

CARLOS VEGA GARCÍA

✉ carlos.vegag97@gmail.com & carlos.vegag@estudiante.uam.es
☎ +34 630225998 📍 Madrid, Spain Age: 23



ACADEMIC FORMATION

Bachelor Degree in Physics

📅 2015-2019 📍 Autonomous University of Madrid (UAM)

MSc in Theoretical Physics

📅 September 2019-July 2020 📍 Instituto de Física Teórica (IFT) UAM/CSIC

Speciality: Particle Physics and Cosmology

Student of BSc in Mathematics

📅 2015-Present 📍 UNED (Spanish Distance Learning University)

Complementary studies aimed to extend my formation in formal aspects of Physics and to learn pure Mathematics.

EXPERIENCE

Theoretical Physics Department of the Autonomous University of Madrid

📅 February 2019- May 2019 📍 Facultad de Ciencias, UAM

During the period February 2019 - May 2019 I worked at the Astrophysics Group of the Theoretical Physics Department of the Autonomous University of Madrid under the supervision of Prof. Patricia Sánchez-Blázquez. My work consisted in a research project aimed to study the sensitivity of the parameter space of stellar feedback modelling in the context of hydrodynamical simulations performed within the EAGLE (*Evolution and Assembly of Galaxies and their Environment*) project.

Teide Observatory (IAC)

📅 August 2016 📍 Institute for Astrophysics of Canarias

In August 2016 I stayed at the Institute for Astrophysics of Canarias during the Perseids meteor shower, participating in research tasks within the SkyLive Tv project for astronomy divulgation.

PROGRAMMING KNOWLEDGE

- *Programming Languages*: C++, LISP, MATLAB, Python
- *Informatic Tools*: MATLAB, SciLab, Maxima, Mathematica, \LaTeX , SciDavis, Origin

ACKNOWLEDGEMENTS

- Research Scholarship for Master Students (UAM, 2019)
My research project associated to this scholarship was *Swampland Conjectures and Quantum Error Correction in AdS/CFT*, devoted to the study of the interplay of Quantum Information and low-energy conjectures about Quantum Gravity in the context of the so-called AdS/CFT correspondence.
- Excellence Grant of the Comunidad de Madrid (2015)
- High school graduation *cum laude* (2015)
- Scholarship for University Studies of the Magna Competition in Science and Mathematics (Puerto Rico, 2013)

LANGUAGES

Grade A in the Cambridge First Certificate Exam, which acquaints a C1-level in English.

COMPLEMENTARY COURSES

Course on Machine Learning

📅 May 2020 📍 Coursera

Course delivered by Stanford University in the online platform Coursera.

Course on Quantum Computing Foundations

📅 October 2019 📍 UAM

A 60-hour long course delivered at the Autonomous University of Madrid about foundations and applications of Quantum Computing.

2 Courses on Quantum Optics

📅 July 2018 📍 Coursera

Courses delivered by the École Polytechnique de Paris in the online platform coursera, covering basic topics of Quantum Optics.

RESEARCH INTERESTS

I am interested in various field of research within Theoretical Physics.

- Topology in Quantum Optics and Photonics
- Quantum Simulation