

# Curriculum Vitae of dr. Luigi Paparella

## PhD in Physics

### Personal information:

Name/Surname: LUIGI PAPARELLA  
Year of birth: 1988  
Place of birth: MOLFETTA (BA), ITALY  
Nationality: ITALIAN  
e-mail: luigi.paparella@ba.infn.it  
phone: +39 080 544 2342



**Occupational field:** Research and development

### Experience:

2013 - underway



#### Technological research in Experimental Physics

at Department of Physics "M. Merlin", University of Bari / INFN sezione di Bari

Main performed activities:

- Project of the readout electronics for the spectrometer of the NESSIE experiment, on neutrino physics
- Development of data acquisition software for readout electronics
- Laboratory tests on read-out electronics
- Tests with RPC detectors at the Frascati National Laboratories
- Production of a front-end board prototype for the SHiP experiment
- Writing of scientific articles and of the PhD thesis
- Attendance at schools and conferences

### Education:

feb 2013 - mar 2016

#### PHD IN PHYSICS

PhD school in Physics, Università degli Studi di BARI, XXVIII ciclo

Dipartimento Interateneo di Fisica "M. Merlin"

Qualification obtained in date: 14/03/2016

Thesis title: Elettronica di read-out per gli RPC dell'esperimento NESSIE

Supervisor: prof. S. Simone

2010-2012



#### Master's degree (2 years)

##### MASTER'S DEGREE IN PHYSICS

Università degli Studi di BARI

Faculty of Mathematical, Physical and Natural Sciences

Course orientation: INNOVATIVE PHYSICAL TECHNOLOGIES

Characterizing teachings:

Laboratory of Electronics, Physics of Signal, Data Acquisition Techniques, ...

Qualification obtained in date: 23/11/2012

Graduation: 110 /110 cum laude

Thesis title: Elettronica di front-end per gli RPC dell'esperimento NESSIE

Supervisors: prof. S. Simone, ing. G. De Robertis

Field of the thesis: Electronic Techniques of data acquisition

2007-2010

**Bachelor's degree (3 years)**

**BACHELOR'S DEGREE IN PHYSICS**

Università degli Studi di BARI

Faculty of Mathematical, Physical and Natural Sciences

Course orientation: General

Qualification obtained in date: 23/09/2010

Graduation: 110 / 110 cum laude

Thesis title: Ricostruzione del mesone charmato  $D_0$  con i primi dati dell'esperimento CMS ad LHC

Supervisors: dott. A. Pompili, prof. M. De Palma

Field of the thesis: Data analysis techniques

**pre-academic studies**

2002-2007

High school diploma: MATURITÀ SCIENTIFICA

Graduation: 100/100

**Languages spoken:**

- Italian mother tongue

	Comprehension	Written	Spoken
English:	very good	good	good
French:	sufficient	sufficient	sufficient

**Computer competences:**

- Very good programming abilities
- Known programming languages: C, C++, Python
- Knowledge of the object oriented programming and network programming
- LabVIEW Certified Associate Developer (CLAD)
- Known operative systems: Windows, Linux
- European Computer Driving License (ECDL)
- Very good knowledge of principal Microsoft Office programs (Word, Excel, PowerPoint)
- Knowledge of Wolfram Mathematica

**Technical competences:**

- Board hardware designing
- FPGA programming (Xilinx ISE)
- Very good knowledge of HDL languages: Verilog, VHDL
- Embedded programming: 8051 microcontroller
- Very good ability of technical specification comprehension
- Knowledge of software OrCAD/PSpice (Cadence)
- Very good expertise with lab instrumentation (oscilloscope, multimeter, ...)

**Other abilities and competences:**

- Methodicalness and accuracy in performing laboratory measures
- Team working
- Good communication skills
- Type B driving license

## Publications:

- 2015
- Discovery of  $\tau$  Neutrino Appearance in the CNGS Neutrino Beam with the OPERA Experiment**  
OPERA Collaboration (N. Agafonova (Moscow, INR) et al.). Jul 6, 2015. 7 pp.  
Published in Phys.Rev.Lett. 115 (2015) 12, 121802
  - A facility to Search for Hidden Particles (SHiP) at the CERN SPS**  
SHiP Collaboration (M. Anelli et al.). Apr 20, 2015. 234 pp.  
CERN-SPSC-2015-016, SPSC-P-350
  - Search for Sterile Neutrinos in the Muon Neutrino Disappearance Mode at FNAL**  
A. Anokhina (Lomonosov Moscow State U.) et al.. Mar 25, 2015. 15 pp.  
Submitted to EPJC
  - Limits on muon-neutrino to tau-neutrino oscillations induced by a sterile neutrino state obtained by OPERA at the CNGS beam**  
OPERA Collaboration (N. Agafonova (Moscow, INR) et al.). Mar 6, 2015. 11 pp.  
Published in JHEP 1506 (2015) 069
- 2014
- The NESSiE way to searches for sterile neutrinos at FNAL**  
NESSiE Collaboration (A. Anokhina (Moscow State U.) et al.). Oct 15, 2014. 12 pp.  
e-Print: arXiv:1410.3980 [hep-ph]
  - Prospects for the measurement of muon-neutrino disappearance at the FNAL-Booster**  
A. Anokhina (Moscow State U. & SINP, Moscow) et al.. Apr 9, 2014. 76 pp.  
e-Print: arXiv:1404.2521 [hep-ph]
- 2013
- The NESSiE Concept for Sterile Neutrinos**  
NESSiE Collaboration (Luca Stanco (INFN, Padua) et al.). Dec 4, 2013. 12 pp.  
Published in PoS Neutel2013 (2014) 023

## Attendance at schools and conferences:

- 2015
- VI Scuola Nazionale "Rivelatori ed Elettronica per Fisica delle Alte Energie, Astrofisica, Applicazioni Spaziali e Fisica Medica" & RADFAC 2015  
Laboratori Nazionali di Legnaro, 23-27 Marzo 2015
  - 4th SHiP Collaboration meeting  
Naples, February 9-11, 2015
- 2014
- IV Seminario Nazionale Rivelatori Innovativi  
Catania, Laboratori Nazionali del Sud, 10-14 Novembre 2014
  - XVII FRASCATI SPRING SCHOOL "Bruno Touschek"  
Laboratori Nazionali di Frascati, 12-16 Maggio 2014
  - NESSiE Collaboration Meeting, Roma, 15.04.2014  
- Presentation entitled: "Status of Iron RPC Electronics", L. Paparella
- 2013
- XXV Seminario Nazionale di Fisica Nucleare e Subnucleare "Francesco Romano"  
Otranto, Serra degli Alimini, 19-24 Settembre 2013
  - NESSiE Collaboration Meeting, Bari, 21.06.2013  
- Presentation entitled: "Digital Read-out electronics for NESSiE Iron RPC",  
G. De Robertis, L. Paparella
  - WORKSHOP OPERA 2013 Neutrino Oscillation Workshop – OPERA Meeting  
Dipartimento Interateneo di Fisica "M. Merlin" – Università degli Studi di Bari  
Bari 18-20 June 2013

Date:

04 April 2016