CURRICULUM VITAE

FORMATO EUROPEO/EUROPEAN FORMAT

INFORMAZIONI PERSONALI/ PERSONAL INFORMATION

Nome, Cognome/Name, Surname	PIETRO CARRETTA
Indirizzo/Address	Via Bassi 6, I-27100 Pavia , Italy
Via, numero civico, c.a.p., città, nazione/ House number, street name, postcode, city, country	
Telefono/Telephone	+39-0382-987563
Fax	+39-0382-987752
E-mail	pietro.carretta@unipv.it
Sito web/Website	
Nazionalità/Nationality	italian
Luogo e data di nascita/ Place and Date of birth	Milano, 26/10/1966

Enterprise	University	EPR
☐Management Level	X Full professor	☐Research Director and 1st level Technologist / First Researcher and 2nd level Technologist
☐Mid-Management Level	☐Associate Professor	☐Level III Researcher and Technologist
☐Employee / worker level	☐Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	☐Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

In ordine di data /Dates (from – to)	October 2016 – up to now
Name and address of employer	Università degli studi di Pavia, Strada Nuova 65, 27100 Pavia (Italy) c/o Department of Physics, Via Bassi 6, I-27100 Pavia, Italy
Type of business or sector	Education and Research
Main activities and responsibilities	Full professor. Courses for University students in Physics. Research – NMR Laboratory activities.
In ordine di data /Dates (from – to)	May 2001 – September 2016
Name and address of employer	Università degli studi di Pavia, Strada Nuova 65, 27100 Pavia (Italy) c/o Department of Physics, Via Bassi 6, I-27100 Pavia, Italy
Type of business or sector	Education and Research
Main activities and responsibilities	Associate Professor. Courses for University students in Physics. Research – NMR Laboratory activities.
In ordine di data /Dates (from – to)	September 1995 – May 2001
Name and address of employer	Università degli studi di Pavia, Strada Nuova 65, 27100 Pavia (Italy) c/o Department of Physics, Via Bassi 6, I-27100 Pavia, Italy
Type of business or sector	Education and Research
Main activities and responsibilities	Assistant Professor. Courses for University students in Physics. Research – NMR Laboratory activities.
In ordine di data /Dates (from – to)	February 1994 – August 1995
Name and address of employer	Grenoble High Magnetic Field Laboratory, 23 Av. des Martyrs, 38000 Grenoble (France)
Type of business or sector	Research
Occupation or position held	EC Human Capital and Mobility Fellowship
Main activities and responsibilities	Research in magnetic resonances at high magnetic field

In ordine di data /Dates (from – to)	April 1989 – June 1990
Name and address of employer	Italian Minister of Defence
Type of business or sector	Military Service
Occupation or position held	Lieutenant of Italian Army's Corp of Engineers
Main activities and responsibilities	Company deputy commander
In ordine di data /Dates (from – to)	January 1989 – April 1989
Name and address of employer	Istituto Professionale Statale per Industria ed Artigianato - Piazzale Sicilia 5, 43121 PARMA
Type of business or sector	Education
Occupation or position held	High School Teacher
Main activities and responsibilities	Teaching basic electronics

EDUCATION AND TRAINING

In ordine di data /Dates (from – to)	November 1990-October 1993
Name and type of organisation providing education and training	Università degli studi di Pavia, Education and Research Institution
Principal subjects occupational skills covered	Physics, Solid State Physics, Magnetism, Superconductivity
Level in National classification	PhD degree in Physics (3 years duration)
In ordine di data /Dates (from – to)	November 1983 – December 1988
Name and type of organisation providing education and training	Università degli studi di Parma, Education and Research Institution
Principal subjects occupational skills covered	Physics
Level in National classification	Master (laurea) degree in Physics

PERSONAL SKILLS

Mother tongue (s): ITALIAN

Other languages (s): ENGLISH

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

FRENCH

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C1	C1	C1	B2	B1

PORTUGUESE

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

Communication skills: Good communication skills gained during my experience the University teacher and as researcher. Communication skills for congresses talks and organization

Organisational appointments/ managerial skills

- Head of the Department of Physics at the University of Pavia, since 2019
- Rector's delegate for the Placement at the University of Pavia, since 2019
- Dean for the Physics degree courses at the University of Pavia (2018-2019)
- Chairman of ISIS Large Scale Facility Muon Access Panel (2015-2018)
- Deputy Dean for the Physics degree courses at the University of Pavia (2013-2018)
- Coordinator of the Master degree course in Physical Sciences at the University of Pavia (2013-2018).
- Vice-president of Italian Association of Magnetism (2011-2013)
- Member of the National Scientific Council of CNISM (National Consortium for Physical Sciences of Matter) (2011-2014)
- Member of the Groupment Ampere-European magnetic resonance society (2006-2016)
- Coordinator of CNISM Pavia Research Unit (2005-2011)
- Organization/management of research projects
- Member of the organizing and programme committee for several conferences and schools
- Member of Department Councils, Università degli studi di Pavia
- Member of the Councils of the PhD School in Physics (University of Roma Tre 2007-2013 and University of Pavia 2010-up to now)

