



Curriculum Vitae

Kostas Marias

Dipl.Eng, M. Sc, Ph. D

Professor

**Dept. of Electrical & Computer
Engineering at the Hellenic
Mediterranean University**

SUMMARY PROFILE AND ACHIEVEMENTS

Kostas Marias (PhD) is a Professor in Medical Image Processing at the Dept. of Electrical & Computer Engineering at the Hellenic Mediterranean University in Greece and is the head and founder of the Computational Biomedicine Laboratory at FORTH-ICS. He served as Principal Researcher at the Institute of Computer Science of the Foundation for Research & Technology Hellas (ICS-FORTH) since 2006. During 2000-2002, he worked as a medical image analysis Research Assistant at the University of Oxford and from 2003-2006 as Associated Researcher at FORTH-ICS. He received his PhD in Medical Image Analysis and Medical Physics from UCL Royal Free & University College Medical School working jointly with the University of Oxford, UK. He has coordinated two EC projects on cancer modelling (ContraCancrum and TUMOR projects), and has actively participated in several other EC funded projects developing ICT technology. Kostas Marias is a dedicated professional member of IEEE for 18 years and has served with diverse organisational roles in many important IEEE conferences in the field of biomedical informatics and imaging such as EMBC, BIBE and IST either as member of the scientific committee, organising committee, in special sessions, program co-chair, etc. He is co-author of more than 300 papers in international journals, books and conference proceedings focusing on medical image processing and analysis, biomedical informatics, image-based modelling and Radiomics/deep learning medical imaging applications.

CONTENTS

PERSONAL DETAILS	3
EDUCATION	3
PRINCIPAL PROFESSIONAL APPOINTMENTS	3
ADMINISTRATIVE APPOINTMENTS	4
SERVICE	4
PHD AND POST-DOC GRANTS AWARDED	5
AFFILIATIONS	5
EDITORIAL WORK	5
SELECTED INVITED TALKS/KEYNOTES	5
RESEARCH INTERESTS	6
RESEARCH PROJECTS 2006-2017	7
SHORT OVERVIEW OF RESEARCH ACTIVITIES	11
PUBLICATIONS	11
SCIENTIFIC JOURNALS	11
BOOK CHAPTERS	25
THESES MONOGRAPHS	26
CONFERENCE PEER REVIEWED PAPERS	26
CONFERENCE ABSTRACTS REVIEWED	43
ELECTRONIC PUBLICATIONS.....	46
GRADUATE AND POSTGRADUATE SUPERVISION	47
COURSES TAUGHT	50
PATENTS	52
BIBLIOMETRIC DATA	52
GOOGLE SCHOLAR DATA FOR KOSTAS MARIAS.....	52

PERSONAL DETAILS

Name	Kostas Marias
Date of Birth	October 29th, 1972
Phone	+30 2810 391696
Fax	+30 2810 391428
Email	kmarias@hmu.gr , kmarias@ics.forth.gr
Marital Status	Married, two children
Nationality	Greek

EDUCATION

1997 - 2001	PhD in Medical Image Analysis and Medical Physics, UCL Royal Free & University College Medical School jointly with the University of Oxford, UK. Supervisor: Professor Sir Michael Brady FRS FREng, Professor of Information Engineering, Oxford University.
1996- 1997	M.Sc in Engineering and Physical Sciences in Medicine Imperial College of Science, Technology and Medicine, Department of Bioengineering, UK
1990-1995	Diploma in Electrical & Computer Engineering (5 year program) National Technical University of Athens (NTUA) Athens, Greece.

PRINCIPAL PROFESSIONAL APPOINTMENTS

2022 -	Professor in Medical Image Processing at the Dept. of Electrical & Computer Engineering at the Hellenic Mediterranean University.
2017 - 2022	Associate Professor in Medical Image Processing at the Dept. of Electrical & Computer Engineering at the Hellenic Mediterranean University.
2010 -	Head of the Computational Biomedicine Laboratory, Institute of Computer Science (ICS), Foundation for Research and Technology – Hellas (FORTH).
2006 - 2017	Principal Researcher, Institute of Computer Science (ICS), Foundation for Research and Technology – Hellas (FORTH).
2003 - 2006	Associated Researcher, Institute of Computer Science (ICS), Foundation for Research and Technology – Hellas (FORTH).
2000 -2002	Postdoctoral Fellow, Oxford University, Information Engineering Department, Wolfson Medical Vision Laboratory, Oxford UK.
2015 -	Visiting Professor, Technological Institute of Crete.
2003 - 2010	Visiting Professor, University of Crete.
2005 -	Faculty member of the "Brain and Mind" interdisciplinary graduate program of the University of Crete.
2000 – 2002	Senior Consulting Scientist, Mirada Solutions Ltd. (UK), a spin-off from the University of Oxford for commercializing key intellectual property.
1997 - 1998	Medical Image Processing Engineer, Imperial College of Science Technology and Medicine, Bagrit Center, London, UK.

ADMINISTRATIVE APPOINTMENTS

2022-	Chair, Ethics Committee, Hellenic Mediterranean University
2020-2022	Vice Head of Dept. of Electrical & Computer Engineering at the Hellenic Mediterranean University.
2017-2019	Vice Head of Department, Technological Educational Institute Of Crete, Informatics Engineering Department, School of Technological Applications.
2017-	Member of Committee for postgraduate studies, MSc in Informatics and Multimedia, Dpt. Of Informatics Engineering TEI of Crete.
2017 -	Secretary of the IEEE Engineering in Medicine and Biology Society (EMBS) Greece.
2010 - 2017	Member of the Scientific Council of the Institute of Computer Science (ICS), Foundation for Research and Technology – Hellas (FORTH) since 2010.
2015 – 2017	Member of the Interdepartmental Committee of the "Brain and Mind" interdisciplinary graduate program (University of Crete, FORTH, University Hospital of Heraklion).
2014 - 2018	Member of the Ethics Committee of the Foundation for Research and Technology.
2015 - 2017	Appointed member of the Medical Tourism Committee at the Region of Crete.

SERVICE

Represents FORTH in the Virtual Physiological Human Institute for Integrative Biomedical Research (VPH Institute) <http://www.vph-institute.org/>

Coordinated the EC Project *Clinically Oriented Translational Cancer Multilevel Modelling* (2008-2011 Contra Cancrum FP7 223979)

Coordinated the EC Project Transatlantic Tumour Model Repositories (2010-2013 TUMOR FP7 247754)

Served as a delegate for the European Commission (DG INFSO) at the EC- US Workshop on Virtual Tissues (22-24 April 2009), held at the EPA North Carolina (US: EPA, DoE, NSF, NIH EC: DG Research Dir. F, DG INFSO)

Participated in a number of FP7 EC consultation meetings after invitation from the sector ICT for Health.

Serves regularly as a reviewer in Journals including: Medical Image Analysis, IEEE Transactions on Medical Imaging, Cancer Informatics, IEEE Transactions on Image Processing, IEEE Transactions on Biomedical Engineering, IEEE Transactions on Information Technology in Biomedicine, Journal of Computer-Assisted Radiology and Surgery.

Has served in the Organizing Committee of the International Advanced Research Workshop on In Silico Oncology conference and in Special Sessions at IEEE EMBC, IEEE BIBE and MobiHealth conferences.

Has served in session chair/program committees in conferences such as IEEE ISBI, IEEE EMBC, BIBE, and ISBMDA. Recently has served as General Co-Chair and workshops chair at EAI International Conference on Personal, Pervasive and mobile Health, June 14-15, 2016 Budapest, Hungary (ppmhealth.org), and local organizing committee member for IST 2016 (2016 IEEE International Conference on Imaging Systems and Techniques <http://ist2016.ieee-ims.org>), Chania Crete, eHealth Forum 2015-2018.

Organizer of the first summer school on computation oncology and co-organizer of the second (<http://www.computationaloncology.org>)

PHD AND POST-DOC GRANTS AWARDED

1997-2001	UCL Fellow at Oxford (PhD grant, full scholarship jointly from Oxford University and UCL, London)
2001-2004	Cancer Research UK Postdoc Grant, CRC-SP2580/0101, total funds awarded £139,091.00, titled: "A quantitative assessment of dense breast tissue changes"

AFFILIATIONS

2003 -	IEEE Member, Engineering in Medicine and Biology (IEEE) – USA
2005 - 2010	Academy of Molecular Imaging – USA (Sponsored by UCLA)

EDITORIAL WORK

2018 - 2022	Associate Editor IET Image Processing http://digital-library.theiet.org/journals/iet-ipr/editorial-board
2019 -	Associate Editor IEEE Journal of Biomedical And Health Informatics https://www.embs.org/jbhi/associate-editors/
2021 -	Associate Editor Journal of Imaging https://www.mdpi.com/journal/jimaging/editors

SELECTED INVITED TALKS/KEYNOTES

1. Medical Imaging in the era of AI, keynote invited talk in the 23rd Hellenic Radiology Conference, Athens, Divani Caravel, 7 - 10 December 2023.
2. Model-Based, Quantitative MRI Image Analysis and Machine Learning in Rectal Cancer, Invited talk, 8th Colorectal Games Symposium, Heraklion, 2018.
3. Predicting Effective Adaptation to Breast Cancer to Help Women to Bounce Back, Invited talk eHealth Forum 2017 (<https://www.dhealth.gr/>) Digital Health Conference, 19-22 October | Athens, https://www.youtube.com/watch?v=m_DCeAU6eDM
4. The iManageCancer personal health record. Invited talk at eHealth Forum, Promoting digital Health Integration for Equal Access and Sustainable Future, 2016. <http://www.ehealthforum.org/el/ehealthforum-2016/>
5. Novel personal health systems for patient empowerment. Invited talk at eHealth Forum 2015, <http://www.2015.ehealthforum.org/>
6. Personal Health Systems for Patient Self-management and Empowerment technologies. Invited talk in the 10th National Conference for Health Management and Policy, Athens 18-20 December, 2014
7. Computational Models and medical image analysis tools for optimizing personalized predictions of therapy outcome in cancer patients. Keynote invited talk in the 19th Hellenic Conference of Clinical Oncology, April 27 2013.
8. Multi-level clinically oriented modelling in cancer research. Invited talk in the US Environmental Protection Agency, Computational Toxicology Research Program, April 21, 2009.

RESEARCH INTERESTS**MEDICAL IMAGE PROCESSING AND ANALYSIS**

Image Registration and Fusion
Quantitative Image Analysis
Image Classification and Segmentation
Image Retrieval
Image Reconstruction
Image Visualisation and Analysis
Image-based Biomarkers
Microarray image processing
Image Shape Analysis

COMPUTATIONAL MEDICINE

Image-Based Macroscopic Cancer Modelling
Computational Model Interoperability
Microscopic Cancer Modelling
In Silico Clinical Trials
Radiomics and Radiogenomics
AI applications in medical image analysis

PERSONAL HEALTH SYSTEMS INFORMATICS

Personal Health Record Systems
Patient Empowerment Services
Diabetes Self-Management and Risk Assessment
Stress Recognition Personal Systems
Heart-Rate monitoring
Telemedicine and smart networking systems

RESEARCH PROJECTS 2006-2017

The following table lists all the projects Kostas Marias participated for the period 2010-2013 (as head of the Computational Medicine Lab) for which he was the Project Coordinator of the Consortium (PC), Technical Coordinator of the Project (TC), the Principal Investigator for FORTH (PI), or the CO-PI (active participation next to the PI).

Project Name	Acronym	Start	End	Funded budget	Role
Advancing Clinico-Genomic Clinical Trials on Cancer: Open Grid Services for Improving Medical Knowledge Discovery http://eu-acgt.org/	ACGT	01/02/2006-	31/01/2010	1.276.200 €	CO-PI
Clinically Oriented Translational Cancer Multilevel Modelling http://www.contracancrum.eu/	Contra Cancrum	1/08/2008	31/07/2011	651.920 €	PC
Transatlantic TUmour MOdel Repositories	TUMOUR	1/4/2010	31/3/2013	396.220 €	PC
Driving Excellence in Integrative Cancer Research through Innovative Biomedical Infrastructures	INTEGRATE	1/2/2011	31/1/2014	818.300 €	CO-PI
Development of a research infrastructure for computational oncology	ΥΠΕΡΘΕΝ¹	24/6/2011	23/6/2013	359.725 €	CO-PI
From data sharing and integration via VPH models to personalized medicine	p-Medicine	1/2/2011	31/1/2015	1.242.435 €	CO-PI
Enabling information re-Use by linking clinical REsearch and	EURECA	1/1/2012	31/12/2014	865.536 €	CO-PI

¹ Ανάπτυξη ερευνητικής υποδομής κλινικών υπολογιστικών εργαλείων και υπηρεσιών για την καλύτερη διάγνωση και εκτίμηση της βέλτιστης εξατομικευμένης θεραπείας ογκολογικών παθήσεων

CAre					
A Demonstration of 4D Digital Avatar Infrastructure for Access of Complete Patient Information	MyHealth Avatar	1/3/2013	29/2/2016	361.400 €	PI
Computational Horizons in Cancer: Developing Meta- and Hyper-Multiscale Models and Repositories for In Silico Oncology	CHIC	1/4/2013	31/3/2017	888.106 €	PI
Development of Interdisciplinary Research Activities for Systems Biology	ΚΡΗΠΙΣ-ΒΙΟΣΥΣ²	1/7/2013	30/7/2015	70.000 €	PI
Regional Anaesthesia Simulator and Assistant	RASimAS	1/11/2013	31/10/2016	227.757 €	PI
Multi-channel biometrics combining acoustic and machine vision analysis of speech, lip movement and face	SpeechXRays	1/05/2015	30/4/2018	303.750 €	CO-PI
iManageCancer - Empowering patients and strengthening self-management in cancer diseases	iManage Cancer (HORIZON2020)	1/2/2015	1/7/2018	747.500	PI, TC
Predicting Effective Adaptation to Breast Cancer to Help Women to BOUNCE Back	BOUNCE (HORIZON2020)	1/11/2017	31/10/2021	726.875	CO-PI
HARMONization and integrative analysis of regional, national and international Cohorts on primary Sjögren's Syndrome (pSS) towards improved stratification, treatment and health policy making	HarmonicSS (HORIZON2020) TEI CRETE	2018	2021	215.000	CO-PI

² Ανάπτυξη Διεπιστημονικών Ερευνητικών Δραστηριοτήτων στην Κατεύθυνση της Βιολογίας Συστημάτων

Fostering Palliative Care of Adults and Children with Cancer through Advanced Patient Reported Outcome Systems, GA 825872, H2020-SC1-BHC-2018-2020.	MyPal (HORIZON2020)	01/01/2019	30/06/2022	293.500	PI
Ανάπτυξη αυτοματοποιημένων τεχνικών ποσοτικοποίησης σιδήρου σε παρεγχυματικά όργανα για διαγνωστικούς σκοπούς.	ΑΠΟΣΙΔΙ (ΕΣΠΑ2014-2020 ΕΡΕΥΝΩ-ΚΑΙΝΟΤΟΜΩ-ΔΗΜΙΟΥΡΓΩ)	16/6/2020	15/12/2022	264.340	PI
Ευφυές ψηφιακό αποθετήριο τοποθεσιών για κινηματογράφηση εμπλουτισμένο με τεχνικές βαθιάς μάθησης για πολυτροπική αυτοματοποιημένη αποθήκευση, αναζήτηση και ανάκτηση.	LoockMe (ΕΣΠΑ2014-2020 ΕΡΕΥΝΩ-ΚΑΙΝΟΤΟΜΩ-ΔΗΜΙΟΥΡΓΩ)	16/6/2020	15/12/2022	329.000	CO-PI
Leveraging AI based technology to transform the future of health care delivery in Leading Hospitals in Europe, GA101017331	ODIN (H2020-DT-2018-2020)	01/03/2021	31/08/2024	495.000	CO-PI
A patient-centered early risk prediction, prevention, and intervention platform to support the continuum of care in coronary artery disease (CAD) using eHealth and artificial intelligence' — G101017424, H2020 - SC1-DTH-2020-1	TIMELY (H2020-DT-2018-2020)	01/01/2021	30/09/2024	226.562	PI
Genomics and Personalized Medicine for all through Artificial Intelligence in Haematological Diseases,	GENOMED 4ALL (H2020)	01/01/2021	31/12/2024	396.000	PI

GA101017549

An AI Platform integrating imaging data and models, supporting precision care through prostate cancer's continuum, GA952159, H2020 - SC1-FA-DTS-2019-1 AI for Health Imaging.	ProCAncer-I (H2020)	01/10/2020	30/09/2024	1.372.000	CO-PI
---	-------------------------------	------------	------------	-----------	-------

Cardiocare: An Interdisciplinary Approach for The Management of The Elderly Multimorbid Patient with Breast Cancer Therapy Induced Cardiac Toxicity Ga945175, H2020, H2020 - Sc1-Bhc-24-2020	Cardiocare (H2020)	01/07/2021	30/06/2025	314.875	PI
--	------------------------------	------------	------------	---------	----

Radioval: International Clinical Validation of Radiomics Artificial Intelligence for Breast Cancer Treatment Planning, 101057699, H2020, HORIZON-HLTH-2021-DISEASE-04-04	Radioval (H2020)	09/01/2022	08/31/2026	250625	PI
--	----------------------------	------------	------------	--------	----

SHORT OVERVIEW OF RESEARCH ACTIVITIES

Medical Image Processing: Kostas Marias' research on medical image analysis focuses on developing software solutions for Clinical Decision Support providing robust software tools for extracting imaging biomarkers mainly from MRI data as well as visualization and quantification tools for guiding therapy plans. His work includes Dynamic Contrast-Enhanced Perfusion MR Imaging measurements of permeability-related pharmacokinetic parameters (Ktrans, Kep, Ve) for monitoring the effectiveness of neoadjuvant treatments as well as tumor characterization techniques based on diffusion-weighted MRI and ADC-mapping reflecting tumor cellularity. This activity has recently led to two patent applications on advanced MRI diffusion and perfusion analysis techniques for which there is an interest for commercialization.

Computational Medicine: During the last decade Kostas Marias was heavily involved in developing patient-specific multiscale computer based (in silico) models aiming towards a better understanding of the physiology and the pathology of human organs, with a special focus on cancer. One of the major concerns in clinical practice and treatment of life-threatening diseases, e.g., Cancer, is the fastest possible transform of scientific discoveries arising from diverse scientific fields such as laboratory, clinical or population studies and in silico predictive models of various disease staging, into clinical applications in order to reduce their incidence, morbidity and mortality. The computational modeling approaches in his research mainly focus on developing sophisticated multiscale mathematical models of cancer for testing different therapeutic schemes, in search of the best possible treatment for each specific patient.

Biomedical informatics: Through his involvement on numerous EC projects, Kostas Marias has focused is on developing personalized ICT services for clinical data management and decision support as well as for translating novel technologies to the clinical setting. Recently he is also actively working on several e-health and m-health related projects and focuses on Personal Health Record research in the context of projects dealing with chronic disease management such as diabetes and cancer.

PUBLICATIONS

SCIENTIFIC JOURNALS

1. C.P. Behrenbruch, **K. Marias**, P.A. Armitage, M.Yam, N.R. Moore, R.E. English, J. Clarke, and M.J. Brady, "Fusion of contrast-enhanced breast MR and mammographic imaging data," **Medical image analysis**, vol. 7, no. 3, pp. 311–340, Sep. 2003, England (1361-8415; 1361-8415). [http://doi.org/10.1016/S1361-8415\(03\)00015-X](http://doi.org/10.1016/S1361-8415(03)00015-X)
2. C.P. Behrenbruch, **K. Marias**, P.A. Armitage, M. Yam, N. R. Moore, R.E. English, P.J. Clarke, F.J. Leong, and M.J. Brady, "Fusion of contrast-enhanced breast MR and mammographic imaging data," **The British journal of radiology**, 2004, 77 Spec No 2, (S201-8), England (0007-1285; 0007-1285). <http://doi.org/10.1259/bjr/66587930>

3. **K. Marias**, C. Behrenbruch, R. Highnam, S. Parbhoo, A. Seifalian, and M. Brady, "A mammographic image analysis method to detect and measure changes in breast density," *Eur. J. Radiol.*, vol. 52, no. 3, pp. 276–282, Dec. 2004. <http://doi.org/10.1016/j.ejrad.2004.02.014>
4. **K. Marias**, J. Ripoll, H. Meyer, V. Ntziachristos, and S. Orphanoudakis, "Image analysis for assessing molecular activity changes in time-dependent geometries," *IEEE Trans. Med. Imaging*, vol. 24, no. 7, pp. 894–900, Jul. 2005. <http://doi.org/10.1109/TMI.2005.848612>
5. **K. Marias**, C. Behrenbruch, S. Parbhoo, A. Seifalian, and M. Brady, "A registration framework for the comparison of mammogram sequences," *IEEE Trans. Med. Imaging*, vol. 24, no. 6, pp. 782–790, Jun. 2005, (02780062). <http://doi.org/10.1109/TMI.2005.848374>
6. M.G. Linguraru, **K. Marias**, R.E. English, and M.J. Brady, "A biologically inspired algorithm for microcalcification cluster detection," *Med. Image Anal.*, vol. 10, no. 6, pp. 850–862, Dec. 2006. <http://doi.org/10.1016/j.media.2006.07.004>
7. S. Dimitriadis, **K. Marias**, and S.C. Orphanoudakis, "A multi-agent platform for content-based image retrieval," *Multimed. Tools Appl.*, Hingham, MA, USA: Kluwer Academic Publishers (1380-7501), vol. 33, no. 1, pp. 57–72, Mar. 2007. <http://doi.org/10.1007/s11042-006-0095-2>
8. A. Darrell, H. Meyer, **K. Marias**, M. Brady, and J. Ripoll, "Weighted filtered backprojection for quantitative fluorescence optical projection tomography," *Phys. Med. Biol.*, vol. 53, no. 14, pp. 3863–3881, Jul. 2008. <http://doi.org/10.1088/0031-9155/53/14/010>
9. C. Farmaki, **K. Marias**, V. Sakkalis, and N. Graf, "Spatially adaptive active contours: a semi-automatic tumor segmentation framework," *Int. J. Comput. Assist. Radiol. Surg.*, vol. 5, no. 4, pp. 369–384, Jul. 2010. <http://doi.org/10.1007/s11548-010-0477-9>
10. E. Skounakis, C. Farmaki, V. Sakkalis, A. Roniotis, K. Banitsas, N. Graf, and **K. Marias**, "DoctorEye: A Clinically Driven Multifunctional Platform, for Accurate Processing of Tumors in Medical Images," *Open Med. Inform. J.*, Special Issue: *Intelligent signal and image processing in eHealth. The Open Medical Informatics Journal*, vol. 4, no. 1, pp. 105–115, Jul. 2010. <http://doi.org/10.2174/1874431101004010105>
11. A. Roniotis, **K. Marias**, V. Sakkalis, and M.E. Zervakis, "Diffusive Modelling of Glioma Evolution: A review," *Journal of Biomedical Science and Engineering*, J. Biomed. Sci. Eng., vol. 03, no. 05, pp. 501–508, 2010. <http://doi.org/10.4236/jbise.2010.35070>
12. **K. Marias**, D.D. Dionysiou, V. Sakkalis, N. Graf, R. Bohle, P.V. Coveney, S. Wan, A. Folarin, P. Büchler, M. Reyes, G. Clapworthy, E. Liu, J. Sabczynski, T. Bily, A. Roniotis, M.N. Tsiknakis, E. Kolokotroni, S. Gialiti, C. Veith, E. Messe, H. Stenzhom, Y. Kim, S. Zasada, A.N. Haidar, C. May, S. Bauer, T. Wang, Y. Zhao, M. Karasek, R. Grewer, A. Franz and G. Stamatakos, "Clinically-Driven Design of Multiscale Cancer Models: the Contra Cancrum Project Paradigm," *J.R. Soc Interface Focus.*, vol. 1, pp. 450-461, 2011. <http://doi.org/10.1098/rsfs.2010.0037>
13. A. Roniotis, G.C. Manikis, V. Sakkalis, M.E. Zervakis, I. Karatzanis, and **K. Marias**, "High-grade glioma diffusive modeling using statistical tissue information and diffusion tensors extracted from atlases," *IEEE Trans. Inf. Technol. Biomed.*, vol. 16, no. 2, pp. 255–263, Mar. 2012. <http://doi.org/10.1109/TITB.2011.2171190>

