

Christos Diou



Associate Professor
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Education

- 2005-2010** **PhD in Electrical and Computer Engineering**
Aristotle University of Thessaloniki
Thesis: “Semantic Analysis of Multimedia Data with Machine Learning”. The thesis studies the problem of automated concept-based multimedia retrieval and proposes concept detector models based on cascades of classifiers and on audiovisual attribute extractors. Furthermore, the thesis proposes training concept detector models using clickthrough data collected from search engines.
Grade: Excellent
- 1999-2004** **Diploma in Electrical and Computer Engineering**
Aristotle University of Thessaloniki
Diploma thesis: “Controlling Complexity and Validity in Semantic Multimedia Search”. The thesis presents and evaluates a set of algorithms for controlling complexity during semantic indexing of multimedia data.
Thesis grade: 10/10
Diploma grade: 8.35/10

Positions

- 2024-today** **Associate Professor:**
Department of Informatics and Telematics, Harokopio University of Athens, Greece
- 2024-today** **Affiliated Researcher:**
ARCHIMEDES AI Unit, Athena Research Center, Greece
- 2020-2024** **Assistant Professor:**
Department of Informatics and Telematics, Harokopio University of Athens, Greece

<i>2013-2020</i>	Research fellow and adjunct professor: Multimedia Understanding Group, Information Processing Lab, Electrical and Computer Engineering Department, Aristotle University of Thessaloniki, Greece
<i>2011-2013</i>	Postdoctoral researcher: Information Technologies Institute, Centre for Research and Technology Hellas, Greece
<i>2005-2011</i>	Research associate: Multimedia Understanding Group, Information Processing Lab, Electrical and Computer Engineering Department, Aristotle University of Thessaloniki, Greece

Research projects

<i>2024-2028</i>	MELIORA: Multimodal Engagement and sustainable Lifestyle Interventions Optimizing breast cancer Risk reduction supported by Artificial intelligence Funding: European Commission, Horizon Europe Role: Task leader for “Causal recommendation engine for delivering personalised awareness and education material” R&D Activities: Development of a causal recommendation engine, capable of (a) delivering context-sensitive recommendations / interventions, targeting behavioral change to reduce the risk for breast cancer and (b) adapting recommendation models to individuals belonging to under-represented population groups. Website: https://cordis.europa.eu/project/id/101136791
<i>2023-2026</i>	HumAIne: Hybrid Human-AI Decision Support for Enhanced Human Empowerment in Dynamic Situations. Funding: European Commission, Horizon Europe Role: Task leader for “Benchmarking Suite for Human-AI models” R&D Activities: The team will be responsible for developing an innovative, automated Human-AI collaboration benchmark. The benchmark will include parametrised synthetic surrogate human agents, which will simulate multiple types of human users (at least 5 agent types for at least 5 tasks and datasets). The benchmark will be developed using tasks and open datasets which are relevant to the HumAIne pilots (manufacturing, smart cities, healthcare, finance, and energy). Website: https://humaine-horizon.eu/
<i>2023-2027</i>	BETTER4U: Preventing obesity through Biologically and bEhaviorally Tailored inTERventions for you. Funding: European Commission, Horizon Europe Role: Development of the BETTER4U causal model R&D Activities: Integration of diverse existing datasets including genetic and lifestyle data from over 1M individuals. Development of a causal model for

weight gain using retrospectively collected data. Methods for addressing issues with missing data, low representation of population, and for identification of optimal behavioural change interventions taking into account individual compliance.

Website: <https://cordis.europa.eu/project/id/101080117>

2022-2026

RELEVIUM: Improving quality of life of advanced pancreatic cancer patients through an AI-guided multimodal intervention, combining pain and cachexia management, nutrition, and physical activity.

