

## *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

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## 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

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## 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)

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## 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>)

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## 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

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## 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>

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## Computer skills

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

Operating systems Linux, Mac OSX and MS Windows

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## Languages

Italian native language

English proficient level (IELTS certificate)

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## Academic referees

Available upon request

## Scientific dissemination

- 2017 Interview for for the Italian journal "OggiScienza" ([oggiscienza.it](http://oggiscienza.it)) 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](http://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)