Breve curriculum Vitae di Riccardo Ciolini

Riccardo Ciolini Nel 1998 ha conseguito la laurea in Ingegneria Nucleare presso l'Università di Pisa e nel 2002 il titolo di Dottore di Ricerca in Ingegneria Nucleare (Sicurezza degli impianti nucleari) presso l'Università di Pisa.
Dal 1 aprile 2018 è in servizio presso il Dipartimento di Ingegneria Civile e Industriale dell'Università di Pisa nel ruolo di Professore Associato per il settore scientifico-disciplinare ING-IND/20 "Misure e strumentazione nucleari". Svolge la sua attività presso il laboratorio di Misure Nucleari (LMN) dello stesso Dipartimento, di cui è RAR e RAD. Dal 2012 è inoltre responsabile del Sistema di Gestione della Qualità secondo la norma ISO 9001 per le misure radiometriche e dosimetriche effettuate dall'LMN. E' autore di oltre 150 pubblicazioni scientifiche su rivista, atti di convegni e rapporti finali di ricerca. La sua attività di ricerca riguarda la spettrometria e la dosimetria neutronica, lo sviluppo di nuovi rivelatori e dosimetri, le misure di radioattività ambientale, la radioprotezione e la schermatura dalle radiazioni e il decommissioning degli impianti nucleari.
E' titolare dei corsi "Physical fundamentals of nuclear engineering" e "Radiation Protection" del Corso di Laurea Magistrale in Ingegneria Nucleare dell'Università di Pisa. Svolge inoltre esercitazioni di laboratorio per il corso di "Nuclear Measurements" del Corso di Laurea Magistrale in Ingegneria Nucleare e per il corso di "Bioingegneria delle radiazioni" del Corso di Laurea Magistrale in Ingegneria Biomedica dell'Università di Pisa.
Dal 2014 afferisce al Collegio dei docenti del Dottorato di Ricerca in Ingegneria Industriale presso l'Università di Pisa e dal 1 novembre 2019 è Presidente della commissione di curriculum in Ingegneria Nucleare e della Sicurezza Industriale dello stesso Dottorato. E' associato all'INFN, sezione di Pisa.
Dall'8 giugno 2021 è iscritto nell'elenco nominativo degli Esperti di Radioprotezione con il terzo grado di abilitazione (numero d'ordine 858) presso il Ministero del Lavoro e delle Politiche Sociali.
Dal 1 gennaio 2021 svolge l'incarico di Esperto di Radioprotezione per la sorveglianza fisica di tutte le strutture dell'Università di Pisa che necessitano di un Esperto di radioprotezione di secondo grado.

Pisa, 18/06/2021

Firma: 

Giovanna Montagnoli
Curriculum Vitae

Education:
- 1982: graduated in Physics at the Padua University on July 22th with a score of 110/110.
- 1987: obtained on July 10th the PhD degree

Employment:
- 1983: one-year fellowship at the Technische Universitaet Munich, Germany
- 1986-1989: INFN contract at the Laboratori Nazionali di Legnaro
- 1989: permanent position as a researcher at the Department of Physics "G. Galilei" of the Padua University
- 1993: confirmed in the role of researcher.
- 2005: associate professor of physics at the Faculty of Agriculture, University of Padua
- 2009: confirmed in the role of associate Professor

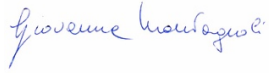
Research activities:
The research activity has been mostly devoted to the experimental study of heavy-ion nuclear reactions at energies around the Coulomb barrier at Laboratori Nazionali di Legnaro INFN.
Valuable contributions were brought to the development of particle detection techniques, in particular to the design and construction of the large acceptance magnetic spectrometer for heavy ions PRISMA.
Experimental research has been carried out in the field of low-energy heavy ion reactions. In particular the dynamics of fusion reactions below the Coulomb barrier has been the object of several studies. In parallel two-body reactions have been investigated using Time of Flight spectrometers and more recently the magnetic spectrometer PRISMA.
A research program was carried out using PRISMA
coupled to arrays of gamma-ray detectors (Clara and Agata) with the aim of studying the structure of neutron-rich nuclei, populated by means of binary
reactions such as multi-nucleon transfer and deep inelastic processes.
Collaborations are in progress with researchers of the Univ. of Strasbourg, the RBI of Zagreb, the Inst. of Nucl. Phys. of Cracow and Argonne National Lab. .