14. A. Roniotis, **K. Marias**, V. Sakkalis, G.C. Manikis, and M.E. Zervakis, "Simulating Radiotherapy Effect in High-Grade Glioma by Using Diffusive Modeling and Brain Atlases," **J. Biomed. Biotechnol.**, vol. 2012, pp. 1–9, 2012. <http://doi.org/10.1155/2012/715812>
15. A. Roniotis, V. Sakkalis, I. Karatzanis, M.E. Zervakis, and **K. Marias**, "In-depth analysis and evaluation of diffusive glioma models," **IEEE Trans. Inf. Technol. Biomed.**, vol. 16, no. 3, pp. 299–307, 2012. <http://doi.org/10.1109/TITB.2012.2185704>
16. G. Stamatakos, D. Dionysiou, A. Lunzer, R. Belleman, E. Kolokotroni, E. Georgiadi, M. Erdt, J. Pukacki, S. Rueping, S. Giatili, A. d'Onofrio, S. Sfakianakis, **K. Marias**, C. Desmedt, M. Tsiknakis, and N. Graf, "The Technologically Integrated Oncosimulator: Combining Multiscale Cancer Modeling with Information Technology in the In Silico Oncology Context," **IEEE journal of biomedical and health informatics**, vol. 18, no. 3, pp. 840–854, May 2014. <http://doi.org/10.1109/JBHI.2013.2284276>
17. D. Johnson, S. McKeever, G. Stamatakos, D. Dionysiou, N. Graf, V. Sakkalis, **K. Marias**, Z. Wang, and T.S. Deisboeck, "Dealing with Diversity in Computational Cancer Modeling," **Cancer informatics**, vol. 12, pp. 115–124, p. CIN.S11583, May 2013. <http://doi.org/10.4137/CIN.S11583>
18. I. Genitsaridi, H. Kondylakis, L. Koumakis, **K. Marias**, and M.N. Tsiknakis, "Evaluation of personal health record systems through the lenses of EC research projects," **Computers in biology and medicine**, vol. 59, pp. 175–185, Apr. 2015. <http://doi.org/10.1016/j.compbiomed.2013.11.004>
19. I. Genitsaridi, H. Kondylakis, L. Koumakis, **K. Marias**, and M.N. Tsiknakis, "Towards Intelligent Personal Health Record Systems: Review, Criteria and Extensions," **Procedia Computer Science**, vol. 21, pp. 327–334, 2013. <http://doi.org/10.1016/j.procs.2013.09.043>
20. H. Kondylakis, E. Kazantzaki, L. Koumakis, I. Genitsaridi, **K. Marias**, A. Gorini, K. Mazzocco, G. Pravettoni, D. Burke, G. McVie and M.N. Tsiknakis, "Development of interactive empowerment services in support of personalised medicine," **eCancer Medical Science Journal**, vol. 8, 400, Feb. 2014. <http://doi.org/10.3332/ecancer.2014.400>
21. V. Sakkalis, S. Sfakianakis, E. Tzamali, **K. Marias**, G. Stamatakos, F. Misichroni, E. Ouzounoglou, E. Kolokotroni, D. Dionysiou, D. Johnson, S. McKeever, and N. Graf, "Web-Based Workflow Planning Platform Supporting the Design and Execution of Complex Multiscale Cancer Models," **IEEE Journal of Biomedical and Health Informatics**, vol. 18, no. 3, pp. 824–831, May 2014. <http://doi.org/10.1109/JBHI.2013.2297167>
22. E. Spanakis, V. Sakkalis, **K. Marias**, and A. Traganitis, "Cross Layer Interference Management in Wireless Biomedical Networks," **Entropy**, vol. 16, no. 4, pp. 2085–2104, Apr. 2014. <http://doi.org/10.3390/e16042085>
23. E. Tzamali, G. Grekas, **K. Marias**, and V. Sakkalis, "Exploring the Competition between Proliferative and Invasive Cancer Phenotypes in a Continuous Spatial Model," **PLoS One**, vol. 9, no. 8, p. e103191, Aug. 2014. <http://doi.org/10.1371/journal.pone.0103191>
24. M. Spanakis, and **K. Marias**, "In silico evaluation of gadofosveset pharmacokinetics in different population groups using the Simcyp® simulator platform," **In Silico Pharmacology**, vol. 2, no. 1, pp. 1–9, Dec. 2014. <http://doi.org/10.1186/s40203-014-0002-x>

25. D. Chourmouzi, E. Papadopoulou, **K. Marias**, and A. Drevelegas, "Imaging of Brain Tumors," **Surgical Oncology Clinics of North America**, vol. 23, no. 4, pp. 629–684, Oct. 2014. <http://doi.org/10.1016/j.soc.2014.07.004>
26. D.M.J. Lambregts, M.H. Martens, R.C.W. Quah, K. Nikiforaki, L.A. Heijnen, C.H.C. Dejong, G. L. Beets, **K. Marias**, N. Papanikolaou and R.G.H. Beets-Tan, "Whole-liver diffusion-weighted MRI histogram analysis: effect of the presence of colorectal hepatic metastases on the remaining liver parenchyma," **European Journal of Gastroenterology & Hepatology** vol. 27, no. 4, pp. 399–404, Apr. 2015. <http://doi.org/10.1097/MEG.0000000000000316>
27. V. Lagani, F. Chiarugi, D. Manousos, V. Verma, J. Fursse, **K. Marias**, and I. Tsamardinos, "Realization of a service for the long-term risk assessment of diabetes-related complications," **Journal of Diabetes and Its Complications**, vol. 29, no. 5, pp. 691–698, Jul. 2015. <http://doi.org/10.1016/j.jdiacomp.2015.03.011>
28. S. Müller, R. David, **K. Marias**, and N. Graf, "The Standardized Histogram Shift of T2 Magnetic Resonance Image (MRI) Signal Intensities of Nephroblastoma Does Not Predict Histopathological Diagnostic Information," **Cancer Informatics: Computer Simulation, Visualization, and Image Processing of Cancer Data and Processes**, vol. 14, Suppl. 1, pp. 1-5, Jan. 2015. <http://doi.org/10.4137/CIN.S19340>
29. A. Roniotis, M.E. Oraiopoulou, E. Tzamali, E. Kontopodis, S. Van Cauter, V. Sakkalis, and **K. Marias** "A proposed paradigm shift in initializing cancer predictive models with DCE-MRI based PK parameters: A feasibility study," **Cancer Informatics: Computer Simulation, Visualization, and Image Processing of Cancer Data and Processes**, vol. 14, Suppl. 4, pp. 7–18, 2015. <http://doi.org/10.4137/CIN.S19339>
30. E. Kontopodis, G. Kanli, G. C. Manikis, S. Van Cauter, and **K. Marias**, "Assessing Treatment Response through Generalized Pharmacokinetic Modeling of DCE-MRI Data," **Cancer Informatics: Computer Simulation, Visualization, and Image Processing of Cancer Data and Processes**, vol. 14s4, p. CIN.S19342, Jan. 2015. <http://doi.org/10.4137/CIN.S19342>
31. G. Tzedakis, E. Tzamali, **K. Marias**, and V. Sakkalis, "The Importance of Neighborhood Scheme Selection in Agent-based Tumor Growth Modeling," **Cancer Inform.: Computer Simulation, Visualization, and Image Processing of Cancer Data and Processes**, vol. 14, Suppl. 4, pp. 67–81, p. CIN.S19343, Jan. 2015. <http://doi.org/10.4137/CIN.S19343>
32. D. Johnson, J. Osborne, Z. Wang, and **K. Marias**, "Computer Simulation, Visualization, and Image Processing of Cancer Data and Processes (Editorial)", **Cancer Informatics: Computer Simulation, Visualization, and Image Processing of Cancer Data and Processes**, vol. 14, suppl. 4, pp. 105–108, 2015. <http://doi.org/10.4137/CIN.S37982>
33. L. Koumakis, K. Sigdel, G. A. Potamias, S. G. Sfakianakis, J. van Leeuwen, G. Zacharioudakis, V.A., Moustakis, M.E. Zervakis, A. Bucur, **K. Marias**, N. Graf, and M.N. Tsiknakis, "Bridging miRNAs and pathway analysis in clinical decision support; a case study in nephroblastoma," **Network Modeling Analysis in Health Informatics and Bioinformatics**, vol. 4, no. 1, p. 30, Dec. 2015. <http://doi.org/10.1007/s13721-015-0102-5>
34. P. Sfakianaki, L. Koumakis, S.G. Sfakianakis, G. Iatraki, G. Zacharioudakis, N. Graf, **K. Marias**, and M.N. Tsiknakis, "Semantic biomedical resource discovery: a Natural Language Processing framework," **BMC**

- Medical Informatics and Decision Making**, vol. 15, no. 1, p. 77, Dec. 2015. <http://doi.org/10.1186/s12911-015-0200-4>
35. M.H Martens, D.M.J. Lambregts, N. Papanikolaou, S. Alefantinou, M. Maas, G. C. Manikis, **K. Marias**, R. G. Riedl, G. L. Beets, and R. G. H. Beets-Tan, “*Magnetization transfer imaging to assess tumour response after chemoradiotherapy in rectal cancer*,” **European Radiology**, vol. 26, no. 2, pp. 390–397, Feb. 2016. <http://doi.org/10.1007/s00330-015-3856-3>
36. E.G. Spanakis, S. Santana, M.N. Tsiknakis, **K. Marias**, V. Sakkalis, A. Teixeira, J. H Janssen, H. Jong and C. Tziraki, “*Technology-Based Innovations to Foster Personalized Healthy Lifestyles and Well-Being: A Targeted Review*,” **Journal of Medical Internet Research**, vol. 18, no. 6, p. e128, Jun. 2016. <http://doi.org/10.2196/jmir.4863>
37. Y. Andreu, F. Chiarugi, S. Colantonio, G. Giannakakis, G. Giorgi, P. Henriquez, E. Kazantzaki, D. Manousos, **K. Marias**, M.A. Matuszewski, B.J. Pascali, M. Padiaditis, G. Raccichini, and M.N. Tsiknakis, “*Wize mirror - a smart, multisensory cardio-metabolic risk monitoring system*,” Elsevier, **Comput. Vis. Image Underst.**, vol. 148, pp. 3–22, Jul. 2016. <http://doi.org/10.1016/j.cviu.2016.03.018>
38. H. Kondylakis , B. Clærhout, M. Keyur, L. Koumakis, J. van Leeuwen, **K. Marias**, D.Perez-Rey, K. De Schepper, M.N. Tsiknakis, and A. Bucur, “*The INTEGRATE project: Delivering solutions for efficient multi-centric clinical research and trials*,” **Journal of Biomedical Informatics**, vol. 62, pp. 32–47, Aug. 2016. <http://doi.org/10.1016/j.jbi.2016.05.006>
39. N. Kartalis, G. Manikis, L. Loizou, N. Albiin, F. G Zöllner, M. Del Chiaro, **K. Marias**, and N. Papanikolaou, “*Diffusion-weighted MR imaging of pancreatic cancer: A comparison of mono-exponential, bi-exponential and non-Gaussian kurtosis models*,” **European Journal of Radiology Open**, vol. 3, pp. 79–85, 2016. <http://doi.org/10.1016/j.ejro.2016.04.002>
40. L. Koumakis, A. Kanterakis, E. Kartsaki, M. Chatzimina, M. Zervakis, M. Tsiknakis, D. Vassou, D. Kafetzopoulos, **K. Marias**, V. Moustakis, and G. Potamias, “*MinePath: Mining for Phenotype Differential Sub-paths in Molecular Pathways*,” **PLOS Comput. Biol.**, vol. 12, no. 11, p. e1005187, Nov. 2016. <http://doi.org/10.1371/journal.pcbi.1005187>
41. C. Spanakis, E. Mathioudakis, N. Kampanis, M. Tsiknakis, and **K. Marias**, “*A Proposed Method for Improving Rigid Registration Robustness*,” **International Journal of Computer Science and Information Security**, Pittsburgh, vol. 14, no. 5, pp. 1–11, Accessed: May 28, 2020.
42. M. Spanakis, E. Kontopodis, S. Van Cauter, V. Sakkalis, and **K. Marias**, “*Assessment of DCE–MRI parameters for brain tumors through implementation of physiologically–based pharmacokinetic model approaches for Gd-DOTA*,” **Springer, Journal of Pharmacokinetics and Pharmacodynamics**, vol. 43, no. 5, pp. 529–547, 2016. <http://doi.org/10.1007/s10928-016-9493-x>
43. H. Kondylakis, L. Koumakis, S. Hänold, I. Nwankwo, N. Forgó, **K. Marias**, M.N. Tsiknakis, and N. Graf, “*Donor’s support tool: Enabling informed secondary use of patient’s biomaterial and personal data*,” **Int. J. Med. Inform.**, vol. 97, pp. 282–292, Jan. 2017. <http://doi.org/10.1016/j.ijmedinf.2016.10.019>
44. G. Giannakakis, M. Padiaditis, D. Manousos, E. Kazantzaki, F. Chiarugi, P.G. Simos, **K. Marias**, and M.N. Tsiknakis, “*Stress and anxiety detection using facial cues from videos*,” **Biomedical Signal Processing and Control**, vol. 31, pp. 89–101, Jan. 2017. <http://doi.org/10.1016/j.bspc.2016.06.020>

45. K. Nikiforaki, G.C. Manikis, T. Boursianis, **K. Marias**, A. Karantanas, and T.G. Maris, “*The Impact of Spin Coupling Signal Loss on Fat Content Characterization in Multi-Echo multi echo acquisitions with different echo spacing,*” Elsevier, **Magnetic Resonance Imaging**, vol. 38, pp. 6–12, May 2017. <http://doi.org/10.1016/j.mri.2016.12.011>
46. P. Henriquez, B. J. Matuszewski, Y. Andreu-Cabedo, L. Bastiani, S. Colantonio, G. Coppini, M. D’Acunto, R. Favilla, D. Germanese, D. Giorgi, P. Marraccini, M. Martinelli, M.A. Morales, M.A. Pascali, M. Righi, O. Salvetti, M. Larsson, T. Stromberg, L. Randeberg, A. Bjorgan, G. Giannakakis, M. Padiaditis, F. Chiarugi, E. Christinaki, **K. Marias**, and M.N. Tsiknakis, “*Mirror mirror on the wall... an unobtrusive intelligent multisensory mirror for well-being status self-assessment and visualization,*” **IEEE Transaction on Multimedia**, vol. 19, no. 7, pp. 1467–1481, Jul. 2017. <http://doi.org/10.1109/TMM.2017.2666545>
47. A. Pampouchidou, P. Simos, **K. Marias**, F. Meriaudeau, F. Yang, M. Padiaditis, and M.N. Tsiknakis, “*Automatic Assessment of Depression Based on Visual Cues: A Systematic Review,*” **IEEE Transactions on Affective Computing**, Institute of Electrical and Electronics Engineers Inc., vol. 10, no. 4. pp. 445–470, 2017. <http://doi.org/10.1109/TAFFC.2017.2724035>
48. A. Pampouchidou, M. Padiaditis, A. Maridaki, M. Awais, C.M. Vazakopoulou, S. Sfakianakis, M.N. Tsiknakis, P. Simos, **K. Marias**, F. Yang, and F. Meriaudeau, “*Quantitative comparison of motion history image variants for video-based depression assessment,*” **IEEE Transactions on Multimedia EURASIP J. Image Video Process.**, vol. 2017, no. 1, p. 64, Dec. 2017. <http://doi.org/10.1186/s13640-017-0212-3>
49. D.G. Katehakis, H. Kondylakis, L. Koumakis, A. Kouroubali, and **K. Marias**, “*Integrated Care Solutions for the Citizen: Personal Health Record Functional Models to Support Interoperability,*” **Eur. J. Biomed. Informatics**, vol. 13, no. 1, 2017. <http://doi.org/10.24105/ejbi.2017.13.1.8>
50. G.Z. Papadakis, S. Jha, T. Bhattacharyya, C. Millo, T.W. Tu, U. Bagci, **K. Marias**, A.H. Karantanas, and N. J Patronas, “*18F-NaF PET/CT in Extensive Melorheostosis of the Axial and Appendicular Skeleton With Soft-Tissue Involvement,*” **Clin. Nucl. Med.**, vol. 42, no. 7, pp. 537–539, Jul. 2017. <http://doi.org/10.1097/RLU.0000000000001647>
51. G.C. Manikis, **K. Marias**, D.M.J. Lambregts, K. Nikiforaki, M.M. van Heeswijk, F.C.H. Bakers, R.G.H. Beets-Tan, N. Papanikolaou, “*Diffusion weighted imaging in patients with rectal cancer: Comparison between Gaussian and non-Gaussian models,*” **PloS one**, vol. 12, no. 9, p. e0184197, Sep. 2017. <http://doi.org/10.1371/journal.pone.0184197>
52. M. Venianaki, O. Salvetti, E. de Bree, T.G. Maris, A.H. Karantanas, E. Kontopodis, K. Nikiforaki, and **K. Marias**, “*Pattern recognition and pharmacokinetic methods on DCE-MRI data for tumor hypoxia mapping in sarcoma,*” **Multimed. Tools Appl.**, vol. 77, no. 8, pp. 9417–9439, Apr. 2018. <http://doi.org/10.1007/s11042-017-5046-6>
53. G. Iatraki, H. Kondylakis, L. Koumakis, M. Chatzimina, E. Kazantzaki, **K. Marias**, and M.N. Tsiknakis, “*Personal Health Information Recommender: Impelenting A Tool for the Empowerment of Cancer Patients,*” **eCancer Medical Science**, vol. 12, Jul. 2018. <http://doi.org/10.3332/ecancer.2018.851>
54. F. Schera, M. Schäfer, A. Bucur, J. van Leeuwen, E. H. Ngantchjon, N. Graf, H. Kondylakis, L. Koumakis, **K. Marias**, and S. Kiefer, “*iManageMyHealth and iSupportMyPatients: mobile decision support and health management apps for cancer patients and their doctors,*” **eCancer medical science**, vol. 12, Jul. 2018. <http://doi.org/10.3332/ecancer.2018.848>

55. G.S. Ioannidis, **K. Marias**, N. Galanakis, K. Perisinakis, A. Hatzidakis, D. Tsetis, A.H.Karantanas, and T.G. Maris, "A correlative study between diffusion and perfusion MR imaging parameters on peripheral arterial disease data," **Magnetic resonance imaging**, Elsevier, vol. 55, pp. 26–35, Jan. 2019. <http://doi.org/10.1016/j.mri.2018.08.006>
56. K. Kalyvianaki, A.A. Panagiotopoulos, P. Malamos, E. Moustou, M. Tzardi, E. N. Stathopoulos, G.S. Ioannidis, **K. Marias**, G. Notas, P. A. Theodoropoulos, E. Castanas, and M. Kampa, "Membrane androgen receptors (OXER1, GPRC6A AND ZIP9) in prostate and breast cancer: A comparative study of their expression," **Steroids**, 2019, ISSN 0039-128X, vol. 142, pp. 100–108, Feb. 2019. <http://doi.org/10.1016/j.steroids.2019.01.006>
57. G.S. Ioannidis, T.G. Maris, K. Nikiforaki, A.H. Karantanas, and **K. Marias**, "Investigating the Correlation of Ktrans with Semi-Quantitative MRI Parameters Towards More Robust and Reproducible Perfusion Imaging Biomarkers in Three Cancer Types," **IEEE J. Biomed. Heal. Informatics**, vol. 23, no. 5, pp. 1855–1862, 2019. <http://doi.org/10.1109/JBHI.2018.2888979>
58. C. Spanakis, E. Mathioudakis, N. Kampanis, M.N. Tsiknakis, and **K. Marias**, "Machine-learning regression in evolutionary algorithms and image registration," **IET Image Processing**, vol. 13, no. 5, pp. 843–849, Apr. 2019. <http://doi.org/10.1049/iet-ipr.2018.5389>
59. K. Nikiforaki, G.C. Manikis, E. Kontopodis, E. Lagoudaki, E. de Bree, **K. Marias**, A.H. Karantanas, T.G. Maris, "T2, T2* and spin coupling ratio as biomarkers for the study of lipomatous tumors," **Physica Medica**, vol. 60, pp. 76–82, Apr. 2019. <http://doi.org/10.1016/j.ejimp.2019.03.023>
60. Flavia Faccio, Chiara Renzi, Chiara Crico, Eleni Kazantzaki, Haridimos Kondylakis, Lefteris Koumakis, **Kostas Marias** and Gabriella Pravettoni, "Development of an eHealth tool for cancer patients: monitoring psychoemotional aspects with the family resilience (FaRe) questionnaire," **eCancer Medical Science**, vol. 12, Jul. 2018 <https://doi.org/10.3332/ecancer.2018.852>
61. E. Trivizakis, G.C. Manikis, K. Nikiforaki, K. Drevelegas, M. Constantinides, A. Drevelegas, and **K. Marias**, "Extending 2-D Convolutional Neural Networks to 3-D for Advancing Deep Learning Cancer Classification with Application to MRI Liver Tumor Differentiation," **Journal IEEE journal of biomedical and health informatics**, vol. 23, no. 3, pp. 923–930, May 2019. doi: <https://doi.org/10.1109/JBHI.2018.2886276>
62. E. Kontopodis, M. Venianaki, G.C. Manikis, K. Nikiforaki, O. Salvetti, E. Papadaki, G.Z. Papadakis, A.H. Karantanas and **K. Marias**, "Investigating the Role of Model-Based and Model-Free Imaging Biomarkers as Early Predictors of Neoadjuvant Breast Cancer Therapy Outcome," **Journal IEEE journal of biomedical and health informatics**, vol. 23, no. 5, pp. 1834–1843, Sep. 2019. <http://doi.org/10.1109/JBHI.2019.2895459>
63. G.Z. Papadakis, **K. Marias**, C. Millo, and A.H. Karantanas, "18F-NaF PET/CT imaging versus 99mTc-MDP scintigraphy in assessing metastatic bone disease in patients with prostate cancer," **Hellenic Journal of Radiology**, Volume 4, Issue 4, pp. 42-55, 2019. <https://www.hjradiology.org/index.php/HJR/article/view/286>
64. G.Z. Papadakis, G.C. Manikis, A.H. Karantanas, P. Florenzano, U. Bagci, **K. Marias**, M.T. Collins, and A.M. Boyce, "F-18-NaF PET/CT imaging in fibrous dysplasia of bone," **J Bone Miner Res.**, vol. 34, no. 9, pp. 1619-1631, Sep. 2019. <https://dx.doi.org/10.1002%2Fjbmr.3738>

