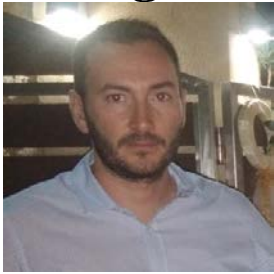


# Georgios C. Manikis



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## PERSONAL

**Date of Birth:** April 6, 1979

**Place of Birth:** Athens, Greece

## EDUCATION

### 2013-2020

PhD in "**Advanced Magnetic Resonance Imaging techniques in soft tissue sarcoma studies – Modelling of quantitative MRI parameters**". University of Crete Medical School, Heraklion, Greece.

### 2004 - 2007

MSc in "**Information Fusion in Medical Systems - Application to Acute Myeloid Leukemia**".

Technical University of Crete, Department of Electronic and Computer Engineering, Chania, Greece

### 1998 - 2004

Diploma in "**Optimization Methods for Multiple Source Image Fusion in Medical Imaging**".

Technical University of Crete, Department of Electronic and Computer Engineering, Chania, Greece

### 2004 (12 July - 23 July)

Summer School of the **Medical Information System Infrastructures (HL7/DICOM services)**, which is organized by Foundation for Research and Technology, Hellas (FORTH) - Institute of Computer Science (ICS)

### 2004 (21 June - 30 June)

**MULTI-MINE: Multimedia Data Management and Mining Project Description.** Greek research network program, sponsored by the Greek Secretariat of Research and Technology

## SCHOLARSHIPS AWARDS

**Best Paper Award at the IEEE International Conference on e-Health and Bioengineering (EHB 2011)**

### MSc Scholarship in Science and Technology

Technical University of Crete, Department of Electronic and Computer Engineering, Chania, Greece

Hellenic Ministry of National Education and Religious Affairs Operational Program for Education and Initial Vocational Training

EPEAEK II Project <http://epeaek.ece.tuc.gr>

## COMPUTER SKILLS

**Operating systems:** Windows, Linux Operating Systems

**Programming languages:** C#, C++, C, Java, Matlab, Simulink, R, Python

## RESEARCH INTERESTS

image analysis, machine learning, deep learning, statistical analysis,

## PROFESSIONAL EXPERIENCE

quantitative MRI, radiomics, multimodal fusion

**July 2020 – December 2020**

**BOUNCE – Predicting Effective Adaptation to Breast Cancer to Help Women to BOUNCE Back**

Foundation for Research and Technology (FORTH) - Institute of Computer Science (ICS) - Computational BioMedicine Laboratory (CBML)

European Union's Horizon 2020 programme

<https://www.bounce-project.eu/>

***Objective:** The vision of BOUNCE is to develop a resilience trajectory predictor that will take into consideration biological, social, environmental, lifestyle, occupational and psychosocial status in order to predict levels of resilience of women with breast cancer throughout the cancer continuum, propose resilience-building interventions to those who need it the most and eventually increase illness adaptation toward optimal clinical, well-being and functionality outcomes. **Involvement:** Design and implement an analysis framework enabling efficient and effective data mining and machine learning techniques for heterogeneous and multi-scale medical data with the end goal to identify significant correlations between data and patient's biological status and predict resilience trajectories of individuals.*

**July 2019 – June 2020**

**See Far – Smart glasses for multifaceted visual loss mitigation and chronic disEase prevention indicator for healthier, saFer, and more productive workplAce foR ageing population**

Foundation for Research and Technology (FORTH) - Institute of Computer Science (ICS) - Computational BioMedicine Laboratory (CBML)

European Union's Horizon 2020 programme

<https://www.see-far.eu/>

***Objective:** See Far smart glasses will be developed adapting the environment to the needs of the user by capturing the condition of the eye, detecting the problem and provide the appropriate adjustment through the integration of augmented reality technologies. See Far smart glasses empower older adults to solve the most meaningful problems, transform how they design, build, maintain and collaborate in their organization, perceive the world conveniently and enjoy a safer exploration in an indoor/outdoor environment. **Involvement:** Develop deep learning techniques utilized by the See Far Smart Glasses and See Far mobile application to detect and monitor retina diseases progression using imaging data and videos of the eye.*

