

Curriculum Vitae

Chahrazed Guella

N°511 coopérative El Wafae ,
hai Belgaid, Bir El Djir
ORAN (ALGERIA)

Phone: +213 666 88 78 06
E-mail: chahra.guella@gmail.com

Education and Degrees

Ph.D. degree, in Theoretical Physics, University of Sciences and Technology of Oran,
December 2017

Thesis topic: Radiative neutrino mass and dark matter at hadron colliders
Thesis advisor: Professor Amine Ahriche

Physics Master's degree, University of Sciences and Technology of Oran, July 2012

Thesis topic: Higgs production by gluon gluon fusion at LHC
Thesis advisor: Dr Aissa Belhouari

Research Interests

Beyond Standard Model (BSM) physics phenomenology, Large Hadron Collider (LHC) data analysis, collider physics, neutrino physics, cosmology, and astroparticle Physics.

Professional Employment

10/2014 - Present : Teaching Assistant, Department of Physics, University of Sciences and Technology of Oran.

Practical and laboratory works for introductory physics courses.

10/2013 to 12/2017: Student Researcher, Theoretical physics laboratory, Oran.
Models beyond the Standard Model

Research activities

ICTP Experimental Physics Masterclasses 'Physics without Frontiers', at the University of sciences and technology, Oran, Algeria , May 2013.

Guest Scientist in the High Energy, Cosmology & Astroparticle Physics Section of the Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy, from 3 November to 2 December 2014.

Guest Scientist in the High Energy, Cosmology & Astroparticle Physics Section of the Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy, from 29 January to 27 February 2017.

Computation Expertise

Programming language: Python, C++, Fortran.

Scientific computing and analyses: Mathematica, ROOT, FeynRules, GNU Plot, GEANT 4.

Monte Carlo tools: Pythia, CalcHEP, MadGraph.

Operating Systems: Ubuntu, Windows, Mac.

Full publication list

Chahrazed Guella, Dounia Cherigui, Amine Ahriche, Salah Nasri and Rachik Soualah, Probing radiative neutrino mass models with dilepton events at the LHC, Phys. Rev. D **93** (2016) 095022 [arXiv :hep-ph/1605.03640].

Dounia Cherigui, Chahrazed Guella, Amine Ahriche and Salah Nasri, Probing radiative neutrino mass models using trilepton channel at the LHC, Phys. Lett. B **762** (2016) 225–231 [arXiv :hep-ph/1611.07514].

C. Guella, D. Cherigui, A. Ahriche, S. Nasri and R. Soualah, "Probing Radiative Neutrino Mass Models With Dilepton Events At The LHC", p.623-628 Proceedings Proceedings, 51st Rencontres de Moriond on Electroweak Interactions and Uni_ed Theories : La Thuile, Italy, March 12-19, 2016, Etienne Auge (ed.) , Jacques Dumarchez (ed.), Jean Tran Thanh Van (ed.)

D. Cherigui, C. Guella, A. Ahriche and S. Nasri, "Probing Radiative Neutrino Mass Models At The LHC Via Trilepton Events", p.595-598 Proceedings Proceedings, 51st Rencontres de Moriond on Electroweak Interactions and Uni_ed Theories : La Thuile, Italy, March 12-19, 2016, Etienne Auge (ed.) , Jacques Dumarchez (ed.), Jean Tran Thanh Van (ed.)

Conferences

“Higgs production by gluon fusion at LHC”, contributed poster at the 9th International Conference in Subatomic Physics and Applications, Constantine, Algeria, October 2013.

“Probing Radiative Neutrino Mass Models With Dilepton Events At The LHC”, contributed talk at the EW interaction and Unified Theories session of the 51th Rencontres de Moriond, La Thuile, Italy, March 2016.

“Non-Standard Higgs decays within a scale invariant scotogenic model”, contributed talk at the 10th International Conference in Subatomic Physics and Applications, Constantine, Algeria, October 2019.