



EL Abassi Abderrazaq

i **Date of Birth:** Mar. 01, 1997
✉ **University Campus,** Kenitra
☎ **+212608733452**
@ **abderrazaq.elabassi@uit.ac.ma**
🌐 **Website::**
<https://abdoelabassi.github.io/>
🔍 **ORCID:**0009-0002-0516-9465

Short Bio

I'm Abderrazaq El Abassi, PhD student in Particle Physics at Ibn-Tofail University

Skills

Programming:

Python, JavaScript ● ● ● ● ●
TypeScript ● ● ● ● ●
C, C++ ● ● ● ● ●
Java ● ● ● ● ●
Rust ● ● ● ● ●
Bash scripting ● ● ● ● ●
Matlab ● ● ● ● ●
Mathematica ● ● ● ● ●

data analysis:

pandas, numpy, scipy ● ● ● ● ●
PyROOT, scikit-hep ● ● ● ● ●

C++ Tools:

ROOT, GEANT4 ● ● ● ● ●
ROOFit ROOTStats ● ● ● ● ●
TMVA ● ● ● ● ●

ML tools:

scikit-learn, LightGBM ● ● ● ● ●
PyTorch, TensorFlow ● ● ● ● ●

Working Experience

June, 2021 – ongoing **PhD research** **University of Ibn-Tofail, MA**
Contributed to low energy scale MC simulations and currently started on neutrinos long baseline selection, and reconstruction using Graphical Neural Networks, and Monte Carlo production with the (Intermediate **W**ater-**C**herenkov **D**etector) using simulation tools such as WCSim and a Likelihood fitter–fitQun for reconstruction

March 2020, – October 2020 **Master thesis** **Univeristy of Mohammed V, MA**
We interpreted the total Higgs invisible branching ratio by combining different channels of Higgs decaying to Dark Matter particles known as WIMPs (**W**eakly **I**nteracting **M**assive **P**articles) in collaboration with Higgs invisible team.

Education

Postgraduate Studies

2021 – on going **Ph.D. in Particle Physics** **Ibn-Tofail University, Kenitra**
Title: Sensitivity analysis of proton decay in positron plus neutral pion final state, and contribution to low-energy calibration of Hyper-Kamiokande Far detector using DTG neutron generator.
Supervisors: Prof. Mohamed Goughri

Hyper-Kamiokande IWCD DTG proton decay

2018 – 2020 **M.Sc. in Mathematical Physics** **Mohammed V University, Rabat**
Title: Statistical Combination of invisible Higgs decays in Vector Boson Fusion using ATLAS detetctor
Supervisors: Prof. Mohamed Goughri
Grade: CGPA: 3.3

Dark Matter Higgs boson Higgs invisible
Vector Boson Fusion ATLAS experiment CMS experiment

Undergraduate Study

2015 – 2018 **B.Sc. in Matter Science and Physics** **Moulay Ismail Univ., Meknes**
Project Title: Simulation of analogical filters, and Numerical filters using Matlab.

RC circuit RL circuit RLC circuit matlab FFT

2015 – 2018 **DEUG (University diploma) in Matter Sciences and Physics, and Chemistry** **Moulay Ismail Univ., Meknes**
Fundamental physics, and chemistry: Classical Mechanics, and Electromagnetism, Thermodynamics, Quantum Mechanics, organic chemistry, crystallography, chemical reactions, and basic quantum chemistry...

Classical Mechanics Electromagnetism
Quantum Mechanics Thermodynamics Organic Chemistry
Crystallography

Training

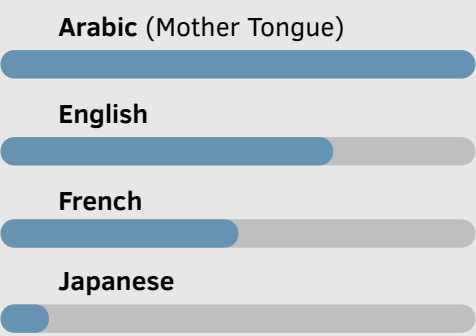
Jan 17/2022 – March 11/2022 (online) **ESIPAP - COURSE 2- Advanced lectures on detectors and applications.**
The European School in Instrumentation for Particle and Astroparticle Physics (ESIPAP) aims at training Master, PhD students and professionals to the high standard of instrumentation in use in particle and astroparticle physics.

Particle Physics Astro-particle Detectors

Profiles



Languages



Conference participation

Poster session

The first edition of African Conference on High Energy Physics (ACHEP) 23-27 Oct 2023

Printed a Poster titled Energy scale cross-calibration of Hyper-Kamiokande detector using Deuterium-Tritium neutron generator, and accepted for publication as a conference paper (official publication is still ongoing)

Certificates

ALX - Africa	Software engineering	Jan 2023 - Ongoing
	12 Month Program of programming: Data structures and algorithms with C, and web development, DevOps with Python JavaScript, and TypeScript: Specialized in Backend.	
Coursera	Deep Learning Specialization	Nov 10, 2024
	An online non-credit course authorized by DeepLearning.AI and Stanford University and offered through Coursera, taught by Andrew ng.	
Coursera	Machine Learning Specialization	Mars 12,2024
	An online non-credit course authorized by DeepLearning.AI and Stanford University and offered through Coursera	
Edx	Machine Learning with Python-From Linear Models to Deep Learning	May 19, 2023
	A course of study offered by MITx, an online learning initiative of the Massachusetts Institute of Technology.	
DataCamp	Data Scientist Associate	Aug 30, 2023
	Data science career track provided by Datacamp	
Coursera	Introduction à la programmation orientée objet (en C++)	Nov 16 2023
	An online non-credit course authorized by École Polytechnique Fédérale de Lausanne and offered through Coursera	