

PERSONAL INFORMATION

Massimiliano Porzio


 Via Giuseppe di Vittorio 5, 12011 Borgo San Dalmazzo (CN) - Italy

 +39 349 234 0035

 massimiliano.porzio@gmail.com

 www.massimilianoporzio.com

 <https://www.linkedin.com/in/massimiliano-porzio-60893119a>

 **ORCID** [0000-0001-5174-0285](https://orcid.org/0000-0001-5174-0285)

Gender Male | **Date of birth** 25 February 1978 | **Nationality** Italian

POSITION **Medical Physics Expert**

WORK EXPERIENCE

September 2018 – Present

Medical Physics Expert

ASL CN1

Via C. Boggio, 12, 12100 Cuneo (CN), Italy

- Dosimetric evaluations
- Acceptance tests, Quality Assurance and Quality Controls for Digital Radiography Unit (DR, fluoroscopic systems, CT, Mammography and DBT)
- Dose optimization
- Automation of quality controls for digital mammography and digital breast tomosynthesis units

April 2011 – September 2018

Medical Physicist

ASL 1 Imperiese

Via Aurelia Ponente, 97, 18038 Sanremo (IM), Italy

- Quality Assurance and Quality Controls of Digital Radiography units
- Dosimetrist for Linac Radiotherapy Units (3DCRT and VMAT)

TEACHING EXPERIENCE

March 2020 – Present

Adjunct instructor

Univeristy of Turin, Course of 'Tecniche di Laboratorio Biomedico' (biomedical laboratory technologists) – class of: Medical Statistics

November 2019 – November 2021

Adjunct instructor

Univeristy of Turin, Course of 'Tecniche di Radiologia Medica per Immagini e Radioterapia' (medical radiation technologists) – class of: Mathematics

EDUCATION AND TRAINING

September 2023 **Fondazione UNISER Pistoia - Artificial Intelligence and physics sciences apps in radiological images processing**



July 2022 **IOP Trusted Reviewer**



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July 2022 **Deeplearning.ai - 3 Courses Certificate: AI for Good Specialization**



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June 2022 **Università degli Studi di Ferrara - ASAI: Advanced School in Artificial Intelligence**



January-February 2022 **OpenCV CERTIFICATE OF EXCELLENCE - DEEP LEARNING WITH PYTORCH**



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January 2022 **UDACITY Nanodegree Program - Verified Certification of Completion: Computer Vision Nanodegree**



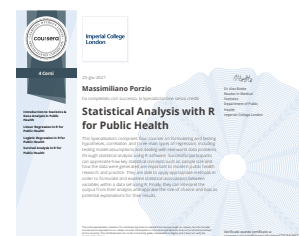
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July 2021 **TensorFlow Developer Certificate (exp. date: 2024 - July, 3rd)**



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June 2021 **Imperial College London - 4 Courses Certificate: Statistical Analysis with R for Public Health**



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2021 **NVIDIA DLI - Certification of competency: Fundamentals of deep learning**



January 2021 Jovian: Deep Learning with Pytorch: Zero to GANs



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January 2021 Stanford ONLINE - 5 Courses Certificate: AI in Healthcare Specialization



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August 2020 Deeplearning.ai - 3 Courses Certificate: AI for Medicine Specialization



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June-July 2020 TAIPEI Medical University - Verified Certificate of Achievement: ARTIFICIAL INTELLIGENCE FOR HEALTHCARE: OPPORTUNITIES AND CHALLENGES



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Maj-June 2020 UDACITY Nanodegree Program - Verified Certification of Completion: AI for Healthcare

[View certificate](#)

April 2020 **NVIDIA DLI - Certification of competency: Fundamentals of deep learning for computer vision**



10 October 2008 **Radioprotection Experts Officer (n.22161 of Italian list)**

January 2007 – March 2007 **SCJP – Sun Certified Java Programmer**



2002–2006 **Specialization in Medical Physics - Thesis Title: “ Clinical provision and comparison between FFT Convolution and Multigrid Superposition algorithms implemented on a commercial TPS”** **ISCED 5A**

University of Turin, Italy – Postgraduate Course

1997–2002 **Physics degree** **ISCED 5A**

University of Eastern Piedmont, Italy

PERSONAL SKILLS

Mother tongue Italian

Other languages	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B1	C1	B2	B2	C1
French	A2	B1	A2	A2	A2

