

ALLEGATO B

UNIVERSITÀ DEGLI STUDI DI MILANO

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Simone Manenti **CURRICULUM VITAE**

INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

COGNOME	MANENTI
NOME	SIMONE
DATA DI NASCITA	09/05/1978

PERSONAL INFORMATION

Simone Manenti

Date of birth 9 May 1978

WORK EXPERIENCE

06/2020 – Present

External consultant

Occasional professional services for *Esperti Qualificati*
Dosimetric evaluations for radioprotection purposes

05/2018 – Present

Research fellow

Department of Physics, University of Milan
Optimization and production of radionuclid for medical uses by unconventional methods

09/2017 – 04/2018

External consultant

Campoverde srl, Milan
Predictive simulation of the activation values of medical cyclotrons through simulation carried out with Monte Carlo type codes and experimental verification by means of spectrometry measurements of the activation values of the samples taken from the main components of the cyclotrons

05/2017 – 08/2017

Research assistant

Department of Physics, University of Milan
Optimization for the production of ^{89}Zr by means of the $^{89}\text{Y}(d,2n)$ reaction

01/2014 – 12/2016

Scholarship

Department of Physics, University of Milan
PhD student in Physics, Astrophysics and Applied Physics

12/2013 – 03/2014

Research assistant

L.E.N.A. laboratory, University of Pavia
Coordination and preparation of irradiation activities at the “JRC” of Ispra

04/2013 – 12/2013

Scholarship

Scholarship provided by FAST (Federation of Scientific and Technical Associations), Milan
The scholarship covers activities carried out at the LASA laboratory in Segrate (MI)

03/2012 – 02/2013

Research fellow

Department of Physics, University of Ferrara
Topic: “Production of $^{99\text{m}}\text{Tc}$ with proton beams”

02/2011 – 12/2011

External consultant

Venetonanotech s.c.p.a, Rovigo
Collaboration in projects of the laboratory ECSIN - European Center for the Sustainable Impact of Nanotechnology concerning nanotoxicology

09/2009 – 03/2010

Scholarship

National Institute of Nuclear Physics - INFN, Milan

08/2008 – 02/2011 **Research assistant**
Department of Physics, University of Milan

EDUCATION AND TRAINING

01/2017 **PhD - Thesis Title: "Radionuclides for medicine - Excitation functions for the production of ^{99m}Tc , ^{89}Zr and ^{103}Pd "** EQF 8
Department of Physics, University of Milan

10/2008 **Master's Degree in Physics** EQF 7
Department of Physics, University of Milan
Main areas of study: physics of ionizing radiation and the measurement of radioactivity

07/1997 **High School Diploma** EQF 6
Liceo Scientifico B. Russell, Garbagnate Mil.se (MI)

PERSONAL SKILLS

Mother tongue Italian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
French	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user
Common European Framework of Reference for Languages

Communication skills – team work: I have worked in various research teams.

Organisational / managerial skills – Scientific secretary of the international congress 3rd-INCC – International Nuclear Chemistry Congress, Palermo (Italy), 09/2011
– Scientific secretary of the international congress NRC-8 – EuCheMS International Conference on Nuclear and Radiochemistry, Como (Italy), 09/2012.

Digital competences

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

Digital competences - Self-assessment grid

Computer skills – competent with most Microsoft Office programmes
– competent with \LaTeX
– competent with Microcal Origin \LaTeX
– competent with Ortec Gammavision
– competent or experience with the OS Windows 10 (and the previous ones) and Linux (Ubuntu)
– experience with HTML.

