


**PERSONAL INFORMATION** **Riccardo Biondi**

 Via Vetoio n.10 67100 Coppito (Aq) , Italy

 (-39) 0862 2433065  [riccardo.biondi@aquila.infn.it](mailto:riccardo.biondi@aquila.infn.it)

**Gender** Male | **Date of birth** 4 August 1987 | **Nationality** Italian

**WORK EXPERIENCE**

May 2016 – Now **PostDoc**

Universita' degli Studi Dell'Aquila and Laboratori Nazionali del Gran Sasso  
Astroparticles physics, in particular Mirror Matter model and their phenomenology

**EDUCATION AND TRAINING**

2012–2015 **PhD - Thesis Title: 'Oscillation phenomena between ordinary and dark matter particles: the case of neutron and neutrinos'**

Universita' degli Studi Dell'Aquila and Laboratori Nazionali del Gran Sasso

2009–2012 **Masters in Physics - Thesis Title: Realistic description of neutron-neutron correlation effects on the nuclear matrix element of neutrino-less double  $\beta$  decay**

Universita' "la sapienza" di Roma

2006–2009 **Bachelor of Physics - Thesis Title: Hamiltonian-Relativistic Dynamics on the Light-Front**

Universita' "la sapienza" di Roma

**PERSONAL SKILLS**

**Mother tongue** Italian

**Other languages**

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	B2	C1	C1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user  
[Common European Framework of Reference \(CEF\) level](#)

**Computer skills**

- Basic use of: MATLAB, Fortran, TurboPascal, GnuPlot and WordPres.
- Intermediate use of: OpenOffice, Linux and OpenMP
- Advanced knowledge of: C, C++ , Root, Microsoft Office MATHEMATICA and  $\LaTeX$

**ADDITIONAL INFORMATION**

- Publications**
- March 2018, *Monte Carlo simulation for Ultra-cold neutron experiments searching neutron - mirror neutron oscillation*, R. Biondi, arXiv:1803.03522
  - December 2017, *New experimental limits on neutron - mirror neutron oscillations in the presence of mirror magnetic field* Z. Berezhiani, R. Biondi, P. Geltenbort, I.A. Krasnoshchekova, V.E. Varlamov, A.V. Vassiljev and O.M. Zhrebtsov, arXiv:1712.05761
  - February 2017, *High Energy Neutrinos from Dark Matter Decay*, Z. Berezhiani, R. Biondi, and A. Gazizov, PoS NOW2016 (2017) 051
  - August 2016, *Flavor composition of the IceCube neutrinos: a quest for sterile neutrinos?*, R. Biondi, Incontri di Fisica delle Alte Energie - IFAE 2015, DOI: 10.1393/ncc/i2016-16271-4
  - May 2015, *Dark Matter and IceCube Neutrinos*, R. Biondi, Incontri di Fisica delle Alte Energie - IFAE 2014, DOI: 10.1393/ncc/i2015-15031-4
  - December 2014, *Short-range correlation effects on the nuclear matrix element of neutrinoless double- $\beta$  decay*, O. Benhar Noccioli, R. Biondi, E. Speranza, Phys.Rev. C90 (2014) 6, 065504, arXiv: 1401.2030

- Conferences and Workshops**
- June 2016, International school of subnuclear physics, 54<sup>th</sup> course: *The New Physics frontiers in the LHC-2 Era*, 14-23 June 2016, Erice(Tr), Directors: A. Zichichi and G. 't Hooft, Attend to the Conference and presented a contribution in the Plenary session.
  - September 2015, Hot topics in Astroparticle Physics, 14-26 September 2015 Laboratori Nazionali del Gran Sasso (It), Member of the Organizing committee, Attend to the Conference and presented a contribution in the Plenary session.
  - April 2015, Hot topics in Modern Cosmology *Spontaneous Workshop IX*, 27 April - 1 May 2015 Cargese (Fr), Attend to the Conference and presented a contribution in the Plenary session.
  - April 2015, IFAE 2015 - *"Incontri di Fisica delle Alte Energie"*, 8-10 April 2015 Università di Roma Tor Vergata, Attend to the Conference and presented a contribution in the Plenary session.
  - April 2014, IFAE 2014 - *"Incontri di Fisica delle Alte Energie"*, 9-11 April 2014 Gran Sasso Science Institute And Laboratori Nazionali del Gran Sasso, Attend to the Conference and presented a contribution in the PhD students.

- Schools**
- January 2016, *"GGI lectures on the theory of fundamental interactions"*, 11-29 January 2014 Galileo Galilei Institute for Theoretical Physics Firenze), Attend to the School and obtained the certificate of attendance.
  - February 2015, *"Majorana Lectures"*, 9-13 February 2015 Università Federico II di Napoli, Lectures by G. 't Hooft "From Standard Model to Black Hole and Back", Attend to the Lectures and obtained the certificate of attendance.
  - January 2015, *"GGI lectures on the theory of fundamental interactions"*, 12-29 January 2014 Galileo Galilei Institute for Theoretical Physics Firenze), Attend to the School and obtained the certificate of attendance.
  - January 2014, *"GGI lectures on the theory of fundamental interactions"*, 7-24 January 2014 Galileo Galilei Institute for Theoretical Physics Firenze), Attend to the School and obtained the certificate of attendance.
  - October 2013, ESC 13 - *"Fifth I.N.F.N. International School on architectures, tools and methodologies for developing efficient large scale scientific computing applications"*, Ce.U.B - Bertinoro (FC) 20-26 October 2013, Attend to the School and passed the related exam.

- Awards**
- June 2016, *Yoichiro Nambu Diploma*, International school of subnuclear physics, 54<sup>th</sup> course: *The New Physics frontiers in the LHC-2 Era*, Directors: A. Zichichi and G. 't Hooft.