

Curriculum Vitae et Studiorum

Personal information

Nationality Italian
Date of birth 01/12/1982
Gender Female
Place of birth Tagliacozzo, L'Aquila, Italy
Citizenship Italian

Current Position

September 2014 - present Ph.D. student as "Hamilton Scholar" at Trinity College Dublin, Ireland (3 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

High-energy particle physics
Standard Model Physics and beyond
Theoretical aspects of lattice gauge theories
Algorithms and hardware for lattice QCD
Non-perturbative renormalization of QCD parameters

Teaching

- 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

- 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, Dublin, Ireland
Scientific Challenges and Big Computing, Higgs Centre for Theoretical Physics, Edinburgh, UK

Publications

11/2016 **PoS LATTICE 2016**

Title *Tree level cut-off effects in gradient flow couplings with SF boundary conditions*

Authors *A. Rubeo , S. Sint*

PoS LATTICE (2016) 388

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

Operating systems Linux, Mac OSX and MS Windows

Languages

Italian native language

English proficient level (IELTS certificate)

Academic referees

Prof. phone: +353 1 896 8559, email: sint@maths.tcd.ie
S.Sint

Prof. phone: +39 06 4991 4289 email: massimo.testa@roma1.infn.it
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Prof. phone: +39 06 4991 4376, email: silvano.petrarca@roma1.infn.it
S.Petrarca

Dr. phone: +3 1 896 4598 email: marina.marinkovic@cern.ch
M.Marinkovic

Scientific dissemination

2016 Author of the chapter related to Particle Physics in the book for highschool students. Editing house "Zanichelli"

Title "Fisica e realtà", Romeni, second edition.

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)