Miguel Borrero Ridaura

657 810 522 - mibori@alumni.uv.es

EDUCATION

MPhys in Physics with Theoretical Physics
The University of Manchester (UK): sept 2014-june 2018

Overall Grade: **First Class Honours (1:1) (Nota equivalente 9.22/10)**
Third year done at UC Santa Barbara (Next entry)

BSc Physics (EAP Scholarship)(1 year)
University of California, Santa Barbara (USA) 2016/2017

Year grade(GPA): **3.78/4**
Awarded Deans Honor Prize (Academic excellence)

MSc in Economics
La Universidad de Valencia 2018/2019

Average grade 9.6/10 (**top of the class**)(**Premio extraordinario de master**)

PhD Student in Economics under FPU Scholarship
La Universidad de Valencia Sept 2019-

Awarded the **national Spanish doctorate scholarship** from "Ministerio de Educacion y Ciencia" FPU (Formacion de profesorado Universitario). To pursue a PhD in Microeconomic Theory/Game Theory under the supervision of **Professor Jose Santiago Rubio** (santiago.rubio@uv.es)

Note: All conversions and equivalences between grading systems are done according to the Agencia Nacional de Evaluacion y Calidad (ANECA).

EXPERIENCE

Research Placement
Instituto de Ciencias de los Materiales at the University of Valencia, ICMUV during July 2017.

- Worked in the theoretical condensed matter physics group under Prof. Juan Martinez and Dr. Alejandro Molina.
- Using DFT(density functional theory) and other ab initio methods I analyzed properties of excitons and studied electronic structure of semiconductors.

Visiting Student
Centre for Corpuscular Physics at The University of Valencia (Spain) April 2012

- Under the supervision of Dr Juan Zuniga.
- Explore the different research projects and their potential impact on physics.

Delivery Hub Project
Individual project in course Programming for Physicists using Python.

- Developed the program to read in .csv data and compute the optimal location for a delivery hub based on minimizing distance. This could then be modified to add parameters such as the weight of distance by population or having various hubs.

Rayleigh-Ritz Project
Individual project in course Numerical Analysis I

- Using python, Rayleigh-Ritz method was use to deal with elasticity problems. This inlcuded systems such as wire beads and Cantilevers
- C++ was used for the linear algebra calculations involved in the project.

Lorentz System Project
Individual project in course Numerical Analysis II

- Using python, different chaotic phenomenon of the Lorentz system were analyzed.

3-body dynamics project
Group project in course Programming for Physicists using C++ and Python

- We wrote a C++ program to compute the motion of a mass-less body subject to the gravitational field of two massive bodies using RK-4 algorithm to solve differential equations. Python was then use to plot the trajectories through animations. We wrote a report and expose our results to members of the Physics department.

AWARDS

- Bronze Medal in United Kingdom Mathematical Challenge (Secondary School)
- Best Physics student year 12 (Sixth form=Bachillerato)

SKILLS

Languages:	Spanish (native) , English(Fluent) , Catalan(Fluent)
Software:	Python, C++, LaTeX, Mathematica, Stata, R