Alessandro Scaggion

TEL: +39 049 821 2964/66
FAX: +39 049 821 2968
alessandro.scaggion@iov.veneto.it
it.linkedin.com/in/scaggionalessandro
ORCID ID: 0000-0002-1933-5658
RESEARCH ID: B-5924-2017
SCOPUS ID: 45061199100

"The person who really wants to do something finds a way; the other finds an excuse" – African proverb

Info

Born on January 30, 1985 in Noventa Vicentina (VI)

Italian citizen

Married with children

Italian driving licenses A and B

Current Position

Medical Physicist

JANUARY 2019 - PRESENT DAYS, Istituto Oncologico Veneto IOV - IRCCS, PADOVA

Medical Physicist employed in the Medical Physics Department

Expertise

Five-year experience in the field of Radiotherapy and Nuclear Medicine expressly oriented towards technological innovation, applied research and automation of production processes

Attitude

Extremely adaptive and dynamic, consolidated multidisciplinary team work, decision-making and operational independence, high aptitude for problem solving, established learning and self-training skills

Previous professional activity

RayStation Physics Expert

DECEMBER 2017 - NOVEMBER 2018, Tecnologie Avanzate TA s.r.l.

Enrolled in the list of Radiation Protection Experts with the SECOND degree of qualification and with the order number 2416.

Research fellowship

JANUARY 2017 - DECEMBER 2018, S.C. Fisica Sanitaria Istituto Oncologico Veneto IOV - IRCCS, PADOVA

Educational grant

JULY 2013 - DECEMBER 2016, S.C. Fisica Sanitaria Istituto Oncologico Veneto IOV - IRCCS, PADOVA

Experience

My experience has been focused on solving complex problems through statistical analysis and implementing algorithms. I'm used to manage my activity autonomously and join teams while dealing with complex problems within proposed by different professional figures. Author or coauthor of over 20 articles published in international journals, author or coauthor of more than 30 contributions to national and international scientific conferences in the field of medical physics and fusion plasma physics. Together with the staff of the Medical Physics department at IOV of Padua, I analyzed and monitored the accuracy of RT modulated treatments with particular attention to the RapidArc technique. Recently my scientific activity has focused on the configuration and use of advanced planning tools and methods for analyzing the quality and complexity of treatment plans. The computational activity led me to develop applications for the automatic analysis of the data coming from different linear accelerators and some volumetric pre-treatment dosimetric verification systems. I have been involved in the execution and reorganization of the quality assurance controls of the diagnostic equipment used in the nuclear medicine department, in the implementation and implementation of treatments for radiometabolic therapy of both malignant and benign pathologies and in the radioprotection and dosimetric evaluations, possibly customized, of the same treatments .

Education

Radiation Protection Experts: SECOND degree

DECEMBER 2016

Enrolled in the list of Radiation Protection Experts with the SECOND degree of qualification and with the order number 2416.

Medical Physics Degree - 70/70 cum laude

AUGUST 2013 - JUNE 2016, Università degli Studi di Torino, Torino, Italia

Thesis: *On the magnitude and detectability of VMAT delivery errors*, S.C. di Fisica Sanitaria, Istituto Oncologico Veneto - IRCCS, Padova, Italia

Joint Research Doctorate in Fusion Science and Engineering and European Doctoral Network

JANUARY 2010 - DECEMBER 2012, Università degli Studi di Padova, Padova, Italia

Thesis: *Thermal profile and improved confinement accessibility in RFX-mod and TCV* , Consorzio RFX, Associazione Euratom-ENEA sulla fusione, Padova, Italia and in collaboration with Centre de Recherche en Physique des Plasmas, Ecole Polytechnique Fédérale de Lausanne, Losanna, Svizzera

Master Degree in Physics - 110/110

DECEMBER 2007 - OCTOBER 2009, Università degli Studi di Padova, Padova, Italia

Curriculum: plasma physics. Thesis: *Filamentary structures in the edge turbulence of fusion devices*, Consorzio RFX, Associazione Euratom-ENEA sulla fusione, Padova, Italia.

Bachelor Degree in Physics - 103/110

OCTOBER 2004 - DECEMBER 2007, Università degli Studi di Padova, Padova, Italia

Curriculum: physics of matter. Thesis: *Caratterizzazione delle fluttuazioni elettrostatiche nella regione di bordo dell'esperimento RFX-mod in varie condizioni di scarica*, Consorzio RFX, Associazione Euratom-ENEA sulla fusione, Padova, Italia.

Scientific activity

Relevant publications (since 2016)

A Scaggion et al. '*Free-to-use DIR solutions in radiotherapy: Benchmark against commercial platforms through a contour-propagation study*', Physica Medica 74, 110-117, 2020

A Scaggion et al. '*Limiting treatment plan complexity by applying a novel commercial tool*', Journal of Applied Clinical Medical Physics. 2020

M Sepulcri et al '*Effectiveness of CBCT imaging during radiotherapy for the detection of initial COVID-19 lung disease*', Advances in Radiation Oncology, 2020

A Bettinelli et al. '*An IBEX adaption towards image biomarker standardization*'. Medical Physics, 47 (3), 1167-1173, 2019.

A Zorz et al. *'Performance evaluation of a new time of flight PET/CT scanner: Results of a multicenter study'*. Physica Medica, 68:146-154, 2019.

A Zorz, A Scaggion *'Standard Operating Procedures for Quality Control of PET/CT and PET/MR Tomographs'* in Volterrani, D., Erba, P.A., Carrió, I., Strauss, H.W. and Mariani, G. eds., 2019. Nuclear Medicine Textbook: Methodology and Clinical Applications. Springer.

S Meroni et al. *'A dedicated cloud system for real-time upfront quality assurance in pediatric radiation therapy.'* Strahlentherapie und Onkologie, 195(9):843-850, 2019.

A Scaggion et al. *Reducing inter- and intra-planner variability in radiotherapy plan output with a commercial knowledge-based planning solution.* Physica Medica, 53:86–93, 2018.

Riccardi et al. *Use of radiation dose index monitoring software in a multicenter environment for ct dose optimization.* La radiologia medica, 123(12):944–951, 2018.

Fusella et al. *Efficiently train and validate a rapidplan model through apqm scoring.* Medical Physics, 45(6):2611–2619, 2018.

A. Scaggion et al. *Delivering rapidarc: A comprehensive study on accuracy and long term stability.* Physica Medica, 32(7):866 – 873, 2016.

Relevant participations (since 2016)

MARCH 2019 Corso della Scuola Superiore di Fisica in Medicina "P. Caldirola", *'Automation:challenges and opportunities in medical physics '* , Padova, speaker

JUNE 2018 Corso della Scuola Superiore di Fisica in Medicina "P. Caldirola", *'Co-registrazione di immagini deformabile in radioterapia: metodi, assicurazione di qualitá ed applicazioni cliniche'*, Napoli , speaker