**May 2019 – June 2019**

**Service Level Agreement (SLA)**

Foundation for Research and Technology (FORTH) - Institute of Computer Science (ICS) - Computational BioMedicine Laboratory (CBML)

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**November 2018 – April 2019**

**BOUNCE – Predicting Effective Adaptation to Breast Cancer to Help Women to BOUNCE Back**

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European Union's Horizon 2020 programme

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**Objective:** The vision of BOUNCE is to develop a resilience trajectory predictor that will take into consideration biological, social, environmental, lifestyle, occupational and psychosocial status in order to predict levels of resilience of women with breast cancer throughout the cancer continuum, propose resilience-building interventions to those who need it the most and eventually increase illness adaptation toward optimal clinical, well-being and functionality outcomes. **Involvement:** Design and implement an analysis framework enabling efficient and effective data mining and machine learning techniques for heterogeneous and multi-scale medical data with the end goal to identify significant correlations between data and patient's biological status and predict resilience trajectories of individuals.

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**July 2018 – October 2018**

**Service Level Agreement (SLA)**

Foundation for Research and Technology (FORTH) - Institute of Computer Science (ICS) - Computational BioMedicine Laboratory (CBML)

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**January 2018 – February 2018**

**Relief – Recovering life wellbeing through pain self-management techniques involving ICTs**

Foundation for Research and Technology (FORTH) - Institute of Computer Science (ICS) - Computational BioMedicine Laboratory (CBML)

European Union's Horizon 2020 programme

<http://relief-chronicpain.eu/>

**Objective:** RELIEF is poised to make major progresses to improve health outcomes for individuals experiencing symptoms and chronic pain conditions, by translating evidence-based therapy validated by the medical services to home settings as well as advancing available and affordable technologies. Advancements in self-management strategies that range from short-term therapeutic regimens to long-term symptom monitoring will enhance medical treatment. **Involvement:** Backend medical data analysis software as a part of a decision support system, including statistics and data modelling for patient monitoring.

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**January 2017 – December 2017**

**Internal Project – Developing software for PET-MRI analysis**

Foundation for Research and Technology (FORTH) - Institute of Computer Science (ICS) - Computational BioMedicine Laboratory (CBML)

**Objective:** Medical Image Analysis platform for analyzing Magnetic Resonance Imaging (MRI) and Positron Emission Tomography (PET) data.

**Involvement:** Part of the platform was developed to read and prepare 4D Diffusion Weighted Imaging (DWI) -MRI data for analysis, b) measure various DWI derived biomarkers from several mathematical models, c) assess qualitatively the derived biomarkers by visually depicting their generated parametric maps, d) statistically measure the accuracy of the models, and e) perform histogram analysis to the biomarkers and export the results into images and tables.

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**January 2016 – December 2016**

**iManageCancer - Empowering patients and strengthening self-**

### **management in cancer diseases**

Foundation for Research and Technology (FORTH) - Institute of Computer Science (ICS) - Computational BioMedicine Laboratory (CBML)  
Seventh Framework Programme (FP7)

<http://imanagecancer.eu/>

**Objective:** Provide a cancer disease self-management platform designed according to the specific needs of patient groups and focusing on the wellbeing of the cancer patient with special emphasis on psycho-emotional evaluation and self-motivated goals. **Involvement:** Software comprising decision support and predictive modelling tools applied to multimodal medical data for managing side-effect treatment, adherence to therapy and guidance for patients including drug dose self-adjustments.

