

# Juan Guillermo Suarez | Curriculum Vitae

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## Employment

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- **Universidad EIA** **Colombia**  
*Adjoint Proffesor* *Currently*  
Responsibilities: Teach physics courses for undergraduate students, conduct research projects.
- **Institute for Nuclear Problems of the Belarussian State University (INP BSU)** **Belarus**  
*Team leader at the experiment CMS* *2016–2017*  
Responsibilities: Representative of the INP in the CMS Collaboration at the LHC.
- **INP BSU** **Belarus**  
*Head of the Laboratory of Fundamental Interactions* *2014–2017*  
Scientific work coordination of a group conformed for 12 scientists.
- **Menlo Park** **United States of America**  
*Collaboration with the E-158 experiment at SLAC* *2000–2004*  
Implementation of radiative corection calculations for the E-158 experiment.
- **INP BSU** **Belarus**  
*Member of the Scientific staff of the INP BSU* *1997-2017*  
Carried out scientfic work in particle physics.

## Education

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- **Belarussian State University** **Belarus**  
*Ph.D. degree in Physics* *1997–2002*
- **Belarussian State University** **Belarus**  
*M.Sc. in Physics* *1996–1997*
- **Belarussian State University** **Belarus (former Soviet Union)**  
*B.S in Physics, with distinction* *1990–1995*
- **University of Antioquia** **Colombia**  
*Undergraduate studies in Physics* *1988–1989*
- **PhD thesis: Electroweak Radiative Corrections to Moller Scattering**  
My research interest was concentred in doing analysis for the Drell-Yan cross-section and forward-backward asymmertry measurements at LHC. I took part in the creaction of a Monte Carlo generator for the study of the Drell-Yan process. I took part also in the calculation of radiative corrections for Drell-Yan and Moller processes.

- **Masters Research:** *QED Radiative Corrections to Moller Scattering*

## Awards

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- **Best Scientific Worker BSU, 2006, 2008**
- **Fellowship for investigations of the Belarussian Found for Fundamental Investigations, 2004, 20011**

## Technical skills

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- **Programming Languages:** Proficient in: Python, Numpy, Pandas, Scikit-learn, TensorFlow, TeX.
- **High Energy Physics packages:** ROOT, PYTHIA, CMS software (CMSSW, CRAB).

## Publications

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- Electroweak radiative corrections to parity-violating asymmetry in Moller scattering. Yu.G. Kolomensky, N.M. Shumeiko, J.G. Suarez, V.A. Zykunov. *Int. J of Mod. Phys. A*20 (2005) 7365-7374
- Measurement of the Drell-Yan Cross Section in pp collision at  $\sqrt{S}=7$  TeV. CMS Collaboration, S. Chtrchyan *et al.* *J.High Energy Phys.* 10 (2011) 007
- Observation of a new boson at a mass of 125 GeV with the CMS experiment at the LHC. CMS Collaboration, S. Chtrchyan *et al.* *PLB*716 (2012) 30
- Measurement of the differential and double-differential cross sections in proton-proton collisions at  $\sqrt{S}=7$  TeV. CMS Collaboration, S. Chtrchyan *et al.* *JHEP* 12 (2013) 030
- Observation of the rare  $B^0 S \rightarrow \mu^- + \mu^+$  -decay from the combined analysis of CMS and LHCb data. CMS Collaboration, S. Chtrchyan *et al.* *Nature* (2015) 14474
- Measurement of the weak mixing angle with the Drell-Yan process in proton-proton collisions at the LHC. CMS Collaboration, S. Chtrchyan *et al.* *PRD*84 (2011) 112002
- Forward-backward asymmetry of Drell-Yan lepton pairs in pp collisions at the  $\sqrt{S}=7$  TeV. CMS Collaboration, S. Chtrchyan *et al.* *PLB*718 (2013) 752-772
- Forward-backward asymmetry of Drell-Yan lepton pairs in pp collisions at the  $\sqrt{S}=8$  TeV. CMS Collaboration, S. Chtrchyan *et al.* *EPJC* 76 (2016) 325