65. E. Trivizakis, G.S. Ioannidis, V.D. Melissianos, G.Z. Papadakis, A. Tsatsakis, D.A. Spandidos, and **K. Marias**, "A novel deep learning architecture outperforming 'off-the-shelf' transfer learning and feature-based methods in the automated assessment of mammographic breast density," **Oncol. Rep.**, vol. 42, no. 5, pp. 2009–2015, Oct. 2019. <http://doi.org/10.3892/or.2019.7312>
66. J.M. Moreira, I. Santiago, J. Santinha, N. Figueiredo, **K. Marias**, M. Figueiredo, L. Vanneschi, and N. Papanikolaou, "Challenges and Promises of Radiomics for Rectal Cancer," **Current Colorectal Cancer Reports**, vol. 15, no. 6, pp. 175–180, Dec. 2019. <https://doi.org/10.1007/s11888-019-00446-y>
67. G.C. Manikis, K. Nikiforaki, E. Lagoudaki, E.de Bree, T.G. Maris, **K. Marias**, and A.H. Karantanas, "T2-based MRI radiomic features for discriminating tumour grading in soft tissues sarcomas," **Hellenic Journal of Radiology**, Vol 4,2019. <https://www.hjradiology.org/index.php/HJR/article/view/301/0>
68. G.I Kalaitzakis, E. Papadaki, E. Kavroulakis, T. Boursianis, **K. Marias**, and T.G. Maris, "Optimising T2 relaxation measurements on MS patients utilising a multi-component tissue mimicking phantom and different fitting algorithms in T2 calculations," **Hellenic Journal of Radiology**, Vol 4, No 2, 2019. <https://www.hjradiology.org/index.php/HJR/article/view/293/0>
69. A. Kouroubali, H. Kondylakis, E. Karadimas, G. Kavlentakis, A. Simos, R. María, Baños, Rocío, H. Camarano, G. Papagiannakis, P.Zikas, Y. Petrakis, A.J. Díaz, S. Hors-Fraile, **K. Marias**, and D.G. Katehakis, "Digital Health Tools for Preoperative Stress Reduction in Integrated Care," **European Journal for Biomedical Informatics**, Vol.16, No 2, pp. 7-13, 2019. [Online]. <https://www.ejbi.org/abstract/digital-health-tools-for-preoperative-stress-reduction-in-integrated-care-5987.html>
70. M.S. Kalemaki, A.H. Karantanas, D. Exarchos, E.T. Detorakis, O. Zoras, **K. Marias**, C. Millo, U. Bagci, I. Pallikaris, A. Stratis, I. Karatzanis, K. Perisinakis, P. Koutentakis, G.A. Kontadakis, D. Spandidos, A. Tsatsakis, and G.Z. Papadakis, "PET/CT and PET/MRI in ophthalmic oncology (Review)," **International Journal of Oncology**, pp. 417-429, Jan. 2020. <http://doi.org/10.3892/ijo.2020.4955>
71. H. Kondylakis, A. Bucur, C. Crico, F. Dong, N. Graf, S. Hoffman, L. Koumakis, A. Manenti, **K. Marias**, K. Mazzocco, G. Pravettoni, C. Renzi, F. Schera, S. Triberti, M.N. Tsiknakis, and S. Kiefer, "Patient empowerment for cancer patients through a novel ICT infrastructure," **Journal of Biomedical Informatics**, vol. 101, p. 103342, Jan. 2020. <http://doi.org/10.1016/j.jbi.2019.103342>
72. N. Tsiknakis, E. Trivizakis, E. Vassalou, G. Papadakis, D. Spandidos, A. Tsatsakis, J. Sanchez-Garcia, R. Lopez-Gonzalez, N. Papanikolaou, A. Karantanas, and **K. Marias**, "Interpretable artificial intelligence framework for COVID-19 screening on chest X-rays," **Experimental and Therapeutic Medicine**, vol. 20, no. 2, pp. 727-735, May 2020. <http://doi.org/10.3892/etm.2020.8797>
73. A. Pampouchidou, M. Padiaditis, E. Kazantzaki, S. Sfakianakis, I.A. Apostolaki, K. Argyraki, D. Manousos, F. Meriaudeau, **K. Marias**, F. Yang, M. Tsiknakis, M. Basta A. N. Vgontzas, and P. Simos, "Automated facial video-based recognition of depression and anxiety symptom severity: cross-corpus validation," **Machine Vision and Applications**, vol. 31, no. 4, p. 30, May 2020. <http://doi.org/10.1007/s00138-020-01080-7>
74. G.S. Ioannidis, K. Nikiforaki, G. Kalaitzakis, A.H. Karantanas, **K. Marias**, and T.G. Maris, "Inverse Laplace transform and multiexponential fitting analysis of T2 relaxometry data: a phantom study with aqueous and fat containing samples," **Eur. Radiol. Exp.**, vol. 4, no. 1, p. 28, May 2020, PMID: 32378090; PMCID: PMC7203287. <http://doi.org/10.1186/s41747-020-00154-5>

75. G. Kalaitzakis, T. Boursianis, G. Gourzoulidis, S. Gourtsoyianni, G. Lympelopoulou, **K. Marias**, A.H. Karantanas, and T.G. Maris, "Apparent diffusion coefficient measurements on a novel diffusion weighted MRI phantom utilizing EPI and HASTE sequences. **Phys. Med.**, Epub 2020 May 1, vol. 73, pp. 179-189, May 2020. <http://doi.org/10.1016/j.ejmp.2020.04.024>
76. G.Z. Papadakis, G. Kochiadakis, G. Lazopoulos, **K. Marias**, N. Klapsinos, F. Hannah-Shmouni, G. Igoumenaki, T.K. Nikolouzakis, S. Kteniadakis, D.A. Spandidos, and A.H. Karantanas, "Targeting vulnerable atherosclerotic plaque via PET-tracers aiming at cell-surface overexpression of somatostatin receptors," **Biomedical Reports**, Reports, vol. 13, no.9, Jun. 2020. <http://doi.org/10.3892/br.2020.1316>
77. E. Kontopodis, **K. Marias**, G.C. Manikis, K. Nikiforaki, M. Venianaki, T.G. Maris, V. Mastorodemos, G.Z. Papadakis, and E. Papadaki, "Extended perfusion protocol for MS lesion quantification," **Open Medicine**, vol. 15, no. 1, pp. 520–530, Jun. 2020. <http://doi.org/10.1515/med-2020-0100>
78. C. Karamanidou, P. Natsiavas, L. Koumakis, **K. Marias**, F. Schera, M. Schäfer, S. Payne, and C. Maramis, "Electronic Patient-Reported Outcome-Based Interventions for Palliative Cancer Care: A Systematic and Mapping Review," **JCO Clin Cancer Inform.**, no. 4, pp. 647–656, Sep. 2020, PMID: 32697604; PMCID: PMC7397776. <http://doi.org/10.1200/CCI.20.00015>
79. M.E. Klontzas, G.Z. Papadakis, **K. Marias**, A.H. Karantanas, "Musculoskeletal trauma imaging in the era of novel molecular methods and artificial intelligence," **Injury**, vol. 51, no. 12, pp. 2748–2756, Dec.2020, ISSN:0020-1383. <http://doi.org/10.1016/j.injury.2020.09.019>
80. E. Trivizakis, N. Tsiknakis, E. Vassalou, G.Z.Papadakis, D. Spandidos, D. Sarigiannis, A. Tsatsakis, N. Papanikolaou, A.H. Karantanas, **K. Marias**, "Advancing Covid-19 differentiation with a robust preprocessing and integration of multi-institutional open-repository computer tomography datasets for deep learning analysis," **Experimental and Therapeutic Medicine**, vol. 20, no. 5, pp. 1–1, Sep. 2020. <http://doi.org/10.3892/etm.2020.9210>
81. I. Genitsaridi, I. Flouri, D. Plexousakis, **K. Marias**, K. Boki, F. Skopouli, A. Drosos, G. Bertsiias, D. Boumpas, and P. Sidiropoulos, "Rheumatoid arthritis patients on persistent moderate disease activity on biologics have adverse 5-year outcome compared to persistent low-remission status and represent a heterogeneous group," **Arthritis Res. Ther.**, vol. 22, no. 1, p. 226, Dec. 2020. <http://doi.org/10.1186/s13075-020-02313-w>
82. H. Kondylakis, C. Axenie, D. Bastola, D. G. Katehakis, A. Kouroubali, D. Kurz, N. Larburu, I. Macía, R. Maguire, C. Maramis, **K. Marias**, P. Morrow, N. Muro, F Núñez-Benjumea, A. Rampun, O. Rivera-Romero, B. Scotney, G. Signorelli, H. Wang, M.N. Tsiknakis, and R. Zwiggelaar, "Status and Recommendations of Technological and Data-Driven Innovations in Cancer Care: Focus Group Study," **J. Med. Internet Res.**, vol. 22, no. 12, p. e22034, Dec. 2020. <http://doi.org/10.2196/22034>
83. E. Trivizakis, G.Z. Papadakis, I. Souglakos, N. Papanikolaou, L. Koumakis, D.A. Spandidos, A. Tsatsakis, A.H. Karantanas, and **K. Marias**, "Artificial intelligence radiogenomics for advancing precision and effectiveness in oncologic care (Review)," **International Journal of Oncology**, vol. 57, no. 1, pp. 43–53, 2020. <http://doi.org/10.3892/ijo.2020.5063>
84. K. Nikiforaki, G.S. Ioannidis, E. Lagoudaki, G.C. Manikis, E. de Bree, A.H. Karantanas, T.G. Maris, and **K. Marias**, "Multiexponential T2 relaxometry of benign and malignant adipocytic tumours," **Eur Radiol Exp**. vol. 4, no. 1, p. 45, Dec. 2020, PMID: 32743728; PMCID: PMC7396415. <http://doi.org/10.1186/s41747-020-00175-0>

85. A.I. Korda, G. Giannakakis, E. Ventouras, P.A. Asvestas, N. Smyrnis, **K. Marias**, and G.K. Matsopoulos, "Recognition of Blinks Activity Patterns during Stress Conditions Using CNN and Markovian Analysis," **Signals**, vol. 2, no. 1, pp. 55–71, Jan. 2021. <http://doi.org/10.3390/signals2010006>
86. M.E. Klontzas, G.A. Kakkos, G.Z. Papadakis, **K. Marias** and A.H. Karantanas, "Advanced clinical imaging for the evaluation of stem cell based therapies," **Expert Opinion on Biological Therapy**, pp. 1–12, Feb. 2021. <http://doi.org/10.1080/14712598.2021.1890711>
87. V. Skaramagkas, G. Giannakakis, E. Ktistakis, D. Manousos, I. Karatzanis, N. Tachos, E.E. Tripoliti, **K. Marias**, D.I. Fotiadis, and M.N. Tsiknakis, "Review of eye tracking metrics involved in emotional and cognitive processes," **IEEE Rev. Biomed. Eng.**, pp. 1–1, Mar. 2021. <http://doi.org/10.1109/RBME.2021.3066072>
88. K. Kourou, G.C. Manikis, P. Poikonen-Saksela, K. Mazzocco, R. Pat-Horenczyk, B. Sousa, A.J. Oliveira-Maia, J. Mattson, I. Roziner, G. Pettini, H. Kondylakis, **K. Marias**, E. Karademas, P. Simos, and D.I. Fotiadis, "A machine learning-based pipeline for modeling medical, socio-demographic, lifestyle and self-reported psychological traits as predictors of mental health outcomes after breast cancer diagnosis: An initial effort to define resilience effects," **Computers in Biology and Medicine**, vol. 131, p.104266, Apr.2021. <http://doi.org/10.1016/j.compbiomed.2021.104266>
89. G.S. Ioannidis, E. Trivizakis, I. Metzakis, S. Papagiannakis, E. Lagoudaki, and **K. Marias**, "Pathomics and Deep Learning Classification of a Heterogeneous Fluorescence Histology Image Dataset," **Appl. Sci.**, vol. 11, no. 9, p. 3796, Apr. 2021. <http://doi.org/10.3390/app11093796>
90. G.C. Manikis, K. Nikiforaki, E. Lagoudaki, E. de Bree, T. G. Maris, **K. Marias**, A.H. Karantanas "Differentiating low from high-grade soft tissue sarcomas using post-processed imaging parameters derived from multiple DWI models," **Eur. J. Radiol.**, vol. 138, p. 109660, May 2021. <http://doi.org/10.1016/j.ejrad.2021.109660>
91. G.S. Ioannidis, S. Christensen, K. Nikiforaki, E. Trivizakis, K. Perisinakis, A. Hatzidakis, A. Karantanas, M. Reyes, M. Lansberg, **K. Marias**, "Cerebral CT Perfusion in Acute Stroke: The Effect of Lowering the Tube Load and Sampling Rate on the Reproducibility of Parametric Maps," MDPI, Multidisciplinary Digital Publishing Institute, **Diagnostics**, vol. 11, issue 6, p. 1121 June 2021. <http://doi.org/10.3390/diagnostics11061121>
92. N. Tsiknakis, D. Theodoropoulos, G. Manikis, E. Ktistakis, O. Boutsora, A. Berto, F. Scarpa, A. Scarpa, D. I. Fotiadis and **K. Marias**, "Deep Learning for Diabetic Retinopathy Detection and Classification Based on Fundus Images: A Review", **Computers in Biology and Medicine**, 104599, 2021. <http://doi.org/10.1016/j.compbiomed.2021.104599>
93. G. Giannakakis, M.R. Koujan, A. Roussos, and **K. Marias**, "Automatic stress analysis from facial videos based on deep facial action units recognition. **Pattern Analysis & Applications**, Volume 25, Issue 3, pp521–535, Aug 2022. <https://doi.org/10.1007/s10044-021-01012-9>
94. **K. Marias**, "The constantly evolving role of medical image processing in oncology: From traditional medical image processing to imaging biomarkers and Radiomics ", Special Issue Advanced Computational Methods for Oncological Image Analysis, MDPI, Multidisciplinary Digital Publishing Institute, **J. Imaging**, vol. 7, issue 8, p. 124, July 2021, <https://doi.org/10.3390/jimaging7080124>

95. E. Trivizakis, G.S. Ioannidis, I. Souglakos, A. H. Karantanas, M. Tzardi, **K. Marias**, “ A Neural Pathomics Framework for Classifying Colorectal Cancer Histopathology Images based on Wavelet Multi-Scale Texture Analysis”, **Scientific reports**, 11, 15546, 2021. <https://doi.org/10.1038/s41598-021-94781-6>
96. E. Trivizakis, I. Souglakos, A. H. Karantanas, & **K. Marias**, “Deep Radiotranscriptomics of Non-Small Cell Lung Carcinoma for Assessing Molecular and Histology Subtypes with a Data-Driven Analysis”, MDPI, Multidisciplinary Digital Publishing Institute, **Diagnostics**, vol. 11(12), 2383. Dec. 2021. <https://doi.org/10.3390/diagnostics11122383>
97. G. C. Manikis, G. S. Ioannidis, L. Siakallis, K. Nikiforaki, M. Iv, D. Vozlic, K. Surlan-Popovic, M. Wintermark, S. Bisdas, K. Marias, “Multicenter DSC-MRI based radiomics predict IDH mutation in gliomas”, MDPI, Multidisciplinary Digital Publishing Institute , **Cancers**, 13(16), 3965, 2021. <https://doi.org/10.3390/cancers13163965>
98. N. Tsiknakis *, E. Savvidaki, S. Kafetzopoulos, G. Manikis, N. Vidakis, **K. Marias**, E. Alissandrakis, “Segmenting 20 Types of Pollen Grains for the Cretan Pollen Dataset v1 (CPD-1)”, MDPI, Multidisciplinary Digital Publishing Institute, **Appl. Sci.** 11, 6657, 2021. <https://doi.org/10.3390/app11146657>
99. T. Boursianis¹, G. Kalaitzakis, K. Nikiforaki, E. Kosteletou, D. Antypa, G. Gourzoulidis, A. Karantanas, E. Papadaki, P. Simos, T. G. Maris and **K. Marias**, “The significance of echo time in fMRI BOLD contrast: A clinical study during motor and visual activation tasks at 1.5T”, MDPI, Multidisciplinary Digital Publishing Institute, **Tomography**, 7(3), 333–343, 2021. <https://doi.org/10.3390/tomography7030030>
100. E. Kontopodis, E. Papadaki, E. Trivizakis, T. G. Maris, P. Simos, G. Z. Papadakis, A. Tsatsakis, D. A. Spandidos, A. Karantanas and **K. Marias**, “Emerging deep learning techniques using magnetic resonance imaging data applied in multiple sclerosis and clinical isolated syndrome patients”, **Experimental and Therapeutic Medicine**, Spandidos Publications, 22(4), 1149, 2021. <https://doi.org/10.3892/etm.2021.10583>
101. N. Tsiknakis, C. Spanakis, P. Tsompou, G. Karanasiou, G. Karanasiou, A. Sakellarios, G. Rigas, S. Kyriakidis, M. Papafaklis, S. Nikopoulos, F. Gijzen, L. Michalis, D. I. Fotiadis and **K. Marias**, “IVUS Longitudinal and Axial Registration for Atherosclerosis Progression Evaluation”, **Diagnostics**, MDPI, 11(8), 1513, June 2021. <https://doi.org/10.3390/diagnostics11081513>
102. M.E. Klontzas, G.C. Manikis, K. Nikiforaki, E.E. Vassalou, K. Spanakis, I. Stathis, G.A. Kakkos, N. Matthaiou, A.H. Zibis, **K. Marias**, A.H. Karantanas, “Radiomics and Machine Learning Can Differentiate Transient Osteoporosis from Avascular Necrosis of the Hip”, **Diagnostics**, MDPI, 11, no. 9: 1686, 2021. <https://doi.org/10.3390/diagnostics11091686>
103. E.G. Chryssou, G.C. Manikis, G.S. Ioannidis, V. Chaniotis, T. Vrekoussis, T.G. Maris, **K. Marias**, A.H. Karantanas, “DiffusionWeighted Imaging in the Assessment of Tumor Grade in Endometrial Cancer Based on Intravoxel Incoherent Motion MRI”, **Diagnostics**, MDPI, vol. 12, p. 692, 2022. <https://doi.org/10.3390/diagnostics12030692>
104. E.E. Vassalou, M.E. Klontzas, **K. Marias**, A.H. Karantanas, “Predicting long-term outcomes of ultrasound-guided percutaneous irrigation of calcific tendinopathy with the use of machine learning”,

- Skeletal Radiology**, Springer Link, vol. 51, p. 417-422, August 2022. <https://doi.org/10.1007/s00256-021-03893-7>
105. A. Pentari, G. Tzagkarakis, P. Tsakalides, P. Simos, G. Bertias, E. Kavroulakis, **K. Marias**, N.J.Simos, E. Papadaki, “Changes in resting-state functional connectivity in neuropsychiatric lupus: A dynamic approach based on recurrence quantification analysis”, **Biomedical Signal Processing and Control**, ELSEVIER, vol. 72, p 103285, February 2022. <https://doi.org/10.1016/j.bspc.2021.103285>.
106. G.S. Ioannidis, M. Goumenakis, I. Stefanis, A. Karantanas, **K. Marias**, “Quantification and Classification of Contrast Enhanced Ultrasound Breast Cancer Data: A Preliminary Study”, **Diagnostics**, MDPI, vol. 12, p. 425, February 2022. <https://doi.org/10.3390/diagnostics12020425>
107. D. Zaridis, E. Mylona, N. Tachos, **K. Marias**, M. Tsiknakis, D. Fotiadis, “A smart cropping pipeline to improve prostate’s peripheral zone segmentation on MRI using deep learning”, **EAI Endorsed Transactions on Bioengineering and Bioinformatics**, EAI, vol. 1, p. 425, February 2022. <https://doi.org/10.3390/diagnostics12020425>
108. E.G. Chryssou, G.C. Manikis, G.S. Ioannidis, V.Chaniotis, Th. Vrekoussis, Th.G. Maris, **K. Marias**, A. Karantanas, “Diffusion Weighted Imaging in the Assessment of Tumor Grade in Endometrial Cancer Based on Intravoxel Incoherent Motion MRI”, **Diagnostics**, MDPI, vol. 12, issue 3, p. 692, March 2022. <https://doi.org/10.3390/diagnostics12030692>
109. 110. N. Tsiknakis, E. Savvidaki, G. C. Manikis, P. Gotsiou, I. Remoundou, **K. Marias**, E. Alissandrakis, N. Vidakis, “Pollen Grain Classification Based on Ensemble Transfer Learning on the Cretan Pollen Dataset”, **Plants**, MDPI, vol. 29, issue 7, p. 919, March 2022. <https://doi.org/10.3390/plants11070919>
110. 111. A. Triantafyllidis, H. Kondylakis, D. Katehakis, A. Kouroubali, L.Koumakis, **K. Marias**, A. Alexiadis, K. Votis, D. Tzovaras, “Deep Learning in mHealth for Cardiovascular Disease, Diabetes, and Cancer: Systematic Review”, **JMIR Mhealth Uhealth**, JMIR Publications Inc., vol. 10, issue 4, p. e32344, April 2022. <https://doi.org/10.2196/32344>
111. G. Giannakakis, M. R. Koujan, A. Roussos, **K. Marias**, “Correction to: Automatic stress analysis from facial videos based on deep facial action units recognition”, **Pattern Analysis and Applications**, Springer London, vol. 25, issue 2, p. 487–488, May 2022. <https://doi.org/10.1007/s10044-021-01012-9>
112. H. Kondylakis, S. Sfakianakis, V. Kalokyri, N. Tachos, D. Fotiadis, **K. Marias**, M. Tsiknakis, “Data Ingestion for AI in Prostate Cancer”, **Challenges of Trustable AI and Added-Value on Health: Proceedings**, IOS Press, vol. 25, p. 244-248, May 2022. <https://doi.org/10.3233/SHTI220446>
113. M. E Klontzas, E. E. Vassalou, G. A. Kakkos, K. Spanakis, A. Zibis, **K. Marias**, A. Karantanas, “Differentiation between subchondral insufficiency fractures and advanced osteoarthritis of the knee using transfer learning and an ensemble of convolutional neural networks”, **Injury**, Elsevier, vol. 53, p. 2035-2040, June 2022. <https://doi.org/10.1016/j.injury.2022.03.008>
114. M. P. Boaro, R. Biondi, N. Biondini, G. Collado, E. F. JM, V. Pinto, N. Romano, V. Voi, G. B Ferrero, M. Casale, M. Cirillo, G. Palazzi, F. Cavalleri, G. L.Forni, G. Reggiani, S. Perrotta, M. Manu Pereira, S. Zazo, **K. Marias**, M. De Montalembert, P. Bartolucci, E. van Beers, F. Alvarez, F. Cremonesi, T. Sanavia, P. Fariselli, G. Castellani, R. Manara, R. Colombatti, “S265: Radiomics and Artificial intelligence for intelligence for identification and monitoring of silent cerebral infarcts in sickle cell disease: first analysis