Scientific responsibilities:
- 1993-1998: responsible for Padua of the “PISOLO” experiment, funded by INFN and devoted to studies of transfer reaction between heavy ions;
- 2000-2006 coordinator of the Experimental Nuclear Physics Group of the INFN- Padua Section.
- 2006-2009: responsible of the research project funded by the Univ. of Padua: "Nuclear structure and reaction dynamics near the Coulomb barrier with stable and radioactive ion beams” (budget ex 60%)
- 2009-2010: responsible of the “Progetto di Ateneo” on “Production of radioactive beams with the batch mode technique, using the SPES ciclotron of the LNL for the studies of nuclear structure and reaction dynamics between heavy ions”;
- since 2014: participation in the “Progetto di Ateneo” on “Investigation
of the heavy-ion fusion hindrance with the facility EXOTIC”
- since 2012: national responsible of the “PRISMA-FIDES” experiment, funded by INFN and devoted to studies of fusion and transfer reaction between heavy ions;

Teaching and Tutorial activities:
- holder of the Nuclear Physics and Advanced Laboratory courses for the master degree in Physics
- responsible for the Erasmus Mundus Program NUCPHYS for the University of Padova,
- responsible for the research activities of three fellows: Paolo Mason (2005-2009), Francesco Recchia (2010-2011) and Rosanna Depalo (dal 2015);
- supervisor of five PhD theses (Dr. Marco Calviani, Dr. Kaori Fujii, Dr. Tommaso Marchi, Dr Giulia Colucci and Dr. Giorgia Mantovani)
- supervisor of several master and bachelor theses.

Padova 12 aprile 2021

Giovanna Montagnoli



Curriculum Vitae

Danilo Rifuggiato

Senior Technological Scientist (Dirigente Tecnologo 1st professional level)
Istituto Nazionale di Fisica Nucleare (INFN)
Laboratori Nazionali del Sud (LNS), via S. Sofia 62, 95123 Catania, Italy

Email: rifuggiato@lns.infn.it
Phone: +39 095 542257 , Mobile:

Studies and fellowship

1986	**Master Degree in Physics**. University of Catania 110/110 cum laude
1988	**Specialization in Health Physics.** University of Pisa 60/60 cum laude
1987-1989	**Research fellowship of the CNR** Istituto di Fisiologia Clinica,Pisa for studies in the field of Nuclear Imaging, in particular Positron Emission Tomography
1989-1991	**INFN fellowship** on Accelerator Physics on Beam dynamics in the Superconducting Cyclotron and diagnostic systems at INFN LNS Catania
1991	**Fellowship of Centro Siciliano di Fisica Nucleare e Struttura della Materia** on Development of Ion Accelerators for Research in Nuclear Physics

Career

15-06-1991	Permanent position: **Research Scientist** (Ricercatore) - 3rd professional level - INFN LNS
16-12-2005	Permanent position: **Research Scientist** (Primo Ricercatore) - 2nd professional level - INFN LNS
31-12-2010	Permanent position: **Technological Scientist** (Primo Tecnologo) - 2nd professional level - INFN LNS
01-08-2015	Permanent position: **Senior Technological Scientist** (Dirigente Tecnologo) - 1st professional level - INFN LNS

Responsibility positions

1999-2001	**Coordinator of the LNS Superconducting Cyclotron**
2001-2015	**Head of the LNS Accelerator Division**
2016-2019	**Reference person for the LNS operation and organization (collaborator of the LNS Director)**
2016-2019	**Scientific secretary of the LNS Program Advisory Committee**
2018-2019	**Scientific coordinator of the project POTLNS** for the upgrade of the Laboratori Nazionali del Sud
2020-present	**Project leader of the SPES project at the Laboratori Nazionali di Legnaro**

Committees

2006-2009	**Member of the STI Committee** (Scientific and Technical Issues) for the project FAIR
2007-2011	**Task Coordinator** of the project **Spiral2PP** (Spiral2 Preparatory Phase) (212692 FP7): Slow Chopper (Task WP6.2) and Single bunch selector (Task WP6.5)
2007	**Chairman of the Local Organizing Committee** of the XVIII International Conference on Cyclotrons and their Applications, Giardini Naxos, Italy, 2007
2007-present	**Member of the Scientific Advisory Committee** of the International Conference on Heavy Ion Accelerator Technology (HIAT)
2010-2012	**Member of the International Referee Committee of the SPES project at INFN LNL**
2012-2016	**Member of the INFN Machine Advisory Committee (MAC)**
2013-2020	**Member of the TAC (Technical Advisory Committee) of the SPES project**
2016-2019	**Member of the LNS Public Engagement Committee**
2016-present	**Member of the International Advisory Committee** of the International Conference on Cyclotrons and their Applications

2018-2019 **Member of the INFN Committee for 26 positions of Researcher Scientists (2nd professional level)** in Experimental Physics in the INFN Institutes and Laboratories

Also member of Committees for selection of several personnel units.

