

Personal Summary

Dr. L. Koumakis is an experienced biomedical informatics professional with expertise in computational biology, bioinformatics and data mining. Expert in design, development and adaptation of methodologies and tools for knowledge discovery from heterogeneous clinico-genomic data to strengthen and support individualized and stratified medicine protocols.

L. Koumakis is the IT Architect of the Greek Biobanks network (BBMR-GR), responsible for the coordination and connection of the Greek biobank Centers and their linkage with collections in other European Center via the BBMRI-ERIC. He is the author of MinePath (www.minepath.org), an interactive pathway analysis web-server for real-time identification of differentially expressed sub-pathways in gene regulatory networks.

In the past, he has worked in the design and implementation of service-oriented architectures for life sciences and he has experience genomics and genetics analysis. He has participated in various international and national R&D projects and has published more than 75 papers in scientific journals, proceedings of international conferences & workshops, related to his fields of expertise. He serves as a reviewer for journals in the field of bioinformatics, including Plos and frontiers, and as project evaluator for the Greek General Secretary of Research and Technology and for the French National Alliance for Life and Health Sciences (call for proposals in the field of multidisciplinary approaches in modeling complex biological processes applied to cancer field).

Education

2011–2014 **Doctorate of Philosophy (Ph.D.) in Systems biology**

Technical University of Crete Greece

Dissertation: Computational methods for knowledge discovery from heterogeneous data sources: methodology and implementation on biological and molecular sources.

Advisors: Vassilis Moustakis, George Potamias, Michael Zervakis.

2002–2004 **Master of Science (M.Sc.)**

Computer Science Department, University of Crete, Greece

Thesis: HealthObs: Health Observatory. Uniform Modelling and Intelligent Data Processing in Distributed and Heterogeneous Clinical Information Sources.

Advisors: Stelios Orfanoudakis, George Potamias

1996–2001 **Bachelor of Science (B.Sc.)**

Computer Science Department, University of Crete, Greece

Thesis: Automated Construction and Revision of Semantic Networks.

Advisor: George Potamias

Awards

- The publication entitled Modeling susceptibility to periodontitis received the "**IADR/AADR William J. Gies Award**" for **the best clinical research paper** published in the Journal of Dental Research (JDR) during the preceding year. The JDR is the top ranked journal (Impact Factor: 4.144) for original scientific articles in dentistry.
- The publication: L. Koumakis, G. Potamias, K. Marias and M. Tsiknakis. "*An Algorithmic Approach for the Effect of Transcription Factor Binding Sites over Functional Gene Regulatory*

Networks” received the **Best Student Paper Award** at the 15th IEEE International Conference on Bioinformatics & Bioengineering (BIBE).

- The publication entitled «Donor’s support tool: Enabling informed secondary use of patient’s biomaterial and personal data» (doi: 10.1016/j.ijmedinf.2016.10.019) has been selected to be included in the IMIA Yearbook of Medical Informatics as **one of the best articles from the literature in the ‘Consumer Health Informatics’** subfield of medical informatics published in the past year.

Scholarships

- **Ph.D. Scholarship (2011-2014): Heraclitus II**, Investing in knowledge society through the European Social Fund.
- **M.Sc. Student Research Fellowship (2002-2004)**, Foundation for Research and Technology – Hellas (FORTH) - Institute of Computer Science (ICS)
- **Erasmus Program Scholarship (2001)** at Universitat Politècnica de Catalunya (Spring 2001)
- **Undergraduate Student Research Fellowship (2000-2001)**, Foundation for Research and Technology – Hellas (FORTH) - Institute of Computer Science (ICS)

