

Raimel Alberto MEDINA RAMOS

Birth date: December 25, 1992

Nationality: Cuban

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Education

- Sep- 2019** **PhD Student**, Institute of Science and Technology Austria.
Work's place: Quantum Dynamics and Condensed Matter Theory Group.
Supervised by Dr. Maksym Serbyn.
- Feb-Sep 2019** **Intern Student**, Institute of Science and Technology Austria.
Work's place: Quantum Dynamics and Condensed Matter Theory Group.
Proyect: "*Clustering phase of glasses in a quantum regime.*" supervised by Dr. Maksym Serbyn.
- 2017-2018** **Master of Science in Physics**, Instituto Balseiro, Argentina.
Work's place: Particles and Fields Research group - Centro Atómico Bariloche.
Thesis: "*Aspects of Quantum Information in Quantum Field Theory.*" supervised by Dr. Gonzalo Torroba.
Average grading: 9.50 from 1 to 10, 10 being an 'A'.
- 2015-2017** **Bachelor's in Physics**, Instituto Balseiro, Argentina (full tuition scholarship, given by the National Atomic Energy Commission)
Average grading: 8.58 from 1 to 10, 10 being an 'A'. (historical average: 7.85)
- 2011-2015** *Bachelor's Physics*, Universidad Central 'Marta Abreu' de las Villas, Cuba.
Not graduated. I studied the first four years of my Bachelor's in Physics.
Average grading: 4.93 (plus 0.34 of Award-winning Exams) from 1 to 5, 5 being an 'A'.

Research Projects

- Feb-Jul 2017** Intern at the **Domain Wall Group (PAREDOM)**, CAB, Argentina.
Design and implementation of a highly costumizable computer program for the processing and massive analysis of images from a PMOKE (Polar Magneto Optical Kerr Effect) microscope.
Under direction of Dr. Alejandro B. Kolton and Dr. Javier Curiale.
- Aug-Dec 2017** Thesis at **Particles and Fields Research Group**, CAB, Argentina.
Used quantum information meassures to studied renomarlization group flows in boundary conformal field theories, in $1 + 1$ dimension. Numerical and analytical calculations.
Under direction of Dr. Gonzalo Torroba.

Research interests and advanced courses

- Graduate Courses* Particle Physics, Quantum Field Theory I & II (Path Integral, Renormalization Group, Non-Abelian Gauge Theory), Physics beyond the Standard Model (Supersymmetry, Supergravity, Dark Matter), Solid State Physics (advanced topics).
- Professional Interests* Quantum Field Theory, Quantum Information, Condensed Matter Theory, Mathematical Physics.

Presentations, Participation in Conferences & Schools

- Sep. 2017** 102nd National Meeting of Physics of the Argentinian Physics Association (AFA). La Plata, Buenos Aires, Argentina.
Poster presentation: Medina Ramos R A, Caballero N B, Albornoz L J, Gorchon J, Lambert C, Salahuddin S, Bokor J, Bustingorry S, Curiale J, Kolton A B. *Collective events in the movement of magnetic domain walls in thin films.*
- Jul. 2017** "*IFT-Perimeter-SAIFR Journeys into Theoretical Physics*", international school (funding received from the ICTP-SAIFR) IFT-SAIFR, Sao Paulo, Brazil.
- Mar. 2012** "*Relevant Award in Scientific Student Forum*", Universidad Central "Marta Abreu" de las Villas, Santa Clara, Cuba.

Publications

2018 Casini, H., Medina, R., Landea, I.S. et al. J. High Energ. Phys. (2018) 2018: 166.
[https://doi.org/10.1007/JHEP09\(2018\)166](https://doi.org/10.1007/JHEP09(2018)166)

Teaching Positions

Feb. 2015-Jul. 2015 Student tutor at Universidad Central ‘Marta Abreu’ de las Villas (ad-honorem).
Helped undergraduate students understand physics concepts through one to one appointments. Santa Clara, Cuba.

Other Skills

Programming Knowledge and working experience in *Linux*, *C*, *C++*, *Python*, *R*, *Labview*, *Latex* and *Mathematica*.

Languages Spanish: Native speaker.
English: Advanced writing and speaking skills.