Driving licence B

ADDITIONAL INFORMATION

- ASN** National Academic Qualification as Associate Professor in “Fisica Tecnica e Ingegneria Nucleare” – 09/C2 from 14/05/2019 to 14/05/2028.
- National Academic Qualification as Associate Professor in “Fisica Applicata, Didattica e Storia della Fisica” – 02/D1 from 10/07/2020 to 10/07/2029.
- IBA Award 2019** Award 2019 for best scientific paper on IBA cyclotron: “Simulation by FLUKA of the self-activation of a cyclotron IBA Cyclone 18”.
- 06/2020** Member of the World Council on Isotopes - WCI.
- 10/2009–present** Teaching assistance for courses in Health Physics and Laboratory of Health Physics (starting from AY 2009/2010), Optics, Electronics and Modern Physics Laboratory (AY 2017/2018) and Physics Laboratory with Elements of Statistics (starting from AY 2017/2018).
- 10/2007–present** Scientific Animator – Assistance to secondary school students who have joined the INFN ENVIRAD-SPLASH and RADIOLAB projects for the Milan section.
Collaboration with the Milan Unit of the *Piano Lauree Scientifiche*, with particular reference to the “Radon Laboratory”.
In these projects, it is required to explain concepts related to the themes of natural radioactivity and of the production of radionuclides for medical purposes, in order to make them understandable to an audience without specific knowledge.
- 10/2007–present** Scientific association at the National Institute of Nuclear Physics – INFN (Milan and Ferrara).
- 01/2012–12/2016** Junior responsible of the Task 2 (Nuclear Physics) of the *progetto premiale* LARAMED-INFN.
- Publications** <https://www.scopus.com/authid/detail.uri?authorId=36836479800>
– 28 documents
– 503 citations
– *h*-index: 8.
- <https://air.unimi.it/browse?type=author&authority=rp33830>
– 3 technical report;
– 88 congress presentations (oral or poster):
• 49 published abstracts.
- Privacy** In compliance with the GDPR and the Italian Legislative Decree no. 196 dated 30/06/2003, I hereby authorize you to use and process my personal details contained in this document.

Milano, September 16, 2020

Attachments:

- List of papers, extended abstracts and oral presentations to congresses

Papers and extended abstracts

- F. Bianchi, C. Marchi, G. Fuad, F. Groppi, F. Haddad, L. Magagnin, and S. Manenti. On the production of ^{52g}Mn by deuteron irradiation on natural chromium and its radionuclidic purity. *Applied Radiation and Isotopes*, 166, 2020
- F. Groppi, E. Sabbioni, and S. Manenti. The role of nuclear chemistry and radiochemistry in nanosafety studies. *Radiation Effects and Defects in Solids*, 174(11-12):965–972, 2019
- S. Manenti, F. Haddad, and F. Groppi. New excitation functions measurement of nuclear reactions induced by deuteron beams on yttrium with particular reference to the production of ^{89}Zr . *Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms*, 458:57–60, 2019