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### **May 2015 – June 2015**

#### **MyHealthAvatar - A demonstration of 4D Digital Avatar Infrastructure for Access of Complete Patient Information**

Department of Informatics Engineering, Technical Educational Institute of Crete

Seventh Framework Programme (FP7)

<http://www.myhealthavatar.eu/>

**Objective:** MyHealthAvatar is an attempt at a proof of concept for the digital representation of patient health status. It is designed as a lifetime companion for individual citizens that will facilitate the collection of, and access to, long-term health-status information. **Involvement:** Develop software for analyzing medical data from multiple MRI sequences (Diffusion Weighted Imaging, Dynamic Contrast Enhanced, High Resolution T1 and T2, and T2\*). Quantitative MRI including mathematical models for: a) T1, T2 and T2\* relaxometry, b) DWI, and c) DCE analysis was implemented to provide insight into the molecular composition of the articular cartilage and the subchondral bone.

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### **April 2013 – December 2015**

#### **CHIC - Computational Horizons In Cancer: Developing Meta- and Hyper-Multiscale Models and Repositories for In Silico Oncology**

Foundation for Research and Technology (FORTH) - Institute of Computer Science (ICS) - Computational BioMedicine Laboratory (CBML)

Seventh Framework Programme (FP7)

<http://chic-vph.eu/>

**Objective:** CHIC proposes the development of clinical trial driven tools, services and infrastructures that will support the creation of multiscale cancer hypermodels (integrative models). CHIC aspires to make a breakthrough in multiscale cancer modeling through greatly facilitating multi-modeller cancer hypermodelling and its clinical adaptation and validation. **Involvement:** Software including a) image registration of multiple 3D and 4D MRI data to align several brain images in a common frame of reference, b) image segmentation to partition images into multiple segments of similar properties, c) mathematical models using 4D DWI and DCE-MRI data to assess quantitatively functional properties and the microstructure of the brain, and d) post-processing tools for treatment monitoring and longitudinal analysis.

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**July 2011 – January 2014**

**INTEGRATE - Driving Excellence in Integrative Cancer Research**

Foundation for Research and Technology (FORTH) - Institute of Computer Science (ICS) - Computational BioMedicine Laboratory (CBML)  
Seventh Framework Programme (FP7)

<http://www.fp7-integrate.eu/>

**Objective:** *The INTEGRATE project aims to develop innovative infrastructures to enable data and knowledge sharing and to foster large-scale collaboration in biomedical research. INTEGRATE flexible infrastructure components and tools will bring together heterogeneous multi-scale biomedical data generated through standard and novel technologies within post-genomic clinical trials.*

**Involvement:** *A user-friendly web-based collaborative environment was developed for analyzing, assessing the quality of large multi-level medical data and deriving predictive models. The platform follows two main objectives: a) to empower the user to analyze with ease clinic-genomic and imaging data in order to get statistics on selected parameters, perform survival analyses, compare regimens in selected cohort of patient and obtain genomic analysis results, and b) to perform heterogeneous data modeling for deriving and cross-validating in multiple datasets predictive models of patient response, and assessing the value of candidate biomarkers.*

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**July 2010 - July 2012**

**TUMOR - Transatlantic Tumour Model Repositories**

Foundation for Research and Technology (FORTH) - Institute of Computer Science (ICS) - Computational BioMedicine Laboratory (CBML)  
Seventh Framework Programme (FP7)

[www.tumor-project.eu](http://www.tumor-project.eu)

**Objective:** *The project aims at developing a European clinically oriented semantic-layered cancer digital model repository from existing EU projects that will be interoperable with the US grid enabled semantic-layered digital model repository platform at CViT.org (Center for the Development of a Virtual Tumor, Massachusetts General Hospital (MGH), Boston, USA) which is NIH/NCI-caGRID compatible. **Involvement:** Medical image analysis post-processing tools and services for the visualization and segmentation of multiple MRI sequences (DWI, T1, T1 contrast, T2, T2 flair, etc.).*

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**July 2010 - July 2011**

**ContraCancrum - Clinically Oriented Translational Cancer Multilevel Modelling**

Foundation for Research and Technology (FORTH) - Institute of Computer Science (ICS) - Computational BioMedicine Laboratory (CBML)  
Seventh Framework Programme (FP7)