Activity as a Referee

2007 **Editor of the Proceedings** of the XVIII International Conference on Cyclotrons and their Applications, Giardini Naxos, Italy, 2007

2012-2016 **Referee of the LUNA MV project at INFN LNGS**

2013-2016 **Referee of the call MAGIX in the 5th INFN Scientific National Committee**

2018 **Referee for the FELLINI (FELLowship for INnnovation at INFN) project**

Also referee for the NIM A Journal and reviewer for Il Nuovo Saggiatore of 3 books on Particle Accelerators

Publications

Around 100 publications on journals and proceedings of conferences (see list of publications)

Presentations

Around 50 oral (invited and contributed) presentations in conferences and meetings

Main Research Activity

- Beam dynamics in the LNS Superconducting Cyclotron (SC)
- Radial injection of a Tandem beam in the SC, Acceleration, Resonances, Extraction in the SC
- Magnetic measurements in the SC, 1° harmonic compensation
- Calculation of the operating parameters for the SC, commissioning of the SC
- Beam development in the SC
- Phase selection in the SC
- Axial injection in the SC : Central region and inflector in the SC
- Matching of the Axial beam line with the SC
- Beam timing

- Technological upgrade of the electrostatic deflectors of the SC
- High intensity Cyclotrons
- Extraction by stripping in the SC
- Design of the mass separator for the ISOL facility EXCYT
- Commissioning of the ISOL facility EXCYT
- Beam delivery for the LNS CATANA protontherapy facility
- Collaboration in the ELIMED project for production of laser driven beams for medical applications

Activity as the Head of the LNS Accelerator Division (2001-2015)

Coordination of the operation and development of the LNS accelerators, Tandem, Superconducting Cyclotron, ion sources and beam lines **[46,51,60,81]**. Coordination of the groups operating in several technological areas involved in such activities, like Cryogenics, Vacuum, Power Converters, Electronics, Radiofrequency, Mechanics, Plants, Controls, Diagnostics.

Planning of the experimental activities with the LNS beams and coordination of the beam operations up to the experimental set-up.

Coordination of the Revamping of the Helium liquefier constructed by Air Liquide. Coordination of the Tandem upgrade, consisting of the replacement of the belt with the Pelletron as a charging system.

Coordination of the expenses plan for the LNS accelerators.

Activity as Collaborator of the LNS Director – Reference person for the LNS operation and organization (2016-2019)

- Production of documents requested by INFN Headquarters: LNS Activity Plan, LNS Final Activity Report
- Scientific secretary of the LNS Program Advisory Committee
- Interaction with LNS Divisions and Services for operation and organization
- Production of documents for LNS personnel hiring
- Production of documents for VQR (Evaluation of Research Quality)
- Production of documents for the INFN CVI (International Evaluation Committee)
- Production of documents for the NUPECC Long Range Plan

- Supervision of the Public Engagement committee for the organization of public events (European Research Night, Week of Scientific and Technological Culture, visits and seminars schools and public, etc.)
- Supervision of the LNS Web Site
- Interaction with the LNS Administrative Service for complex procedures

Activity as a Scientific Coordinator of the POTLNS project (2018-19)

As a **Scientific Coordinator** (appointed by the INFN President), on June 12th,2018 I submitted the POTLNS project to the MIUR (Ministry for Education, University and Research) to access the European funds of the Call for Proposals for the awarding of grants aimed to enhance research infrastructures, pursuant to Action II.1 of the **National Operative Programme – Research and Innovation 2014-2020.**

The cost estimation is 19,3 M€, the project duration is three years. The project was approved on March 14th, 2019.

Activity as a Project Leader of the SPES project (2020-present)

Coordination of the SPES project in its installation and completion phase until the commissioning, consisting in the production of Radioactive Ion Beams (RIBs) with the ISOL technique and their post-acceleration with the ALPI accelerator. Coordination of the activities and management of the expenses.

Legnaro, June 14th 2021

Danilo Rifuggiato