

Michelangelo L. MANGANO

Physics at the LHC



- Top physics:
 - precision measurements (m_{top} , X_{sections})
 - top as a signal of new physics, e.g. A_{FB} (w. Martin, Perez,...)
- Multijet final states and extreme kinematical configurations
 - e.g. Alpgen MC development
- Precision observables at the LHC, impact on PDF, BSM, etc
 - e.g. X_{section} ratios (w. J.Rojo)
 - development and applications of aMC@NLO (w. Frixione, Rikkert, Barze, Melia, Herzog, Shao, Papanastasiou,)
- Prospects for precision Higgs physics at the LHC (LPCC workshop in 2013?)

Subscribe to ~weekly news bullettin

Latest LHC papers

Upcoming LPCC events

LPCC links

WELCOME

[About the LPCC](#)

[Visit the LPCC](#)

[Subscribe to LPCC News](#)

LHC WORKING GROUPS

[MB & UE WG](#)

[Rate normalization WG](#)

[Electroweak WG](#)

EVENTS

[Forthcoming events](#)

[Past events](#)

LHC PUBLICATIONS

THEORY CONTACTS

STUDENTS RESOURCES

MISC

Useful links

[CERN](#)

[LHC & exps](#)

[LHC centres in other Labs](#)

[HEP](#)

Latest LHC data publications (full list)

ALICE

Pseudorapidity density of charged particles p-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV, <http://arxiv.org/abs/1210.3615>.

Transverse Momentum Distribution and Nuclear Modification Factor of Charged Particles in p-Pb Collisions at $\sqrt{s_{NN}} = 5.02$ TeV, <http://arxiv.org/abs/1210.4520>.

Coherent J/ψ photoproduction in ultra-peripheral Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV, <http://arxiv.org/abs/1209.3715>.

ATLAS

Searches for heavy long-lived sleptons and R-Hadrons with the ATLAS detector in pp collisions at $\sqrt{s} = 7$ TeV, <http://cdsweb.cern.ch/.../1492197>.

Search for contact interactions and large extra dimensions in dilepton events from pp collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector.

News

Position opening to contribute to RooFitRooStats development

11/03/2012

A search is open for a candidate willing to spend at CERN a period of 3-6 months to contribute to new developments and consolidation of the RooStats statistical tools. Deadline for applications: Dec 15 2012. For more details on the position and the application procedure, see

<http://lpcc.web.cern.ch/LPCC/index.php?page=misc>

[Read More...](#)

2013 CERN - Latin-American School of High-Energy Physics

10/13/2012

The 2013 edition will be held in Arequipa, Peru from 6 to 19 March 2013. Note that financial support may be available for Latin-American students attending the School. Although the School is targeted particularly at students from Latin-American countries, it is open to self-funding students coming from other regions.

DEADLINE FOR APPLICATIONS IS 16 NOVEMBER 2012:

<http://cern.ch/PhysicSchool/CLASHEP/CLASHEP2013>

[Read More...](#)

MC PLOTS release

02/17/2011

MC PLOTS is a new cern-based website for Monte Carlo comparisons, intended as a simple browsable repository of plots comparing HEP event generators to a wide variety of available experimental data, mainly based on the RIVET analysis tool.

For more details:

[Read More...](#)

Forthcoming events

Next 2 weeks

PH-LHC seminar

11/13/2012 || 11:00 => 11/13/2012 || 12:00

New results in the search for $B(s)0 \rightarrow \mu^+ \mu^-$ from LHCb. Tuesday November 13, 11am, Main Auditorium. Speaker: M. Palutan. Coffee served at 10:30

<https://indico.cern.ch/conferenceDisplay.py?confId=216344>

MC Generators and future challenges

11/19/2012 || 09:00 => 11/21/2012 || 18:00

Joint ATLAS/CMS/LPCC workshop, to cover progress, issues and prospects of MC generators for the LHC, in view of recent experimental results and needs. November 19-21 2012

<https://indico.cern.ch/conferenceDisplay.py?confId=212260>

Status of LHC ops

Latest [news](#)

LHC status, ["page 1"](#)

Current fill [luminosity](#)

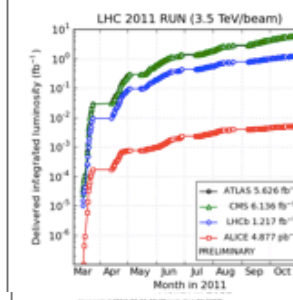
"Page-1", [tutorial](#)

Exp's status, ["page 3"](#)

LHC [weekly plan](#)

[LHC programme coordination](#)

LHC integrated luminosity [charts](#)



Coming events at CERN

[Conferences & Workshops, 09/11, 9h - CERN Theory Group Retreat, 2012](#)

[EP Seminar, 12/11, 11h - Searches for Particle Dark Matter with gamma-rays, by Conrad, Jan](#)

[CERN Heavy Ion Forum, 12/11, 11h - Hadron production in Pb-Pb collisions at LHC by Rafelski, Johann](#)

[LHC Seminar, 13/11, 11h - New results in the search for B\(s\)0->mu+mu- from LHCb by Palutan, Matteo](#)

[TH Cosmo Coffee, 14/11, 11h - TBA by Dr. Piazza, Federico](#)

[TH BSM Forum, 15/11, 14h - Double Higgs Production in the SM and Beyond by Dolan, Matthew](#)

[Particle and Astro-Particle Physics Seminars, 16/11, 14h - Multiple Higgs models and the 125 GeV state: an NMSSM perspective by Gunion, Jack](#)

[LPCC Workshops, 19/11, 9h - MC generators and future challenges, a joint ATLAS/CMS/LPCC workshop by Mangano, Michelangelo & Buckley, Andy & Kuhl, Thorsten & Lenzi, Piergiulio & Padhi, Sanjay](#)

LHC status, luminosity charts, etc.

Other coming events at CERN