Driving licence

Licence B for car and A for motorcycle

RESEARCH ACTIVITIES

Research fields

MAIN SCIENTIFIC FIELDS OF RESEARCH

His research activity has been devoted to the experimental study of the physical properties of matter by combining magnetic resonance techniques, mainly NMR and μSR, with techniques of complementary character as magnetization and specific heat measurements, for instance. His activity spanned from the study of magnetic materials as a function of the dimensionality, from 0 to 3D, of the frustration, both induced by the magnetic lattice geometry or by the competition of exchange interactions, to the study of superconductors, as the cuprates and the iron-based, of heavy-fermion compounds and of strongly correlated electron systems in general. He has been involved also in the study of dynamic nuclear polarization for biomedical applications.

Has expertise in the use of

- Spectrometers for Nuclear Magnetic Resonance (NMR) and Nuclear Quadrupolar Resonance (NQR), for Muon Resonance (MUSR).
- Adiabatic calorimeter
- SQUID magnetometer for measurements of magnetization and susceptibility.
- Dynamic Nuclear Polarization apparatus.
- Electromagnets and superconducting magnetis.
- Electronic and cryogenic apparatus.

Congresses/conferences

about 150 participations to congresses/workshops, national and international, orals and posters

Talks/Seminars

more than 35 invited talks and more than 50 contributed talks at national/international congresses, workshops, schools and research institutes.

Projects

NATIONAL AND INTERNATIONAL RESEARCH PROJECTS

- Local coordinator of project PRIN2015 *Controlling Multi-band Quantum Materials by Orbital Manipulation*.
- Participant in project PRIN2012 *Utilizzo controllato del disordine per lo studio dei superconduttori a base di Ferro*.
- Scientific Coordinator of the cooperation program (2009-2013) with Bracco Imaging SpA on Hyperpolarization of molecules of biomedical intrest .
- Principal investigator of CARIPLO2011 project *Studio microscopico di processi dissipativi in nuovi materiali superconduttori.*
- Principal investigator of CARIPLO2008 project *Materiali multifunzionali a bassa dimensionalità a base di ftalocianina.*
- Member of the Steering Committee of the European Science Foundation Programme

on *Highly Frustrated Magnets* (2005-2010).

- Principal investigator of CARIPLO2005 project *Ftalocianine metalliche con proprietà magnetiche ed elettroniche di interesse applicativo.*
- Principal investigator of project PRIN2004 *Sistemi elettronici fortemente correlati con interazioni competitive.*
- Principal investigator of PAIS-INFM 2001 MALODI project *Low-dimensional Magnetic Systems.*
- Participant in FIRB 2001 project on *Meta-materiali magnetici innovativi strutturati su scala nanoscopica.*
- Principal investigator of CNRAgenzia2000 project *Risonanza Magnetica Nucleare in Condizioni Estreme di Pressione e Temperatura.*
- Participant in project PRA-INFM 1999 MESMAG
- Coordination of cooperation activities with private companies (e.g. Acciaierie Roiale SpA e Theolab)

Publications and books

Author of more than 170 peer-reviewed articles, of 3 editions of a university text-book, of a patent and of several book chapters.
h-index (Scopus/GScholar)= 32/38; citations (Scopus/GScholar)= 3471/4990

TUTORING AND SUPERVISING

Tutor of
* 9 PhD students
* 5 post-doc students
* 4 research collaborators
* more than 30 bachelor and master degree students

TEACHING

PhD, master and bachelor degree

Degree courses of the University of Pavia

- From 2013/2014 to 2018/19 Diagnostic Techniques II (Master degree in Physical Sciences).
- 2008/2009 Strongly Correlated Electron Systems (PhD in Physics).
- From 2007/2008 to 2018/2019 Spectroscopies in Condensed Matter Physics (PhD in Physics).
- From 2007/2008 up to now Structure of Matter (Bachelor degree in Physics).
- From 2004/2005 to 2005/2006 Modern Physics Teaching for the SILSIS (Scuola Interuniversitaria Lombarda di Specializzazione per l'Insegnamento Secondario).
- From 2003/2004 to 2006/2007 Introduction to Solid State Physics (Bachelor degree in Physics).
- From 2003/2004 to 2020/2021 Advanced Structure of Matter/Magnetism and Superconductivity (Master degree in Physical Sciences).
- From 2003/2004 to 2006/2007 Nuclear Magnetic Resonance (Master degree in Physical Sciences).
- 2001/2002 Advanced topics in Condensed Matter Physics (PhD in Physics).
- From 2000/2001 to 2002/2003 Solid State Physics (Degree in Physics).
- From 1995/1996 to 2006/2007 lectures and tutoring for Structure of Matter (Degree course in Physics).