[www.contracancrum.eu](http://www.contracancrum.eu)

**Objective:** *The ContraCancrum project aims at developing a composite multilevel platform for simulating malignant tumour development and tumour and normal tissue response to therapeutic modalities and treatment schedules in order to optimise the disease treatment procedure in the patient's individualized context. **Involvement:** Validation of the existed techniques used for the acquisition and analysis of multiple medical data and the simulation of cancerous processes.*

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**February 2009 - August 2009**

**MOSPAIC - Modeling Signaling Pathways in Cartilage Degeneration**

National Technical University of Athens, Department of Mechanical Engineering, Section of Mechanical Design & Automatic Control  
Sixth Framework Programme (FP6), Marie Curie International Reintegration Grants (IRG)

***Objective:** To employ a systems biology approach and a bioengineering approach in order to model the signaling pathways involved in cartilage degeneration. **Involvement:** Develop and apply machine learning techniques to a) identify the effects of drugs on the intracellular signaling pathways, and b) assess the predictive accuracy of the calculated mechanical properties of the tissue in discriminating patient populations (i.e. decreased stiffness and increased permeability shows cartilage degradation).*

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**January 2009 - June 2009**

**A systems biology approach for lead optimization for hepatocellular carcinoma using high throughput signaling-based approaches**

National Technical University of Athens, Department of Mechanical Engineering, Section of Mechanical Design & Automatic Control  
Vertex Pharmaceuticals Incorporated

***Objective:** To employ a systems biology approach for lead optimization for hepatocellular carcinoma using high throughput signaling-based approaches. **Involvement:** Several machine learning techniques were applied for classification and feature selection to identify high throughput intracellular (phosphoproteomics) signals that act as candidate biomarkers to explain the causality of relationships between biological entities and hepatocellular carcinoma.*

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**September 2007 - December 2007**

**District Technology Platform for Wideband Health Services**

Foundation for Research and Technology (FORTH) - Institute of Computer Science (ICS) - Biomedical Informatics Laboratory (BMI)  
Regional Innovation Pole of Crete ([www.i4crete.gr](http://www.i4crete.gr))

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**January 2007 - March 2008**

**GONOTYPOS - Metagenomic Methods and Technologies for Diagnosis and Therapy Selection: Analysis of Genotype and Molecular Markers**

Foundation for Research and Technology (FORTH) - Institute of Computer Science (ICS) - Biomedical Informatics Laboratory (BMI)  
General Secretariat for Research and Technology of the Ministry of Development ([www.gsrt.gr](http://www.gsrt.gr))

***Objective:** Metagenomic Methods and Technologies for Diagnosis and Therapy Selection: Analysis of Genotype and Molecular Markers. **Involvement:** Statistical analysis tools and machine learning models to analyze clinico-genomic data.*

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**May 2004 - December 2006**

**BIOPATTERN - Computational Intelligence for Biopattern Analysis in Support of eHealthcare**

Telecommunication Systems Research Institute ([www.tsi.gr](http://www.tsi.gr))  
Sixth Framework Programme (FP6)  
[www.biopattern.org](http://www.biopattern.org)

***Objective:** The BIOPATTERN Network of Excellence is a groundbreaking project that integrates key elements of European research to enable Europe to become a world leader in eHealth. The Grand Vision is to develop a pan-European, coherent and intelligent analysis of a citizen's bioprofile; to make the analysis of this bioprofile remotely accessible to patients and clinicians; and to exploit bioprofile to combat major diseases such as cancer and brain diseases. **Involvement:** Develop, apply and validate hyper-classifiers to assess the prognostic relevance of clinical as well as biological markers with regard to clinical endpoint, such as the achievement of Complete Remission in the short-term and long-term survival in Acute Myeloid Leukaemia (AML), taking into account competing risks.*

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**February 2004 - December 2008**

