



PERSONAL INFORMATION



Pierino De Felice

 Department of Fusion and Technology for Nuclear Safety and Security
 National Institute of Ionizing Radiation Metrology
 ENEA, Casaccia Research Centre
 Via Anguillarese, 301 - S.M. Galeria I-00123 Roma
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 ITALY
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 pierino.defelice@enea.it
 Sex Male | Date of birth 16/11/1957 | Nationality Italian

POSITION
today

Director of the National Institute of Ionising Radiation Metrology of ENEA (ENEA-INMRI), the Italian Primary Metrology Institute for ionising radiation quantities

WORK EXPERIENCE
2010-today

ENEA-INMRI Director

ENEA-INMRI

- Commitments related to the specific function held, internally and externally to ENEA;
- Management of the ENEA-INMRI ISO-17025 Quality System;
- Coordination of the ENEA-INMRI participation in more than 15 joint European research projects within the European Metrology Research Program (EMRP-EMPIR), with leadership of several work packages.

Business or sector Ionizing radiation metrology

2004-2007

Auxiliary Agent at the European Commission, Joint Research Centre Ispra (temporary leave from ENEA)

EC JRC-ISPRA, Occupational Health and Safety Unit

- Responsible of the Laboratory of Metrology and Dosimetry of Ionizing Radiation and Whole Body Counter;
- Development of Quality Systems according to ISO-17025 standard;
- Development of new procedures for calibration of surface contamination monitors and neutron measuring instruments.

Business or sector Ionizing radiation metrology

1984-2010

Head of the ENEA-INMRI Radionuclide and Neutron Metrology Group

ENEA-INMRI

- Coordinator of ICRM and BIPM CCRI(II)-S10 supplementary comparison on calibration of large area source for surface contamination measurements (since 2009).
- Cooperation with Chemistry Unit of the International Atomic Energy Agency (IAEA), Seibersdorf laboratories, on development, characterization and usage of Certified Reference Materials for radioactivity measurements (since 2008).
- Organization of a National Quality Assurance programme, based on calibration and Inter-Laboratory Comparison campaign, for the radioactivity surveillance network in Italy.
- Organisation of the Calibration Service for radionuclide measurements in Italy.
- Development of the national primary standards of Ra-226 and Rn-222 (both in air and in water), development of the ENEA radon chambers.
- Preparation of standard sources of radionuclides for detector calibration: point sources, thin sources, large-area sources, reference materials and volume sources, standard phantoms used for whole body counters calibration, sources on paper filters.
- Development of primary and secondary reference standard instruments for the measurement of radioactive contamination.
- Development and calibration of secondary transfer standards for radionuclide metrology such as ionisation chamber, HPGe spectrometers, alpha spectrometers.
- Participation in more than 10 international comparisons on primary standards of radionuclide activity organised by the BIPM and EUROMET.
- Standardization of radionuclides by absolute measurement methods (4 π β and 4 π γ counting, β - γ and

γ - γ coincidence counting with extrapolation procedures, sum-peak, tracer and CIEMAT/NIST methods).

Business or sector Radionuclide and neutron metrology

1982-1984

University fellowship

INFN (National Institute of Nuclear Physics)

- Investigation of nuclear waste transmutation by high-energy proton interactions (University thesis, CERN-Geneve).

Business or sector Low energy nuclear physics

TEACHING ACTIVITIES

1984-today

- Lecturer in International Atomic Energy Agency (IAEA) courses, since 2006;
- Lecturer in "European Nuclear Safety – Training and Tutoring Institute (ENSTTI)" of the European Commission, from 2014 to 2019;
- Lecturer in "European Radiation Protection Courses" of the European Commission, from 2000 to 2005;
- Lecturer at Rome University Medical Physics courses, from 1994 to 2015.

