LHC LumiDays 2019

June 4-5 - CERN

WELCOME

Anne Dabrowski
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LumiDays 2019

2011
Review the results of the first luminosity calibration measurements at the LHC and to stimulate a discussion on future measurements

Links to reference material!!

2012
Review the progress made in 2011 both in the determination of the LHC luminosity, and in successfully exploiting this increased accuracy in physics analysis

Links to reference material!!

2019
New edition of LHC LumiDays, dedicated to luminosity and emittance measurements during Run 2.
Share work in progress & ideas across various working groups

2020(?)
Planning for Run 3 & HL-LHC

June 4, 2019
https://indico.cern.ch/event/813285/
\[ \frac{N_1 N_2 f N_b}{4\pi \sigma_x \sigma_y} \frac{1}{\sqrt{1 + \left( \frac{\sigma_s}{\sigma_x} \frac{\phi}{2} \right)^2}} = \mathcal{L} = \frac{R}{\sigma} \]

Keywords: LumiDays 2019, Crossing Angle, Calibration, Beam Intensities, Event Rates, Beam Optics, Beam Beam, Beam Transverse Emittance, Errors, Beam Longitudinal Emittance, Luminometers, Pile-up, Beam Profile
LumiDays 2019

Program organization:

- **Exp**: F. Alessio, V. Balagura, J. Contreras-Nuno, A. Dabrowski, M. Gagliardi, R. Hawkings, W. Kozanecki, R. Matev, A. Polini, D. Stickland

- **LPC**: B. Petersen

- **Accel**: H. Burkhardt, I. Efthymiopoulos, S. Fartoukh, R. Jones, T. Lefevre, Y. Papaphilippou, G. Sterbini, R. Tomas-Garcia, G. Trad, J. Wenninger
Some Practical Info

- **Room 774-R-013** full day today and Wednesday morning.
  - Room for closeout afternoon TBC.

- **Coffe/tea breaks**
  - Outside the auditorium

- **Lunch break**
  - Restaurant 3 (5min walking distance) – Cantine (this building) – Nearby Restaurants (Prevessin or St. Genis - needs car)

- **Workshop Dinner**
  - Leaving from CCC at 18h30 PM – car pool – dinner at 19h00PM
  - Restaurant Bois Joly at 15min drive just up the Jura mountains

- **Proceedings**
  - 1 paper per talk, no page limit but recommended length approx. 5 pages) by using the JACoW
  - Deadline upload to indigo end of October 2019

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