Funding: European Commission, Horizon Europe

Role: PI for HUA. Leader of WP1 “Analysis of needs and technology deployment”, participation in tasks related to the development of AI-guided monitoring and decision-support tools

R&D Activities: The HUA team will (a) define the system specifications, and will coordinate the technology development and deployment, (b) lead the development of behavior monitoring tools related to the nutrition and physical activity of the patients, (c) support a feasibility and data collection study that will enable the development of innovative machine learning algorithms for pain and cachexia monitoring (d) will participate in the development of AI-based algorithms for early warning on patient deterioration. The tools that will be developed during the project will be part of a multi-modal intervention that will be evaluated in a multi-centre randomized controlled clinical trial involving 5 different countries.

Website: <https://www.releviumproject.eu/>

2021-2025

REBECCA: REsearch on BrEast Cancer induced chronic conditions supported by Causal Analysis of multi-source data. Develop technologies and methods to assess the safety and effectiveness of interventions as well as determinants of the quality of life of breast cancer patients using “real world data”, i.e. data not collected for the purposes of clinical research. Pilot application in three populations in Norway, Spain and Sweden.

Funding: European Commission, Horizon 2020

Role: PI for HUA. Leader of WP4 “Causal inference and prediction using RWD”

R&D Activities: HUA will develop methods for causal modeling of observational real-world data to determine causal relations between clinical, psychological and patient-reported outcomes and interventions in breast cancer survivors. The focus is on the management of chronic conditions caused by cancer, the first line as well as the secondary treatment in breast cancer patients. Data include data from electronic health records, registry data and biobank data, data from wearable devices, self-reported data, physical and online behavior data, as well as environment data (including the urban, home and socioeconomic environments). The more general ambition is to develop methods for using such rich but noisy and diverse data sources in order to guide clinical and health policy decision in cases where Randomized Controlled Trials are hard or impossible (due to the inability to control all the variables, as well as due to financial and ethical reasons).

Website: <https://rebeccaproject.eu/>

2016-2021	<p>BigO: Big data against childhood obesity. Development of population-level behaviour monitoring system for evidence-based policy decision support against childhood obesity.</p> <p>Funding: European Commission, Horizon 2020 Role: Leader of work package “Analytics and visualisation engine” responsible for signal processing, big data analysis and visualisation. Served as the project’s innovation manager. Responsible for the design of the system architecture.</p> <p>R&D Activities: Machine learning for behavioural indicator extraction from accelerometer, gyroscope and GPS signals from mobiles and smartwatches for eating (detect eating occurrences and in-meal bites), activity types, transportation mode, types of visited locations, sleep patterns. Development of behavioural profiles. Distances between behavioural profiles. Privacy-aware learning (centralised learning without collecting sensitive data from participants). Model explainability for nonlinear models. Modelling of noise and uncertainty at the classifier level. Test error bounds for fuzzy SVMs. Development in python, scala (for Apache Spark) and Java (for web services).</p> <p>Website: https://bigoprogram.eu/</p>
2018-2020	<p>eeRIS: A household energy consumption information system. Development of an electrical energy disaggregation system for detailed monitoring and feedback regarding electrical energy consumption in households.</p> <p>Funding: Greek Secretariat on Research and Technology Role: Part of the coordinating team (Power Systems Lab, ECE, AUTH). Development of a power disaggregation module that decomposes electrical installation-level active and reactive power measurements into the consumption of individual household appliances with minimum user feedback (unsupervised and semi-supervised learning algorithms).</p> <p>R&D Activities: Developed a baseline method for online unsupervised training of NILM models based on Hart’s algorithm. Backend system developed in python.</p>
2013-2016	<p>SPLENDID: Personalised guide for eating and activity behaviour for the prevention of obesity and eating disorders. Development of a detailed eating and activity behaviour monitoring and guidance system to prevent obesity and eating disorders.</p> <p>Funding: European Commission, FP7 Role: Leader of work package “Information processing and inference”, responsible for extracting behavioural indicators from signals and for building data-driven behavioural models.</p> <p>R&D Activities: Development of a new chewing sensor using an in-ear microphone, PPG and accelerometer signals (in collaboration with CSEM S.A.). Development of signal processing and machine learning algorithms to identify chews, snacks and food structure. Development of algorithms for analysing in-meal eating behaviour using a plate scale (Mandometer). Also, development of models for detecting potentially high-risk behaviour across multiple indicators.</p> <p>Website: https://splendid-program.eu/</p>
2011-2013	<p>CASSANDRA: A multivariate platform for assessing the impact of strategic decisions in electrical power systems. A consumption behaviour modelling platform for residential and small-scale commercial electricity consumers.</p>

The platform's purpose is to assess the effectiveness of feedback and pricing incentives for peak reduction in demand-response programmes.

