology of detectors dedicated to the forward physics measurements at the LHC.
Aim of the workshop is to promote contacts between scientists and experts involved in the experimental and theoretical aspects of forward tracking, forward calorimetry and timing detectors.*

Topics

- Physics goals & Instrumentation requirements*
- Operational constraints & Challenges in the LHC*
- Tracking devices*
- Picosecond Timing detectors*
- Counters and Calorimetry*

<p><i>Organizing and Programme Committee</i></p> <ul style="list-style-type: none"> Valentina Avati Joachim Baechler Nicolò Cartiglia Paula Collins Simone Giani (chair) Kenneth Osterberg Christophe Royon Angelo Scribano Walter Snoeys Nicola Turini 		<p><i>Secretaries & Tech staff</i></p> <ul style="list-style-type: none"> Claudia Tofani Lucia Lilli Adele Saredo Susanna Antichi Erika Cioli Maurizio Garzella Mauro Giannini Antonio Orsini Aldo Tazzioli
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Participation of all the people working in the field is welcome
<https://indico.cern.ch/event/295567/overview>



Future meetings

- March 12-14: Timing workshop in Clermont Ferrand
- April 14-18: Forward Physics Workshop in Trento
- May 28-30: Detectors for Forward Physics at LHC, Elba Island
- June 5-6: LHC Forward Physics WG meeting, CERN
- September 3-6 LHC Forward Physics WG and future directions in heavy ion physics in forward direction, Lawrence and Kansas City, USA
- September 22-23 LHC Forward Physics WG meeting
- November? Cracow meeting