- A. Ioannidou, K. Eleftheriadis, M. Gini, L. Gini, S. Manenti, and F. Groppi. Activity size distribution of radioactive nuclide ^7Be at different locations and under different meteorological conditions. *Atmospheric Environment*, 212:272–280, 2019
- E. Sabbioni, M. Di Gioacchino, M. Farina, F. Groppi, and S. Manenti. Radioanalytical and nuclear techniques in trace metal toxicology research. *Journal of Radioanalytical and Nuclear Chemistry*, 318(3):1749–1763, 2018
- N. Blasi, S. Brambilla, F. Camera, S. Ceruti, A. Giaz, L. Gini, F. Groppi, S. Manenti, A. Mentana, B. Million, and S. Riboldi. Fast neutron detection efficiency of ^6Li and ^7Li enriched CLYC scintillators using an Am-Be source. *Journal of Instrumentation*, 13(11), 2018
- N.M. Uzunov, L. Melendez-Alafort, M. Bello, G. Cicoria, F. Zagni, L. De Nardo, A. Selva, L. Mou, C. Rossi-Alvarez, G. Pupillo, G. Di Domenico, L. Uccelli, A. Boschi, F. Groppi, A. Salvini, A. Taibi, A. Duatti, P. Martini, M. Pasquali, M. Loriggiola, M. Marengo, L. Strada, S. Manenti, A. Rosato, and J. Esposito. Radioisotopic purity and imaging properties of cyclotron-produced ^{99m}Tc using direct $^{100}\text{Mo}(p,2n)$ reaction. *Physics in Medicine and Biology*, 63(18), 2018
- Simone Manenti, María del Carmen Alí Santoro, Giulio Cotogno, Charlotte Duchemin, Ferid Haddad, Uwe Holzwarth, and Flavia Groppi. Excitation function and yield for the $^{103}\text{Rh}(d, 2n)^{103}\text{Pd}$ nuclear reaction: Optimization of the production of palladium-103. *Nuclear Medicine and Biology*, 49:30–37, 2017
- G. Libralato, A. Costa Devoti, M. Zanella, E. Sabbioni, I. Mićetić, L. Manodori, A. Pigozzo, S. Manenti, F. Groppi, and A. Volpi Ghirardini. Phytotoxicity of ionic, micro- and nano-sized iron in three plant species. *Ecotoxicology and Environmental Safety*, 123:81–88, 2016
- A. Mentana, F. Camera, A. Giaz, N. Blasi, S. Brambilla, S. Ceruti, L. Gini, F. Groppi, S. Manenti, B. Million, and S. Riboldi. Measurement of fast neutron detection efficiency with ^6Li and ^7Li enriched CLYC scintillators. *Journal of Physics: Conference Series*, 763(1):012006, 2016
- G. Pupillo, A. Boschi, P. Martini, L. Uccelli, M. Pasquali, A. Duatti, G. Di Domenico, M. Loriggiola, M. Giganti, A. Taibi, et al. Preclinical spect-ct imaging studies with cyclotron produced tc-99m. In *EUROPEAN JOURNAL OF NUCLEAR MEDICINE AND MOLECULAR IMAGING*, volume 42, pages S449–S450. SPRINGER 233 SPRING ST, NEW YORK, NY 10013 USA, 2015
- F. Groppi, S. Manenti, L. Gini, and M.L. Bonardi. Production of ^{186g}Re radionuclide by deuterons for theragnostic medicine. *Journal of Radioanalytical and Nuclear Chemistry*, 305(1):179–182, 2015