Business or sector Radionuclide and neutron metrology

AFFILIATIONS AND ASSIGNMENTS

1984-today

- BIPM-1: Member of the Comité Consult. pour l'Etalonn. de Rayonn. Ionizant of the Bureau International des Poids et Mesures (CCRI-BIPM) Section II, since 1993;
- BIPM-2: Italian delegate at the Conference General des Poids et Mesures (CGPM), since 2012;
- EC-1: Referee for the European Research Council (EC-ERC), from 2007 to 2014;
- EC-2: Member of the User Selection Committee of the EU JRC Research Program Lead for the European Facilities for Measurement of Nuclear Reaction and Decay Data (EUFRAT), since 2014;
- EC-3: Chair of the User Selection Committee of the EU JRC Research Program Lead for the European Facilities for Measurement of Nuclear Reaction and Decay Data (EUFRAT), since 2014;
- EURAMET: Member of the stakeholder group of experts for formulation of roadmaps, Potential Research Topics and Research Projects for submission at the European Metrology Research Program 2009 (EMRP-2008-Energy), from 2008 to 2010;
- ICRM-1: Italian Delegate of the International Committee for Radionuclide Metrology (ICRM), since 1988;
- ICRM-2: Vice-President of the International Committee for Radionuclide Metrology (ICRM), from 1991 to 1993;
- ICRM-3: Secretary of the International Committee for Radionuclide Metrology (ICRM), from 2001 to 2010;
- ICRM-4: President of the International Committee for Radionuclide Metrology (ICRM), from 2010 to 2013;
- ICRM-5: Past President of the International Committee for Radionuclide Metrology (ICRM), from 2013 to 2017;
- ISO/UNI/IEC/CEI-1: Member of the Ente Italiano di Unificazione/Comitato Energia Nucleare/SC4, since 1988;
- ISO/UNI/IEC/CEI-2: Member of the International Standardization Organization TC85, since 1989;
- ISO/UNI/IEC/CEI-3: Member of the Ente Italiano di Unificazione/Comitato Energia Nucleare/SC2, since 1990;
- ISO/UNI/IEC/CEI-4: Member of the Comitato Elettrotecnico Italiano CT45, since 1992;
- ISO/UNI/IEC/CEI-5: Member of the International Electrotechnical Commission SC45B/WGB12, since 1993;
- MIUR: Referee for project evaluator for the Italian Ministry of Education (MIUR), since 2004;
- QMS-1: Member of the Comitato Centrale Metrico, since 1996;
- QMS-2: ENEA Expert in the Comitato del Servizio Italiano di Taratura (SIT), since 1999;
- QMS-3: Member of the Accreditation Committee of ACCREDIA (Italian CAB), since 2012;
- QMS-4: Technical assessor for ISO-17025 QMS peer reviews in different frameworks in the field of radionuclide activity measurements: BIPM (2018), EURAMET TC-Q project. 1123 (CEM, INRIM and IPQ, since 2012);
- QMS-5: Technical assessor for ISO-17025 QMS external reviews for several CABs in the field of radionuclide activity measurements: Slovenian Accreditation (SA, SI, since 2016, assessments at IJS + others); United Kingdom Accreditation Service (UKAS, UK, since 2006, assessments at NPL);

- REFEREE-1: Referee for Journal: Applied Radiation and Isotopes, since 2000;
 - REFEREE-2: Referee for Journal: Radiation Measurements, since 2007.
- Business or sector** Radionuclide and neutron metrology

EDUCATION AND TRAINING

1977-1982

Degree in Physics, University of Pisa, Italy, 1982.

Mother tongue(s) Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B1	B2	B2	C1	B2
	Replace with name of language certificate. Enter level if known.				
French	A1	A1	A1	A1	A1
	Replace with name of language certificate. Enter level if known.				

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

Communication skills ▪ good communication skills gained through my experience as conference speaker and teacher.

Organisational / managerial skills ▪ leadership (currently responsible for a team of 30 people)

Job-related skills ▪ good command of quality control processes (currently responsible for quality audit)

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

Driving licence driving licence

PERSONAL SKILLS

Publications ▪ More than 240 scientific papers and technical reports on radionuclide metrology and standardisation of radioactivity measurement methods.

