europass

Tiago Antão

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EDUCATION AND TRAINING

08/09/2021 – CURRENT Braga, Portugal

MASTER STUDENT IN PHYSICS University of Minho

Address Campus de Gualtar, Braga, Portugal | **Website** https://www.uminho.pt

08/09/2018 – 31/07/2021 Braga, Portugal

BACHELOR DEGREE (LICENCIATURE) IN PHYSICS University of Minho

Address Campus de Gualtar, Braga, Portugal | **Website** www.uminho.pt | **Final grade** 19.133 |

Thesis Open Quantum Systems: Two-level atoms coupled to Graphene Plasmons

LANGUAGE SKILLS

Mother tongue(s): **PORTUGUESE**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C2	C2	C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Python | Wolfram Mathematica

ADDITIONAL INFORMATION

PUBLICATIONS

Laser induced enhanced coupling between photons and squeezed magnons in antiferromagnets – 2022

J C G Henriques et al 2022 J. Phys. Condens. Matter 34 245802

The polarizability of a confined atomic system: an application of the Dalgarno–Lewis method – 2021

T V C Antão and N M R Peres 2021 Eur. J. Phys. 42 045407

Two-level Systems Coupled to Graphene plasmons: A Lindblad equation approach – 2021

T V C Antão and N M R Peres 2021 International Journal of Modern Physics B 35(20) 2130007

CONFERENCES AND SEMINARS

Faculty of Sciences of the University of Porto, Rua do Campo Alegre 1021 1055, 4169-007 Porto
Magnetism in Portugal 2022 https://magnetism2022pt.sciencesconf.org/

PROJECTS

01/02/2022 – 31/01/2023
Reseach Fellowship at LIP Developed studies of magnetic excitations in S-spin systems, focused on the generation of effective Hamiltonians by coupling to external fields.
Reference: CERN/FIS-COM/0004/202

Aalto Summer Internships 2021: Single Photon generation in electron quantum optics Three month internship program in the quantum transport group at Aalto University, Finland. Studied Electron Quantum optics under the supervision of Dr. Benjamin Roussell.

Quantum Matter, Materials & Concepts - Summer Training Program: 2020 and 2021 editions Summer training program in quantum materials with a three month research grant funded by FCT.

HONOURS AND AWARDS

Winner of the UMinho Research Initiation Prize - Study of the Stark effect in an atomic system – University of Minho Participated under the supervision of Professor Nuno Peres in this contest where second and third year undergraduates as well as MsC students integrate research groups to gain experience and further interest in science. Was selected as a winner of the contest in the 30th of April 2021.

UMinho Excelence Grant (Application, 1st, 2nd and 3rd years of Bachelor's Degree) – University of Minho Grant awarded by the University of Minho to the student who made an application with the highest highscool grade average to each degree/course, and for graduating each year with highest grade average.

UMinho Excelence Grant (1st, 2nd and 3rd years of Bachelor's Degree) – University of Minho These merit scholarships are intended to reward students who, in each curricular year, obtain exceptional performance, and cover all students enrolled at the University of Minho in bachelor's degrees.

DISCRIMINATED GRADES

While in Master's degree (ongoing)

1. Advanced Quantum Mechanics (7.5 ECTS) - 20
2. Advanced Methods for Experimental Research (7.5 ECTS) - 18
3. Mathematical Methods of Physics (7.5 ECTS) - 19
4. Quantum Technologies (7.5 ECTS) - 18
5. Advanced Physics Laboratory (7.5 ECTS) - 19
6. Quantum Physics of Condensed Matter (7.5 ECTS) - 20
7. Many Body Quantum Mechanics (7.5 ECTS) - 19
8. Quantum Field Theory (7.5 ECTS) - 18
9. Topics on Physical Platforms for Quantum Computation (5 ECTS) - 19
10. Nano-Optics (5 ECTS) - 20

Average to current date: 18.96
Note: Grades go from 0 to 20

While in Bachelor's degree

1. Linear Algebra and Analytic Geometry (6 ECTS) - 20
2. Calculus (6 ECTS) - 20
3. Introduction to Experimental Physics (6 ECTS) - 19
4. Introduction to Modern Physics (6 ECTS) - 20
5. General Chemistry (6 ECTS) - 17
6. Vector Calculus (6 ECTS) - 19
7. Complements of Calculus and Analytic Geometry (6 ECTS) - 20
8. Modern Physics Laboratory (6 ECTS) - 20
9. Languages for Numerical Computation (6 ECTS) - 20
10. Newtonian Mechanics (6 ECTS) - 19
11. Complex Analysis (6 ECTS) - 20
12. Electromagnetism (6 ECTS) - 20
13. Physics of Continuous Media (6 ECTS) - 19
14. Newtonian Mechanics Laboratory (6 ECTS) - 18

15. Analytical Mechanics and Waves (6 ECTS) - 19
16. Quantum Physics I (6 ECTS) - 20
17. Differential Geometry (extra-curricular) (7.5 ECTS) - 18
18. Electromagnetism and Optics Laboratory (6 ECTS) - 17
19. Thermodynamics Laboratory (6 ECTS) - 19
20. Optics (6 ECTS) - 17
21. Thermodynamics and Statistical Physics (6 ECTS) - 20
22. Complements of Electromagnetism (6 ECTS) - 19
23. Electronics and Instrumentation in Physics (6 ECTS) - 19
24. Computational Physics (6 ECTS) - 19
25. Quantum Physics II (6 ECTS) - 20
26. Option UMinho (Computation with R) (6 ECTS) - 19
27. Atomic Physics (6 ECTS) - 19
28. Condensed Matter Physics (6 ECTS) - 19
29. Nuclear and Particle Physics (6 ECTS) - 17
30. Research Project in Physics (12 ECTS) - 20

Final average: 19.133
Note: Grades go from 0 to 20