- F. Groppi, M.L. Bonardi, S. Manenti, L. Gini, and E. Sabbioni. A new theragnostic approach in the multifunctional radionanomedicine . In *Tenth International Conference on Methods and Applications of Radioanalytical Chemistry - MARC X - book of abstracts*, pages 271–271. ANS, USA, 2015
- S. Manenti, M.L. Bonardi, L. Gini, and F. Groppi. Experimental excitation functions for pd-103 produced by deuteron beams. In *Tenth International Conference on Methods and Applications of Radioanalytical Chemistry - MARC X - book of abstracts*, pages 261–261. ANS, USA, 2015
- F. Groppi, M.L. Bonardi, S. Manenti, L. Gini, and A. Bazzocchi. Italian radiolab project: Radon indoor measurements a way to educate to nuclear issue. In *Book of Abstracts "Tenth International Conference on Methods and Applications of Radioanalytical Chemistry - MARC X"*, pages 144–144. ANS, USA, 2015
- E. Sabbioni, A.-E. Polettini, S. Fortaner, M. Farina, F. Groppi, S. Manenti, and G. Libralato. Uptake from water, internal distribution and bioaccumulation of selenium in scenedesmus obliquus, unio mancus and rattus norvegicus: Part b. *Bulletin of Environmental Contamination and Toxicology*, 94(1), 2014
- A.-E. Polettini, S. Fortaner, M. Farina, F. Groppi, S. Manenti, G. Libralato, and E. Sabbioni. Uptake from water, internal distribution and bioaccumulation of selenium in scenedesmus obliquus, unio mancus and rattus norvegicus: Part a. *Bulletin of Environmental Contamination and Toxicology*, 94(1), 2014
- E. Sabbioni, S. Fortaner, S. Manenti, F. Groppi, M. Bonardi, S. Bosisio, and M. Di Gioacchino. The metallobiochemistry of ultratrace levels of platinum group elements in the rat. *Metalomics*, 7(2):267–276, 2015
- S. Manenti, U. Holzwarth, M. Loriggiola, L. Gini, J. Esposito, F. Groppi, and F. Simonelli. The excitation functions of $^{100}\text{Mo}(p,x)^{99}\text{Mo}$ and $^{100}\text{Mo}(p,2n)^{99m}\text{Tc}$. *Applied Radiation and Isotopes*, 94:344–348, 2014
- F. Groppi, S. Manenti, M. L. Bonardi, L. Gini, and A. Ioannidou. Cesium-137 content in milk - monitoring after fukushima nuclear power plant accident. In *Program & Abstract Book "4th International Nuclear Chemistry Congress - 4th INCC"*, pages 315–315, São Paulo, Brazil, 2014. Marina B. A. Vasconcellos
- F. Groppi, M.L. Bonardi, S. Manenti, L. Gini, and A. Bazzocchi. Radon indoor measurements a way to educate to nuclear issue: Italian radiolab project. In *Program & Abstract Book "4th International Nuclear Chemistry Congress - 4th INCC"*, pages 61–61, São Paulo, Brazil, 2014. Marina B. A. Vasconcellos
- Simone Manenti, Elisa Persico, Kamel Abbas, Mauro L. Bonardi, Luigi Gini, Flavia Groppi, Uwe Holzwarth, and Federica Simonelli. Excitation functions and yields for cyclotron production of radorhenium via deuteron irradiation: $^{nat}\text{W}(d, xn)^{181,182(A+B),183,184(m+g),186g}\text{Re}$ nuclear reactions and tests on the production of ^{186g}Re using enriched ^{186}W . *Radiochimica Acta*, 102(8):669–680, April 2014
- Simone Manenti, Mauro L. Bonardi, Luigi Gini, and Flavia Groppi. Production of high specific activity ^{177g}Lu for radioimmunotherapy by deuteron irradiation. *Nuclear Medicine and Biology*, 41(5):407–409, 2014
- A. Ioannidou, E. Giannakaki, M. Manolopoulou, S. Stoulos, E. Vagena, C. Papastefanou, L. Gini, S. Manenti, and F. Groppi. An air-mass trajectory study of the transport of radioactivity from Fukushima to Thessaloniki, Greece and Milan, Italy. *Atmospheric Environment*, 75(0):163 – 170, 2013