**GCB: Getting Cretan Businesses On-Line and Doing E-Business**

Technical University of Crete, Department of Electronic and Computer Engineering, Chania, Greece  
Hellenic Organization of Small and Medium-Sized Enterprises and Handicraft SA (EOMMEX SA). Greek Research and Technology Network SA (GRNET SA)  
[www.go-online.gr](http://www.go-online.gr)

**January 2008 - March 2008**

Laboratory assistant in the undergraduate course "**Computer Networks I**"  
Technical University of Crete, Department of Electronic and Computer Engineering, Chania, Greece

**September 2007 - February 2008**

Laboratory assistant in the undergraduate course "**Digital Signal Processing**"  
Technical University of Crete, Department of Electronic and Computer Engineering, Chania, Greece

**March 2007 - August 2008**

Laboratory assistant in the undergraduate course "**Digital Image Processing**"  
Technical University of Crete, Department of Electronic and Computer Engineering, Chania, Greece

**March 2005 - August 2005**

Laboratory assistant in the undergraduate course "**Linear Systems**"  
Technical University of Crete, Department of Electronic and Computer Engineering, Chania, Greece

**LABORATORY &  
TEACHING ASSISTANT**

**PATENTS**

**Apparatuses, methods and systems for estimating water diffusivity and microcirculation of blood using DW-MRI data.** Inventors: Georgios Manikis, Eleftherios Kontopodis, Konstantinos Marias. Publication number: 20160139226. Filed: November 13, 2015. Publication date: May 19, 2016.

**PUBLICATIONS  
International Journals**

Manikis GC, Nikiforaki K, Lagoudaki E, de Bree E, Maris TG, Marias K, Karantanis A. Differentiating low from high-grade soft tissue sarcomas using post-processed imaging parameters derived from multiple DWI models. 2020. European Journal of Radiology (under review).

Kontopodis E, Marias K, Manikis GC, Nikiforaki K, Venianaki M, Maris TG, Mastorodemos V, Papadakis GZ, Papadaki E. 2020. Extended perfusion protocol for MS lesion quantification, *Open Medicine*, 15(1), 520-530.

Manikis GC, Nikiforaki K, Marias K, Lagoudaki E, de Bree E, Maris TG, Karantanas A. 2019. T2-based MRI radiomic features for discriminating tumor grading in soft tissues sarcomas. *Hell J Radiol*; 4(3): 11-17.

Papadakis G, Manikis G, Karantanas A, Florenzano P, Bagci U, Marias K, Collins M, Boyce A. 2019. <sup>18</sup>F-NaF PET/CT IMAGING IN FIBROUS DYSPLASIA OF BONE. *J Bone Miner Res*. <https://doi:10.1002/jbmr.3738>

Campos M, Candelária I, Papanikolaou N, Simão A, Ferreira C, Manikis GC, Caseiro-Alves F. 2019. Perfusion Magnetic Resonance as a Biomarker for Sorafenib-Treated Advanced Hepatocellular Carcinoma: A Pilot Study. *GE Port J Gastroenterol*;26(4):260-267. <https://doi:10.1159/000493351>

Manikis GC, Spanakis M, Spanakis EG. 2018. Personalized Mobile eHealth Services for Secure User Access Through a Multi Feature Biometric Framework. *International Journal of Reliable and Quality E-Healthcare (IJRQEH)*, 8(1), 40-51. <https://doi:10.4018/IJRQEH.2019010104>

Kontopodis E, Venianaki M, Manikis GC, Nikiforaki K, Salvetti O, Papadaki E, Papadakis GZ, Karantanas AH, Marias K. 2019. Investigating the role of model-based and model-free imaging biomarkers as early predictors of neoadjuvant breast cancer therapy outcome. *IEEE J Biomed Health Inform*. <https://doi:10.1109/JBHI.2019.2895459>

Trivizakis E, Manikis GC, Nikiforaki K, Drevelegas K, Constantinides M, Drevelegas A, Marias K. 2018. Extending 2D Convolutional Neural Networks to 3D for Advancing Deep Learning Cancer Classification with application to MRI Liver Tumor Differentiation. *IEEE J Biomed Health Inform*. <https://doi:10.1109/JBHI.2018.2886276>

