

Dott Fabio Di Martino is a Medical Physicist at the Unit of Health Physics of the University-Hospital of Pisa (Italy). His interests of research are mainly in the field of Dosimetry, Radiobiology in Radiotherapy and quantification problems in Nuclear Medicine. He is the author of more than 40 peer review publications in international journals. He has developed and patented a new theory that allows the realization of a new gas chamber for the absolute dosimetry of ultra high dose per pulse electron beams.

HONOURS AND MEMBERSHIPS

- Member of the Italian Association of Medical Physics (AIFM)
- Member of the list of the **Expert in Radioprotection of III degree**
- **Laser Safety Expert** for the Azienda-Ospedaliero-Universitaria-Pisana (AOUP), Pisa (Italy)
- **Adjunct Professor** at the School of Specialization in Health Physics of the University of Pisa (Italy)
- **Researcher associated** with the National Institute of Nuclear Physics (INFN)-section of Pisa (Italy)

RESEARCH PROJECTS

- Local Responsible of the INFN project entitled BIORT, **“The study of the radiobiological effectiveness of high dose-per-pulse electron beams produced by dedicated to IORT Linac”**. (2008-2009).
- Researcher in the INFN project entitled **“FRIDA FLASH Radiotherapy with high Dose Rate particles beams”** (2022-2024).

SELECTED PUBLICATIONS

- **Ion recombination correction for very high dose-per-pulse high energy electron beams.** F. Di Martino, M. Giannelli, A. C. Traino, M. Lazzeri. Med. Phys. 32 (7) 2005.
- **Absolute dose measurements by means of a small cylindrical ionization chamber for very high dose per pulse high energy electron beams.** E. Karaj, S. Righi, F. Di Martino. Med. Phys. 34 (3), 2007.
- **Feline immunodeficiency virus vector as a tool for preventative strategies against human breast cancer.** L. Vannucci, F. Chiappesi, F. Di Martino, M. A. Caligo, G. Bevilacqua, M. Pistelli. Veterinary Immunology and Immunopathology. 2009.
- **Dosimetric characteristics of electron beams produced by two mobile accelerators, Novac7 and Liac, for intraoperative radiation therapy through Monte Carlo simulation.** S. Righi, E. Karaj, G. Felici, F. Di Martino. J Appl. Clin. Med. Phys. 14 (1) 2013.
- **Radiobiological characterization of the very high dose rate and dose per pulse electron beams produced by an IORT (intra operative radiation therapy) dedicated linac.** P. Scampoli, C Carpentieri, M. Giannelli, V Magaddino, L. Manti, C Moriello, M. A. Piliero, S Righi, F. Di Martino. Tran Canc Res 2017.
- **Trasforming a IORT Linac into a FLASH research machine: procedure and dosimetric characterization.** G. Felici, P. Barca, S. Barone, E. Bortoli, R. Borgheresi, S. De Stefano, M. Di Francesco, L. Grasso, S. Linsalata, D. Marfisi, M. Pacitti, F. Di Martino. Frontiers in Physics. Sept 2020, vol 8, art 374
- **Toward an effective use of laser-driven very high energy electrons for radiotherapy: feasibility assessment of multi-field and intensity modulation irradiation schemes.** L. Labate, D. Palla, D. Panetta, F. Avella, F. Baffigi, F. Brandi, F. Di Martino, L. Fulgentini, A. Giulietti, P Koster, D. Terzani, P Tomassini, C Traino, L. Gizzi. Scientific Report 10 (1) oct 2020
- **Incorporating dose-volume histogram parameters of swallowing organs at risk in a videofluoroscopy-based predictive model of radiation-induced dysphagia after head and neck cancer intensity-modulated radiation therapy.** S. Ursino, A. Giuliano, F. Di Martino, P. Cocuzza, A. Molinari, A. Stefanelli, P. Giusti, G. Aringhieri, R. Morganti, E. Neri, C. Traino, F. Paiar. Strahlenther Onkol, Oct 2020.
- **Flash Radiotherapy with electrons: issues related to the production, monitoring and dosimetric characterization of the beam.** F. Di Martino, P. Barca, S. Barone, E. Bortoli, R. Borgheresi, S. De Stefano, M. Di Francesco, L. Grasso, S. Linsalata, D. Marfisi, M. Pacitti, G. Felici. Frontiers in Physics. Nov 2020, vol 8, art 570697.
- **Correction for the Partial Volume Effects (PVE) in Nuclear Medicine Imaging: a post-reconstruction Analytic Method.** F. Di Martino, P Barca, E. Bortoli, A. Giuliano, D. Volterrani. Appl. Sci. 2021, 11, 6460.