Leadership Activities

2015 – present	IT Architect of the Greek Biobanks network (BBMR.gr) BBMRI-GR will create a network of Greek Biobanks and connect them with the BBMRI-ERIC. The IT architect is responsible for the coordination and connection of all the Greek Centers of biobank collections and their linkage with existing collections in other European Centers, via the BBMRI-ERIC. Furthermore, L. Koumakis represents Greece at the BBMRI-ERIC Common Services IT.
2017 - present	Technical coordinator EU-Horizon2020 project BOUNCE Technical coordinator for the EU Horizon2020 project BOUNCE “Predicting Effective Adaptation to Breast Cancer to Help Women to BOUNCE Back” (SC1-PM-17-2017 No. 777167). Total budget of the project 5 Million euros (FORTH budget 700.000).
2019 - present	Work package leader at Horizon2020 project Work package leader on behalf of CBML at the H2020-SC1-2018-Single-Stage-RTD - SC1-BHC-23-2018 project MyPal (Fostering Palliative Care of Adults and Children with Cancer through Advanced Patient Reported Outcome Systems) and leader of the software architecture. Total budget of the project 4 Million euros (FORTH budget 330.000).
2020-present	Coordinator on behalf of FORTH at RESEARCH - CREATE – INNOVATE

Scientific coordinator of FORTH for the national RCI project T2ΕΔK-03413 cerHPVix (Integrated biomolecular approach to population self-screening for the prevention of cervical cancer). Total budget 900.000 (FORTH budget 80.000).

2015 – 2018

Scientific coordinator on behalf of CBML

Scientific coordinator on behalf of CBML at the EU Horizon2020 project iManageCancer - Empowering patients and strengthening self-management in cancer diseases (H2020-PHC-26-2014 No. 643529) and **leader of the Smart analytical data services work package**. Total budget of the project 4.8 Million euros (CBML-FORTH budget 750.000).

2011 - 2015

Work Package leader

Work package leader on behalf of CBML at the FP7 EU project EURECA - Enabling information re-Use by linking clinical REsearch and Care (FP7-ICT-2011.7 No 288048). Total budget of the project 13 Million euros (CBML-FORTH budget 960.000).

Employment

2015 – present

Collaborating researcher ICS-FORTH

Collaborating researcher at Computational BioMedicine Laboratory (CBML) of Institute of Computer Science (ICS) at Foundation for Research and Technology - Hellas (FORTH). Current activities:

- IT Architect of the Greek Biobanks network (BBMR.gr)
- Leader of the “Patient Reported Outcome Tool for Adults” work package in the MyPal project.
- Scientific coordinator on behalf of CBML at the national RCI project cerHPVix.
- Scientific coordinator on behalf of CBML at the EU Horizon2020 project iManageCancer
- Leader of the Smart analytical data services work package in the iManageCancer project.

October 2014 - December 2014 **Postdoctoral Researcher - University of Oxford**

- Postdoctoral researcher at the Computational Biology and Integrative Genomics Group of the Department of Oncology, University of Oxford under the supervision of Dr. Francesca Buffa.

2011 - 2014

Senior Technical Staff ICS-FORTH

Participated in EURECA, P-medicine and ENCCA EU FP7 projects:

- **EURECA**: Leader of the evaluation and validation work package. Worked and coordinated the verification, validation and evaluation activities of the EURECA components and the clinical scenarios.
- **ENCCA**: Member of the biological research IT team of the EUROPEAN NETWORK for CANCER research in CHILDREN and ADOLESCENTS (ENCCA project FP7-HEALTH-F2-2011 No. 261474). Worked on the definition of the minimum

common dataset for biobanks and on the implementation of a knowledge discovery algorithm for gene regulatory network.

- **P-Medicine:** Implemented bioinformatics and systems biology algorithms for miRNA datasets and their combination with gene regulatory networks. Designed and implemented a natural language processing framework for semantic biomedical resource discovery.

2010 - 2011

Technical Staff ICS-FORTH

- Worked in **REACTION** (Remote Accessibility to Diabetes Management and Therapy in Operational Healthcare Networks, FP7-IP-No 248590) for the design and implementation of predictive models and risk assessment for diabetes. Developed new general algorithms for predictive modelling and participated in the design of the predictive model platform.

