Aikaterini Nikiforaki (F)
LICENSED MEDICAL PHYSICIST (GREECE)
• Ionizing radiation • Non-ionizing radiation

Personal:

Date of birth: 18/01/1980
Address: Foinikos 22, Heraklion Crete, 71305, Greece
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Education:

2020 **UNIVERSITY OF CRETE, GR, MEDICAL SCHOOL, PhD**
PhD THESIS: "*Multiparametric semi-quantitative and quantitative study of soft tissue tumors with advanced Magnetic Resonance methods*", under the supervision of A. Karantanas.

2004–2005 **UNIVERSITY OF ABERDEEN, UK, MASTER'S DEGREE, MEDICAL PHYSICS**
MSc THESIS: "*Monte Carlo Simulation of a PET imager using Multilayer Detector*", under the supervision of Steven Mc Callum.

2008–2009 Hands-on training on the duties of a **Medical Physicist**:
Nuclear Medicine Department, Radiology Department, Radiation Therapy Department (conventional radiation therapy, 3-d conformal radiation therapy, brachytherapy), Theageneion Anticancer Hospital, Thessaloniki, Greece

Experience:

2014– Research team member at Computerized Bio-Medicine Laboratory, Institute of Research and Technology (FORTH), Heraklion, Crete. Director: Dr. K. Marias. Main Interest: Imaging Software applications for multi-parametric MRI acquisitions, MRI protocol optimization, MRI pre-processing, MRI Quality Assurance.
06/2023 Elected as Research Scientist, Grade B at ICS-FORTH

2012–2015 MRI Medical Physicist for N. Papanikolaou & Asssociates. Responsibilities: On Site MRI training, Protocol Optimization and Image Post Processing responsible for a network of 120 clinical sites worldwide.

2007–2012 Medical Physicist at MRI Dpt of Interbalkan Medical Center. Director of the Department: Prof. A. Drevelegas. Main responsibility: MRI protocol optimization, Image Quality for 3T, 1.5 T and 0.2 T systems.

Personal Skills and Competences:

- **Foreign Languages:**
  - **English Proficiency**, University of Cambridge 1996, TOEFL 2004
  - **French DELF** 1995, Erasmus at Ecole Superieure de Physique de Marseille 2003 - 2004
  - **Russian** Undergraduate Lessons at University Of Crete, 1998-2002

- European Computer Driving Licence (ECDL)

Participation in EU-funded and national projects:

ProCAncer-I

RadioVal

GenoMed4ALL

EUCAIM

CHIC

Α.ΠΟ.ΣΙ.ΔΙ.

PCa Rad Path

Publications (2023-2024 International Journal Papers):

Garrucho, Lidia; Reidel, Claire-Anne; et al. "MAMA-MIA: A Large-Scale Multi-Center Breast Cancer DCE-MRI Benchmark Dataset with Expert Segmentations." *arXiv preprint arXiv:2406.13844*, 2024.

Kondylakis, Haridimos; Catalan, Rocio; et al. "Documenting the de-identification process of clinical and imaging data for AI for health imaging projects." *Insights into Imaging*, 15(1), 130, 2024. Springer Vienna.

Nikiforaki, Katerina; Karatzanis, Ioannis; et al. "Image Quality Assessment Tool for Conventional and Dynamic Magnetic Resonance Imaging Acquisitions." *Journal of Imaging*, 10(5), 115, 2024. MDPI.

Kilintzis, Vassilis; Kalokyri, Varvara; et al. "Public data homogenization for AI model development in breast cancer." *European Radiology Experimental*, 8(1), 42, 2024. Springer Vienna.

Kolokotroni, Eleni; Abler, Daniel; et al. "A multidisciplinary hyper-modeling scheme in personalized in silico oncology: Coupling cell kinetics with metabolism, signaling networks, and biomechanics as plug-in component models of a cancer digital twin." *Journal of Personalized Medicine*, 14(5), 475, 2024. Multidisciplinary Digital Publishing Institute.

Kalokyri, Varvara; Tachos, Nikolaos; et al. "Data preparation for artificial intelligence in medical imaging: Experiences from the ProCAncer-I initiative." *2023 IEEE EMBS Special Topic Conference on Data Science and Engineering in Healthcare, Medicine and Biology*, 73-74, 2023. IEEE.

Koutoulakis, Emmanouil; Trivizakis, Eleftherios; et al. "Fully Automated Detection and Segmentation Pipeline for the Bone Marrow of the Lytic Bone of Multiple Myeloma Patients." *2023 IEEE EMBS Special Topic Conference on Data Science and Engineering in Healthcare, Medicine and Biology*, 39-40, 2023. IEEE.

Trivizakis, Eleftherios; Koutoulidis, Vassilis; et al. "Ensemble of Heterogeneous Machine Learning Models with Multiple Inputs for Multi-Omics Analysis." *2023 IEEE EMBS Special Topic Conference on Data Science and Engineering in Healthcare, Medicine and Biology*, 187-188, 2023. IEEE.

Kalokyri, Varvara; Kondylakis, Haridimos; et al. "MI-common data model: Extending observational medical outcomes partnership-common data model (OMOP-CDM) for registering medical imaging metadata and subsequent curation processes." *JCO Clinical Cancer Informatics*, 7, e2300101, 2023. Wolters Kluwer Health.

Nikiforaki, Katerina; Marias, Kostas. "MRI Methods to Visualize and Quantify Adipose Tissue in Health and Disease." *Biomedicines*, 11(12), 3179, 2023. MDPI.

Stamoulou, Elisavet; Spanakis, Constantinos; Nikiforaki, Katerina; et al. "Using Commercial and Open-Source Tools for Artificial Intelligence: A Case Demonstration on a Complete Radiomics Pipeline." *Introduction to Artificial Intelligence*, 13-37, 2023. Springer International Publishing Cham.

Dovrou, Aikaterini; Nikiforaki, Katerina; et al. "A segmentation-based method improving the performance of N4 bias field correction on T2-weighted MR imaging data of the prostate." *Magnetic Resonance Imaging*, 101, 1-12, 2023. Elsevier.