National and International Schools

Other teaching activities outside the University of Pavia

- 2018 PhD course on Magnetic Resonances in Superconductors at the University of Ljubljana-Jozef Stefan Institute (Ljubljana, Slovenia).
- 2016 Lectures for the Muon Spectroscopy School, ISIS Facility – Rutherford Appleton Lab. (UK)
- 2010 PhD course on Magnetic Resonances at the Ameland Summer School on Advanced Spectroscopy in Complex Systems (Ameland, Netherland)
- 2008 Lectures at the Training Course in Pulsed Muon Techniques, ISIS Facility – Rutherford Appleton Lab. (UK)
- 2000 lectures at the Scuola Nazionale di Fisica della Materia (Villa Gualino, Torino) on Fundamental aspects of NMR in metals and superconductors.
- 1999 PhD course at SISSA (Trieste) on Magnetic Resonances in Condensed Matter Physics.
- 1996 lectures at the Scuola Nazionale di Fisica della Materia (Villa Gualino, Torino) on NMR in strongly correlated electron systems.

ADDITIONAL INFORMATION

Laboratory coordination	Responsible of the NMR laboratory of the Università degli studi di Pavia, Pavia (Italy), from 2002 to 2020
Referee for international journals	Referee for international journals: APS Physical Review journals (Rev. Lett., Phys. Rev.B, Phys. Rev. Materials, etc…) (more than 230 manuscripts reviewed), Europhys. Lett., App. Mag. Res., Int. J. Mod. Phys. B, Canad. J. Phys., J. Phys. C, Physica B, J.of Alloys and Compounds, Condensed Matter, Magnetochemistry, Scientific Reports, Nature Communications and others. In 2016 he has been appointed as *Outstanding Referee* of the American Physical Society.
Reviewer of research projects	Has reviewed projects for Fondazione Bruno Kessler, Council for the Central Laboratory of the Research Councils (UK), Israel Science Foundation, Israel-USA binational Science Foundation, European Science Foundation, Swiss National Science Foundation, bilateral DFG-SNSF projects, Estonian Funding Agency, Deutsche Forschungsgemeinschaft (DFG), Helmholtz Association and other funding agencies.
Evaluation panel member	• 2019 to 2021 member of Division 2 panel of the Swiss National Science Foundation Research Council. • 2013 to 2018 member of the access panel for μSR experiments at Paul Scherrer Institut (Villigen-CH). • 2000 to 2003 and 2015 to 2018 (Chairman) member of the Facility Access Panel for μSR experiments ISIS Large Scale Facility - Rutherford Appleton Laboratory (UK). • 2008 worked as an expert in the evaluation of French research institutions for AERES (Agence d'évaluation de la recherche et de l'enseignement supérieur).
Experience abroad	• Longstanding expertise in running μSR experiments at RAL(Rutherford Appleton Laboratory) - Chilton (Oxford - UK) and at PSI (Paul Scherrer Institute) - Villigen (Switzerland), as well as of NMR experiments at high magnetic fields at LNCMI-HMFL (Greboble-France).
Editorial activity	Member of the Editorial Board of the journal ISRN- Condensed Matter Physics Member of the Editorial Board of the journal Novel Superconducting Materials until 2018

TRATTAMENTO DEI DATI PERSONALI, INFORMATIVA E CONSENSO

Il D.Lgs. 30/6/2003, n. 196 "*Codice in materia di protezione dei dati personali*" regola il trattamento dei dati personali, con particolare riferimento alla riservatezza, all'identità personale e al diritto di protezione dei dati personali; l'interessato deve essere previamente informato del trattamento .

La norma in considerazione intende come "trattamento" qualunque operazione o complesso di operazioni concernenti la raccolta, la registrazione, l'organizzazione, la conservazione, la consultazione, l'elaborazione, la modifica, la selezione, l'estrazione, il raffronto, l'utilizzo, l'interconnessione, il blocco, la comunicazione, la diffusione, la cancellazione e la distruzione di dati, anche se non registrati in una banca dati.

In relazione a quanto riportato, autorizzo l'Università degli studi di Pavia al trattamento dei dati contenuti nel presente *curriculum vitae* e nella documentazione della quale fa parte integrante

(*barrare la casella*) X Si, acconsento

Pavia, 03/06/2024

UNIVERSITÀ DI PAVIA

Firmato digitalmente da Pietro Carretta
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Pietro Carretta