ADDITIONAL INFORMATION

Rome, 25/11/2022



Pierino De Felice

INFORMAZIONI PERSONALI
NOME / COGNOME
DATA E LUOGO DI NASCITA

Mauro Capone
08/05/1968 Gravina in Puglia (BA) Italia

📍 Via dei Ciclamini 7/D, 00055, Ladispoli (RM), Italia

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✉ mauro.capone@enea.it

ISTRUZIONE E FORMAZIONE

Laureato in Chimica presso l'Università degli Studi di Bari "A. Moro" nel 1997 con voti 110/110 e Lode

ESPERIENZA
PROFESSIONALE

Periodo

- 1998 – 2001 ENEA – CR La Trisaia
Laboratorio Monitoraggio Ambientale SIMOA
Ricercatore – Analisi Cromatografiche di Fitofarmaci in matrici ambientali
- 2001 – 2006 Bioconsult Srl.
Responsabile Laboratorio di Cromatografia
- 2007 – 2010 ENEA – CR Casaccia
Processi di Condizionamento di Rifiuti Nucleari in matrici cementizia.
Prove chimico-fisiche e meccaniche di matrici cementizie da processi di condizionamento.
Processi di condizionamento Sol-gel (Sodalite) di rifiuti radioattivi da Sali Fusi - Pyrel II
- Dal 2010 al 2020: FSN-FISS-CRGR
Caratterizzazione Materiali Radioattivi e Rifiuti Nucleari.

Datore di Lavoro
Periodo

- ENEA – CR Casaccia - INMRI
2020 – ad oggi:
Istituto di Metrologia delle Radiazioni Ionizzanti INMRI-ENEA
Settore Radionuclidi e Neutroni – Sezione Preparazione Sorgenti

COMPETENZE PERSONALI

Lingua madre Italiano

Altre lingue

	COMPRESIONE		PARLATO		PRODUZIONE SCRITTA
	Ascolto	Lettura	Interazione	Produzione orale	
Inglese	C1	C2	C2	C2	C2
Francese	A2	B1	A2	A2	A2

ULTERIORI INFORMAZIONI

Publicazioni e Presentazioni

- Analytical study of low energy proton interactions in the SORGENTINA's fusion ion source-Part II: beam-gas: SORGENTINA ion beam interactions - European Physical Journal Plus, Volume 138, Issue 10 October 2023 Article number 898
- The international reference system for beta-particle emitting radionuclides: Validation through the pilot study CCRI(II)-P1.Co-60 - Applied Radiation and Isotopes Volume 200 October 2023 Article number 110945
- Experimental campaign on ordinary and baritic concrete samples for the SORGENTINA-RF plant: the SRF-bioshield tests - European Physical Journal Plus Volume 138, Issue 5 May 2023 Article number 435
- Update of the BIPM comparison BIPM.RI(II)-K1.Co-60 of activity measurements of the radionuclide ^{60}Co to include the 2020 result of the PTB (Germany), the 2020 result of the NIST (United States), the 2020 result of the SMU (Slovakia), the 2021 result of the BARC (India), the 2021 result of the LNE-LNHB (France), the 2021 result of the POLATOM (Poland), the 2021 result of the ENEA-INMRI (Italy), the 2021 result of the NPL (United Kingdom), the 2021 result of the LNMRI-IRD (Brazil), the 2022 result of the NMISA (South Africa) and the 2022 result of the ANSTO (Australia) - Metrologia Volume 60, Issue 11 January 2023 Article number 06010
- On the expected performance of the SORGENTINA-RF fusion neutron source - European Physical Journal Plus Open Access Volume 137, Issue 11 November 2022 Article number 1240
- SORGENTINA-RF fusion neutron plant: preliminary design of the bioshielding in compliance with dose constraints for workers exposure - Radiation Protection Dosimetry Volume 198, Issue 18, Pages 1409 - 14161 October 2022
- Preliminary Assessment of Radiolysis for the Cooling Water System in the Rotating Target of SORGENTINA-RF - Environments – MDPI Open Access Volume 9, Issue 8 August 2022 Article number 106
- The ^{64}Zn -based production route to ^{64}Cu β^+ emitter using accelerator-driven 14 MeV fusion neutrons – EPL Volume 137, Issue 6 March 2022 Article number 64001
- SORGENTINA-RF project: fusion neutrons for ^{99}Mo medical radioisotope: SORGENTINA-RF - European Physical Journal Plus Volume 136, Issue 11 November 2021 Article number 1140
- Proposal of a prototype plant based on the exfoliation process for the treatment of irradiated graphite - Nuclear Engineering and Technology Open Access Volume 52, Issue 4, Pages 797 - 801 April 2020
- ^{64}Cu production by 14 MeV neutron beam - Journal of Neutron Research Open Access Volume 22, Issue 2-3, Pages 257 – 264 2020
- The exfoliation of irradiated nuclear graphite by treatment with organic solvent: A proposal for its recycling - Nuclear Engineering and Technology Open Access Volume 51, Issue 4, Pages 1037 – 1040 July 2019
- An experimental study on Sodalite and SAP matrices for immobilization of spent chloride salt waste - Journal of Nuclear Materials Open Access Volume 499, Pages 512 – 527 February 2018
- IRIDE: Interdisciplinary research infrastructure based on dual electron LINACs and lasers - Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment Open Access Volume 740, Pages 138 - 146 11 March 2014
- Synthesis and characterization of sodalite as matrix for conditioning chloride spent salts from pyroprocesses - Materials Research Society Symposium Proceedings Volume 1193, Pages 73 - 78 2009 32nd Symposium on Scientific Basis for Nuclear Waste Management 24 May 2009 through 29 May 2009 Code 79940
- Vari Rapporti Tecnici ENEA