**October 2005 -
December 2009**

Technical Staff ICS-FORTH

Worked at ACGT, Gen2Phen, InfoBioMed and MIMP EU projects as technical staff/research assistant:

- **ACGT** (Advancing Clinico-Genomic Clinical Trials on Cancer: Open Grid Services for Improving Medical Knowledge Discovery, EU-FP6-IST-026996): Worked on the design and implementation of a web based scientific workflow editor for the orchestration of bioinformatics web services and scripts. Integration of clinical (from clinical trials) and genomic data and implementation of bioinformatics algorithms for (i) gene selection (ii) classification.
- **InfoBioMed** (Structuring European Biomedical Informatics to Support Individualized Healthcare EU-FP6-IST-507585): Design and implementation of the online (web based) biobank database. Implementation of text mining algorithms for plain text data.
- **Gen2Phen** (Genotype-to-Phenotype Databases: A Holistic Solution, EU-FP7-HEALTH-200754): Research and evaluation of web based scientific workflow platforms for distributed environments.
- **MIMP** (Development of curriculum for a Master's degree in Medical Informatics in Egypt, TEMPUS JEP-31053-2003): Professor's assistant for the Master's degree in Medical Informatics in Egypt.
- **WS-Talk** (Web Services Communicating in the Language of Their User Community, EU-FP6-COOP-CT-00602615): Worked on natural language processing algorithms and web services orchestration.

2004 –2005

Greek Air Force (Mandatory) Military Service

**September 2001 –
April 2004**

Graduate scholarship

- Research assistant/R&D engineer. Designed and implemented a standalone (java-based) clinical decision support system targeting the seamless

integration and intelligent processing of distributed and heterogeneous clinical and genomic data.

September 2000 – Undergraduate scholarship

August 2001

- Worked on graph theory and semantic networks and implemented an automatic revision and construction system for semantic networks using supervised learning algorithms.

Teaching Experience

- **1 semester (Spring 2020): Adjunct professor** - course “**Bioinformatics and Simulation of Physiological Systems**” at the Department of Electrical and Computer Engineering of the Hellenic Mediterranean University.
- **1 semester (Spring 2020): Adjunct professor** - course “**Mathematical Models in Biology**” at the M.Sc. Bioinformatics and Neuroinformatics, Hellenic Open University
- **1 semester (Spring 2020): Adjunct professor** - course “**Introduction to Biomedical Signals and Applications**” at the Department of Electrical and Computer Engineering of the Hellenic Mediterranean University.
- **1 semester (Spring 2019): Adjunct professor** - course “**Bioinformatics and Simulation of Physiological Systems**” at the Department of Informatics Engineering, Technological Education Institute of Crete.
- **1 semester (Spring 2019): Adjunct professor** - course “**Mathematical Models in Biology**” at the M.Sc. Bioinformatics and Neuroinformatics, Hellenic Open University
- **1 semester (Spring 2019): Adjunct professor** - course “**Introduction to Biomedical Signals and Applications**” at the Department of Informatics Engineering, Technological Education Institute of Crete.
- **1 semester (Spring 2018): Adjunct professor** - course “**Bioinformatics and Simulation of Physiological Systems**” at the Department of Informatics Engineering, Technological Education Institute of Crete.
- **1 semester (Fall 2017): Adjunct professor** - course “**Multimedia eHealth Services**” at the Department of Informatics Engineering, Technological Education Institute of Crete.
- **1 semester (Spring 2017): Adjunct professor** - course “**Bioinformatics and Simulation of Physiological Systems**” at the Department of Informatics Engineering, Technological Education Institute of Crete.
- **1 semester (Spring 2010): Adjunct Laboratory Collaborator/Instructor** at the Department of Informatics Engineering, Technological Education Institute of Crete, course “**Object-oriented programming**”
- **8 semesters (Fall 2005, Spring 2006, Fall 2006, Spring 2007, Fall 2007, Spring 2008, Fall 2008, Spring 2009): Adjunct Laboratory Collaborator/Instructor** at Department of Sciences, Technological Education Institute of Crete for the course “**Advanced programming**” at Civil Engineering department
- **4 semesters (Fall 2001, Spring 2002, Fall 2002 & spring 2003) : Teaching assistant** at Computer Science Department, University of Crete for the courses “Machine learning”, “Logic in Computer Science” and “Digital Design”.