- G. Libralato, A. Costa Devoti, L. Manodori, S. Totaro, I. Micetic, E. Sabbioni, A. Volpi Ghirardini, F. Groppi, and S. Manenti. Effects of ionic, micro- and nano-sized iron on lepidium sativum as a reference biological model. In *SETAC Europe 23. annual meeting : Building a better future : responsible innovation and environmental protection : abstracts book : 12-16 May 2013, Glasgow*, pages 304–304, BRUSSELS, 2013. SETAC Europe
- F. Groppi, S. Manenti, L. Gini, and A. Ioannidou. Measurements results of the fallout at north regions of Italy after Fukushima incident. In *Book of Abstract "Nine International Conference on Methods and Applications of Radioanalytical Chemistry - MARC-IX"*, pages –. LANL, USA, 2012
- M.L. Bonardi, S. Manenti, L. Gini, and F. Groppi. Radionuclides production by deuteron beams irradiations. In *Book of Abstract "Nine International Conference on Methods and Applications of Radioanalytical Chemistry - MARC-IX"*, pages –. LANL, USA, 2012
- E. Sabbioni, S. Manenti, M.L. Bonardi, C.M. Bellini, and F. Groppi. Nuclear and radiochemical techniques: a powerful tool for nanotoxicological studies. In *Book of Abstract "Nine International Conference on Methods and Applications of Radioanalytical Chemistry - MARC-IX"*, pages –. LANL, USA, 2012
- A. Ioannidou, E. Giannakaki, S. Manenti, L. Gini, and F. Groppi. Radionuclides from the Fukushima accident in Milano, Italy. In *NBC 2012, 20. anniversary : 8. symposium on CBRNE threats : how does society cope? : 11-14 June, 2012, Turku, Finland : symposium proceedings*, pages 150–155, technical research centre
- Alexandra Ioannidou, Simone Manenti, Luigi Gini, and Flavia Groppi. Fukushima fallout at Milano, Italy. *Journal of Environmental Radioactivity*, 114(0):119 – 125, 2012. Environmental Impacts of the Fukushima Accident (PART II)
- O. Masson, A. Baeza, J. Bieringer, K. Brudecki, S. Bucci, M. Cappai, F.P. Carvalho, O. Connan, C. Cosma, A. Dalheimer, G. Depuydt, L.E. De Geer, A. De Vismes, L. Gini, F. Groppi, K. Gudhnason, R. Gurriaran, D. Hainz, Ó. Halldórsson, D. Hammond, K. Holý, Zs. Homoki, A. Ioannidou, K. Isajenko, M. Jankovic, C. Katzberger, M. Kettunen, R. Kierepko, R. Kontro, P.J.M. Kwakman, M. Lecomte, L. Leon Vitro, A.-P. Leppänen, B. Lind, G. Lujanienė, P. Mc Ginnity, C. Mc Mahon, H. Malá, S. Manenti, M. Manolopoulou, A. Mattila, A. Mäuring, J.W. Mietelski, B. Moller, S.P. Nielsen, J. Nikolic, R.M.W. Overwater, S. E. Pálsson, C. Papastefanou, I. Penev, M.K. Pham, P.P. Povinec, H. Ramebäck, M.C. Reis, W. Ringer, A. Rodriguez, P. Rulík, P.R.J. Saey, V. Samsonov, C. Schlosser, G. Sgorbati, B. V. Silobrietiene, C. Söderström, R. Sogni, L. Solier, M. Sonck, G. Steinhäuser, T. Steinkopff, P. Steinmann, S. Stoulos, I. Šýkora, D. Todorovic, N. Tooloutalaie, L. Tositti, J. Tschiersch, A. Ugron, E. Vagena, A. Vargas, H. Wershofen, and O. Zhukova. Tracking of airborne radionuclides from the damaged Fukushima Daiichi NPP by European networks. *Journal of Environmental Science and Technology*, 45:7670–7677, 2011
- Alexandra Ioannidou, Simone Manenti, Luigi Gini, and Flavia Groppi. Fukushima fallout of ^{131}I , ^{137}Cs , ^{134}Cs at Milano, Italy. In Yongsheng Ding, Haiying Wang, Ning Xiong, Kuangrong Hao, and Lipo Wang, editors, *2011 Seventh International Conference on Natural Computation*, volume 4, pages 2082–2085, Shanghai, China, July 2011
- Simone Manenti, Flavia Groppi, Andrea Gandini, Luigi Gini, Kamel Abbas, Uwe Holzwarth, Federica Simonelli, and Mauro Bonardi. Excitation function for deuteron induced nuclear reaction on natural ytterbium for production of high specific activity ^{177}Lu in *no-carrier-added* form for metabolic radiotherapy. *Applied Radiation and Isotopes*, 69:37–45, 2011
- Mauro Bonardi, Flavia Groppi, Elisa Persico, Simone Manenti, Kamel Abbas, Uwe Holzwarth, Federica Simonelli, and Zeev B. Alfassi. Excitation functions and yields for cyclotron production of rhenium via ^{nat}W and $^{186}\text{W}(\text{p},\text{xn})^{181-186}\text{Re}$ nuclear reactions. *Radiochimica Acta*, 99:1–11, 2011