Partecipazione Progetti Europei e Nazionali

- CARBOWASTE – Treatment and Disposal of Irradiated Graphite and Other Carbonaceous Waste
- CAST - CARbon-14 Source Term
- Pyrel II – ACSEPT and SACSESS Projects, finanziati dal Nuclear Fission Safety Program EU
- MiSE–ILC Programma nazionale per l'affidabilità delle misure di radiazioni ionizzanti basato su Confronti InterLaboratorio
- MiSE-Oper Realizzazione di iniziative in materia di tutela dei consumatori, con particolare riferimento alla sicurezza, all'affidabilità ed alla qualità degli strumenti di misura delle radiazioni ionizzanti

Si autorizza il trattamento dei dati personali riportati nel presente CV.

Roma, 06/02/2024



(Dott. M. Capone)

Alessia Ciccotelli
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cern.ch
alessiaciccotelli@
gmail.com
+39 328 6129374
Date of birth: August 5,
1982

Address
Viale della Grande
Muraglia, 233
Rome, 00144
Italy

Alessia Ciccotelli

Medical Physicist

Experience

Nov 2023 - present, *Research scientist*

ENEA (Italian National Agency for New Technologies, Energy and Sustainable Economic Development)-INMRI (National Institute of Ionizing Radiation Metrology), ENEA Casaccia Research Centre, Rome (Italy)

Ionizing radiation dosimetry and metrology.

Apr 2020 - Aug 2023, *CERN Doctoral Fellow*

PhD student at University of Manchester (United Kingdom) as Home institute/ EN-STI-BMI section, CERN, Genève (Switzerland)

Project: Implications of the LHCb Upgrade II on the LHC.

Mar 2017 - Feb 2020, *CERN Senior Fellow*

EN/STI/BMI section, CERN, Genève (Switzerland)

Monte Carlo particle transport simulations for machine protection, radiation to electronics, shielding design, material degradation in the framework of the LHC Injector Upgrade (LIU) using FLUKA. Data analysis with different languages. Main projects:

- Simulation of the operational losses in SPS-to-LHC injection lines. Understanding the loss mechanism in the injection region to predict loss effects and mitigate the risk of unnecessary beam dump events in the LIU configuration.
- Energy deposition studies for different types of collimators and dumps installed in the CERN experimental areas. Simulation results provided inputs for thermo-mechanical studies to estimate the expected deformation and radiation damages.
- Simulation of protection devices in SPS to be installed/upgraded. Assessment of performances in comparison to the current scenario.
- Experience in modelling complex geometries and large portions of accelerator tunnels including injection lines.
- Comparison between simulated signals of beam loss monitors and experimental data for different studies.

Apr 2013 - Dec 2016, *Senior Medical Physicist*

SIT Sordina IORT Technologies S.p.A., Aprilia (LT), Italy

Responsibilities and projects:

- Intra-operative radiation therapy (IORT) dedicated mobile electron accelerators (LIAC and NOVAC types) and high dose-per-pulse electron beam dosimetry.
- Factory Acceptance Test and Customer Acceptance Test and training activities for final users.
- Commissioning and dosimetric characterization according to the international and Italian protocols, both with chemical dosimeters and ionization chambers. Radiochromic film dosimetry.
- R&D activities: designing of the beams optics of a new model of IORT accelerator. Author of patents, conference proceedings and published papers.
- Scientific and technical support for marketing activities and for Quality Assurance.
- Research project with the Clinical Research Center IFO - Regina Elena Institute (Rome): development of an integrated system composed by an IORT accelerator, an imaging device and an IORT dedicated Treatment Planning System (TPS).