Skills

- **Languages:** Greek (Native), English-ILR level 4 (Full professional proficiency), Spanish-ILR level 0 (Basic)
- **Programming languages:** Java (15 years) , JavaScript (7 years), C++ (5 years), C, C#, R-statistic, python (3 year) php (1 year), V. Basic, .net, Pascal
- **Markup languages/Data Models:** XML, RDF, OWL, HTML, CSS, json
- **Other tools/platforms:** Weka, SPSS, Tomcat/servlets, web/rest services, Unix

Publications

- **75 publications** at international peer reviewed journals and conferences
- **Cumulative impact factor: 77.4**
- **H-index: 16**
- **I10-index: 27**
- **Over 835 Citations**

The following table shows the impact factor of the journals that I have publish.

Publication	Journal (& year of publication)	Impact Factor	Scimago
35	Computational and Structural Biotechnology Journal (2020)	6.01	Q1
34	International Journal of Oncology (2020)	3.89	Q1
28,33	Journal of Biomedical Informatics(2020)	2.95	Q1
30	IEEE reviews in biomedical engineering (2019)	6.18	Q1
23	Biopreservation and Biobanking (2018)	1.90	Q1
22	<i>Nucleic Acids Research</i> (2017)	10.16	Q1
21	<i>International journal of medical informatics</i> (2017)	3.21	Q1
20	<i>PLoS computational biology</i> (2016)	4.54	Q1
19	<i>EBioMedicine</i> (2016)	6.68	Q1
18	BMC Medical Informatics and Decision Making (2016)	1.64	Q1
17	Journal of biomedical informatics (2016)	2.12	Q1
14	<i>BMC medical informatics and decision making</i> (2015)	1.83	Q1
12,24,25,26,27	<i>ecancermedicalscience</i> (2019)	1.78	Q2
11	<i>Computers in biology and medicine</i> (2013)	2.28	Q1
10	<i>Journal of dental research</i> (2013)	4.14	Q1
8	<i>Journal of Diabetes and its Complications</i> (2013)	3.00	Q1
2	<i>In Methods and Applications of Artificial Intelligence</i> (2004)	0.25	Q3
1	<i>Information Communication Technologies in Health</i> (2004)	1.82	Q2

Journal Articles

- 35 **Koumakis, Lefteris**. "Deep learning models in genomics; are we there yet?." *Computational and Structural Biotechnology Journal* (2020).
- 34 Trivizakis, Eleftherios, Georgios Z. Papadakis, Ioannis Souglakos, Nikolaos Papanikolaou, **Lefteris Koumakis**, Demetrios A. Spandidos, Aristidis Tsatsakis, Apostolos H. Karantanas, and Kostas Marias. "Artificial intelligence radiogenomics for advancing precision and effectiveness in oncologic care." *International Journal of Oncology* 57, no. 1 (2020): 43-53.
- 33 Kondylakis, Haridimos, **Lefteris Koumakis**, Manolis Tsiknakis, and Stephan Kiefer. "Personally managed health data: Barriers, approaches and a roadmap for the future." *Journal of Biomedical Informatics* (2020): 103440-103440.
- 32 Kouroubali, Angelina, **Lefteris Koumakis**, Haridimos Kondylakis, and Dimitrios G. Katehakis. "Smart Healthcare Apps for Quality Cancer Patient Support." *International Journal of Big Data and Analytics in Healthcare (IJBDAH)* 5, no. 1 (2020): 28-48.
- 31 Kondylakis, Haridimos, Santiago Hors-Fraile, **Lefteris Koumakis**, Angelina Kouroubali, George Notas, Alejandro Rivero-Rodriguez, Prodromos Sidiropoulos, Panagiotis Simos, and Dimitrios G. Katehakis. "An