- from the Genomed4All European project”, **HemaSphere**, LWW, vol. 6, p. 166-167, June 2022. <https://doi.org/10.1097/01.HS9.0000843952.59228.1d>
115. G. Giannakakis, M.R. Koujan, A. Roussos, and **K. Marias**, "Automatic stress analysis from facial videos based on deep facial action units recognition", **Pattern Analysis and Applications**, Springer London, vol. 25, pp .521- 535, 2022. <https://doi.org/10.1007/s10044-021-01012-9>
116. R. Biondi, M. Boaro, N. Biondini, V. Pinto, N. Romano, G. Ferrero, M. Casale, M. Cirillo, G. Palazzi, F. Cavalleri, G. Forni, G. Reggiani, S. Perrotta, Manu Pereira, **K. Marias**, de Montalembert, P. Bartolucci, E. Vanbeers, F. Alvarez, F. Cremonesi, T. Sanavia, P. Fariselli, G. Castellani, R. Manara, and R. Colombatti, "O-02: RADIOMICS AND ARTIFICIAL INTELLIGENCE FOR IDENTIFICATION AND MONITORING OF SILENT CEREBRAL INFARCTS IN SICKLE CELL DISEASE: FIRST ANALYSIS FROM THE GENOMED4ALL EUROPEAN PROJECT", **HemaSphere**, LWW, vol. 6, p. 01-02, Aug.2022. <https://doi.org/01.HS9.0000872816.60309.4c>
117. M.E. Klontzas, I. Stathis, K. Spanakis, A.H. Zibis, **K. Marias**, A.H. Karantanas, "Deep Learning for the Differential Diagnosis between Transient Osteoporosis and Avascular Necrosis of the Hip" ,**Diagnostics**, MDPI, vol. 12, issue 8, p. 1870, August 2022. <https://doi.org/10.3390/diagnostics12081870>
118. A. Pentari, G. Tzagkarakis, **K. Marias**, P. Tsakalides, "Graph denoising of impulsive EEG signals and the effect of their graph representation", **Biomedical Signal Processing and Control**, Elsevier, vol. 78, p. 103886, September 2022. <https://doi.org/10.1016/j.bspc.2022.103886>
119. E. Stamoulou, C. Spanakis, G.C. Manikis, G. Karanasiou, G. Grigoriadis, T. Foukakis, M. Tsiknakis, D.I. Fotiadis, **K. Marias**, "Harmonization Strategies in Multicenter MRI-Based Radiomics", **Journal of Imaging**, MDPI, vol. 8, issue 11, p. 303, November 2022. <https://doi.org/10.3390/jimaging8110303>
120. G. Karanasiou, G. Grigoriadis, A. Alexandraki, A. Antoniadis, C. Brown, A. Bucur, C. Cipolla, P. Economopoulou, T. Foukakis, J. Goossens, K. Keramida, L. Lakkas, **K. Marias**, K. Naka, A. Papakonstantinou, G. Pravettoni, D. Ribnikar, B. Šeruga, M. Zacharia, M. Tsiknakis, D.I. Fotiadis, "A multimodal approach for the management of co-morbid cardiotoxicity in the elderly breast cancer patients", **European Journal of Cancer**, Elsevier, vol. 175, p. S40, November 2022. [https://doi.org/10.1016/S0959-8049\(22\)01456-3](https://doi.org/10.1016/S0959-8049(22)01456-3).
121. A. Dimitriadis, E. Trivizakis, N. Papanikolaou, M. Tsiknakis, **K. Marias**, "Enhancing cancer differentiation with synthetic MRI examinations via generative models: a systematic review", **Insights into Imaging**, Springer Vienna, vol. 13, issue 1, p. 188, Dec. 2022 <https://doi.org/10.1186/s13244-022-01315-3>
122. N. Tsiknakis, C. Spanakis, P. Tsoumpou, G. Karanasiou, G. Karanasiou, A. Sakellarios, G. Rigas, S. Kyriakidis, M.I. Papafaklis, S. Nikopoulos, F. Gijssen, L. Michalis, D.I. Fotiadis, **K. Marias**, "OCT sequence registration before and after percutaneous coronary intervention (stent implantation)", **Biomedical Signal Processing and Control**, Elsevier, vol. 79, p. 104251, January 2023. <https://doi.org/10.1016/j.bspc.2022.104251>
123. D.I. Zaridis, E. Mylona, N. Tachos, V.C. Pezoulas, G. Grigoriadis, N. Tsiknakis, **K. Marias**, M. Tsiknakis, D.I. Fotiadis, "Region-adaptive magnetic resonance image enhancement for improving CNN-based segmentation of the prostate and prostatic zones", **Scientific Reports**, Nature Publishing Group UK, vol. 13, issue 1, p. 714, Jan. 2023. <https://doi.org/10.1038/s41598-023-27671-8>

124. A. Dovrou, E. Bei, S. Sfakianakis, **K. Marias**, N. Papanikolaou, M. Zervakis, "Synergies of Radiomics and Transcriptomics in Lung Cancer Diagnosis: A Pilot Study", *Diagnostics*, MDPI, vol. 13, issue 4, p. 738, February 2023. <https://doi.org/10.3390/diagnostics13040738>
125. K. Kourou, G. Manikis, E. Mylona, P. Poikonen-Saksela, K. Mazzocco, R. Pat-Horenczyk, B. Sousa, A.J. Oliveira-Maia, J. Mattson, I. Roziner, G. Pettini, H. Kondylakis, **K. Marias**, M. Nuutinen, E. Karademas, P. Simos, D.I. Fotiadis, "Personalized prediction of one-year mental health deterioration using adaptive learning algorithms: a multicenter breast cancer prospective study", *Scientific Reports*, Nature Publishing Group UK, vol. 13, issue 1, p. 7059, April 2023. <https://doi.org/10.1038/s41598-023-33281-1>
126. H. Kondylakis, V. Kalokyri, S. Sfakianakis, **K. Marias**, M. Tsiknakis, A. Jimenez-Pastor, E. Camacho-Ramos, I. Blanquer, J.D. Segrelles, S. López-Huguet, C. Barelle, M. Kogut-Czarkowska, G. Tsakou, N. Siopis, Z. Sakellariou, P. Bizopoulos, V. Drossou, A. Lalas, K. Votis, P. Mallol, L. Marti-Bonmati, L. Cerdá Alberich, K. Seymour, S. Boucher, E. Ciarrocchi, L. Fromont, J. Rambla, A. Harms, A. Gutierrez, M.P.A. Starmans, F. Prior, J.Ll. Gelpi, K. Lekadir, "Data infrastructures for AI in medical imaging: a report on the experiences of five EU projects", *European Radiology Experimental*, Springer Vienna, vol. 7, issue 1, p. 20, May 2023. <https://doi.org/10.1186/s41747-023-00336-x>
127. N. Kontopodis, M. Klontzas, K. Tzirakis, S. Charalambous, **K. Marias**, D. Tsetis, A. Karantanas, C.V. Ioannou, "Prediction of abdominal aortic aneurysm growth by artificial intelligence taking into account clinical, biologic, morphologic, and biomechanical variables", *Vascular*, SAGE Publications, vol. 31, issue 3, p. 409-416, June 2023. <https://doi.org/10.1177/17085381221107782>
128. G.C. Manikis, N.J. Simos, K. Kourou, H. Kondylakis, P. Poikonen-Saksela, K. Mazzocco, R. Pat-Horenczyk, B. Sousa, A.J. Oliveira-Maia, J. Mattson, I. Roziner, C. Marzorati, **K. Marias**, M. Nuutinen, E. Karademas, D. Fotiadis, "Personalized Risk Analysis to Improve the Psychological Resilience of Women Undergoing Treatment for Breast Cancer: Development of a Machine Learning–Driven Clinical Decision Support Tool", *Journal of Medical Internet Research*, JMIR Publications, vol. 25, p. e43838, June 2023. <https://www.jmir.org/2023/1/e43838>
129. A. Alexandraki, E. Papageorgiou, M. Zacharia, K. Keramida, A. Papakonstantinou, C. M Cipolla, D. Tsekoura, K. Naka, K. Mazzocco, D. Mauri, M. Tsiknakis, G. C Manikis, **K. Marias**, Y. Marcou, et al. "New Insights in the Era of Clinical Biomarkers as Potential Predictors of Systemic Therapy-Induced Cardiotoxicity in Women with Breast Cancer: A Systematic Review", *Cancers*, MDPI, vol. 15 (13), p. 3290, June 2023, <https://doi.org/10.3390/cancers15133290>
130. K. Lekadir, A. Feragen, A. Joseph Fofanah, A. F Frangi, A. Buyx, A. Emelie, A. Lara, A. R Porras, An-Wen Chan, A. Navarro, B. Glocker, B. O Botwe, B. Khanal, B. Beger, C. C Wu, C. Cintas, C. P Langlotz, D. Rueckert, D. Mzurikwao, D. I Fotiadis, D. Zhussupov, E. Ferrante, E. Meijering, E. Weicken, F. A González, F. W Asselbergs, F. Prior, G. P Krestin, G. Collins, G. S Tegenaw, G. Kaissis, G. Misuraca, G. Tsakou, G. Dwivedi, H. Kondylakis, H. Jayakody, H. C Woodruff, H. JWL Aerts, I. Walsh, I. Chouvarda, I. Buvat, I. Rekik, J. Duncan, J. Kalpathy-Cramer, J. Zahir, J. Park, J. Mongan, J. W Gichoya, J. A Schnabel, K. Kushibar, K. Riklund, K. Mori, **K. Marias**, et.al, "FUTURE-AI: International consensus guideline for trustworthy and deployable artificial intelligence in healthcare", *Computers and Society*, arxiv, August 2023, <https://doi.org/10.48550/arXiv.2309.12325>
131. M. E Klontzas, E. E Vassalou, K. Spanakis, F. Meurer, K. Woertler, A. Zibis, **K. Marias**, A. H Karantanas, "Deep learning enables the differentiation between early and late stages of hip avascular necrosis", *European Radiology*, Springer Berlin Heidelberg, p. 1-8, August 2023, <https://doi.org/10.1007/s00330-023-10104-5>

132. A. Dovrou, K. Nikiforaki, D. Zaridis, G.C. Manikis, E. Mylona, N. Tachos, M. Tsiknakis, D.I. Fotiadis, **K. Marias**, "A segmentation-based method improving the performance of N4 bias field correction on T2weighted MR imaging data of the prostate", **Magnetic Resonance Imaging**, Elsevier, vol. 101, p. 1-12, September 2023. <https://doi.org/10.1016/j.mri.2023.03.012>
133. K. Nikiforaki, **K. Marias**, "MRI Methods to Visualize and Quantify Adipose Tissue in Health and Disease", **Biomedicines**, MDPI, p. 3179, Nov. 2023. <https://doi.org/10.3390/biomedicines11123179>
134. V. Kalokyri, H. Kondylakis, S. Sfakianakis, K. Nikiforaki, I. Karatzanis, S. Mazzetti, N. Tachos, D. Regge, D. I Fotiadis, **K. Marias**, M. Tsiknakis, "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**, Wolters Kluwer Health, vol. 7, p. e2300101, Dec. 2023. <https://doi.org/10.1200/CCI.23.00101>
135. E. Trivizakis, N. M. Koutroumpa, J. Souglakos, A. Karantanas, M. Zervakis, **K. Marias**, "Radiotranscriptomics of non-small cell lung carcinoma for assessing high-level clinical outcomes using a machine learning-derived multi-modal signature", **BioMedical Engineering OnLine**, BioMed Central, vol. 22(1), p. 125, Dec. 2023. <https://doi.org/10.1186/s12938-023-01190-z>
136. A. Berto, F. Scarpa, N. Tsiknakis, G. Manikis, D. I Fotiadis, **K. Marias**, A. Scarpa, "Automated analysis of fundus images for the diagnosis of retinal diseases: a review", **Research on Biomedical Engineering**, Springer International Publishing, p. 1-27, Dec. 2023, <https://doi.org/10.1007/s42600-023-00320-9>

BOOK CHAPTERS

1. **Marias K.**, Behrenbruch C.P., Brady M., Parbhoo S., Seifalian A., "Multi-scale landmark selection for improved registration of temporal mammograms", in: M. Yaffe (Ed.), IWDM, pp. 580-586, Medical Physics Publishing, ISBN: 1-930524-00-5 (Hard cover book), Toronto, Canada, June 2000.
2. Behrenbruch, C.P., **Marias, K.**, Armitage, P.A., Brady, J.M., Clarke, J., Moore, N., "The Generation of Simulated Mammograms from Contrast-Enhanced MRI for Surgical Planning and Postoperative Assessment", in: M. Yaffe (Ed.), IWDM, pp. 697-704, Medical Physics Publishing, ISBN: 1-930524-00-5 (Hard cover book), Toronto, Canada, June 2000.
3. Behrenbruch, C.P., **Marias, K.**, Armitage, P.A., Yam, M., Moore, N., English, R.E., Brady, J.M., "MRI-Mammography 2D/3D Data Fusion for Breast Pathology Assessment", MICCAI, Lecture Notes in Computer Science, (1935):307-316, Springer Verlag, ISBN: 3-540-41189-5, 2000.
4. **Marias, K.**, Highnam, R.P., Brady, J.M., Parbhoo, S., Seifalian, A.M., "Assessing the role of quantitative analysis of mammograms in describing breast density changes in women using HRT", IWDM, Lecture Notes in Computer Science, Springer Verlag Berlin Heidelberg, ISBN:3540005234, pp. 547-552, 2002.
5. **Marias K.**, Petroudi S., English R., Adams R., Brady M., "Subjective and computer-based characterisation of mammographic patterns", IWDM, Lecture Notes in Computer Science, Springer Verlag Berlin Heidelberg, pp. 552-557, ISBN:3540005234, 2002.
6. Linguraru M.G., **Marias K.** and J.M. Brady, "Temporal Mass Detection", in International Workshop on Digital Mammography, pp. 347-350, IWDM, Lecture Notes in Computer Science, Springer Verlag Berlin Heidelberg, ISBN:3540005234, 2002.

7. V Sakkalis, **K Marias**. "EEG Based Biomarker Identification Using Graph-Theoretic Concepts: Case Study in Alcoholism". Optimization and Data Analysis in Biomedical Informatics, 171-189, 2012
8. **K Marias**, V Sakkalis, N Graf. *A Framework for Multimodal Imaging Biomarker Extraction with Application to Brain MRI*. Data Mining for Biomarker Discovery, 91-116, 2012
9. Haridimos Kondylakis, Lefteris Koumakis, Manolis Tsiknakis, **Kostas Marias**, Eirini Genitsaridi, Gabriella Pravettoni, Alessandra Gorini, Ketti Mazzocco, Smart Recommendation Services in Support of Patient Empowerment and Personalized Medicine, In book: Multimedia Services in Intelligent Environments, Chapter: Smart Recommendation Services in Support of Patient Empowerment and Personalized Medicine, Publisher: Springer International Publishing, Editors: George A. Tsihrintzis, Maria Virvou, Lakhmi C. Jain, pp.pp 39-61, 01/2013; DOI:10.1007/978-3-319-00375-7_4 ISBN: 978-3-319-00375-7
10. EG Spanakis, V Sakkalis, **K Marias**, M Tsiknakis, KS Nikita, *Connection between Biomedical Telemetry and Telemedicine*, Handbook of Biomedical Telemetry Konstantina S. Nikita (Editor), pp. 419-444 , 2014
11. George C. Manikis, Eleftherios Kontopodis, Katerina Nikiforaki, **Konstantinos Marias**, Nickolas Papanikolaou. *Imaging Biomarker Model-Based Analysis, Book: Imaging Biomarkers, Development and Clinical Integration*, Editors: Martí-Bonmatí, Luis, Alberich-Bayarri, Angel (Eds.), Pages 71-86, Springer International Publishing. 2017.
12. Kondylakis H., Koumakis L., Mazzocco K., Tsiknakis M., **Marias K.** (2020) Participatory Aspects of ICT Infrastructures for Cancer Management. In: Pravettoni G., Triberti S. (eds) P5 eHealth: An Agenda for the Health Technologies of the Future. Springer, Cham
13. E. Trivizakis, **K. Marias** (2023), Deep Learning Fundamentals, Introduction to Artificial Intelligence, Pages 101 – 131, Springer International Publishing, Sept. 2023.

THESES MONOGRAPHS

1. **Marias K.**, "Registration and quantitative comparison of temporal mammogram sequences with application to local tissue changes quantification, in Hormone Replacement Therapy (HRT) patients", PhD Thesis, *University College London, University of London, and University of Oxford*, 2001. Link: <http://www.robots.ox.ac.uk/~mvl/publications/theses.php#tag2001>
2. **Marias, K.**, "Development of texture analysis tools for differentiating between benign and malignant breast masses in mammography", MSc Thesis, Department of Bioengineering, *Imperial College of Science, Technology and Medicine, University of London*, 1997.

CONFERENCE PEER REVIEWED PAPERS

1. **K. Marias**, M. Brady, R.P. Highnam, S. Parbhoo, and A.M. Seifalian, "Registration and matching of Temporal Mammograms for detecting abnormalities," in **1999 Proceedings of Medical Image Understanding and Analysis (British Machine Vision Association)**, Med. Image Underst. Anal., University of Oxford, UK no. 1, pp. 1–4, 1999.

<https://www.researchgate.net/publication/254068157> Registration and matching of temporal mammograms for detecting abnormalities

2. **K. Marias**, C. P. Behrenbruch, R.P. Highnam, J. M. Brady, S. Parbhoo, and A.M. Seifalian, “*Quantifying mammographic changes in temporal HRT sequences,*” in **2000 Proceedings of Medical Image Understanding and Analysis (MIUA)**, University College London, United Kingdom, 2000.
3. C. P. Behrenbruch, **K. Marias**, M. Yam, J.M. Brady, and R.E. English, “*The use of Magnetic Resonance Imaging to Model Breast Compression in X-ray Mammography for MR/X-ray Data Fusion,*” in **2000 Proceedings of the International Workshop in Digital Mammography**, Medical Physics Publishing, Toronto, Canada, June 2000.
4. **K. Marias**, C.P. Behrenbruch, R.P. Highnam, J.M. Brady, S. Parbhoo, and A.M. Seifalian, “*Volume preserving elastic transformation for local breast-tissue quantification,*” in **2001 Proceedings of Medical Image Understanding and Analysis (MIUA-BMVA)**, pp 113-116, University of Birmingham, United Kingdom, 2001.
5. C.P. Behrenbruch, **K. Marias**, P. Armitage, N. Moore, J. Clarke, and M. Brady, “*Prone-Supine Breast MRI Registration for Surgical Visualisation,*” in **2001 Proceedings of Medical Image Understanding and Analysis (MIUA-BMVA)**, University of Birmingham, United Kingdom, 2001, pp. 4-7. <https://www.researchgate.net/publication/252794936> Prone-Supine Breast MRI Registration for Surgical Visualisation
6. S. Petroudi, **K. Marias**, R. English, R. Adams, and M. Brady, “*Classification of Mammogram Patterns using area measurements and the Standard Mammogram Form (SMF),*” in **2002 Proceedings of Medical Image Understanding and Analysis (MIUA-BMVA)**, pp 197-200, 2002.
7. S. Dimitriadis, **K. Marias**, and S.C. Orphanoudakis, “*A Versatile Image Retrieval Platform based on a Multi-agent Architecture*”, in **2003 Proceedings of the 6th International Conference on Visual Information Systems**, Florida, USA, pp. 387-392, 2003.
8. **K. Marias**, J. Ripoll, V. Ntziachristos, and S. Orphanoudakis, “*Non-rigid image transformation for assessing changes in fluorescence imaging data of molecular activity in time-dependent geometries,*” in **2004 2nd IEEE International Symposium on Biomedical Imaging: Macro to Nano (ISBI)**, (IEEE Cat No. 04EX821), Arlington, VA, vol. 2, pp. 484–487, 2004. <http://doi.org/10.1109/ISBI.2004.1398580>
9. M.I.A. Lourakis, A.A. Argyros, and **K. Marias**, “*A graph-based approach to corner matching using mutual information as a local similarity measure,*” in **2004 Proceedings of the 17th International Conference on Pattern Recognition (ICPR’04)**, Cambridge, pp. 827-830, 2004, pp. 827-830 Vol.2, 2004. <http://doi.org/10.1109/ICPR.2004.1334386>
10. **K. Marias**, M.G. Linguraru, M.A.G. Ballester, S. Petroudi, M.N. Tsiknakis, and M. Brady, “*Automatic Labelling and BI-RADS Characterisation of Mammogram Densities,*” in **2005 Proceedings of 27th IEEE Engineering in Medicine and Biology Society (EMBS) Annual International Conference**, Shanghai, China, pp. 6394–6398, 2005. <http://doi.org/10.1109/IEMBS.2005.1615961>
11. J. Moustakas, **K. Marias**, S. Dimitriadis, and S.C. Orphanoudakis, “*A Two-Level CBIR Platform with Application to Brain MRI Retrieval,*” in **2005 IEEE International Conference on Multimedia and Expo, ICME 2005**, Amsterdam, pp. 1278-1281, 2005. <http://doi.org/10.1109/ICME.2005.1521662>