Jul 2009 - Mar 2013, *LIAC Product Specialist - Physicist*

Sordina S.p.A., Padova, Italy

Projects:

- IORT dedicated accelerators dosimetric characterization, both with chemical dosimeters and ionization chambers. High dose-per-pulse electron beam dosimetry.
- Tuning of the electron linear accelerator structure.
- R&D of non-standard systems for measuring medical linac output: resonant cavity and not-sealed ionization chamber testing.
- IORT dedicated linacs acceptance test and training activities.
- Scientific and technical support for marketing activities.
- Collaboration on medical software development and testing.
- Contribution to manuals, technical notes and documentation for FDA 510K submission and CE marking.

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1982

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Italy

Education

Mar 2020 - present, PhD in Physics

Third year PhD student at University of Manchester/ based at CERN (SY-STI-BMI section)

Implications of the LHCb Upgrade II on the LHC.

2010 - 2015, Medical Physics Specialization

University of Rome "Tor Vergata" - EQF level 8 - Final grade: 70/70 cum laude

Final Thesis: "Sviluppo e applicazione di nuovi strumenti nella radioterapia intraoperatoria" ("Development and application of new tools for Intraoperative radiation therapy").

Advisors: Dr. Lidia Strigari, Prof. Giovanna Guerrisi.

2008, M.Sc. in Physics (Laurea Specialistica in Fisica)

University of Rome "Tor Vergata" - EQF level 7 - Final grade: 110/110 cum laude

Final Thesis: "Interazione tra radiazione ionizzante e sistema visivo degli astronauti nella Stazione Spaziale Internazionale: programma ALTEA" ("Interaction between the ionizing radiation and the astronauts' visual system in the International Space Station: ALTEA program"). Advisor: Prof. Livio Narici.

2005, B.Sc. in Physics (Laurea in Fisica)

University of Rome "Tor Vergata" - EQF level 6

Final Thesis: "Lampi di luce percepiti dagli astronauti e dai pazienti sottoposti a Terapia a ioni di Carbonio" ("Light flashes perceived by astronauts and by Carbon ion therapy patients"). Advisor: Prof. Livio Narici.

Training and internships

2021, JUAS - COURSE 1 - The Science of Particle Accelerators

European Scientific Institute - Archamps

July 2020, WRITING COURSE: COMMUNICATING SCIENCE

CERN, Genève (Switzerland)

May 2017, 19th FLUKA Course

Pohang Accelerator Laboratory (POSTESCH), Pohang, Korea

2010 - 2016, Medical Physics Apprenticeship

Laboratory of Medical Physics and Expert Systems of Regina Elena - IFO National Cancer Institute, Rome, Italy

Computer skills

Simulation tools

FLUKA/Flair | BEAMnrc/OMEGA/EGSnrc

Software for dosimetry and water phantom measurements

PTW Mephisto mc2 | IBA Omnipro

Programming

MATLAB | Python | Fortran | R | C++

Applications

Microsoft Office | \LaTeX | Jupyter Notebook | Overleaf

Operating Systems

Windows | Mac OSX | Linux

Languages

- Italian - Mother Tongue
- English - Competent user (IELTS certificate)
- French - Intermediate User

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1982

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Rome, 00144
Italy

Patents

- Device for Shaping An Electron Beam of a Machine For Intraoperative Radiation Therapy- European Patent PCT/IT2011/000348 – issued 29/07/2014
- Radiation Dose Control Device For Controlling An Electron Beam Pulse Delivered During IORT - Application number: 20150174430 – issued 25/06/2015