Innovative, Information and Communication Technology Supported Approach, Towards Effective Chronic Pain Management." In *Alternative Pain Management: Solutions for Avoiding Prescription Drug Overuse*, pp. 125-145. IGI Global, 2020.

- 30 **Lefteris Koumakis**, Chariklia Chatzaki, Eleni Kazantzaki, Evangelia Maniadi, and Manolis Tsiknakis "Dementia care frameworks and assistive technologies for their implementation: A Review." *IEEE reviews in biomedical engineering* (2019).
- 29 Kouroubali, Angelina, **Lefteris Koumakis**, Haridimos Kondylakis, and Dimitrios G. Katehakis. "An Integrated Approach Towards Developing Quality Mobile Health Apps for Cancer." In *Mobile Health Applications for Quality Healthcare Delivery*, pp. 46-71. IGI Global, 2019.
- 28 Haridimos Kondylakis, **Lefteris Koumakis**, Manolis Tsiknakis, and Stephan Kiefer. "The Vision of Personally Managed Health Data: Barriers, Approaches and Roadmap for the Future." *Journal of Biomedical Informatics*, v. 81, p. 131-132 (2018).
- 27 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 psycho-emotional aspects with the Family Resilience (FaRe) Questionnaire." *ecancermedicalscience* 12 (2018).
- 26 Galatia Iatraki, Haridimos Kondylakis, **Lefteris Koumakis**, Maria Chatzimina, Eleni Kazantzaki, Kostas Marias, and Manolis Tsiknakis. "Personal Health Information Recommender: implementing a tool for the empowerment of cancer patients." *ecancermedicalscience* 12 (2018).
- 25 Chiara Crico, Chiara Renzi, Norbert Graf, Alena Buyx, Haridimos Kondylakis, **Lefteris Koumakis**, and Gabriella Pravettoni. "mHealth and telemedicine apps: in search of a common regulation." *ecancermedicalscience* 12 (2018).
- 24 Fatima Schera, Michael Schäfer, Anca Bucur, Jasper van Leeuwen, Eric Herve Ngantchjon, Norbert Graf, Haridimos Kondylakis, **Lefteris Koumakis**, Kostas Marias, and Stephan Kiefer. "iManageMyHealth and iSupportMyPatients: mobile decision support and health management apps for cancer patients and their doctors." *ecancermedicalscience* 12 (2018).
- 23 Holub, Petr, Florian Kohlmayer, Fabian Prasser, Michaela Th Mayrhofer, Irene Schlünder, Gillian M. Martin, Sara Casati, **Lefteris Koumakis** et al. "Enhancing reuse of data and biological material in medical research: from FAIR to FAIR-health." *Biopreservation and biobanking* 16, no. 2 (2018): 97-105.
- 22 **Koumakis, Lefteris**, Panos Roussos, and George Potamias. "minepath. org: a free interactive pathway analysis web server." *Nucleic Acids Research*(2017). (to appear July 2017)
- 21 Kondylakis, Haridimos, **Lefteris Koumakis**, Stephanie Hännold, Iheanyi Nwankwo, Nikolaus Forgó, Kostas Marias, Manolis Tsiknakis, and Norbert Graf. "Donor's support tool: Enabling informed secondary use of patient's biomaterial and personal data." *International journal of medical informatics* 97 (2017): 282-292
- 20 **Koumakis, Lefteris**, Alexandros Kanterakis, Evgenia Kartsaki, Maria Chatzimina, Michalis Zervakis, Manolis Tsiknakis, Despoina Vassou et al. "MinePath: mining for phenotype differential sub-paths in molecular pathways." *PLoS computational biology* 12, no. 11 (2016): e1005187.
- 19 Mehta, Shaveta, Nick P. Hughes, Sonia Li, Adrian Jubb, Rosie Adams, Simon Lord, **Lefteris Koumakis** et al. "Radiogenomics monitoring in breast cancer identifies metabolism and immune checkpoints as early actionable mechanisms of resistance to anti-angiogenic treatment." *EBioMedicine* 10 (2016): 109-116.
- 18 Bucur, Anca, Jasper van Leeuwen, Nikolaos Christodoulou, Kamana Sigdel, Katerina Argyri, **Lefteris Koumakis**, Norbert Graf, and Georgios Stamatakis. "Workflow-driven clinical decision support for personalized oncology." *BMC medical informatics and decision making* 16, no. 2 (2016): 87.
- 17 Haridimos Kondylakis, Brecht Claerhout, Mehta Keyur, Lefteris Koumakis, Jasper van Leeuwen, Kostas Marias, David Perez-Rey, Kristof de Schepper, Manolis Tsiknakis, Anca Bucur. "The INTEGRATE Project: Delivering solutions for efficient multi-centric clinical research and trials." *Journal of biomedical informatics* 62, 32-47.
- 16 Kondylakis, Haridimos, **Lefteris Koumakis**, Manolis Tsiknakis, Kostas Marias and Stephan Kiefer. "Big Data in Support of the Digital Cancer Patient". *ERCIM News*, 104, 27-28, January 2016.