12. F. Zacharopoulou, **K. Marias**, E. Georgiadi, I.G. Tollis, and T.G. Maris, “*Optimized MR Imaging methodology for tumour characterization*”, in **2006 2nd International Advanced Research Workshop on In Silico Oncology**, Chania, Greece, pp. 46-47, 2006.
13. Th. Margaritis, **K. Marias**, and D. Kafetzopoulos, “*Improved microarray spot segmentation by combining two information channels*,” in **2006 28th Annual International Conference of the IEEE Engineering in Medicine and Biology Society**”, New York, NY, pp. 5850–5853, 2006. <http://doi.org/10.1109/IEMBS.2006.260779>
14. S. Petroudi, **K. Marias**, and M. Brady, “*Evaluation of Effects of HRT on Breast Density*,” in **2006 8th International Workshop IWDM, Digital Mammography**, Manchester, UK, pp. 39-45, 2006. http://doi.org/10.1007/11783237_6
15. **K. Marias**, Th. Margaritis, F. Zacharopoulou, E. Georgiadi, T.G. Maris, G. Tollis, C.P. Behrenbruch, “*Multi-level analysis and information extraction considerations for validating 4D models of human function*”, In **2nd International Advanced Research Workshop on In Silico Oncology**, Chania, Greece, pp. 46-47, 2006. http://doi.org/10.1007/978-3-540-73321-8_81
16. M.N. Tsiknakis, D. Kafetzopoulos, G.A. Potamias, A. Analyti, **K. Marias**, and S.G. Sfakianakis, “*Developing a European Biomedical GRID for post-genomic research on Cancer*,” in **2006 Proceedings of the IEEE International Topic Conference on Information Technology in Biomedicine (ITAB-2006)**, Ioannina, Greece, 2006.
17. Th. Margaritis, **K. Marias**, M. Kapsetaki, G. Papagiannakis and D. Kafetzopoulos, “*Microarrays: Quality counts*,” in **2006 2nd International Advanced Research Workshop on In Silico Oncology**, Chania, Greece, pp. 46-47, 2006.
18. M.N. Tsiknakis, D. Kafetzopoulos, G. A. Potamias, A. Analyti, **K. Marias**, and A. Manganas, “*Building a European biomedical grid on cancer: the ACGT Integrated Project*,” **Challenges and Opportunities of Healthgrids: in 2006 Proceedings of the HealthGrid Conference**, Valencia, Spain, pp. 247-258, 2006, PMID: 16823143
19. A. Darrell, **K. Marias**, A. Garofalakis, H. Meyer, M. Brady, and J. Ripoll., “*Accounting for point source propagation properties in 3D fluorescence OPT*,” in **2006 28th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBS '06**, New York, NY, pp. 6513–6516, 2006. <http://doi.org/10.1109/IEMBS.2006.260868>
20. M. Aguirre, M. Linguraru, **K. Marias**, N. Ayache, L. Nolte, and M. Gonzalez Ballester, M.A.G., “*Statistical shape analysis via principal factor analysis*,” in **2007 4th IEEE International Symposium on Biomedical Imaging: From Nano to Macro**, Arlington, VA, pp. 1216–1219, 2007. <http://doi.org/10.1109/ISBI.2007.357077>
21. D.D. Dionysiou, G.S. Stamatakos, and **K. Marias**, “*Simulating cancer radiotherapy on a multi-level basis: Biology, oncology and image processing*,” in **2007 Digital Human Modeling, HCII 2007**, Beijing, pp. 569-575, 2007. https://doi.org/10.1007/978-3-540-73321-8_65
22. **K. Marias**, D.D. Dionysiou, G.S. Stamatakos, F. Zacharopoulou, E. Georgiadi, Th. Margaritis, T.G. Maris, and I.G. Tollis, “*Multi-level analysis and information extraction considerations for validating 4D models of human function*,” in **2007 Digital Human Modeling, HCII 2007**, Beijing, pp. 703-709, 2007. https://doi.org/10.1007/978-3-540-73321-8_81

23. H. Stefanou, T. Margaritis, D. Kafetzopoulos, **K. Marias**, and P. Tsakalides, "Microarray Image Denoising Using a Two-Stage Multiresolution Technique," in **2007 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2007)**, Fremont, CA, pp. 383–389, Nov. 2007. <https://doi.org/10.1109/BIBM.2007.32>
24. A. Darrell, **K. Marias**, M.J. Brady, H. Meyer, U. Birk, and J. Ripoll, "Noise reduction in fluorescence Optical Projection Tomography," in **2008 IEEE Workshop on Imaging Systems and Techniques, IST**, Chania, Crete, pp. 56–59, Sep. 2008. <https://doi.org/10.1109/IST.2008.4659940>
25. A. Darrell, H. Meyer, U. Birk, **K. Marias**, M. Brady, and J. Ripoll, "Maximum likelihood reconstruction for fluorescence Optical Projection Tomography," in **2008 8th IEEE International Conference on Bioinformatics and BioEngineering (BIBE)**, pp. 1–6, Oct. 2008. <https://doi.org/10.1109/BIBE.2008.4696751>
26. M. Andersson, V. Sakkalis, J. Ripoll, V. Ntziachristos, and **K. Marias**, "3D multi-modal registration for assessing molecular activity changes in time-dependent geometries," in **2008 30th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBS**, pp. 3975–3978, Aug 2008. <https://doi.org/10.1109/IEMBS.2008.4650080>
27. E. Skounakis, K. Banitsas, and **K. Marias** "A Proposed Platform for Intelligent Identification of Organs from Medical Images," in **2008 Conference: International Advanced Research Workshop on In Silico Oncology** At: Istanbul, Turkey, Sept. 2008.
28. V. Sakkalis, **K. Marias**, A. Roniotis, and E. Skounakis, "Translating cancer research into clinical practice: A framework for analyzing and modeling cancer from imaging data," in **2009 9th International Conference on Intelligent Systems Design and Applications, ISDA 2009**, Pisa, pp. 347–350, 2009. <https://doi.org/10.1109/ISDA.2009.235>
29. A. Roniotis, **K. Marias**, V. Sakkalis, I. Karatzanis, and M. E. Zervakis, "The mathematical path to develop a heterogeneous, anisotropic and 3-dimensional glioma model using finite differences," in **2009 9th International Conference on Information Technology and Applications in Biomedicine, ITAB**, Larnaca, pp. 1–4, 2009. <https://doi.org/10.1109/ITAB.2009.5394336>
30. E. Skounakis, V. Sakkalis, **K. Marias**, K. Banitsas, and N. Graf, "DoctorEye: A multifunctional open platform for fast annotation and visualization of tumors in medical images," in **2009 Annual International Conference of the IEEE Engineering in Medicine and Biology Society**, USA, pp. 3759–3762, Sept. 2009. <https://doi.org/10.1109/IEMBS.2009.5334479>
31. **K. Marias**, V. Sakkalis, A. Roniotis, C. Farmaki, G.S. Stamatakos, D.D. Dionysiou, S. Giatili, N.K. Uzunoglu, N. Graf, R. Bohle, E. Messe, P.V. Coveney, S. Manos, S. Wan, A. Folarin, S. Nagl, P. Büchler, T. Bardyn, M. Reyes, G. Clapworthy, N. Mcfarlane, E. Liu, T. Bily, M. Balek, M. Karasek, V. Bednar, J. Sabczynski, R. Opfer, S. Renisch, and I.C. Carlsen, "Clinically Oriented Translational Cancer Multilevel Modeling: The ContraCancrum Project," in **2009 World Congress on Medical Physics and Biomedical Engineering**, Munich, Germany, pp. 2124–2127, 2009. https://doi.org/10.1007/978-3-642-03882-2_564
32. V. Sakkalis, **K. Marias**, and G.S. Stamatakos, "Clinical data driven in silico tumor growth and therapy modeling," in **2009 Proceedings of Mining in Biomedicine (DMINBIO)**, Athens, Greece, 7-8 May, 2009.

33. C. Farmaki, **K. Marias**, V. Sakkalis, and N. Graf, "A spatially adaptive active contour method for improving semi-automatic medical image annotation," in **2009 World Congress on Medical Physics and Biomedical Engineering**, Munich, Germany, pp. 1878–1881, 2009. https://doi.org/10.1007/978-3-642-03882-2_499
34. A. Roniotis, **K. Marias**, V. Sakkalis, G.D. Tsibidis, and M.E. Zervakis, "A complete mathematical study of a 3D model of heterogeneous and anisotropic glioma evolution," in **2009 Annual International Conference of the IEEE Engineering in Medicine and Biology Society**, USA, pp. 2807–2810, pp. 2807–2810, Sept. 2009. <https://doi.org/10.1109/IEMBS.2009.5333776>
35. J. Zepp, N. Graf, E. Skounakis, R. Bohle, E. Meese, H. Stenzhorn, K. Yoo-Jin, C. Farmaki, V. Sakkalis, W. Reith, G. S. Stamatakos, and **K. Marias**, "Tumor segmentation: The impact of standardized signal intensity histograms in glioblastoma," in **2010 4th International Advanced Research Workshop on In Silico Oncology and Cancer Investigation**, Athens, Greece, 2010.
36. G.S. Stamatakos, D.D. Dionysiou, S. Giatili, E. Kolokotroni, E. Georgiadi, A. Roniotis, V. Sakkalis, P.V. Coveney, W. Shunzhu, M. Steven, St. Zasada, A. Folarin, P. Büchler, B. Tibault, St. Bauer, M. Reyes, T. Bily, V. Bednar, M. Karasek, N. Graf, R. Bohle, E. Meese, K. Yoo-Jin, H. Stenzhorn, G. Clapworthy, E. Liu, J. Sabczynski, and **K. Marias**, "The ContraCancrum Oncosimulator: Integrating Biomechanisms Across Scales in the Clinical Context," in **2010 4th International Advanced Research Workshop on In Silico Oncology and Cancer Investigation**, Athens, Greece, 2010.
37. G.S. Stamatakos, D.D. Dionysiou, E. Georgiadi, E. Kolokotroni, S. Giatili, A. Hoppe, C. Desmedt, A. Lunzer, M. Erdt, J. Jacques, J. Puckacki, R. Belleman, P. Melis, A. d Onofrio, F. Buffa, B. Claerhout, S. Rueping, **K. Marias**, M.N. Tsiknakis, and N. Graf, "The ACGT Oncosimulator: from Conceptualization To Development via Multiscale Cancer Modeling," in **2010 4th International Advanced Research Workshop on In Silico Oncology and Cancer Investigation**, Athens, Greece, 2010.
38. **K. Marias**, V. Sakkalis, A. Roniotis, I. Karatzanis, G. Stamatakos, D. Dionysiou, S. Giatili, N. K. Uzunoglou, N. Graf, R. Bohle, E. Messe, H. Stenzhorn, Y.Jin Kim, P. V. Coveney, S. J. Zasada, S. Wan, A. Folarin, P. Büchler, T. Bardyn, S. Bauer, M. Reyes, G. J. Clapworthy, E. Liu, T. Bily, V. Bednar, M. Karasek, A. Franz, R. Grewer, and J Sabczynsk, "ContraCancrum at the project level: Clinically Oriented Translational Cancer Multilevel Modelling," in **2010 4th International Advanced Research Workshop on In Silico Oncology and Cancer Investigation**, Athens, Greece, September 8-9, 2010. https://doi.org/10.1007/978-3-642-03882-2_564
39. A. Roniotis, V. Sakkalis, G.S. Stamatakos, M.E. Zervakis, and **K. Marias**, "Glioma diffusive modeling: Calculating diffusion coefficients from atlases with proportional tissue information," in **2010 4th International Advanced Research Workshop on In Silico Oncology and Cancer Investigation**, Athens, Greece, 2010.
40. V. Sakkalis, A. Roniotis, C. Farmaki, I. Karatzanis, and **K. Marias**, "Evaluation framework for the multilevel macroscopic models of solid tumor growth in the glioma case," in **2010 Annual 32nd IEEE-EMBS International Conference of the IEEE Engineering in Medicine and Biology**, Buenos Aires, Argentina, pp. 6809–6812, Aug. 2010. <https://doi.org/10.1109/IEMBS.2010.5625961>
41. **K. Marias**, V. Sakkalis, A. Roniotis, C. Farmaki, G. Stamatakos, D. Dionysiou, S. Giatili, N. Uzunoglou, N. Graf, R. Bohle, E. Messe, P. V. Coveney, S. Manos, S. WanA. Folarin, S. Nagl, P. Büchler, T. Bardyn, M.

- Reyes, G. Clapworthy, N. Mcfarlane, E. Liu, T. Bily, M. Balek, M. Karasek, V. Bednar, J. Sabczynski, R. Opfer, S. Renisch, and I.C. Carlsenshow, "ContraCancrum: Clinically Oriented Translational Cancer Multilevel Modelling," in **2010 International VPH Conferences (VPH2010)**, Brussels, Belgium, September 30-October 1, 2010. https://doi.org/10.1007/978-3-642-03882-2_564
42. A. Roniotis, **K. Marias**, V. Sakkalis, G. Stamatakos, and M. Zervakis, "Comparing finite elements and finite differences for developing diffusive models of glioma growth," in **2010 32nd International Conference of the IEEE Engineering in Medicine and Biology (EMBC)**, Buenos Aires, Argentina, pp. 6797–6800, August 31-September 4, 2010. <https://doi.org/10.1109/IEMBS.2010.5625973>
43. C. Farmaki, K. Mavrigiannakis, **K. Marias**, M. Zervakis, and V. Sakkalis, "Assessment of automated brain structures segmentation based on the mean-shift algorithm: Application in brain tumor," in **2010 Proceedings of the 10th IEEE International Conference on Information Technology and Applications in Biomedicine (IEEE-ITAB2010)**, Corfu, Greece, pp. 1–5, November 2-5, 2010. <https://doi.org/10.1109/ITAB.2010.5687634>
44. A. Roniotis, K. Panourgias, J. Ekaterinaris, **K. Marias**, and V. Sakkalis, "Approximating the diffusion – reaction equation for developing glioma models for the ContraCancrum Project: a showcase," in **2010 4th International Advanced Research Workshop on In Silico Oncology and Cancer Investigation**, Athens, Greece, September 8-9, 2010.
45. P. Pelegris, K. Banitsas, T. Orbach, and **K. Marias**, "A Novel Method to Detect Heart Beat Rate Using a Mobile Phone," in **2010 32nd IEEE-EMBS, Engineering in Medicine and Biology Society (EMBC)**, Buenos Aires, Argentina, August 31-September 4, 2010. <https://doi.org/10.1109/IEMBS.2010.5626580>
46. **K. Marias**, G.S. Stamatakos, D.D. Dionysiou, V. Sakkalis, S.G. Sfakianakis, and M.N. Tsiknakis, "Computational Services for in silico Oncology: Experiences and Research Challenges," in **2011 7th GRACM International Congress on Computational Mechanics**, Athens, Greece, 30 June – 2 July, 2011.
47. G. Manikis, V. Sakkalis, X. Zabulis, P. Karamaounas, A. Triantafyllou, S. Douma, C. Zamboulis, and **K. Marias**, "An Image Analysis Framework for the Early Assessment of Hypertensive Retinopathy Signs", in **2011 IEEE INTERNATIONAL CONFERENCE ON E-HEALTH AND BIOENGINEERING (EHB)**, Iasi, Romania, pp. 1–6, 2011, isbn: 9781457702921, **Best Paper Award**
48. G. Manikis, D. Emmanouilidou, V. Sakkalis, N. Graf, and **K. Marias**, "A Fully Automated Image Analysis Framework for Quantitative Assessment of Temporal Tumor Changes," in **2011 IEEE INTERNATIONAL CONFERENCE ON E-HEALTH AND BIOENGINEERING (EHB)**, Iasi, Romania, pp. 1-6, 2011. <https://ieeexplore.ieee.org/document/6150402>
49. V. Sakkalis, S. Sfakianakis, **K. Marias**, G. Stamatakos, F. Misichroni, D.D. Dionysiou, S. McKeever, D. Johnson, T. Deisboeck, and N. Graf, "The TUMOR Project: Integrating Cancer Model Repositories for Supporting Predictive Oncology," in **2012 2nd Virtual Physiological Human Conference (VPH2012)**, London, UK, September 18-20, 2012. <https://doi.org/10.13140/2.1.5018.8483>
50. E. Tzamali, V. Sakkalis, and **K. Marias**, "The effects of near optimal growth solutions in genome-scale human cancer metabolic model," in **2012 12th International Conference on Bioinformatics and BioEngineering (BIBE)**, Larnaca, Cyprus, pp. 626–631, Nov. 2012. <https://doi.org/10.1109/BIBE.2012.6399774>

51. A. Roniotis, V. Sakkalis, E. Tzamali, G. Tzedakis, M.E. Zervakis, and **K. Marias**, "Solving the PIHNA model while accounting for radiotherapy," in **2012 5th International Advanced Research Workshop on In Silico Oncology and Cancer Investigation**, Athens, Greece, October 22-23, pp. 1-4, 2012. <https://ieeexplore.ieee.org/document/6397184>
52. S.G. Sfakianakis, V. Sakkalis, and **K. Marias**, "Scientific Workflows to support in silico modeling in Cancer Research," in **2012 5th International Advanced Research Workshop on In Silico Oncology and Cancer Investigation**, Athens, Greece, October 22-23, 2012.
53. E. Tzamali, V. Sakkalis, and **K. Marias**, "Cancer metabolism: Computational study of the lactate secretion metabolic strategy," in **2012 7th Conference of the Hellenic Society for Computational Biology and Bioinformatics (HSCBB 2012)**, Heraklion, Greece, October 4-6, 2012.
54. H. Kondylakis, L. Koumakis, E. Genitsaridi, M.N Tsiknakis, **K. Marias**, G. Pravettoni, A. Gorini, & M. Mazzocco, (2012), "IEmS: A collaborative Environment for Patient Empowerment," in 2012 IEEE 12th International Conference on Bioinformatics & Bioengineering (BIBE), pp. 535–540, Nov. 2012. <https://doi.org/10.1109/BIBE.2012.6399770>
55. G. Tzedakis, E. Tzamali, V. Sakkalis, A. Roniotis, and **K. Marias**, "Hybrid Model for Tumor Spheroids with Intratumoral Oxygen Supply Heterogeneity," in **2012 5th International Advanced Research Workshop on In Silico Oncology and Cancer Investigation**, Athens, Greece, October 22-23, 2012. <https://ieeexplore.ieee.org/document/6397180>
56. R. David, N. Graf, I. Karatzanis, H. Stenzhorn, G. Manikis, V. Sakkalis, G.S. Stamatakos, and **K. Marias**, "Clinical Evaluation of DoctorEye Platform in Nephroblastoma," in **2012 5th International Advanced Research Workshop on In Silico Oncology and Cancer Investigation**, Athens, Greece, October 22-23, pp. 1-4, 2012. <https://ieeexplore.ieee.org/document/6397186>
57. V. Sakkalis, S. Sfakianakis, and **K. Marias**, "Bridging social media technologies and scientific research: A Twitter-Enabled platform for VPH modellings," in **2012 3rd International ICST Conference on Wireless Mobile Communication and Healthcare (MobiHealth 2012)**, Workshop on Advances in Personalized Healthcare Services, Wearable Mobile Monitoring, and Social Media Pervasive Technologies (APHS 2012), Paris, France, pp. 380–387, 2012. https://doi.org/10.1007/978-3-642-37893-5_42
58. J. Zepp, N. Graf, H. Stenzhorn, W. Reith, I. Karatzanis, G.C. Manikis, V. Sakkalis, **K. Marias**, and G.S. Stamatakos, "An innovative mathematical analysis of routine MRI scans in patients with glioblastoma using DoctorEye," in **2012 12th International Conference on Bioinformatics and BioEngineering, Larnaca IEEE-BIBE**, Cyprus, pp. 620–625, Nov. 11-13, 2012. <https://doi.org/10.1109/BIBE.2012.6399773>
59. S.G. Sfakianakis, V. Sakkalis, **K. Marias**, G.S. Stamatakos, S. McKeever, T. Deisboeck, and N. Graf, "An architecture for integrating cancer model repositories," in **2012 34th IEEE-EMBS, Engineering in Medicine and Biology Society (EMBC 2012)**, San Diego, USA, pp. 6628–6631, August 28-September 1, 2012. <https://doi.org/10.1109/EMBC.2012.6347514>
60. V. Sakkalis, G. C. Manikis, N. Papanikolaou, I. Karatzanis, and **K. Marias**, "A software prototype for the Assessment of Tumor Treatment Response using diffusion and perfusion MR imaging," in **2012 34th IEEE-EMBS, Engineering in Medicine and Biology Society (EMBC 2012)**, San Diego, USA, pp. 388–391, August 28-September 1, 2012. <https://doi.org/10.1109/EMBC.2012.6345950>

61. M. Tsiknakis, S. Sfakianakis, **K. Marias**, and N. Graf, "A technical infrastructure to support personalized medicine," in **2012 IEEE 12th International Conference on Bioinformatics & Bioengineering (BIBE)**, Cyprus, 2012, pp. 422–427, Nov. 2012. <https://doi.org/10.1109/BIBE.2012.6399763>
62. G.S. Stamatakos, E. Kolokotroni, D. Dionysiou, C. Veith, Y. Kim, A. Franz, **K. Marias**, J. Sabczynski, R. Bohle, and N. Graf, "In silico oncology: Exploiting clinical studies to clinically adapt and validate multiscale oncosimulators," in **2013 35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)**, pp. 5545–5549, Jul. 2013. <https://doi.org/10.1109/EMBC.2013.6610806>
63. E. Tzamali, R. Favicchio, A. Roniotis, G. Tzedakis, G. Grekas, J. Ripoll, **K. Marias**, G. Zacharakis, and V. Sakkalis, "Employing in-vivo molecular imaging in simulating and validating tumor growth," in **2013 35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)**, pp. 5533–5536, Jul. 2013. <https://doi.org/10.1109/EMBC.2013.6610803>
64. D. Manousos, F. Chiarugi, V. Kontogiannis, I. Karatzanis, A. Kouroubali, E. G. Spanakis, **K. Marias**, J. Fursse, S. Thomson, R. W. Jones, V. Verma, and M. Clarke, "First results about the use of a patient portal by people with diabetes in a rural area," in **2013 IEE E-Health and Bioengineering Conference (EHB)**, pp. 1–5, Nov. 2013. <https://doi.org/10.1109/EHB.2013.6707375>
65. E. Maniadi, H. Kondylakis, E.G. Spanakis, M. Spanakis, M. Tsiknakis, **K. Marias**, and F. Dong, "Designing a digital patient avatar in the context of the MyHealthAvatar project initiative," in **2013 13th IEEE International Conference on Bioinformatics and BioEngineering, BIBE 2013**, Chania, Greece, pp. 1–4, Nov. 2013. <https://doi.org/10.1109/BIBE.2013.6701560>
66. M. Spanakis, E. Papadaki, D. Kafetzopoulos, A. Karantanas, Th. G. Maris, V. Sakkalis, and **K. Marias**, "Exploitation of patient avatars towards stratified medicine through the development of in silico clinical trials approaches," in **2013 13th IEEE International Conference on Bioinformatics and BioEngineering (BIBE)**, 2013, Chania, Greece, pp. 1–4, Nov. 2013. <https://doi.org/10.1109/BIBE.2013.6701554>
67. E. Tzamali, G. Tzedakis, **K. Marias**, G. Zacharakis, A. Zacharopoulos, and V. Sakkalis, "Simulating cancer behavior based on in silico modeling and in vivo molecular imaging approaches: Prospects and limitations," in **2014 IEEE International Conference on Imaging Systems and Techniques (IST)**, pp. 251–256, Oct. 2014. <https://doi.org/10.1109/IST.2014.6958483>
68. E. Christinaki, G. Giannakakis, F. Chiarugi, M. Pediaditis, G. Iatraki, D. Manousos, **K. Marias**, and M. Tsiknakis, "Comparison of blind source separation algorithms for optical heart rate monitoring," in **2014 Proc. EAI 4th International Conference on Persuasive technology for healthy aging and wellbeing, Wireless Mobile Communication and Healthcare (Mobihealth) - Transforming Healthc. Through Innov. Mob. Wirel. Technol, MOBIHEALTH 2014**, pp. 339–342, 2014. <https://doi.org/10.1109/MOBIHEALTH.2014.7015980>
69. E.G. Spanakis, P. Yang, Z. Deng, V. Sakkalis, D. Kafetzopoulos, **K. Marias**, M. Tsiknakis, and F. Dong, "MyHealthAvatar: personalized and empowerment health services through Internet of Things technologies," in **2014 4th International Conference on Wireless Mobile Communication and Healthcare**, Athens, Greece, pp. 331–334, November 3–5, 2014. <https://doi.org/10.1109/MOBIHEALTH.2014.7015978>