Manikis G, Marias K, Lambregts DM, Nikiforaki K, Heeswijk MV, Bakers F CH, Beets-Tan RG, Papanikolaou N. 2017. Diffusion weighted imaging in patients with rectal cancer: Comparison between Gaussian and non-Gaussian models. *PLoS One*, 12(9), e0184197, Public Library of Science, <https://doi.org/10.1371/journal.pone.0184197>

Katsaros KV, Nikiforaki K, Manikis G, Marias K, Liouta E, Boskos C, Kyriakopoulos G, Stranjalis G, Papanikolaou N. 2017. Whole tumor MR Perfusion histogram analysis in the preoperative assessment of patients with gliomas: Differentiation between high- and low-grade tumors. *Hell J Radiol*; Vol 2, No 1

Nikiforaki K, Manikis GC, Boursianis T, Marias K, Karantanas A, Maris TG. 2016. The Impact of Spin Coupling Signal Loss on Fat Content Characterization in Multi-Echo multi echo acquisitions with different echo spacing. *Magnetic Resonance Imaging*, ISSN 0730-725X, <http://dx.doi.org/10.1016/j.mri.2016.12.011>



Kartalis N, Manikis GC, Loizou L, Albiin N, Zöllner FG, Del Chiaro M, Marias K, Papanikolaou N. 2016. Diffusion-weighted MR imaging of pancreatic cancer: A comparison of mono-exponential, bi-exponential and non-Gaussian kurtosis models. *European Journal of Radiology Open*, Volume 3, Pages 79-85, ISSN 2352-0477,

<http://dx.doi.org/10.1016/j.ejro.2016.04.002>

Kontopodis, E, Kanli G, Manikis GC, Van Cauter S, Marias K. 2015. Assessing Treatment Response Through Generalized Pharmacokinetic Modeling of DCE-MRI Data. *Cancer Inform* 14 (Suppl 4):41-51,

<https://doi.org/10.4137/CIN.S19342>

Martens MH, Lambregts DM, Papanikolaou N, Alefantinou S, Maas M, Manikis GC, Marias K, Riedl RG, Beets GL, Beets-Tan RG. 2015. Magnetization transfer imaging to assess tumour response after chemoradiotherapy in rectal cancer. *European radiology*. 26: 390,

<https://doi.org/10.1007/s00330-015-3856-3>

Roniotis A, Marias K, Sakkalis V, Manikis GC, Zervakis ME. 2012. Simulating radiotherapy effect in high grade glioma by using diffusive modeling and brain atlases. *Journal of Biomedicine and Biotechnology*, Volume 2012, Article ID 715812, 9 pages,

<http://dx.doi.org/10.1155/2012/715812>

Roniotis, A, Manikis G, Sakkalis V, Zervakis ME, Karatzanis I, Marias K. 2012. High grade glioma diffusive modeling using statistical tissue information and diffusion tensors extracted from atlases. *IEEE Trans Inform. Tech. in Biomedicine*, 16 (2), (255-263),

<https://doi.org/10.1109/TITB.2011.2171190>

## Book Chapters

Manikis GC, Papanikolaou N, Matos C. 2016. Validating the imaging biomarker: the proof of efficacy and effectiveness. *Imaging Biomarkers: Development and Clinical Integration*, Springer International Publishing, pp.115-122. [https://doi.org/10.1007/978-3-319-43504-6\\_10](https://doi.org/10.1007/978-3-319-43504-6_10)

Manikis GC, Kontopodis E, Nikiforaki K, Marias K, Papanikolaou N. 2016. *Imaging Biomarkers Model-Based Analysis*. *Imaging Biomarkers: Development and Clinical Integration*, Springer International Publishing, pp.71-86. [https://doi.org/10.1007/978-3-319-43504-6\\_7](https://doi.org/10.1007/978-3-319-43504-6_7)