Publications

- A. Ciccotelli, R.B. Appleby, F. Cerutti, K. Bilko (CERN), L.S. Esposito, R. Garcia Alia, A. Lechner (CERN), A. Tsinganis (CERN).: **Energy deposition studies for the LHCb insertion region of the CERN Large Hadron Collider**. Phys. Rev. Accel. Beams, 26(6), 061002; 2023.
- A. Ciccotelli, R.B. Appleby, F. Butin, F. Cerutti, A. Ciccotelli, L.S. Esposito, B. Humann, M. Wehrle: **Implications of the Upgrade II of LHCb on the LHC Insertion Region 8: From Energy Deposition Studies to Mitigation Strategies**. WE-POST003, Proceedings of IPAC2022, Bangkok, Thailand; 2022
- A. Ciccotelli, C. Bracco, F. Cerutti, L.S. Esposito, M. Fraser, V. Kain, A. Mereghetti, F.M. Velotti: **FLUKA simulations of the operational injection losses in TI8/IR8**. CERN-ACC-NOTE-2020-0012; 2020
- P. Scalchi, A. Ciccotelli, G. Felici, A. Petrucci, R. Massafra, V. Piazzzi, P. D'Avenia, F. Cavagnetto, F. Cattani, R. Romagnoli, A. Soriani: **Use of parallel-plate ionization chambers in reference dosimetry of NOVAC and LIAC® mobile electron linear accelerators for intraoperative radiotherapy: a multi-center survey**. Medical Physics, 44(1), 321-332; 2017
- A. Leggieri, D. Passi, F. Di Paolo, A. Ciccotelli, S. De Stefano, F. Marangoni, G. Felici: **Real-Time Beam Monitor for Charged Particle Medical Accelerators**. IEEE Transactions on Nuclear Science 63(1); 02/2016
- C. Di Venanzio, M. Marinelli, A. Tonnetti, G. Verona-Rinati, M.D. Falco, M. Pimpinella, A. Ciccotelli, S. De Stefano, G. Felici, F. Marangoni: **Characterization of a micro-Diamond detector in high-dose-per-pulse electron beams for intra operative radiation therapy**. Physica Medica; 07/2015
- M. Marinelli, G. Verona-Rinati, M.D. Falco, M. Pimpinella, S. De Stefano, A. Ciccotelli, G. Felici, F. Marangoni: **Synthetic single crystal diamond diode inclinical dosimetry of high dose per pulse electron beams for intraoperative radiation therapy (IORT)**. Physica Medica; 12/2014
- A. Soriani, G. Iaccarino, G. Felici, A. Ciccotelli, P. Pinnarò, C. Giordano, M. Benassi, M. D'Andrea, L. Bellesi, L. Strigari: **Development and optimization of a beam shaper device for a mobile dedicated IOERT accelerator**. Medical Physics; 39(10):6080-6089; 10/2012.
- L. Di Fino, V. Zaconte, A. Ciccotelli, M. Larosa, L. Narici: **Fast Probabilistic Particle Identification algorithm using silicon strip detectors**. Advances in Space Research, Volume 50, Issue 3, p. 408-414; 08/2012
- G. Iaccarino, L. Strigari, M. D'Andrea, L. Bellesi, G. Felici, A. Ciccotelli, M. Benassi, A. Soriani: **Monte Carlo simulation of electron beams generated by a 12 MeV dedicated mobile IORT accelerator**. Physics in Medicine and Biology; 56(14):4579-96; 07/2011.