70. D. Manousos, G. Iatraki, E. Christinaki, M. Pediaditis, F. Chiarugi, M. Tsiknakis, and **K. Marias**, "Contactless detection of facial signs related to stress: A preliminary study," in **2014 EAI 4th International Conference on Persuasive technology for healthy aging and wellbeing, Wireless Mobile Communication and Healthcare (Mobihealth)**, p. 335-338, 2014. <https://doi.org/10.1109/MOBIHEALTH.2014.7015979>
71. E.G. Spanakis, S. Santana, B. Ben-David, **K. Marias**, and C. Tziraki, "Persuasive technology for healthy aging and wellbeing," in **2014 EAI 4th International Conference on Persuasive technology for healthy aging and wellbeing, Wireless Mobile Communication and Healthcare (Mobihealth)**, p.22-23, 2014. <https://doi.org/10.1109/MOBIHEALTH.2014.7015899>
72. C. Spanakis, **K. Marias**, E.N. Mathioudakis, and N.A. Kampanis, "An extended method for robust image registration," in **2014 Proceedings of the 6th International Conference on Numerical Analysis**, pp. 250-255, 2014.
73. F. Chiarugi, G. Iatraki, E. Christinaki, D. Manousos, G. Giannakakis, M. Pediaditis, A. Pampouchidou, **K. Marias** and M. Tsiknakis, "Facial signs and psycho-physical status estimation for well-being assessment," Special Session on Signals and Signs Understanding for Personalized Guidance to Promote Healthy Lifestyles, in **2014 7th International Conference on Health Informatics**, Angers, France, pp. 555–562, 3- 6 March 2014. <https://doi.org/10.5220/0004934405550562>
74. G.C. Manikis, E. Maniadi, M. Tsiknakis and **K. Marias**, "Multi-Modal Medical Data Analysis Platform (3MDAP) for analysis and predictive modelling of cancer trial data," in **2014 Proceedings of the 6th International Advanced Research Workshop on In Silico Oncology and Cancer Investigation (IARWISOCI)**, Athens, Greece, pp. 1–4, Nov. 2014. <https://doi.org/10.1109/IARWISOCI.2014.7034645>
75. G.S. Stamatakos, D. Dionysiou, F. Misichroni, N. Graf, S. van Gool, R. Bohle, F. Dong, M. Viceconti, K. Marias, V. Sakkalis, N. Forgo, R. Radhakrishnan, H. Byrne, C. Guiot, P. Buechler, E. Neri, A. Bucur, B. de Bono, D. Testi, and M. Tsiknakis, "Computational horizons in cancer (CHIC): Developing meta- and hyper-multiscale models and repositories for in Silico Oncology - A brief technical outline of the project," in **2014 Proceedings of the 6th International Advanced Research Workshop on In Silico Oncology and Cancer Investigation - The CHIC Project Workshop (IARWISOCI)**, pp. 1–5, Nov. 2014. <https://doi.org/10.1109/IARWISOCI.2014.7034630>
76. G. Tzedakis, G. Grekas, E. Tzamali, **K. Marias**, and V. Sakkalis, "The importance of grid size and boundary conditions in discrete tumor growth modeling," in **2014 Proceedings of the 6th International Advanced Research Workshop on In Silico Oncology and Cancer Investigation - The CHIC Project Workshop (IARWISOCI)**, pp. 1–4, Nov. 2014. <https://doi.org/10.1109/IARWISOCI.2014.7034635>
77. I. Karatzanis, A. Iliopoulos, M. Tsiknakis, V. Sakkalis, and **K. Marias**, "A collaborative central reviewing platform for cancer detection in digital microscopy images," in **2014 Proceedings of the 6th International Advanced Research Workshop on In Silico Oncology and Cancer Investigation - The CHIC Project Workshop (IARWISOCI)**, Athens, Greece, pp. 1–5, Nov. 2014. <https://doi.org/10.1109/IARWISOCI.2014.7034639>
78. S. Petroudi, I. Constantinou, M. Pattichis, C. Tziakouri, **K. Marias**, and C. Pattichis, "Evaluation of Spatial Dependence Matrices on Multiscale Instantaneous Amplitude for Mammogram Classification," in **2015 6th European Conference of the International Federation for Medical and Biological**

- Engineering**, Springer International Publishing, p. 156-159, 2015. https://doi.org/10.1007/978-3-319-11128-5_39
79. H. Kondylakis, M. Spanakis, S. Sfakianakis, V. Sakkalis, M. Tsiknakis, **K. Marias**, Z. Xia, H. Qing Y., Feng Dong, “*Digital Patient: Personalized and Translational Data Management through the MyHealthAvatar EU Project*,” in **2015 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)**, Milan, Italy, 2015, pp. 1397–1400, Aug. 2015. <https://doi.org/10.1109/EMBC.2015.7318630>
80. E. Maniadi, E.G. Spanakis, A. Karantanas, and **K. Marias**, “*A supportive environment for the long term management of knee osteoarthritis condition*,” in **2015 5th International Conference on Wireless Mobile Communication and Healthcare**, London, UK, 2015. <https://doi.org/10.4108/eai.22-12-2015.151108>
81. M. Pediaditis, G. Giannakakis, F. Chiarugi, D. Manousos, A. Pampouchidou, E. Christinaki, G. Iatraki, E. Kazantzaki P.G. Simos, **K. Marias**, and M.N. Tsiknakis, “*Extraction of facial features as indicators of stress and anxiety*,” in **2015 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)**, pp. 3711–3714, Aug. 2015. <https://doi.org/10.1109/EMBC.2015.7319199>
82. A. Pampouchidou, **K. Marias**, M.N. Tsiknakis, P. Simos, F. Yang, and F. Meriaudeau, “*Designing a framework for assisting depression severity assessment from facial image analysis*,” in **2015 IEEE International Conference on Signal and Image Processing Applications (ICSIPA)**, pp. 578–583, Oct. 2015. <https://doi.org/10.1109/ICSIPA.2015.7412257>
83. I. Genitsaridi, **K. Marias**, and M. Tsiknakis, “*An ontological approach towards psychological profiling of breast cancer patients in pervasive computing environments*,” in **2015 Proceedings of the 8th ACM International Conference on Pervasive Technologies Related to Assistive Environments**, pp. 1–4, Jul. 2015. <https://doi.org/10.1145/2769493.2769557>
84. M. Spanakis, E.G. Spanakis, D. Kafetzopoulos, V. Sakkalis, M. Tsiknakis, **K. Marias**, and F. Dong, “*My Health Avatar platform: matching real life patients with the generated virtual profiles from in silico clinical trials*,” in **2015 Conference: 24th Annual Meeting of the Population Approach Group in Europe, Hersonissos, Crete, Greece, Volume: ISSN 1871-6032**, 2015.
85. L. Koumakis, G. Potamias, **K. Marias**, and M.N. Tsiknakis, “*An algorithmic approach for the effect of transcription factor binding sites over functional gene regulatory networks*,” in **2015 IEEE 15th International Conference on Bioinformatics and Bioengineering (BIBE)**, pp. 1–6, Nov. 2015. <https://doi.org/10.1109/BIBE.2015.7367662> **Best student paper award BIBE2015.**
86. H. Kondylakis, L. Koumakis, M. Psaraki, G. Troullinou, M. Chatzimina, E. Kazantzaki, **K. Marias**, and M.N. Tsiknakis, “*Semantically-enabled Personal Medical Information Recommender*,” in **2015 International Semantic Web Conference** 2015.
87. H. Kondylakis, L. Koumakis, E. Kazantzaki, M. Chatzimina, M. Psaraki, **K. Marias**, and M.N. Tsiknakis, “*Patient Empowerment through Personal Medical Recommendations*,” **MedInfo Stud. Health Technol. Inform.**, vol. 216, no. July, p. 1117, 2015. <https://doi.org/10.3233/978-1-61499-564-7-1117>
88. A. Pampouchidou, E. Kazantzaki, I. Karatzanis, **K. Marias**, M.N. Tsiknakis, F. Meriaudeau, F. Yang, and P. Simos, “*Preliminary Evaluation of a Web-Oriented Assessment Tool for Emotion Recognition*,” in

- 2016 13th International Conference on Wearable Micro and Nano Technologies for Personalised Health**, pHealth 2016, Volume 224, page 95, 2016. <https://doi.org/10.3233/978-1-61499-653-8-95>
89. E. Kazantzaki, H. Kondylakis, L. Koumakis, **K. Marias**, M.N. Tsiknakis, A. Gorini, K. Mazzocco, C. Renzi, C. Fioretti, and G. Pravettoni, “*Psycho-emotional tools for better treatment adherence and therapeutic outcomes for cancer patients*,” in **2016 13th International Conference on Wearable Micro and Nano Technologies for Personalised Health**, pHealth 2016, Volume 224, page 129, 2016. PMID: 27225567
90. L. Koumakis, H. Kondylakis, M. Chatzimina, G. Iatraki, P. Argyropaidas, E. Kazantzaki, M.N. Tsiknakis, S. Kiefer, and **K. Marias**, “*Designing smart analytical data services for a personal health framework*,” in **2016 13th International Conference on Wearable Micro and Nano Technologies for Personalised Health**, pHealth 2016, Volume 224, page 123, 2016. PMID: 27225566
91. A. Pampouchidou, **K. Marias**, M.N. Tsiknakis, P. Simos, F. Yang, G. Lemaitre, and F. Meriaudeau, “*Video Based Depression Detection Using Local Curvelet Binary Patterns in Pairwise Orthogonal Planes*,” in **2016 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)**, pp. 3835-3838, 2016. <https://doi.org/10.1109/EMBC.2016.7591564>
92. A. Pampouchidou, M. Pediaditis, F. Chiarugi, **K. Marias**, P. Simos, F. Yang, F. Meriaudeau, and M.N. Tsiknakis, “*Automated characterization of mouth activity for stress and anxiety assessment*,” in **2016 IEEE International Conference on Imaging Systems and Techniques (IST 2016)**, pp. 356–361, Oct. 2016. <https://doi.org/10.1109/IST.2016.7738251>
93. A. Pampouchidou, O. Simantiraki, A.Fazlollahi, M. Pediaditis, D. Manousos, A. Roniotis, G. Giannakakis, F. Meriaudeau, P. Simos, K. Marias, F. Yang, and M.N. Tsiknakis, “*Depression Assessment by Fusing High and Low Level Features from Audio, Video, and Text*,” in **2016 Proceedings of the 6th International Workshop on Audio/Visual Emotion Challenge**, ACM, pp. 27-34, 2016.
94. M. Spanakis, E.G. Spanakis, H. Kondylakis, S. Sfakianakis, I. Genitsaridi, V. Sakkalis, M.N. Tsiknakis, and **K. Marias**, “*Addressing drug-drug and drug-food interactions through personalized empowerment services for healthcare*,” in **2016 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC) 2016**, pp. 5640–5643, Aug. 2016. <https://doi.org/10.1109/EMBC.2016.7592006>
95. E.G. Spanakis, M. Spanakis, A. Karantanas, and **K. Marias**, “*Secure access to patient’s health records using SpeechXRays a mutli-channel biometrics platform for user authentication*,” in **2016 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)**, pp. 2541–2544, Aug. 2016. <https://doi.org/10.1109/EMBC.2016.7591248>
96. G. Christodoulakis, **K. Marias**, G. Notas, N. Kampanis, and S. Sfakianakis, “*A Technological Platform to Support Education in Regional Anaesthesia with Patient-Specific Virtual Physiological Human (VPH)-Based Models*,” in **2016 XIV Mediterranean Conference on Medical and Biological Engineering and Computing 2016**, Springer International Publishing, pp. 932–935, 2016. https://doi.org/10.1007/978-3-319-32703-7_181
97. E. Kontopodis, I. Karatzanis, V. Sakkalis, F. Buffa, and **K. Marias**, “*A DCE-MRI analysis workflow*,” in **2016 Proceedings of the 33rd Annual Conference, Computer Graphics International**, pp. 101–104, Jun. 2016. <https://doi.org/10.1145/2949035.2949061>

98. G.C. Manikis, K. Nikiforaki, N. Papanikolaou, and **K. Marias**, “Diffusion modelling tool (DMT) for the analysis of diffusion weighted imaging (DWI) magnetic resonance imaging (MRI) data,” in **2016 ACM International Conference Proceeding Series, Computer Graphics International (CGI), the 33th Annual Conference**, vol. 28-June-01-July-2016, pp. 97–100, Jun. 2016. <https://doi.org/10.1145/2949035.2949060>
99. **K. Marias**, K. Nikiforaki, G.C. Manikis, E. Kontopodis, and N. Papanikolaou, “Visualizing tumor environment with perfusion and diffusion MRI: Computational challenges,” in **2016 the 33th ACM Annual International Conference Proceeding Series, Computer Graphics International (CGI)**, vol. 28-June-01-July-2016, pp. 113–116, Jun. 2016. <https://doi.org/10.1145/2949035.2949064>
100. M. Venianaki, E. Kontopodis, K. Nikiforaki, E. De Bree, O. Salvetti, and **K. Marias**, “A model-free approach for imaging tumor hypoxia from DCE-MRI data,” in **2016 Proceedings of the 33rd Computer Graphics International, ACM International Conference Proceeding Series**, vol. 28, June-01-July-2016, pp. 105–108, doi: 10.1145/2949035.2949062.
101. G.C. Manikis, K. Nikiforaki, N. Papanikolaou, G. Ioannidis, and **K. Marias**, “Addressing Intravoxel Incoherent Motion Challenges Through an Optimized Fitting Framework for Quantification of Perfusion,” in **2016 IEEE International Conference on Imaging Systems and Techniques (IST 2016)**, pp. 487–492, Oct. 2016. <https://doi.org/10.1109/IST.2016.7738275>
102. M. Venianaki, E. Kontopodis, K. Nikiforaki, E. De Bree, T. Maris, A. Karantanas, O. Salvetti, and **K. Marias**, “Improving hypoxia map estimation by using model-free classification techniques in DCE-MRI images,” in **IST 2016 - 2016 IEEE International Conference on Imaging Systems and Techniques, Proceedings**, pp. 183–188, Nov. 2016. <https://doi.org/10.1109/IST.2016.7738220>
103. C. Spanakis, E. Mathioudakis, N. Kampanis, M. Tsiknakis, and **K. Marias**, “A new approach in image registration,” in **IST 2016 IEEE International Conference on Imaging Systems and Techniques, Proceedings**, pp. 449–453, Nov. 2016. <https://doi.org/10.1109/IST.2016.7738268>
104. E. Kazantzaki, L. Koumakis, H. Kondylakis, C. Renzi, C. Fioretti, K. Mazzocco, **K. Marias**, M.N. Tsiknakis, and G. Pravettoni, “Current trends in Electronic Family Resilience Tools: Implementing a tool for the cancer domain,” **European Medical and Biological Engineering Conference EMBEC & NBC 2017**, Springer, pp. 29-32, 2017. https://doi.org/10.1007/978-981-10-5122-7_8
105. L. Koumakis, H. Kondylakis, D.G. Katehakis, G. Iatraki, P. Argyropaidas, M. Hatzimina, and **K. Marias**, “A Content-Aware Analytics Framework for Open Health Data,” in **2017 IFMBE Proceedings ICBHI 2017, Precision Medicine Powered by pHealth and Connected Health**, vol. 66, pp. 59-64. Springer, Singapore, 2017. https://doi.org/10.1007/978-981-10-7419-6_10
106. H. Kondylakis, A. Bucur, F. Dong, C. Renzi, A. Manfrinati, N. Graf, S. Hoffman, L. Koumakis, G. Pravettoni, **K. Marias**, M. Tsiknakis, and S. Kiefer, “iManageCancer: Developing a Platform for Empowering Patients and Strengthening Self-Management in Cancer Diseases,” in **2017 IEEE 30th International Symposium on Computer-Based Medical Systems (CBMS)**, pp. 755–760, Jun. 2017. <https://doi.org/10.1109/CBMS.2017.62>
107. A. Pampouchidou, OI. Simantiraki, C.M. Vazakopoulou, C. Chatzaki, M. Padiaditis, A. Maridaki, **K. Marias**, P. Simos, F. Yang, F. Meriaudeau, and M.N. Tsiknakis, “Facial geometry and speech analysis for depression detection,” in **2017 39th Annual International Conference of the IEEE Engineering in**

- Medicine and Biology Society (EMBC)**, pp. 1433–1436, Jul. 2017. <https://doi.org/10.1109/EMBC.2017.8037103>
108. G.Z. Papadakis, G.C. Manikis, A.H. Karantanas, **K. Marias**, M.T. Collins, and A. M. Boyce, "Application of *18f-naf pet/ct imaging in fibrous dysplasia*," **Journal of Nuclear Medicine, Hormone research in paediatrics**, vol. 88(suppl 1), 2017.
109. E. Kontopodis, G.C. Manikis, K. Nikiforaki, M. Venianaki, **K. Marias**, T.G. Maris, A.H. Karantanas, E. Papadaki, "Incremental diagnostic information obtained via novel Dynamic Contrast Enhanced MRI framework applied on Multiple Sclerosis patients: A preliminary study," in **2018 IEEE EMBS International Conference on Biomedical & Health Informatics (BHI)**, Las Vegas, NV, USA, pp. 46-49, Mar 2018. <https://doi.org/10.1109/BHI.2018.8333366>
110. H. Kondylakis, L. Koumakis, M. Tsiknakis, and **K. Marias**, "Implementing a data management infrastructure for big healthcare data," in **2018 IEEE EMBS International Conference on Biomedical & Health Informatics (BHI)**, Las Vegas, NV, USA, pp. 361–364, Mar. 2018, <https://doi.org/10.1109/BHI.2018.8333443>
111. C-M. Vazakopoulou, A. Pampouchidou, F. Yang, F. Meriaudeau, **K. Marias**, and M.N. Tsiknakis, "Détection de la dépression par l'analyse de la géométrie faciale et apprentissage automatique," in **2018 Congrès National de la Recherche des IUT" CNRIUT'2018"**, Aix-en-Provence, Jun. 2018.
112. A. Maridaki, A. Pampouchidou, **K. Marias**, and M.N. Tsiknakis, "Machine Learning Techniques for Automatic Depression Assessment," in **2018 41st IEEE International Conference on Telecommunications and Signal Processing (TSP)**, Athens, Greece, pp. 1–5, Jul. 2018. <https://ieeexplore.ieee.org/document/8441422>
113. D. Bourou, A. Pampouchidou, M.N. Tsiknakis, **K. Marias**, and P. Simos, "Video-based Pain Level Assessment: Feature Selection and Inter-Subject Variability Modelling," in **2018 41st IEEE International Conference on Telecommunications and Signal Processing**, Athens, Greece, pp. 1–6, July 2018. <https://doi.org/10.1109/TSP.2018.8441252>
114. A. Pampouchidou, O. Simantiraki, C.M. Vazakopoulou, **K. Marias**, P. Simos, F. Yang, F. Meriaudeau, and M.N. Tsiknakis, "Détection de la dépression par l'analyse de la géométrie faciale et de la parole," in **2017 XXVIème colloque du Groupement de Recherche en Traitement du Signal et des Images**, Juan-Les-Pins, France, Sept.2017.
115. M. Venianaki, A.H. Karantanas, E. de Bree, T. Maris, E. Kontopodis, K. Nikiforaki, O. Salvetti, and **K. Marias**, "Assessment of soft-tissue sarcomas perfusion using data-driven techniques," in **2018 IEEE EMBS International Conference on Biomedical & Health Informatics (BHI)**, Las Vegas, NV, USA, BHI, pp. 353-356, 2018. <https://doi.org/10.1109/BHI.2018.8333441>
116. C. Spanakis, E. Mathioudakis, M. Tsiknakis, N. Kampanis, and **K. Marias**, "Function Approximation for Medical Image Registration," in **2018 41st International Conference on Telecommunications and Signal Processing**, TSP 2018, Aug. 2018. <https://doi.org/10.1109/TSP.2018.8441336>
117. H. Kondylakis, L. Koumakis, **K. Marias**, and M.N. Tsiknakis, "Embracing Diversity in Health Data Management," in **2018 IEEE International Conference on Biomedical and Health Informatics**.