Funding: European Commission, FP7 **Role:** Responsible for coordination of technical work and piloting activities across 9 different partners. Responsible for the development of small-scale electricity consumer models.

R&D Activities: Probabilistic electrical energy consumer models that support simulation and response modelling in different pricing models (demand response). Experiments using data collected from two pilot deployments at a residential building in Luleå, Sweden and a mall near Milan, Italy.

2007-2010 **VITALAS: Video and image indexing and retrieval in the large scale.** An image and video retrieval engine for large multimedia archives. Includes similarity search and cross-media concept-based retrieval.

Funding: European Commission, FP6 **Role:** Research and development of the cross-media concept-based image and video retrieval system.

R&D Activities: Cross-media concept-based indexing and retrieval of images and videos. Concept detectors for 500 concepts using small training sets. Use of cross-domain classifiers to reduce need for large training set sizes. Use of clickthrough data for automatically generating training sets for image retrieval. Explore the noise levels in automatically generated training sets and how to handle this at the classifier level. The modules that were deployed were developed in C.

Website: <http://vitalas.ercim.eu/>

2006-2007 **ASSIST: Association studies assisted by inference and semantic technologies.** Design and development of a system for the unification of heterogeneous medical archives in the cervical cancer domain.

Funding: European Commission, FP6 **Role:** Development of the system specifications. Participation in the design of the system ontology.

R&D Activities: System design and system specifications. Development of an ontology (in OWL) for association studies in the cervical cancer domain.

Current research interests

Domain generalization of ML models: The aim is to train models that robustly identify the target classes/values under data distribution shifts or changes in the data domain (e.g., different statistics of the background in natural images, different source/device in the case of biosignals)

Applications of AI and ML in Health: Examples include (a) representation learning for processing unstructured health data (such as signals), (b) modeling of dietary and physical activity behavior from wearables and videos and (c) exploring the capabilities of combining structural causal models and machine learning for developing explainable causal disease models from multiple sources of observational data.

ML model explainability: Development of new methods to communicate and/or visualize the characteristics of so-called “black-box” ML models, to provide intuition regarding their

behavior. More specifically, the focus is on models for global and regional explainability, as well as in the development of effective, explainable-by-design models.

Causal modeling in ML: In this emerging and ambitious field we wish to replace the traditional i.i.d. data assumption of statistical machine learning with more relaxed assumptions about underlying causal structures within each problem domain. This would lead to solutions on several modern ML problems such as generalization, continual and task incremental learning, robustness to adversarial attacks, and possibly model bias and explainability.

Fairness in ML models handling multiple modalities: We try to develop methods for bias mitigation, focusing on in-processing methods to remove association bias (e.g., visual features that are spuriously correlated with the target class). Effort is made to handle protected attributes at the representation level, in order to be able to handle (a) limited or non-existent labels of the protected attribute and (b) visual/signal attributes that introduce bias but are not clearly defined.

Teaching

Harokopio University of Athens

2020-2025

- **Machine Learning and Applications** (undergraduate)
- **Artificial Intelligence** (undergraduate)
- **Health and Communication Technologies** (undergraduate and postgraduate). Module jointly taught with **Rutgers University**
- **Programming I** (undergraduate)
- **Artificial Intelligence and Applications on the Internet of Things** (postgraduate)
- **Artificial Intelligence and Deep Learning in Healthcare** (postgraduate)
- **Data Management II** (postgraduate - Applied Informatics)
- **Machine Learning** (postgraduate - MPhil in Computer Science)

Previous teaching experience

I have designed and taught the following courses at the Electrical and Computer Engineering Department, Aristotle University of Thessaloniki, Greece:

