

Curriculum Vitae et Studiorum

Personal information

Nationality Italian
Gender Female
Place of birth Tagliacozzo, L'Aquila, Italy
Citizenship Italian
Personal homepage <https://argiarubeo.github.io/>

Current Position

September 2014 - present Ph.D. student as "Hamilton Scholar" at Trinity College Dublin, Ireland (4 years scholarship)
Supervisor Prof. Stefan Sint

Education

22/11/2013 **Master degree (Laurea Magistrale)** in Particle Physics from “*Sapienza*”, University of Rome
Final mark 110/110
Title *Numerical study of the $q\bar{q}$ static potential in the temporal gauge*
Supervisor Prof. Massimo Testa

3/2009 **Bachelor Degree (Laurea Triennale)** in Physics from “*Sapienza*”, University of Rome
Final mark 97/110
Title *Relativistic invariance of Dirac equation*
Supervisor Prof. Massimo Testa

Research Interests

Physics Beyond the Standard Model

Theoretical aspects of lattice gauge theories

Algorithms and hardware for lattice QCD

Non-perturbative renormalization of QCD parameters

Teaching

- 2017 Teaching assistant for the undergraduate course of *Quantum Mechanics II*.
Degree program in Physics, Trinity College Dublin (TCD), Ireland. (One semester)
- 2016 Teaching assistant for the undergraduate course of *Quantum Mechanics*.
Degree program in Physics, Trinity College Dublin (TCD), Ireland. (One semester)
- 2015 Tutorials in Linear Algebra for Science students at TCD, (10 hours);
- Tutorials in Quantum Mechanics for Physics students at TCD, (10 hours)

Talks and Posters

- 2016 Poster at the conference "34th International Symposium on Lattice Field Theory", Southampton 2016 (<http://www.southampton.ac.uk/lattice2016/>)
- 2014 Talk at the conference "New Frontiers in Theoretical Physics", Cortona 2014 (<https://agenda.infn.it/conferenceDisplay.py?confId=7371>)

Conferences, Workshops and Schools

- 2017 *9th Odense Winter School on Theoretical Physics: Cracks and Blind Spots in the Standard Model*
Centre for Cosmology and Particle Physics Phenomenology (CP3-Origins), Odense, Denmark
- 2016 *Lectures on the Theory of Fundamental Interactions*
Galileo Galilei Institute for Theoretical Physics, Arcetri (Florence), Italy
Irish Quantum Foundations 2016. Maynooth University, Ireland
- 2015 *Lattice Practices 2015*
Jülich Supercomputing Centre (JSC), Forschungszentrum Jülich, Germany
Irish Quantum Foundations 2015
Dublin Institute for Advanced Studies (DIAS), Dublin, Ireland
Scientific Challenges and Big Computing
Higgs Centre for Theoretical Physics, Edinburgh, UK

Publications

11/2016 **PoS LATTICE 2016**

Title *Perturbative $O(a^2)$ effects in gradient flow couplings with SF and SF-open boundary conditions*

Authors *A. Rubeo , S. Sint*

PoS LATTICE (2016) 388

<https://arxiv.org/abs/1612.07047>

08/2015 **Physical Review D**

Title *Color structure of Yang-Mills theory with static sources in a periodic box*

Authors *L. Giusti, A.L. Guerrieri, S. Petrarca, A. Rubeo, M. Testa*

hep-lat (2015)

<http://link.aps.org/doi/10.1103/PhysRevD.92.034515>

11/2013 **PoS LATTICE 2013**

Title *$q\bar{q}$ -potential: a numerical study*

Authors *A.L. Guerrieri, S. Petrarca, A. Rubeo, M. Testa*

PoS LATTICE (2013) 470

<http://arxiv.org/pdf/1311.1325.pdf>

Computer skills

Programming C, C++, bash, Gnuplot, ROOT, Octave, LaTeX, MPI, openMP, Mathematica, Python

Operating systems Linux, Mac OSX and MS Windows

Languages

Italian native language

English proficient level (IELTS certificate)

Academic referees

Available upon request

Scientific dissemination

- 2017 Interview for the Italian journal "OggiScienza" (<https://oggiscienza.it/2017/11/20/nuova-fisica-andare-oltre-modello-standard/>) as a researcher working abroad.
- 2017 Videoconference with a Serbian city to explain my research together with my colleagues Dr. M. Marinkovic and Dr. D. Wilson in the context of Researchers' Night.
- 2016 Co-author of the chapter "Nanofisica e fisica delle particelle elementari" ("Nanophysics and Particle Physics") related to Particle Physics, in the book for highschool students "Fisica e realtà.blu 3" ("Physics and reality.blu 3") and revisor of the exercises of volume 1 and 2. Publishing company "Zanichelli"
- 2015 As a winner applicant for the Thesis-in-3 event, I have presented my PhD project, in the context of "*Discover Research Dublin, Sept 25th 2015*".

I participated in a particle Physics masterclass event for secondary school students, explaining and helping students in a data-analysis exercise organized by CERN.

- 2010 I was among the founders of the magazine "*accastampato*", a journal of scientific divulgation currently distributed in free prints to high schools in Italy (www.accastampato.it).

I collaborated with "*Frascati Scienza*" for "*European Researchers' Night 2010*"

- 2009 I collaborated as a scientific advisor in the organization of the Science Festival "*Il Cielo di Argoli*", Tagliacozzo (AQ)