118. N. Graf, H. Kondylakis, L. Koumakis, M.N. Tsiknakis, **K. Marias**, A. Bucur, Y. Braun, R. David, G. McVie, F. Dong, C. Renzi, S. Hoffmann, F. Schera, and S. Kiefer, "Patient empowerment with the help of ICT – The iManageCancer Project," in **2018 IEEE International Conference on Biomedical and Health Informatics**.
119. C. Spanakis, E. Mathioudakis, N. Kampanis, Irk, M. Tsiknakis, and **K. Marias**, "Elitism in intensity-based image registration," in **IST 2018 - IEEE International Conference on Imaging Systems and Techniques**, Proceedings, pp.1-5, Dec. 2018. <https://doi.org/10.1109/IST.2018.8577163>
120. E. Kontopodis, G. C. Manikis, I. Skepasianos, K. Tzagkarakis, K. Nikiforaki, G. Z. Papadakis, T. G. Maris, E. Papadaki, A. Karantanas, and **K. Marias**, "DCE-MRI radiomics features for predicting breast cancer neoadjuvant therapy response," in Proceedings **IEEE International Conference on Imaging Systems and Techniques**, IST 2018, Dec. 2018. <https://doi.org/10.1109/IST.2018.8577128>
121. H. Kondylakis, L. Koumakis, D.G. Katehakis, A. Kouroubali, **K. Marias**, M.N. Tsiknakis, P.G. Simos, E. Karademas, "Developing a Data Infrastructure for Enabling Breast Cancer Women to BOUNCE Back," in **2019 IEEE 32nd International Symposium on Computer-Based Medical Systems (CBMS)**, Cordoba, Spain, pp. 652–657, June 2019. <https://doi.org/10.1109/CBMS.2019.00134>
122. C. Maramis, C. Karamanidou, F. Schera, S. Kiefer, L. Koumakis, **K. Marias**, S. Hoffmann, H. Parker, J. Reston, S. Payne., S. Pospisilova, R. Rosenquist, P. Ghia, C. Pontikoglou, A. Sander, M. Doubek, N. Graf, J. Ling, J. Downing, E. Pavi, and V. Koutkias, "Using Electronic Patient Reported Outcomes to Foster Palliative Cancer Care: The MyPal Approach," in **2019 IEEE 19th International Conference on Bioinformatics and Bioengineering (BIBE)**, Athens, Greece, pp. 405–409, Oct. 2019. <https://ieeexplore.ieee.org/document/8941994>
123. G.C. Manikis, K. Kourou, P. Poikonen-Saksela, H. Kondylakis, E. Karademas, **K. Marias**, D.G. Katehakis, L. Koumakis, A. Kouroubali, R. Pat-Horenczyk, D. I. Fotiadis, M.N. Tsiknakis, and P. Simos, "Computational Modeling of Psychological Resilience Trajectories During Breast Cancer Treatment," in **2019 IEEE 19th International Conference on Bioinformatics and Bioengineering (BIBE)**, Athens, Greece, pp. 423–427, Oct. 2019. <https://doi.org/10.1109/BIBE.2019.00082>
124. G.C. Manikis, M. Venianaki, I. Skepasianos, G.Z. Papadakis, T.G. Maris, S. Agelaki, A.H. Karantanas, and **K. Marias**, "Scale-Space DCE-MRI radiomics analysis based on gabor filters for predicting breast cancer therapy response," in **2019 Proceedings - IEEE 19th International Conference on Bioinformatics and Bioengineering, BIBE 2019**, pp. 994–1001, Oct 2019. <https://doi.org/10.1109/BIBE.2019.00185>
125. M. Chatzimina, L. Koumakis, **K. Marias**, and M.N. Tsiknakis, "Employing Conversational Agents in Palliative Care: A Feasibility Study and Preliminary Assessment," in **2019 IEEE 19th International Conference on Bioinformatics and Bioengineering (BIBE)**, pp. 489–496, Oct 2019. <https://doi.org/10.1109/BIBE.2019.00095>
126. A. Pentari, G. Tsagkatakis, **K. Marias**, G.C. Manikis, N. Kartalis, N. Papanikolaou, and P. Tsakalides, "Sparse Representations on DW-MRI: A Study on Pancreas," in **2019 IEEE 19th International Conference on Bioinformatics and Bioengineering (BIBE)**, pp. 791–795, Oct 2019. <https://doi.org/10.1109/BIBE.2019.00147>
127. G.C. Manikis, **K. Marias**, E. Alissandrakis, L. Perrotto, E. Savvidaki and N. Vidakis, "Pollen Grain Classification using Geometrical and Textural Features," in **IST 2019 - IEEE International Conference**

- on Imaging Systems and Techniques**, Proceedings, Abu Dhabi, United Arab Emirates, pp. 1-6, Dec 2019. <https://doi.org/10.1109/IST48021.2019.9010563>
128. N. J. Simos, E. Kavroulakis, G.C. Manikis, G. Bertias, E. Papadaki, and **K. Marias**, "Machine learning classification of neuropsychiatric systemic lupus erythematosus patients using resting-state fmri functional connectivity," in **IST 2019 - IEEE International Conference on Imaging Systems and Techniques**, Proceedings, Dec. 2019. <https://doi.org/10.1109/IST48021.2019.9010078>
129. C. Spanakis, E. Mathioudakis, N. Kampanis, N. Tsiknakis and **K. Marias**, "Renyi divergence and non-deterministic subsampling in Rigid Image Registration," in **2019 IEEE International Conference on Imaging Systems and Techniques (IST)**, Abu Dhabi, United Arab Emirates, pp. 1-6, 2019. <https://doi.org/10.1109/IST48021.2019.9010237>
130. K. Kourou, H. Kondylakis, L. Koumakis, G. C. Manikis, **K. Marias**, M.N. Tsiknakis, P. G. Simos, E. Karademas and D.I. Fotiadis, "Computational Models for Predicting Resilience Levels of Women with Breast Cancer," In: Henriques J., Neves N., de Carvalho P. (eds) XV Mediterranean Conference on Medical and Biological Engineering and Computing **MEDICON 2019, IFMBE Proceedings**, vol 76, pp. 518–525, Cham: Springer, 2019. https://doi.org/10.1007/978-3-030-31635-8_62
131. G. Giannakakis, **K. Marias** and M.N. Tsiknakis, "A stress recognition system using HRV parameters and machine learning techniques," in **2019 8th International Conference on Affective Computing and Intelligent Interaction Workshops and Demos (ACIIW)**, Cambridge, United Kingdom, pp. 269-272, 2019. <https://doi.org/10.1109/ACIIW.2019.8925142>
132. G. Giannakakis, E. Trivizakis, M.N. Tsiknakis, and **K. Marias**, "A novel multi-kernel 1D convolutional neural network for stress recognition from ECG," in **2019 8th International Conference on Affective Computing and Intelligent Interaction Workshops and Demos (ACIIW)**, Cambridge, United Kingdom, Press IEEE Xplore, pp. 1-4, 2019. <https://doi.org/10.1109/ACIIW.2019.8925020>
133. K. Kourou, H. Kondylakis, L. Koumakis, G. C. Manikis, **K. Marias**, M. Tsiknakis, P. G. Simos, E. Karademas and D. I. Fotiadis, "A Reference Architecture for Predicting Resilience Levels of Women with Breast Cancer", **IEEE International Conference on Biomedical and Health Informatics (BHI)** , 2019
134. G. Giannakakis, M.R. Koujan, A. Roussos and K. Marias, "Automatic stress detection evaluating models of facial action units," in **2020 15th IEEE International Conference on Automatic Face and Gesture Recognition (FG 2020)**, pp. 728-733, 2020. <https://doi.org/10.1109/FG47880.2020.00129>
135. A. Pentari, G. Tzagkarakis, **K. Marias**, and P. Tsakalides, "A Study on the Effect of Distinct Adjacency Matrices for Graph Signal Denoising," in **2020 IEEE 20th International Conference on Bioinformatics and Bioengineering (BIBE)**, pp. 523–529, Oct 2020. <https://doi.org/10.1109/BIBE50027.2020.00091>
136. A. Pentari, G. Tzagkarakis, **K. Marias** and P. Tsakalides, "Graph-based Denoising of EEG Signals in Impulsive Environments," **28th European Signal Processing Conference (EUSIPCO)**, Amsterdam, Netherlands, pp. 1095-1099, 2020 <https://doi.org/10.23919/Eusipco47968.2020.9287329>
137. H. Kondylakis, E. Alekos, **K. Marias**, M.N. Tsiknakis, and N. Papadakis, "Developing the BOUNCE Psychological Ontology," in **2020 International Semantic Web Conference (ISWC)**, vol. 2721, pp. 276-281, CEUR-WS.org, 2020. <http://ceur-ws.org/Vol-2721/paper571.pdf>

138. H. Kondylakis, P. Simos, E. Karademas, **K. Marias**, P. Poikonen-Saksela, "Resilience Indices for Breast Cancer Management", **IEEE International Conference on Biomedical and Health Informatics (BHI)**, 2021
139. E. Mylona, K. Kourou, G. Manikis, H. Kondylakis, **K. Marias**, E. Karademas, P. Poikonen-Saksela, K. Mazzocco, C. Marzorati, R. Pat-Horenczyk, I. Roziner, B. Sousa, A. Oliveira-Maia, P. Simos, D. I. Fotiadis, "Prediction of Poor Mental Health Following Breast Cancer Diagnosis Using Random Forests", **43rd Annual International Conference of the IEEE Engineering in Medicine & Biology Society**, 2021.
140. M. Chatzimina, H. Papadaki, C. Pontikoglou, L. Koumakis, **K. Marias** and M. Tsiknakis, "Designing a conversational agent for patients with hematologic malignancies: Usability and Usefulness Study," **2021 IEEE EMBS International Conference on Biomedical and Health Informatics (BHI)**, pp. 1-4, 2021. doi: 10.1109/BHI50953.2021.9508587
141. E. Stamoulou, G. C. Manikis, M. Tsiknakis and **K. Marias**, "ComBat harmonization for multicenter MRI based radiomics features," **2021 IEEE International Conference on Imaging Systems and Techniques (IST)**, pp. 1-6, 2021. doi: 10.1109/IST50367.2021.9745836
142. D. Zaridis, E. Mylona, N. Tachos, **K. Marias**, M. Tsiknakis and D. I. Fotiadis, "A Deep Learning-based cropping technique to improve segmentation of prostate's peripheral zone," **2021 IEEE 21st International Conference on Bioinformatics and Bioengineering (BIBE)**, 2021, pp. 1-4, doi: 10.1109/BIBE52308.2021.9635576.
143. D. Theodoropoulos, G.C. Manikis, **K. Marias**, G. Papadourakis, "Semantic Segmentation of Diabetic Retinopathy Lesions, Using a UNET with Pretrained Encoder", in **Engineering Applications of Neural Networks: 23rd International Conference, EAAAI/EANN 2022**, Springer International Publishing, p. 361-371, Jun.2022. https://doi.org/10.1007/978-3-031-08223-8_30
144. E. Mylona, D. Zaridis, N. Tachos, **K. Marias**, M. Tsiknakis, D.I. Fotiadis, "PROper-Net: A Deep-Learning Approach for Prostate's Peripheral Zone Segmentation based on MR imaging", in **2022 IEEE 21st Mediterranean Electrotechnical Conference (MELECON)**, p. 1124-1128, Jun. 2022. <https://doi.org/10.1109/MELECON53508.2022.9843082>
145. G.S. Ioannidis, K. Nikiforaki, G. Kalaitzakis, T. Boursianis, G. Antonopoulos, T.G. Maris, and **K. Marias**, "T2* relaxometry tool for calibration and quantification of iron concentration based on multi echo MRI data", **IEEE International Conference on Imaging Systems and Techniques (IST)**, IEEE, p. 1-6, Jun. 2022. <https://doi.org/10.1109/IST5454.2022.9827767>
146. E. Mylona, K. Kourou, G. Manikis, H. Kondylakis, **K. Marias**, E. Karademas, P. Poikonen-Saksela, K. Mazzocco, C. Marzorati, R. Pat-Horenczyk, I. Roziner, B. Sousa, A. Oliveira-Maia, P. Simos, and D.I. Fotiadis, "Trajectories and Predictors of Depression After Breast Cancer Diagnosis: A 1-year longitudinal study", **44th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC)**, IEEE, p. 69-72, Jul. 2022. <https://doi.org/10.1109/EMBC48229.2022.9871647>
147. D.G. Boucharas, C. Androutsos, N.S. Tachos, E.E. Tripoliti, D. Manousos, V. Skaramagkas, E. Ktistakis, **K. Marias**, M. Tsiknakis, D.I. Fotiadis, "AI Methods for Personalized Suggestions on Smart Glasses Based on Human Activity Recognition", **2022 IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI)**, IEEE, p. 01-04, September 2022. <https://doi.org/10.1109/BHI56158.2022.9926869>

148. D. Zaridis, E. Mylona, N. Tachos, **K. Marias**, M. Tsiknakis, D.I. Fotiadis, "Fine-tuned feature selection to improve prostate segmentation via a fully connected meta-learner architecture", **2022 IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI)**, IEEE, p. 01-04, September 2022. <https://doi.org/10.1109/BHI56158.2022.9926929>
149. E. Mylona, K. Kourou, G. Manikis, H. Kondylakis, E. Karademas, **K. Marias**, K. Mazzocco, P. Poikonen-Saksela, R. Pat-Horenczyk, B. Sousa, P. Simos, D.I. Fotiadis, "Explainable machine learning analysis of longitudinal mental health trajectories after breast cancer diagnosis", **2022 IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI)**, IEEE, p. 1-4, September 2022. <https://doi.org/10.1109/BHI56158.2022.9926952>
150. E. Mylona, D. Zaridis, N. Tachos, M. Tsiknakis, **K. Marias**, D. I Fotiadis, "Diagnosis of Clinical Significant Prostate Cancer on Biparametric Mri Using Zone-Specific Radiomic Features", **2023 IEEE 20th International Symposium on Biomedical Imaging (ISBI)**, IEEE, p. 1-4, April 2023. DOI: 10.1109/ISBI53787.2023.10230613
151. E. Trivizakis, V. Aidonis, V.C. Pezoulas, Y. Goletsis, N. Oikonomou, I. Stefanis, L. Chondromatidou, D.I. Fotiadis, M. Tsiknakis, **K. Marias**," LookMe: An Ever-Evolving Artificial Intelligence Platform for Location Scouting in Greece", **International Conference on Engineering Applications of Neural Networks**, Springer Nature Switzerland, p. 315-327, Jun. 2023. https://doi.org/10.1007/978-3-031-34204-2_27
152. D. I Zaridis, E. Mylona, N. Tachos, **K. Marias**, M. Tsiknakis, D. I Fotiadis, "Multi-Channel 3D Deep Learning Architectures for Evaluation of Prostate Lesion Detection", **2023 IEEE Conference on Artificial Intelligence (CAI)**, IEEE, p. 148-149, June 2023. DOI: 10.1109/CAI54212.2023.00071
153. N. Tsiknakis, E. Tzoras, I. Zerdes, G. C Manikis, B. Acs, J. Hartman, T. Hatschek, T. Foukakis, **K. Marias**," Multiresolution Self-Supervised Feature Integration via Attention Multiple Instance Learning for Histopathology Analysis", **2023 45th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC)**, IEEE, p. 1-4, Jul 2023.
DOI: 10.1109/EMBC40787.2023.10341061
154. G Karanasiou, L Koumakis, S Sfakianakis, G Manikis, G Kalliatakis, A Antoniadis, L Lakkas, D Mauri, C Cipolla, K Mazzocco, A Papakonstantinou, G Filippatos, A Constantinidou, B Šeruga, C Conti, A Bucur, E Pacella, **K Marias**, M Tsiknakis, DI Fotiadis, "CARDIOCARE: An integrated platform for the management of elderly multimorbid patients with breast cancer therapy induced cardiac toxicity", **2023 45th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC)**, IEEE, p.1-4, July 2024. doi: 10.1109/EMBC40787.2023.10340747.
155. C. Raspothesis, E. Mylona, K. Kourou, G. Manikis, H. Kondylakis, **K. Marias**, P. Poikonen-Saksela, et.al, "Predicting Quality of Life for Breast Cancer Patients", **2023 IEEE EMBS International Conference on Biomedical and Health Informatics (BHI)**, IEEE, Oct. 2023, p. 1-4.
doi: 10.1109/BHI58575.2023.10313374.
156. K. M Tsiouris, G. Kalliatakis, K. Mazzocco, B. Šeruga, **K. Marias**, et. all, "CARDIOCARE platform: A beyond the state of the art approach for the management of elderly multimorbid patients with breast cancer therapy induced cardiac toxicity", **2023 IEEE International Conference on Bioinformatics and Biomedicine (BIBM)**, IEEE, p. 3907-3912, Dec. 2023, doi: 10.1109/BIBM58861.2023.10385541.
157. G. S Ioannidis, E. Trivizakis, K. Krasagakis, A. Lallas, Z. Apalla, G. Evangelou, **K. Marias**, "A Machine Learning Framework for Hair Type Categorization to Optimize the Hair Removal Algorithm in

- Dermatoscopy Images”, **2023 IEEE EMBS Special Topic Conference on Data Science and Engineering in Healthcare**, Medicine and Biology, IEEE, Malta, Dec. 2023, pp. 121-122, doi: 10.1109/IEEECONF58974.2023.10404510.
158. E. Trivizakis, V. Koutoulidis, L. A Mouloupoulos, E. Terpos, I. Ntanasis-Stathopoulos, P. Malandrakis, P. Grigoropoulos, P. Papadopoulos, K. Nikiforaki, **K. Marias**, N. Papanikolaou, “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, IEEE, p.187-188, Dec. 2023, doi: 10.1109/IEEECONF58974.2023.10404108.
159. S. Colantonio, A. Berti, R. Buongiorno, G. Del Corso, E. Pachetti, M. A. Pascali, C. Kalantzopoulos, V. Kalokyri, H. Kondylakis, N. Tachos, D. Fotiadis, V. Giannini, S. Mazzetti, D. Regge, N. Papanikolaou, **K. Marias**, M. Tsiknakis, “AI trustworthiness in prostate cancer imaging: a look at algorithmic and system transparency”, **2023 IEEE EMBS Special Topic Conference on Data Science and Engineering in Healthcare**, Medicine and Biology, IEEE, Malta, p. 79-80, Dec. 2023, doi: 10.1109/IEEECONF58974.2023.10404432.
160. D. I Zaridis, E. Mylona, N. Tachos, C. Kalantzopoulos, V. C Pezoulas, D. D Koutsouris, G. K Matsopoulos, **K. Marias**, M. Tsiknakis, D. I Fotiadis, “Assessing the Robustness of nnU-Net in the Detection of Prostate Lesions via Bi-Parametric MRI”, **2023 IEEE EMBS Special Topic Conference on Data Science and Engineering in Healthcare, Medicine and Biology**, IEEE, Malta, Dec. 2023, pp. 33-34, doi: 10.1109/IEEECONF58974.2023.10404284.
161. E. Koutoulakis, E. Trivizakis, V. Koutoulidis, L. A Mouloupoulos, E. Terpos, I. Ntanasis-Stathopoulos, P. Malandrakis, P. Grigoropoulos, P. Papadopoulos, K. Nikiforaki, N. Papanikolaou, D. I Fotiadis, **K. Marias**, “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, IEEE, p. 39-40, Dec. 2023, doi: 10.1109/IEEECONF58974.2023.10405013
162. V. Kalokyri, N. Tachos, S. Sfakianakis, K. Nikiforaki, I. Karatzanis, H. Kondylakis, S. Mazzetti, D. Regge, N. Papanikolaou, **K. Marias**, D. Fotiadis, M. Tsiknakis, “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**, IEEE, p. 73-74, Dec. 2023, doi: 10.1109/IEEECONF58974.2023.10404158.

CONFERENCE ABSTRACTS REVIEWED

1. C.P. Behrenbruch, N. Moore, K. **Marias**, P. Armitage, M. Brady, R. English, and J. Clarke, “*Multimodal Data Fusion in Breast Imaging*,” **ECR (European Congress of Radiology)**, B-0305, Vienna, Austria, March 2001.
2. D. Kafetzopoulos, S. Stathopoulos, E. Sanidas, S. Vassilaros, **K. Marias**, G. Potamias, and M.N. Tsiknakis, “*Biomedical informatics as the means for achieving 'systems biology' approaches to understanding and curing cancer*,” (Abstract + Presentation). **HERCMA 2005: Hellenic European Research in Computer Mathematics and its Applications conference**, September 22-24, 2005, Athens, Greece. <http://www2.aueb.gr/conferences/hercma2005/>
3. K. Nikiforaki, V.K. Katsaros, G. Manikis, **K. Marias**, G. Strantzalis, and N. Papanikolaou, “Glioma grading based on perfusion MRI: a normalized blood volume histogram metrics quantification study,” **ECR 2014 – 24th European Congress of Radiology**, March 6-10, 2014, Vienna, Austria

4. V. Katsaros, K. Nikiforaki, G. Manikis, **K. Marias**, G. Stranjalis and N. Papanikolaou, "Glioma Grading based on Histogram Analysis: Comparison between Apparent Diffusion Coefficient and normalized Blood Volume metrics," The International Society for Magnetic Resonance in Medicine, Joint Annual Meeting. **ISMRM-ESMRMB**, Milano, Italy, 10-16 May, 2014.
5. T.G. Maris, T. Boursianis, G. Kalaitzakis, E. Pappas, G. Manikis, **K. Marias**, and A.H. Karantanas, "The development of an easily adopted head and abdomen DWI quality control phantom and test different regression algorithms for precise Apparent Diffusion Coefficient (ADC) measurements," **Physica Medica: European Journal of Medical Physics**, vol. 30, p. e56, 2014. <https://dx.doi.org/10.1016/j.ejmp.2014.07.170.1>
6. G. Kalaitzakis, L. Kavroulakis, T. Boursianis, S. Veneti, L. Kontopodis, **K. Marias**, E. Papadaki, A.H. Karantanas, and T.G. Maris, "Magnetic relaxation measurements on tissue mimicking phantoms: comparison between different fitting algorithms in MRI T2 calculations," **Physica Medica: European Journal of Medical Physics**, vol. 30, pp. e118–e119, 2014. <https://dx.doi.org/10.1016/j.ejmp.2014.07.337>
7. M. Spanakis, M.E. Oraiopoulou, E. Tzamali, V. Sakkalis, T.G. Maris, E. Papadaki, A.H. Karantanas and **K. Marias**, "An in silico estimation of the pharmacokinetic profile and the disposition of Gd-dtpa in brain tumor lesions of different vasculature through PBPK models," **11th Congress of the European Association of Neuro-Oncology**, Turin, Italy, October 9-12, 2014
8. M. Spanakis, E.G. Spanakis, D. Kafetzopoulos, V. Sakkalis, M. Tsiknakis, **K. Marias**, and F. Dong "MyHealthAvatar platform: matching real-life patients with the generated virtual profiles from in silico clinical trials," PAGE 2015. **Abstracts of the Annual Meeting of the Population Approach Group in Europe**, p. 24, 2015, Abstr 3678. ISSN 1871-6032
9. H. Kondylakis, L. Koumakis, E. Kazantzaki, M. Chatzimina, M. Psaraki, **K. Marias**, and M.N. Tsiknakis, "Patient Empowerment through Personal M P-medicine A solution for translational research," **Medical Recommendations, Health and Biomedical Informatics (MEDINFO)**, July 2015, Sao Paulo, Brazil, isbn: 9781614995630.
10. I. Karatzanis, **K. Marias**, V. Sakkalis, "Dr Eye", *Journal of Clinical Bioinformatics* 2015, vol. 5, no. Suppl:1, P.S21, 2015. <https://dx.doi.org/10.1186/2043-9113-5-S1-S21>.
11. G.C. Manikis, K. Nikiforaki, N. Papanikolaou, N. Albiin, N. Kartalis, and **K. Marias**, "Diffusion weighted imaging of pancreatic adenocarcinoma: which model is the most appropriate?" **ECR 2016–26th European Congress of Radiology**, March 2-6, 2016, Vienna, Austria. Paper B-1270.
12. K. Nikiforaki, T. Boursianis, G.C. Manikis, K. Marias, A.H. Karantanas, and T.G. Maris, "Feasibility of fat fraction quantification by measuring J-coupling related signal modulation in Multi Echo Fast Spin Echo Sequences," Elsevier, **Physica Medica: European Journal of Medical Physics (EJMP)**, vol. 32, p. 249, Sep. 2016. <https://dx.doi.org/10.1016/j.ejmp.2016.07.529>
13. G.C. Manikis, **K. Marias**, K. Nikiforaki, N. Kartalis, N. Albiin, and N. Papanikolaou, "Comparison between Gaussian and non-Gaussian diffusion models in hepatic metastatic disease and normal liver," **ECR 2016–26th European Congress of Radiology**, March 2-6, 2016, Vienna, Austria. <https://dx.doi.org/10.1594/ecr2016/C-2359>