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

Digital competences

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

[Digital competences - Self-assessment grid](#)

- Computer skills
- Image processing with ImageJ (Java)
 - Java™ programmer (Sun Certified Java Programmer)
 - Dart, Flutter (mobile apps development)
 - competent with most Microsoft Office programmes
 - experience with HTML5 and CSS
 - Python (Django Framework and computer vision / deep learning frameworks)
 - experience with JavaScript front-end framework (Vue.JS and Nuxt.JS)
 - Statistical analysis using R software
 - Basic Deep Learning frameworks

Driving licence B

PUBLICATIONS

- [1] S. Dalmonte, P. Golinelli, N. Oberhofer, S. Strocchi, V. Rossetti, L. Berta, **M. Porzio**, L. Angelini, N. Paruccini, R. Villa, M. Bertolini, S. Delle Canne, M. Cavallari, L. D'Ercole, G. Guerra, R. Rosasco, B. Cannillo, A. D'Alessio, E. Di Nicola, D. Origgi, P. De Marco, A. Maldera, C. Scabbio, F. Rottoli, R. Castriconi, E. Lorenzini, G. Pasquali, F. Pietrobon, P. Bregant, G. Giovannini, V. Favuzza, A. Bruschi, D. D'Urso, D. Maestri, S. De Novellis, A. Fracassi, L. Boschiroli, M. Quattrocchi, M.A. Gilio, E. Roberto, L. Altabella, G. Califano, M.C. Cimmino, E. Bortoli, E. Deiana, L. Pagan, P. Berardi, V. Ardu, R. Azzeroni, M. Campoleoni, and V. Ravaglia. "Typical values of z-resolution for different Digital Breast Tomosynthesis systems evaluated in a multicenter study". In: *Physica Medica* 119 (2024), p. 103300. URL: <https://www.sciencedirect.com/science/article/pii/S1120179724000942>.
- [2] **M. Porzio** and V. Ardu. "IMAGE QUALITY FOR DIGITAL BREAST TOMOSYNTHESIS (DBT): A STATISTICAL LOW CONTRAST DETAIL APPROACH FOR SYNTHESIZED AND RECONSTRUCTED PLANES". In: *Physica Medica* 115 (Nov. 2023), p. 102846. URL: <http://dx.doi.org/10.1016/j.ejmp.2023.102846>.
- [3] D. Rembado, L. Zilberti, U. Zanovello, G. Firullo, M. Caramella, A. Arduino, **M. Porzio**, and L. Gentile. "SAFETY, HEALTH AND DATA MANAGEMENT IN MRI". In: *Physica Medica* 115 (Nov. 2023), p. 102854. URL: <http://dx.doi.org/10.1016/j.ejmp.2023.102854>.
- [4] **Massimiliano Porzio**. "FULLY AUTOMATED REMOTE QUALITY CONTROLS FOR RADIOLOGY EQUIPMENTS FOLLOWING IAEA HUMAN HEALTH SERIES NO. 39". In: *Physica Medica* 104 (Dec. 2022), S186. URL: [https://doi.org/10.1016/s1120-1797\(22\)02569-8](https://doi.org/10.1016/s1120-1797(22)02569-8).
- [5] **Massimiliano Porzio**, Daniela Rembado, and Luca Gentile. "EXPOSURE INDEX MONITORING: A FIRST EXPERIENCE IN THE OPTIMIZATION PROCESS". In: *Physica Medica* 104 (Dec. 2022), S146. URL: [https://doi.org/10.1016/s1120-1797\(22\)02465-6](https://doi.org/10.1016/s1120-1797(22)02465-6).
- [6] Lorenzo Vassallo, Mirella Fasciano, and **Massimiliano Porzio**. "ADC ratio and tumor contact length with the capsule as predictors of extracapsular extension of prostate cancer on multiparametric MRI." en. In: (2022). URL: <https://epos.myesr.org/esr/poster/10.26044/ecr2022/C-10723>.
- [7] **Massimiliano Porzio** and Choirul Anam. "Real-time fully automated dosimetric computation for CT images in the clinical workflow: A feasibility study". In: *Frontiers in Oncology* 12 (Aug. 11, 2022). URL: <https://www.frontiersin.org/articles/10.3389/fonc.2022.798460>. published.
- [8] Giovanni Mettivier, Roberta Ricciarci, Antonio Sarno, Francesca S. Maddaloni, **Massimiliano Porzio**, Mariacarla Staffa, Salvatori Minelli, Angela Santoro, Elena Antignani, Marica Masi, Valeria Landoni, Pedro Ordonez, Francesca Ferranti, Laura Greco, Stefania Clemente, and Paolo Russo. "DeepLook: a deep learning computed diagnosis support for breast tomosynthesis". In: *16th International Workshop on Breast Imaging (IWBI2022)*. Ed. by Hilde Bosmans, Nicholas Marshall, and Chantal Van Ongeval. SPIE, July 2022. URL: <https://doi.org/10.1117/12.2625369>.
- [9] **Massimiliano Porzio** and Anastasios C Konstantinidis. "MAMMO_QC: Free software for quality control (QC) analysis in digital mammography and digital breast tomosynthesis compliant with the European guidelines and EUREF/EFOMP protocols". In: *Biomedical Physics & Engineering Express* 7.6 (Oct. 2021), p. 067004. URL: <https://doi.org/10.1088/2057-1976/ac2076>.