- 15 **Koumakis, L.**, K. Sigdel, G. Potamias, S. Sfakianakis, J. van Leeuwen, G. Zacharioudakis, V. Moustakis et al. "Bridging miRNAs and pathway analysis in clinical decision support: a case study in nephroblastoma." *Network Modeling Analysis in Health Informatics and Bioinformatics* 4, no. 1 (2015): 1-12.
- 14 Sfakianaki, Pepi, **Lefteris Koumakis**, Stelios Sfakianakis, Galatia Iatraki, Giorgos Zacharioudakis, Norbert Graf, Kostas Marias, and Manolis Tsiknakis. "Semantic biomedical resource discovery: a Natural Language Processing framework." *BMC medical informatics and decision making* 15, no. 1 (2015): 77.
- 13 Hochedlinger, Nina, Michael Nitzlader, Markus Falgenhauer, Stefan Welte, Dieter Hayn, **Lefteris Koumakis**, George Potamias et al. "Standardized Data Sharing in a Paediatric Oncology Research Network—A Proof-of-Concept Study." *EHealth2015—Health Informatics Meets EHealth: Innovative Health Perspectives: Personalized Health* 212 (2015): 27.
- 12 Kondylakis, Haridimos, Eleni Kazantzaki, **Lefteris Koumakis**, Irini Genitsaridi, Kostas Marias, Alessandra Gorini, Ketti Mazzocco et al. "Development of interactive empowerment services in support of personalised medicine." *ecancermedicalscience* 8 (2014).
- 11 Genitsaridi, Irini, Haridimos Kondylakis, **Lefteris Koumakis**, Kostas Marias, and Manolis Tsiknakis. "Evaluation of personal health record systems through the lenses of EC research projects." *Computers in biology and medicine* (2013).
- 10 Laine, M. L., V. Moustakis, **L. Koumakis**, G. Potamias, and B. G. Loos. "Modeling susceptibility to periodontitis." *Journal of dental research* 92, no. 1 (2013): 45-50. doi:10.1177/0022034512465435.
- 9 Genitsaridi, Irini, Haridimos Kondylakis, **Lefteris Koumakis**, Kostas Marias, and Manolis Tsiknakis. "Towards Intelligent Personal Health Record Systems: Review, Criteria and Extensions." *Procedia Computer Science* 21 (2013): 327-334.
- 8 Lagani, Vincenzo, **Lefteris Koumakis**, Franco Chiarugi, Edin Lakasing, and Ioannis Tsamardinos. "A systematic review of predictive risk models for diabetes complications based on large scale clinical studies." *Journal of Diabetes and its Complications* 27, no. 4 (2013): 407-413.
- 7 **Koumakis, Lefteris**, Vassilis Moustakis, Michalis Zervakis, Dimitris Kafetzopoulos, and George Potamias. "Coupling regulatory networks and microarrays: revealing molecular regulations of breast cancer treatment responses." In *Artificial Intelligence: Theories and Applications*, pp. 239-246. Springer Berlin Heidelberg, 2012.
- 6 Kanterakis, A., G. Potamias, G. Zacharioudakis, **L. Koumakis**, S. Sfakianakis, and M. Tsiknakis. "Scientific discovery workflows in bioinformatics: a scenario for the coupling of molecular regulatory pathways and gene-expression profiles." *Studies in health technology and informatics* 160, no. Pt 2 (2009): 1304-1308.
- 5 Potamias, George, **Lefteris Koumakis**, Alexandros Kanterakis, Vassilis Moustakis, Dimitris Kafetzopoulos, and Manolis Tsiknakis. "Mining Interesting Clinico-Genomic Associations: The HealthObs Approach." In *Artificial Intelligence and Innovations 2007: from Theory to Applications*, pp. 137-145. Springer US, 2007.
- 4 **Koumakis, Lefteris**, Vassilis Moustakis, Alexandros Kanterakis, and George Potamias. "Mining time series with mine time." In *Advances in Artificial Intelligence*, pp. 158-168. Springer Berlin Heidelberg, 2006.
- 3 Potamias, George, **Lefteris Koumakis**, and Vassilis Moustakis. "Mining XML clinical data: the healthobs system." *Ingénierie des systèmes d'information* 10, no. 1 (2005): 59-79.
- 2 Potamias, George, **Lefteris Koumakis**, and Vassilis Moustakis. "Gene selection via discretized gene-expression profiles and greedy feature-elimination." In *Methods and Applications of Artificial Intelligence*, pp. 256-266. Springer Berlin Heidelberg, 2004.
- 1 Potamias, George, and **Lefteris Koumakis**. "HealthObs: An Integrated System for Mining Clinical XML-formatted DATA." In *International Conference on Information Communication Technologies in Health*. 2004.