Europass Curriculum Vitae	
Personal information	
Surname(s) / First name(s)	Petrucci Andrea
E-mail	<u>andrea.petrucci@enea.it</u>
Work experience	
Dates	From December 3 rd 2012 to present
Occupation or position held	Permanent occupation at ENEA
Main activities and responsibilities	Low radioactivity sources management
Name and address of employer	ENEA - National Institute of Ionizing Radiation Metrology - Casaccia
Type of business or sector	Italian National agency for new technologies, Energy and sustainable economic development
Dates	From October 5 th 2008 to October 4 th 2009
Occupation or position held	Winner of one year physics research grant with LNF INFN (National Institute for Nuclear Physics)
Main activities and responsibilities	Electrical and Electromagnetic Characterization of Carbon Nanotubes for Catherine European Project Experimental study of the application of ultrasounds to nanostructures.
Name and address of employer	National Laboratories of Frascati - INFN
Type of business or sector	Nuclear Research National Institute
Dates	From March 2008 to July 2008
Occupation or position held	Technical responsible and scientific co-responsible for experiments on nuclear transmutations and neutron emissions induced by the ultrasonic cavitation of solutions of stable chemical elements. Experiments performed at the Nuclear Laboratories of Inter-Forces Technical and Logistic Centre of the Italian Army.
Main activities and responsibilities	Setup and run of the whole experimental equipment: ultrasonic implements and nuclear measurements
Name and address of employer	National Council of Researches – Ansaldo Nuclear
Type of business or sector	Nuclear Research
Dates	From November 30 th 2007 to May 31 st 2008
Occupation or position held	Winner of a six months physics research grant with LNF INFN (National Institute for Nuclear Physics)
Main activities and responsibilities	Production and characterization of Carbon nanotubes by thermal CVD and hot filament CVD. Experimental study of the application of ultrasounds to nanostructures.
Name and address of employer	National Laboratories of Frascati - INFN
Type of business or sector	Nuclear Research National Institute
Dates	From October 2007 to November 2007
Occupation or position held	Technical responsible and scientific co-responsible for experiments on nuclear transmutations and neutron emissions induced by the ultrasonic cavitation of solutions of stable chemical elements. Experiments performed at the Nuclear Laboratories of Inter-Forces Technical and Logistic Centre of the Italian Army.
Main activities and responsibilities	Setup and run of the whole experimental equipment: ultrasonic implements and nuclear measurements
Name and address of employer	National Council of Researches
Type of business or sector	National Research Council

Dates	From July 1 st 2006 to June 30 th 2007
Occupation or position held	Winner of a one year physics research grant with CNR (National Research Council)
Main activities and responsibilities	Technical responsible and scientific co-responsible of the Ultrasound and Cavitation Laboratory for experiments on nuclear transmutations and neutron emissions induced by the ultrasonic cavitation of solutions of stable chemical elements
Name and address of employer	Area della Ricerca Roma 1 – CNR
Type of business or sector	National Research Council
Dates	From June 1 st 2005 to May 31 st 2006
Occupation or position held	Winner of a one year physics research grant with CNR (National Research Council)
Main activities and responsibilities	Technical responsible and scientific co-responsible of the Ultrasound and Cavitation Laboratory for experiments on nuclear transmutations and neutron emissions induced by the ultrasonic cavitation of solutions of stable chemical elements. At the same time I was attending my last year of Laurea Degree (MSc) in Physics at "Roma Tre" University of Rome and preparing my thesis as shown in the education and training section
Name and address of employer	Area della Ricerca Roma 1 – CNR
Type of business or sector	National Research Council
Dates	From October 2001 to May 2006
Occupation	Back to University to achieve the Laurea Degree (MSc) in Physics at "Roma Tre" University of Rome as reported in the education and training section
Dates	From December 23 rd 1999 to October 5 th 2001
Occupation or position held	Software Engineer (permanent job)
Main activities and responsibilities	Working in Rome (Italy) and in Sefton Park (UK) as a member of a British-Italian team of the second level customer support for the software products of IBM Tivoli Systems.
Name and address of employer	IBM Italy - Via Sciangai 53 - 00144 Rome, Italy
Type of business or sector	Multinational computer technology corporation

Education and training	
Dates	From Novembre 2018 to May 2022
Title of qualification awarded	PhD in Industrial Engineering
Principal subjects/occupational skills covered	Thesis Title: "Experimental study of the possible transformation of radioactive nuclei into stable ones by ultrasound and cavitation according to the Deformed Space-Time (DST) theory"
Name and type of organization providing education and training	Università Politecnica delle Marche (Ancona)
Dates	From October 2001 to May 2006
Title of qualification awarded	Laurea degree (MSc) in Physics (old Italian University system) (110/110) with Honours
Principal subjects/occupational skills covered	Thesis Title: "Relativistic Correlation in Quantum Mechanics"
Name and type of organization providing education and training	University of Rome "Roma Tre" via della vasca navale 84, 00146 Rome, Italy
Level in national or international classification	ISCED 5A
Dates	From November 1992 to July 1998
Title of qualification awarded	Laurea degree (MSc) in Electronic Engineerings (old Italian University system) (110/110 e lode) with Honours, Summa cum Laude
Principal subjects/occupational skills covered	Thesis Title: "Design of a numerical code for mobile telephone applications in urban environment"
Name and type of organisation providing education and training	University of Rome "Roma Tre" via della vasca navale 84, 00146 Rome, Italy
Level in national or international classification	ISCED 5A