- [10] Michele Avanzo, **Massimiliano Porzio**, Leda Lorenzon, Lisa Milan, Roberto Sghedoni, Giorgio Russo, Raffaella Massafra, Annarita Fanizzi, Andrea Barucci, Veronica Ardu, Marco Branchini, Marco Giannelli, Elena Gallio, Savino Cilla, Sabina Tangaro, Angela Lombardi, Giovanni Pirrone, Elena De Martin, Alessia Giuliano, Gina Belmonte, Serenella Russo, Osvaldo Rampado, and Giovanni Mettivier. “Artificial intelligence applications in medical imaging: A review of the medical physics research in Italy”. In: *Physica Medica* 83 (2021), pp. 221–241. URL: <https://www.sciencedirect.com/science/article/pii/S1120179721001678>.
- [11] **M. Porzio**, D. Rembado, and L. Gentile. “Photon counting as a valuable technology for breast screening: low glandular doses and good image quality”. In: *Physica Medica* 92 (Dec. 2021), S225–S226. URL: [https://doi.org/10.1016/s1120-1797\(22\)00485-9](https://doi.org/10.1016/s1120-1797(22)00485-9).
- [12] **M. Porzio** and L. Gentile. “Fully automated water-equivalent diameter and SSDE computation for CT image in clinical workflow”. In: *Physica Medica* 92 (Dec. 2021), S226. URL: [https://doi.org/10.1016/s1120-1797\(22\)00486-0](https://doi.org/10.1016/s1120-1797(22)00486-0).
- [13] E. Zucchi, **M. Porzio**, G. Mon, and F. Coloberti. “277. A software toolset for quality control in digital mammography and DBT”. In: *Physica Medica* 56 (Dec. 2018), p. 232.
- [14] E. Zucchi, **M. Porzio**, G. Mon, and F. Coloberti. “278. Scatter correction software for grid-less acquisition in digital mammography – Statistical approach on a visual grading phantom study”. In: *Physica Medica* 56 (Dec. 2018), pp. 232–233.
- [15] **M. Porzio**, F. Coloberti, and E. Zucchi. “Iterative method for CT system: Dose reduction and quantitative analysis of image quality improvement”. In: *Physica Medica* 32 (Feb. 2016), pp. 87–88.
- [16] Walter Allasia, **Massimiliano Porzio**, and Michele Vigliante. “PrestoSpace Publication Platform: A System for Searching and Retrieving Enriched Audiovisual Material”. In: *I-MEDIA’07, I-SEMANTICS’07: International conferences on new media technology and semantic systems*. Graz: Verl. der Techn. Univ. Graz, 2007, pp. 186–188.
- [17] M Stasi, S Giordanengo, R Cirio, A Boriani, F Bourhaleb, I Cornelius, M Donetti, E Garelli, I Gomola, F Marchetto, **M. Porzio**, C J Sanz Freire, A Sardo, and C Peroni. “D-IMRT verification with a 2D pixel ionization chamber: dosimetric and clinical results in head and neck cancer”. In: *Physics in Medicine and Biology* 50.19 (Sept. 2005), pp. 4681–4694.

Borgo San Dalmazzo, February 6, 2024

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