Publications in conferences (full-paper reviewed)

- 40 Maramis, Christos, Christina Karamanidou, Fatima Schera, Stephan Kiefer, **Lefteris Koumakis**, Konstantinos Marias, Stefan Hoffmann et al. "Using Electronic Patient Reported Outcomes to Foster Palliative Cancer Care: The MyPal Approach." In *2019 IEEE 19th International Conference on Bioinformatics and Bioengineering (BIBE)*, pp. 405-409. IEEE, 2019.
- 39 Kyriakakis, Alexandros, **Lefteris Koumakis**, Alexandros Kanterakis, Galatea Iatraki, Manolis Tsiknakis, and George Potamias. "Enabling Ontology-Based Search: A Case Study in the Bioinformatics Domain." In *2019 IEEE 19th International Conference on Bioinformatics and Bioengineering (BIBE)*, pp. 227-234. IEEE, 2019.
- 38 Manikis, Georgios C., Konstantina Kourou, Paula Poikonen-Saksela, Haridimos Kondylakis, Evangelos Karademas, Kostas Marias, Dimitrios G. Katehakis **et al.** "Computational modeling of psychological resilience trajectories during breast cancer treatment." In *2019 IEEE 19th International Conference on Bioinformatics and Bioengineering (BIBE)*, pp. 423-427. IEEE, 2019.
- 37 Chatzimina, Maria, **Lefteris Koumakis**, Kostas Marias, and Manolis 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. IEEE, 2019.
- 36 Kanterakis, Alexandros, Galatea Iatraki, Konstantina Pityanou, **Lefteris Koumakis**, Nikos Kanakaris, Nikos Karacapilidis, and George Potamias. "Towards reproducible bioinformatics: the OpenBio-C scientific workflow environment." In *2019 IEEE 19th International Conference on Bioinformatics and Bioengineering (BIBE)*, pp. 221-226. IEEE, 2019.
- 35 Kourou, Konstantina, Haridimos Kondylakis, **Lefteris Koumakis**, Georgios C. Manikis, Kostas Marias, Manolis Tsiknakis, Panagiotis G. Simos, Evangelos Karademas, and Dimitrios I. Fotiadis. "Computational Models for Predicting Resilience Levels of Women with Breast Cancer." In *Mediterranean Conference on Medical and Biological Engineering and Computing*, pp. 518-525. Springer, Cham, 2019.
- 34 Kondylakis, Haridimos, **Lefteris Koumakis**, Dimitrios G. Katehakis, Angelina Kouroubali, Kostas Marias, Manolis Tsiknakis, Panagiotis G. Simos, and Evangelos 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)*, pp. 652-657. IEEE, 2019.