14. G. C. Manikis, **K. Marias**, K. Nikiforaki, D.M.J. Lambregts, M.V. Heeswijk, R.G.H. Beets-Tan, and N. Papanikolaou. "Diffusion imaging of rectal cancer: comparison between four different models," **ECR 2016 – 26th European Congress of Radiology**, March 2-6, 2016, Vienna, Austria. <https://dx.doi.org/10.1594/ecr2016/C-2178>
15. K. Drevelegas, K. Nikiforaki, G. C. Manikis, **K. Marias**, M. Constantinides, I. Stoikou, L. Papalavrentios, P. Bangeas, and A. Drevelegas, "Classification of focal liver lesions based on histogram analysis of 3D pixel-based ADC parametric maps," **ECR 2017–27th European Congress of Radiology**, March 1-5, 2016, Vienna, Austria. <https://dx.doi.org/10.1594/ecr2017/C-2993>
16. N. Papanikolaou, G. Manikis, I. Santiago, **K. Marias**, and C. Matos, "Repeatability of diffusion imaging biomarkers in prostate cancer," **ECR 2017–27th European Congress of Radiology**, March 1-5, 2016, Vienna, Austria. <https://dx.doi.org/10.1594/ecr2017/C-2634>
17. H. Kondylakis, L. Koumakis, M. Tsiknakis, **K. Marias**, and S. Kiefer, "Big Data in Support of the Digital Cancer Patient," **ERCIM News**, 2016, Issue 104.
18. N. Papanikolaou, G.C. Manikis, D.M.J. Lambregts, K. Nikiforaki, M.M. van Heeswijk, Frans C.H. Bakers, **K. Marias**, R.G.H. Beets-Tan, "Diffusion Weighted Imaging in patients with rectal cancer: Comparison between Gaussian and non-Gaussian models," **European Society of Gastrointestinal and Abdominal Radiology (ESGAR)**, Athens, Greece, 2017. <https://dx.doi.org/10.1371/journal.pone.0184197>
19. G.C. Manikis, K. Nikiforaki, G. Ioannidis, N. Papanikolaou, and **K. Marias**, "Addressing challenges in fitting bi-exponential DW-MRI data," **ECR 2017–27th European Congress of Radiology**, Vienna, Austria, March 1-5, 2016. <https://dx.doi.org/10.1594/ecr2017/C-2964>
20. G.C. Manikis, K. Nikiforaki, N. Papanikolaou, C. Matos, and **K. Marias**, "A versatile platform for the longitudinal analysis of the DW-MRI data," in **ECR 2017–27th European Congress of Radiology**, March 1-5, 2016, Vienna, Austria, 2017. <https://dx.doi.org/10.1594/ecr2017/C-2835>
21. G.Z. Papadakis, G.C. Manikis, A.H. Karantanas, **K. Marias**, M.T. Collins, and A.M. Boyce, "Application of 18F-NaF PET/CT imaging in prognosis of fractures and treatment planning in patients with fibrous dysplasia.", Society of Nuclear Medicine and Molecular Imaging (SNMMI) 2017 meeting, June 10-14 2017, Denver, Colorado, USA.
22. G.Z. Papadakis, G.C. Manikis, A.H. Karantanas, **K. Marias**, M.T. Collins, and A.M. Boyce, "Application of 18F-NaF PET/CT imaging in fibrous dysplasia" **Pediatric Endocrine Society (PES), 10th International Meeting of Pediatric Endocrinology**, September 14-17, 2017, Washington DC, USA.
23. G.Z. Papadakis, G.C. Manikis, K. Perisinakis, A.H. Karantanas, **K. Marias**, M.T. Collins, and A. Boyce, "Positive Association between Volume of Skeletal 18F-NaF-avid Fibrous Dysplasia (FD) lesions and Bone Turnover Markers (BTMs)," **Radiological Society of North America (RSNA)**, Nov.26-Dec. 1, 2017 meeting, Chicago, USA.
24. K. Nikiforaki, E. Lagoudaki, G.C. Manikis, E. Kontopodis, **K. Marias**, E. de Bree, A.H. Karantanas, T.G. Maris, "[OA021] Spin coupling signal loss correlates with differentiation grade of lipomatous tumors: Preliminary results," **Physica Medica: European Journal of Medical Physics**, vol. 52, p. 9, Aug. 2018. <https://dx.doi.org/10.1016/j.ejmp.2018.06.093>

25. K. Nikiforaki, G.C. Manikis, E. Lagoudaki, M. Venianaki, **K. Marias**, E. de Bree, T.G. Maris, A.H. Karantanas, "[OA022] T2 and T* relaxometry of benign and malignant lipomatous tumors," **Physica Medica: European Journal of Medical Physics**, vol. 52, pp. 9–10, Aug. 2018, <https://dx.doi.org/10.1016/j.ejmp.2018.06.094>
26. K. Nikiforaki, G. Kalaitzakis, G. Ioannidis, T.G. Maris, **K. Marias**, and A.H. Karantanas, "[OA046] Visualizing sites of increased cellularity and high permeability in soft tissue sarcomas," **Phys. Medica**, vol. 52, p. 19, Aug. 2018. <https://dx.doi.org/10.1016/j.ejmp.2018.06.118>
27. G.Z. Papadakis, S. Jha, A.H. Karantanas, **K. Marias**, U. Bagci, T. Bhattacharyya, "Prospective evaluation of the application of F-18-NaF PET/CT imaging in melorheostosis," **European Journal of Nuclear Medicine and Molecular Imaging** 45, S231-S232, 2019.
28. I. Genitsaridi, I. Flouri, A. Repa, N. Avgoustidis, N. Kougkas, I. Papalopoulos, S. Polia, **K. Marias**, D. Plexousakis, G. Bertias, and P. Sidiropoulos, "In Clinical Practice a Substantial Group of Rheumatoid Arthritis (RA) Patients on Biologic Therapy (bDMARDs) has Persistent Moderate Disease Activity Despite Treatment Switches That Correlates with Unfavourable Long-Term Outcome", **Arthritis Res Ther**, Volume 70, Oct 2020.
29. G.Z. Papadakis, F. Hannah-Shmouni, G.C. Manikis, A.H. Karantanas, **K. Marias**, K.J. O' Brien, W.A. Gahl, and J.I. Estrada-Veras, "Patients with Erdheim-Chester Disease who Harbor the BRAF V600E Mutation, Exhibit Significantly Higher Metabolic Activity in the Adrenal glands Assessed by 18F-FDG PET/CT, when Compared to Mutation-Negative Counterparts," **European Association of Nuclear Medicine (EANM)**, October 22 – 30, 2020 in Vienna. (Top Rated Oral Presentation.)

ELECTRONIC PUBLICATIONS

- EP1. 1. S. Dimitriadis, **K. Marias**, and S. Orphanoudakis, "Retrieval of Images based on Visual Content: A Biologically Inspired Multi-Agent Architecture," ERCIM News No. 53, Special Theme: Cognitive Systems, PP.18-19, April 2003. https://www.ercim.eu/publication/Ercim_News/enw53/dimitriadis.html
- EP2. J. Moustakas, S. Dimitriadis and **K. Marias**, "A Cognitive Architecture for Semantically Based Medical Image Retrieval", ERCIM News No. 62, Special Theme: Multimedia Informatics, pp. 28-29, July 2005. https://www.ercim.eu/publication/Ercim_News/enw62/marias.html
- EP3. T. Margaritis, **K. Marias**, M.N. Tsiknakis and D. Kafetzopoulos, "Biomedical Imaging for Enhanced Genetic Data Analysis", ERCIM News No. 60, Special Theme: Biomedical Informatics, pp.54-55, January 2005. https://www.ercim.eu/publication/Ercim_News/enw60/margaritis.html
- EP4. A. Darrell, J. Swoger, L. Quintana, J. Sharpe, **K. Marias**, M. Brady, and J. Ripoll, "Improved fluorescence optical projection tomography reconstruction," *Biomedical Optics & Medical Imaging*, SPIE Newsroom, 6 November 2008. <https://dx.doi.org/10.1117/2.1200810.1329> <http://spie.org/newsroom/1329-improved-fluorescence-optical-projection-tomography-reconstruction?SSO=1>
- EP5. A. Roniotis, **K. Marias**, and V. Sakkalis, "Modelling the Growth of a Malignant Brain Tumour," *European Research Consortium for Informatics and Mathematics ERCIM News*, No. 81, pp. 21-22, 2010. <https://ercim-news.ercim.eu/en81/special/modelling-the-growth-of-a-malignant-brain-tumour>

- EP6. H. Kondylakis, L. Koumakis, M. Tsiknakis, K. Marias and S. Kiefer, "Big Data in Support of the Digital Cancer Patient," ERCIM News, 104, pp.27-28, 2016. <https://ercim-news.ercim.eu/en104/special/big-data-in-support-of-the-digital-cancer-patient>
- EP7. Chiara Renzi, Chiara Fioretti, Ketti Mazzocco, Andrea Manfrinati, Haridimos Kondylakis, Eleni Kazantzaki, Lefteris Koumakis, Manolis Tsiknakis, Kostas Marias, Gabriella Pravettoni, Development of psycho-emotional monitoring tools within an eHealth platform to improve patient empowerment and self-management abilities, *Psycho-Oncology* 2016:25(3):195
Full Paper: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6057659/pdf/can-12-852.pdf>

GRADUATE AND POSTGRADUATE SUPERVISION

PhD Advisory Committee (member of PhD tribunal)

- 2023 -** *Aikaterini Dovrou*, PhD Candidate in Machine/Deep Learning in Medicine, joint supervision with Prof. Sofia Aggelaki, University of Crete, Medical School.
- 2022 -** *Emmanouil Koutoulakis*, PhD Title: "Advanced deep learning techniques for detection, segmentation, and classification of lung nodules", Technical University of Crete, Electronic and Computer Engineer Department.
- 2022 -** *Emmanouil Markodimitrakis*, PhD Title: "Adapting Federated Learning to medical applications by utilizing distributed resources across distant nodes", Technical University of Crete, Electronic and Computer Engineer Department.
- 2021 -** *Avtantil Dimitriadis*, PhD Title: "Advanced Artificial intelligence techniques focused on medical imaging for improving prostate cancer management", Technical University of Crete, Electronic and Computer Engineer Department.
- 2019 -** *Ioannis Stefanis*, PhD Student, Technical University of Crete, Electronic and Computer Engineer Department.
- 2019 -** *Eleftherios Trivizakis*, PhD Title: "Prediction of clinical outcome in patients with non-small cell lung cancer undergoing immunotherapy using artificial intelligence techniques", joint supervision with Prof. Apostolos Karantanas, Chairman of Medical Imaging, University of Crete Medical School.
- 2016 -** *Anastasia Pentari*, PhD Title: "optimal reconstruction of Diffusion-Weighted MRI signal and Dynamic Contrast-Enhanced MRI study with Compressed Sensing Techniques", joint supervision with Prof. P. Tsakalides, Computer Science Department, University of Crete.
- 2015 - 2020** *Georgios Ioannidis*, PhD Title: "Qualitative evaluation of perfusion studies with non-ionizing (MRI) and low dose radiation (CT) protocols", joint supervision with Prof. Perisinakis Kostas, Faculty of Medicine, University of Crete.

- 2015 - 2020** *Constantinos Spanakis*, PhD Title: “Information theory and its application to image alignment”, Science Department, jointly with Ass. Prof. E. Mathioudakis, Technical University of Crete.
- 2016 - 2020** *Katerina Nikiforaki*, PhD Title: “Multi Parametric MR Imaging of Soft Tissue Sarcomas”, joint supervision with Prof. Apostolos Karantanas, Chairman of Medical Imaging, University of Crete Medical School.
- 2015 - 2020** *Irini Genitsaridi*, PhD Title: “Temporal Probabilistic Reasoning on Longitudinal Patient Trajectories to enhance Outcome Prediction and Decision Making: A Recommendation System applied in Rheumatoid Arthritis Treatment.”, with Prof. P. Sidiropoulos (University of Crete Medical School) and Prof. D. Plexousakis, Computer Science Department, University of Crete.
- 2014 - 2018** *Mari Venianaki*, PhD title: “Cancer tissue classification from DCE-MRI data using pattern recognition techniques”, IMT School for advance studies, Lucca, Italy (joint supervision with Prof. Ovidio Salvetti).
- 2014 - 2020** *Georgios Kalaitzakis*, PhD Title: “Quantitative T2* MRI image analysis algorithms”, University of Crete Medical School.
- 2014 - 2020** *George Manikis*, PhD Title: “Novel MRI imaging techniques and analysis of articular cartilage and bone marrow oedema in the knee joint and MRI markers-based modelling”, joint supervision with Prof. Apostolos Karantanas, Chairman of Medical Imaging, University of Crete Medical School.
- 2014 - 2019** *Anastasia Pampouchidou*, Title: Clinically-driven Facial Image Analysis for Emotion Recognition, co- supervision with Prof. Mériaudeau Fabrice Université de Bourgogne
- 2014 - 2017** *Carlos Hernandez Matas*, Title: Retinal image registration through 3D eye modelling and pose estimation, University of Crete, Computer Science department, (member of PhD tribunal with Prof. A. Argyros).
<https://www.didaktorika.gr/eadd/handle/10442/42160>
- 2009 - 2013** *Alexandros E. Roniotis*, Thesis title: Glioma growth Modelling, Technical University of Crete, Electronic and Computer Engineer Department (member of PhD tribunal with Prof. M. Zervakis)
<https://www.didaktorika.gr/eadd/handle/10442/34885>
- 2005 -2009** *Alex Darrell*, PhD in Molecular Image Analysis (joint supervision with Mike Brady University of Oxford)

MSc Students Supervisor

- 2022 - 2023** Konstantina Giouroukou, "Development of a Computational Male Pelvis Phantom for the Generation of Multiseries MRI Synthetic Data in Support of Image Analytic Processes", School of Medicine, University of Crete, Postgraduate Program "Biomedical Engineering"
- 2020 - 2021** Dimitrios Theodoropoulos, "Semantic Segmentation of Diabetic Retinopathy Lesions, using a UNET with Pretrained Encoder", Department of Electrical and Computer Engineering, Postgraduate Program "Informatics Engineering"
- 2017 -** Konstantinos Tsagkarakis, Department of Informatics Engineering, Technological Educational Institute of Crete, MSC IN INFORMATICS & MULTIMEDIA.
- 2017 - 2018** Eleftherios Trivizakis, Department of Informatics Engineering, Technological Educational Institute of Crete, MSC IN INFORMATICS & MULTIMEDIA.
- 2015 – 2016** Iosif Serafeimidis, "Texture Analysis on DCE-MR and DW-MR Images", Department of Informatics Engineering, Technological Educational Institute of Crete, MSC IN INFORMATICS & MULTIMEDIA.
- 2013-2015** Georgios Ioannidis, "Diffusion Magnetic Resonance Imaging Techniques: Applications in Brain and Human Body" MSc in Applied Mathematics, University of Crete
- 2013 – 2015** Kanli Georgia, MSc in Computational Physics at SU & KTH, Sweden (working for her thesis full time at the CML Lab FORTH)
- 2013- 2015** Marilena Oraiopoulou, Brain and Mind MSc Program, University of Crete Thesis title "Magnetic Resonance Imaging in Human Brain Cancers"
- 2011-2013** Constantinos Spanakis, MSc Technical University of Crete. Thesis title "Numerical modeling of tumor growth using level set method"
- 2005 - 2007** Hara Stefanou, MSc in CSD, University of Crete jointly with Prof. P. Tsakalides
- 2004 - 2005** Eleftherios Garyfalidis, Brain and Mind MSc Program, University of Crete
- 2003 - 2005** Socrates Dimitriadis, MSc in CSD, University of Crete with Prof. S. C. Orphanoudakis
- 2003 - 2004** John Moustakas, MSc in CSD, University of Crete with Prof. S. C. Orphanoudakis

Undergraduate Supervision

- 2019-2021** Nikolas Padiaditis, "**Medical image analysis using Wavelet Packet Transform and Machine Learning for histopathology image classification**", Department of Electrical and Computer Engineering, Hellenic Mediterranean University.
- 2020-2021** Stylianos Papagiannakis, "**Signal quantification from fluorescent histopathological images and machine learning applications for their categorization**", Department of Electrical and Computer Engineering, Hellenic Mediterranean University."

2018 -2019 Stefanos Gkikas, *“Identity verification by combining video, image and sound”*, Department of Informatics Engineering, Technological Educational Institute of Crete.

2018 - 2019 Avtadil Dimitriadis, *“Identity verification by combining video, image and sound”*, Department of Informatics Engineering, Technological Educational Institute of Crete.

2018 - 2019 Vasilios Melisianos, *“Bag of words techniques for differentiating tissue classes in medical images”*, Department of Informatics Engineering, Technological Educational Institute of Crete.

2017 - 2018 Iraklis Skepasianos, *“Gabor Filters and texture analysis for DCE-MRI data”*, Department of Informatics Engineering, Technological Educational Institute of Crete.

COURSES TAUGHT

2004-2008: University of Crete (HY-571)

2005-present: Brain and Mind (Interdisciplinary MSc course)

Course: Medical Image Analysis and Processing (Instructor)

<http://www.csd.uoc.gr/~hy571/>

Description: Medical imaging systems and physical principles of medical imaging modalities from the cellular to the tissue level. Medical image reconstruction methods, as well as 2D and 3D medical image processing. Image processing techniques: Registration, Data-Fusion,

Segmentation and Normalization. Algorithms for the description and retrieval of medical images by content. Picture archiving and communication systems (PACS). Introduction to the analysis of gene-expression data.

2004-2008: University of Crete CSD (HY-528)

2005-present: Brain and Mind (Interdisciplinary MSc course)

Course: Biomedical Engineering and Signal Analysis (Instructor)

<http://www.csd.uoc.gr/~hy528/>

Description: Basic introduction to physiology for engineers and computer scientists. Introduction to cellular dynamics and resting potential. Description of action potentials. Basic principles of the cardiovascular system: blood pressure, measurement of blood flow

and volume. Digital signal processing and algorithms for biomedical signal analysis. Computer analysis for ECG and EEG: algorithms and software development for diagnosis and research.

2015-2017: Technological Institute of Crete (ΤΠ60Λ4)

Course: Bioinformatics and Physiological Systems Modelling

Description: Analysis of microarray images with image processing and statistical analysis tools. Introduction to Bioinformatics: databases, tools and open-source software. Bioinformatics

applications in systems biology, pharmacogenomics and personalized medicine. Basic principles of modelling and methods for modelling physiological systems (PS). Use of Simulink for analysis and simulation of PS. Principles of cardiovascular system and modelling examples with Simulink. Principles of nervous system and modelling examples of neural function with electrical circuits. Introduction to Pharmacokinetics and Pharmacogenomics with application in image analysis of MRI data.

2016-: Technological Institute of Crete (ΤΠ320)

Course: Digital Image Processing

Description: Introduction to Digital Image Processing. Spatial Filtering and Neighboring operators. Image enhancement with point processing operations, brightness transformations and histogram equalization. Fourier analysis, Discrete Fourier Transform and Image

enhancement in the frequency domain. Image enhancement and periodic noise removal in the frequency domain with the use of filters. Image restoration and Image sharpening in the spatial and frequency domain. Morphological Image Processing.

2016-: Technological Institute of Crete (ΤΠ60Λ4)

Course: Advances in Digital Imaging and Computer Vision

Description: Imaging and computer vision are two neighboring research areas gaining great attention from the research community during the last years. This course focuses on the analysis of the

patterns in visual images with the view to understanding the objects and processes in the world that generate them. This subject is cross-disciplinary, drawing on mathematics and statistics, physics, optics, physiology, and information theory, as well as computer science, and has many applications including remote sensing, multimedia, surveillance, manufacturing, robotics, medical imaging, human computer interaction. Major topics include optics, image representation, feature extraction, image processing and analysis, object recognition, motion estimation, 3D and multi-view imaging. The emphasis is both on learning mathematical concepts and techniques and on their implementation (Matlab) to solve real vision and imaging problems.

2016 -: Technological Institute of Crete (TP282)

Course: Computer Vision

Description: The course aims to provide students with theoretical and practical knowledge of basic machine vision concepts for computing connected components, for shape analysis, image topology and morphology, edge detection and detection of points of interest (Harris method, Hough transform), for aligning images (image registration), for image segmentation and object recognition.

2020 -: University of Crete (BME15)

Course: Medical Image Analysis

Description: Basic principles of medical image analysis focusing on both classical approaches for image segmentation, registration, quantification, texture analysis and filtering, as well as on AI approaches, including radiomics and deep learning, for diagnostic/prognostic model development.

PATENTS

Georgios Manikis, Eleftherios Kontopodis, Konstantinos Marias: Apparatuses, methods and systems for estimating water diffusivity and microcirculation of blood using dw-mri data.

US 20160139226 A1

<https://www.google.com/patents/US20160139226>

BIBLIOMETRIC DATA

GOOGLE SCHOLAR DATA FOR KOSTAS MARIAS

Webpage: https://scholar.google.gr/citations?hl=en&user=2Lx7a7QAAAAJ&view_op=list_works&sortby=pubdate

Citation indices	<i>All</i>	<i>Since 2019</i>
Citations	5199	3408
h-index	37	27
i10-index	123	80

Last Update February 2024.