- Mauro L. Bonardi, Flavia Groppi, Simone Manenti, and Enrico Sabbioni. Cyclotron production of medium-lived NCA technetium radiotracers: use for biodistribution studies and setting up new ^{99m}Tc production methods. *Nuclear Medicine and Biology*, 37(6):716 – 716, 2010
- Flavia Groppi, Simone Manenti, Mauro L. Bonardi, Luigi Gini, and Enrico Sabbioni. Splash: a project to educate, train and bring the young generation to discover the radioactivity. *Nuclear Medicine and Biology*, 37(6):718 – 718, 2010
- Enrico Sabbioni, I. Olivato, Mauro L. Bonardi, Flavia Groppi, Simone Manenti, and L. Manzo. Multifunctional radionanomedicine: a new theranostic approach. *Nuclear Medicine and Biology*, 37(6):719 – 719, 2010
- Mauro L. Bonardi, Flavia Groppi, Simone Manenti, Paolo Pierini, Enrico Rizzio, Enrico Sabbioni, and Viola Scanziani. Generation III+ and IV nuclear reactors: part II - Partitioning and transmutation of rad-waste. *Radiazioni Ricerca e Applicazioni*, XIII(3):12–14, December 2010
- Mauro L. Bonardi, Flavia Groppi, Simone Manenti, Enrico Rizzio, and Enrico Sabbioni. Generation III+ and IV nuclear reactors: part I - Production of nuclear H_2 or hydricity. *Radiazioni Ricerca e Applicazioni*, XIII(1-2):12–15, April - August 2010
- M.L. Bonardi, F. Groppi, S. Manenti, E. Persico, and L. Gini. Production study of high specific activity NCA Re-186g by proton and deuteron cyclotron irradiation. *Applied Radiation and Isotopes*, 68(9):1595 – 1601, 2010
- Flavia Groppi, Marta Novati, Elisa Persico, Simone Manenti, Luigi Gini, Anna Bazzocchi, Fabio Giovanetti, Paolo Maggioli, and Patrizia Bozzola. La radioattività... questa sconosciuta! Laboratorio radon per la scuola secondaria. In *Frascati Physics Series – Italian Collection*, volume 2 of *Scienza Aperta*, pages 178–179, Trieste, Italia, 2008. ComunicareFisica 2007
- Flavia Groppi, Anna Bazzocchi, Simone Manenti, Luigi Gini, and Mauro L. Bonardi. Radon laboratory: a proposal for scientific culture dissemination among young students in Italy. In Kenan Ünlü, Susan Heller-Zeisler, and Rolf Zeisler, editors, *Current status, trends, and needs in radiochemical education: the U.S. and abroad*, volume 1164, pages 93–99. AIP, 2009
- Flavia Groppi, Mauro L. Bonardi, Simone Manenti, Andrea Gandini, and Luigi Gini. Production of high specific activity NCA Lu-177g by cyclotron irradiation. *Journal of Labelled Compounds and Radiopharmaceuticals*, 52(S1):S374, 2009
- Flavia Groppi, Mauro L. Bonardi, Simone Manenti, Mara Marchetti, Luigi Gini, Kamel Abbas, Uwe Holzwarth, and Federica Simonelli. Production and quality control of high specific activity NCA Re-186 by cyclotron irradiation. *Journal of Labelled Compounds and Radiopharmaceuticals*, 52(S1):S253, 2009
- Flavia Groppi, Mauro Bonardi, Simone Manenti, and Luigi Gini. Radionuclide production by accelerators with no-conventional methods for radiodiagnostics and metabolic radiotherapy. *INCS News*, VI(2):6 – 11, April 2009
- Elisa Persico, Mauro Bonardi, Flavia Groppi, Cristiano Zona, Lea Canella, Simone Manenti, Mara Marchetti, Kamel Abbas, Uwe Holzwarth, and Federica Simonelli. Excitation functions and yields for Re-186g production by proton cyclotron. In *Astroparticle, Particle and Space Physics, Detectors and Medical Physics Application*, volume Proceedings of the 10th Conference, pages 115–119, Villa Olmo, Como, Italy, 2007

Partecipations to congresses

- Oral presentation: 1st International Conference on Radioanalytical and Nuclear Chemistry (RANC-2016), Budapest (HU), 10/04/2016 – 15/04/2016

- Oral presentation: CYCLEUR 2016 and 2nd Bern Cyclotron Symposium, Bern (CH), 22/06/2016 – 23/06/2016
- Oral presentation: II giornata S.I.R.R. 2017, Milano (IT), 26/06/2017 – 26/06/2017
- Oral presentation: 103 Congresso Nazionale della Società Italiana di Fisica - Trento (IT), 11/09/2017 – 15/09/2017