Ardoino I, Ambrogi F, Iacobelli S, Boracchi P, Manikis G, Kounelakis MG, Zervakis M, Lisboa PJG, Fazi P, Vignetti M, Biganzoli EM, Starita A. 2010. Evaluation of short- and long-term response to treatment in GIMEMA protocol for Acute Myeloid Leukemia. *International Journal of Biomedical Engineering and Technology*, Vol. 3, No.3/4. pp. 329 – 348. DOI: 10.1504/IJBET.2010.032699

Tsolaki E, Kousi E, Kapsalaki E, Dimou I, Theodorou K, Manikis GC, Kappas C, Tsougos I. 2011. *A Statistical Diagnostic Decision Support Tool Using Magnetic Resonance Spectroscopy*. *Data Mining for Biomarker Discovery*, 2011 Springer, Berlin. Pp. 117-142,

[https://doi.org/10.1007/978-1-4614-2107-8\\_7](https://doi.org/10.1007/978-1-4614-2107-8_7)

Manikis GC, Venianaki M, Skepasianos I, Papadakis G, Maris T, Agelaki S, Karantanas K, Marias K. 2019. Scale-space DCE-MRI radiomics analysis based on Gabor filters for predicting breast cancer therapy response. 2019. IEEE 19th International Conference on Bioinformatics and Bioengineering (BIBE), Athens, Greece, 2019, pp. 994-1001.

Manikis GC, Kourou K, Poikonen-Saksela P, Kondylakis H, Karademas E, Marias K, Katehakis D, Koumakis L, Kouroubali A, Pat-Horenczyk R, Fotiadis D, Tsiknakis M, Simos P. 2019. Computational modeling of psychological resilience trajectories during breast cancer treatment. IEEE 19th International Conference on Bioinformatics and Bioengineering (BIBE), Athens, Greece, 2019, pp. 994-1001.

Simos NJ, Manikis GC, Papadaki E, Kavroulakis E, Bertsiyas G, Marias K. 2019. Machine Learning Classification of Neuropsychiatric Systemic Lupus Erythematosus patients using resting-state fMRI functional connectivity. 2019 IEEE International Conference on Imaging Systems and Techniques (IST), Abu Dhabi, United Arab Emirates, 2019, pp. 1-6.

Manikis GC, Marias K, Alissandrakis E, Perrotto L, Savvidaki E, Vidakis N. 2019. Pollen Grain Classification using Geometrical and Textural Features. 2019 IEEE International Conference on Imaging Systems and Techniques (IST), Abu Dhabi, United Arab Emirates, 2019, pp. 1-6.

Pentari A, Tsagkatakis G, Marias K, Manikis GC, Kartalis N, Papanikolaou N, Tsakalides P. 2019. Sparse Representations on DW-MRI: A study on pancreas. 19<sup>th</sup> IEEE International Conference on Bioinformatics and Bioengineering (BIBE) (Ready to be published)

Kontopodis E, Manikis GC, Skepasianos I, Tzagkarakis K, Nikiforaki K, Papadakis GZ, Maris TG, Papadaki E, Karantanas A, Marias K. 2018. DCE-MRI radiomics features for predicting breast cancer neoadjuvant therapy response, IEEE International Conference on Imaging Systems and Techniques (IST), Krakow, 2018, pp. 1-6. <https://doi:10.1109/IST.2018.8577128>

Kontopodis E, Manikis GC, Nikiforaki K, Venianaki M, Marias M, Maris TG, Karantanas A, Papadaki E. 2018. Incremental diagnostic information obtained via novel Dynamic Contrast Enhanced MRI framework applied on Multiple Sclerosis patients: A preliminary study. IEEE EMBS International Conference on Biomedical Health Informatics (BHI), pp. 46-49, <https://doi.org/10.1109/BHI.2018.8333366>