- 33 Kouroubali, Angelina, Haridimos Kondylakis, **Lefteris Koumakis**, George Papagiannakis, Paul Zikas, and Dimitrios G. Katehakis. "iSupport: Building a Resilience Support Tool for Improving the Health Condition of the Patient During the Care Path." In *pHealth*, pp. 253-258. 2019.
- 32 Vardalachakis, Marios, Haridimos Kondylakis, **Lefteris Koumakis**, Angelina Kouroubali, and Dimitrios G. Katehakis. "ShinyAnonymizer: A Tool for Anonymizing Health Data." In *ICT4AWE*, pp. 325-332. 2019.
- 31 Haridimos Kondylakis, Angelina Kouroubali, **Lefteris Koumakis**, Alejandro RIVERO-RODRIGUEZ, HORS-FRAILE Santiago, and Dimitrios G. Katehakis. "Designing a Novel Technical Infrastructure for Chronic Pain Self-Management." In *PHealth 2018: Proceedings of the 15th International Conference on Wearable Micro and Nano Technologies for Personalized Health 12-14 June 2018 vol. 249*, p. 203.
- 30 Haridimos Kondylakis, **Lefteris Koumakis**, Manolis Tsiknakis, and Kostas Marias. "Implementing a data management infrastructure for big healthcare data." In *Biomedical & Health Informatics (BHI), 2018 IEEE EMBS International Conference on*, pp. 361-364. IEEE, 2018.
- 29 **Lefteris Koumakis**, H Kondylakis, M Chatzimina, G Iatraki, P Argyropaidas, E Kazantzaki, M Tsiknakis, S Kiefer, K Marias. Designing smart analytical data services for a personal health framework. *Studies in health technology and informatics* (2016). 224, pp. 123-128
- 28 E Kazantzaki, H Kondylakis, **L Koumakis**, K Marias, M Tsiknakis, C Fioretti, A Gorini, K Mazzocco, C Renzi, G Pravettoni. Psycho-emotional tools for better treatment adherence and therapeutic outcomes for cancer patients. *Studies in health technology and informatics* (2016). 224, pp. 129-134.
- 27 **Koumakis**, L.; Potamias, G.; Marias, K.; Tsiknakis, M., "An algorithmic approach for the effect of transcription factor binding sites over functional gene regulatory networks," in *Bioinformatics and Bioengineering (BIBE)*, 2015 IEEE 15th International Conference, pp.1-6, 2-4 Nov. 2015
- 26 Hochedlinger, Nina, Michael Nitzlnader, Markus Falgenhauer, Stefan Welte, Dieter Hayn, **Lefteris Koumakis**, George Potamias et al. "Standardized Data Sharing in a Paediatric Oncology Research Network–

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