Spanakis M, Manikis GC, Porwal S, Spanakis EG, 2018. Developing a Context-Dependent Tuning Framework of Multi-channel Biometrics that Combine Audio-Visual Characteristics for Secure Access of an eHealth Platform. International Conference on Wireless Mobile Communication and Healthcare, MobiHealth 2017: Wireless Mobile Communication and Healthcare pp 190-198, Springer, Cham, [https://doi.org/10.1007/978-3-319-98551-0\\_22](https://doi.org/10.1007/978-3-319-98551-0_22)

Manikis GC, Nikiforaki K, Ioannidis G, Papanikolaou N, Marias K. 2016. Addressing Intravoxel Incoherent Motion challenges through an optimized fitting framework for quantification of perfusion. IEEE International

Conference on Imaging Systems and Techniques (IST), Chania, Greece. pp. 487-492. <https://doi.org/10.1109/IST.2016.7738275>

Manikis GC, Nikiforaki K, Papanikolaou N, Marias K. 2016. Diffusion Modelling Tool (DMT) for the analysis of Diffusion Weighted Imaging (DWI) Magnetic Resonance Imaging (MRI) data. Computer Graphics International (CGI), the 33th Annual Conference, pp. 97-100. <https://doi.org/10.1145/2949035.2949060>

Marias K, Nikiforaki K, Manikis GC, Kontopodis E, Papanikolaou N. 2016. Visualizing tumor environment with perfusion and diffusion MRI: Computational challenges. Computer Graphics International (CGI), the 33th Annual Conference, pp. 113-116, <https://doi.org/10.1145/2949035.2949064>

Manikis GC, Maniadi E, Tsiknakis M, Marias K. 2014. Multi-Modal Medical Data Analysis Platform (3MDAP) for analysis and predictive modelling of cancer trial data. IEEE Proceedings of the 2014 6th International Advanced Research Workshop on In Silico Oncology and Cancer Investigation - The CHIC Project Workshop (IARWISOCI). pp. 1-4, <https://doi.org/10.1109/IARWISOCI.2014.7034645>

Zepp J, Graf N, Karatzanis I, Stenzhorn H, Manikis GC, Sakkalis V, Reith W, Stamatakos G, Marias K. 2012. An innovative mathematical analysis of routine MRI scans in patients with glioblastoma using DoctorEye. IEEE 12th International Conference on BioInformatics and BioEngineering, Larnaca, Cyprus, pp. 620-625, <https://doi.org/10.1109/BIBE.2012.6399773>

David R, Graf N, Karatzanis I, Stenzhorn H, Manikis GC, Sakkalis V, Stamatakos G.S, Marias K. 2012. Clinical Evaluation of DoctorEye Platform in Nephroblastoma. IEEE Proceedings of the 2012 5th International Advanced Research Workshop on In Silico Oncology and Cancer Investigation, pp. 1-4

Sakkalis V, Manikis GC, Papanikolaou N, Karatzanis I, Marias K. 2012. A Software Prototype for the Assessment of Tumor Treatment Response Using Diffusion and Perfusion MR Imaging. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, San Diego, CA, 2012, pp. 388-391, <https://doi.org/10.1109/EMBC.2012.6345950>

Manikis GC, Sakkalis V, Zabulis X, Karamaounas P, Triantafyllou A, Douma S, Zamboulis C, Marias K. 2011. An Image Analysis Framework for the Early Assessment of Hypertensive Retinopathy Signs. IEEE E-Health and Bioengineering Conference (EHB), (Best Paper Award)

Manikis GC, Emmanouilidou D, Sakkalis V, Graf N, Marias K. 2011. A Fully Automated Image Analysis Framework for Quantitative Assessment of Temporal Tumor Changes. IEEE E-Health and Bioengineering Conference (EHB)

Manikis GC, Kounelakis MG, Zervakis M. 2009. Pattern Recognition Methods for Acute Myeloid Leukemia (AML) Induction-Treatment Analysis. Frontiers in Artificial Intelligence and Applications, Volume 196, 2009, pages 69-80. <https://doi.org/10.3233/978-1-60750-010-0-69>

**Papers in Proceedings  
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