2018-2019 **Internet of Things and Applications** (postgraduate, independent teaching of 40% of the course)

2018-2019 **Machine learning** (postgraduate, independent teaching of the entire course)

- 2017-2018* **Multimedia Systems** (undergraduate, independent teaching of the entire course)
- 2016-2017* **Human-Computer Interaction** (postgraduate, independent teaching of the entire course)
- 2016-2017* **Multimedia Systems and Graphics** (postgraduate, independent teaching of the entire course)
- 2005-2009* **Algorithm design and analysis** (undergraduate, teaching assistant)
- 2005-2007* **Computer systems** (undergraduate, teaching assistant)

PhD students

The following students have completed their PhD under my supervision:

- Niki Kiriakidou
 - Machine Learning for Causal Effect Estimation
- Aristotelis Ballas
 - Representation Learning Algorithms for Out-Of-Distribution Generalization

PhD students:

- Ioannis Sarridis
 - Fairness-aware Machine Learning for Multimedia Data
- Vasileios Gkolemis
 - Methods for Machine Learning Model Interpretation with Uncertainty Quantification

Other

- Supervised 33 undergraduate and 10 postgraduate (MSc) theses at DIT/HUA
- Co-supervised 3 PhD theses (completed) at the Aristotle University of Thessaloniki (main supervisor: Anastasios Delopoulos).
- Supervised and co-supervised several undergraduate diploma theses and postgraduate master theses at the Harokopio University of Athens and the Aristotle University of Thessaloniki.
- I was a training instructor for machine learning at Veltio SA (<http://www.veltio.com>) for a year in 2017.

Academic activities

Workshops

- **ECML-PKDD 2023 workshop:** “Uncertainty meets Explainability in Machine Learning”
 - <https://xai-uncertainty.github.io>

Reviewer for International Journals

- IEEE Transactions on Pattern Analysis and Machine Intelligence
- IEEE Transactions on Neural Networks and Learning Systems
- IEEE Transactions on Artificial Intelligence
- IEEE Transactions on Image Processing
- IEEE Transactions on Multimedia
- IEEE Access
- IEEE Transactions on Cybernetics
- IEEE Journal of Biomedical and Health Informatics
- Nature Scientific Reports
- ACM Transactions on Multimedia
- ACM-Springer Multimedia Systems
- Artificial Intelligence
- Computer Methods and Programs in Biomedicine
- Engineering Applications of Artificial Intelligence
- Knowledge-Based Systems
- Pattern Recognition
- International Journal of Neural Systems

Conference PC member/reviewer

- CVPR 2025, 2026
- ICML 2026
- ICLR 2026
- AAAI 2026
- ICCV 2025
- BMVC 2026

- ECAI 2023, 2024, 2025
- ICMR 2023, 2024
- ECML-PKDD 2022, 2024, 2025, 2026
- ECCV 2022, 2024, 2026
- ICMR 2023, 2026
- ACM SIGIR 2010, 2012

Memberships

Member of the European Laboratory for Learning and Intelligent Systems ([ELLIS](#)), the Hellenic Artificial Intelligence Society ([EETN](#)) and the IEEE.

Talks / invited lectures

- “Using regional effect plots for machine learning model interpretation: The Effector python package”, Keynote speech at the IAUS 397 “UniversAI” conference of the International Astronomers Union, 2025
- “Using Real-World Data and Causal Models to Support Research on the Quality of Life of Breast Cancer Patients”, Keynote Speech at the Norwegian National Network for Breast Cancer Research, 2024
- “Bias in machine learning: Detection and mitigation in health data”. Full day lecture and workshop for the “Diet, physical activity and disease prevention – interventions, mHealth and eHealth” postgraduate course at Karolinska Institute, 2024
- “New methods for global interpretability of differentiable machine learning models”, invited talk at the “Data science for decision support in uncertain environment” workshop, Department of Mathematics, University of Patras, 2023.
- “Uncertainty meets Explainability in Machine Learning”, introductory talk at the corresponding ECML-PKDD workshop, Sep. 2023
- Invited 3-hour lecture at the “Summer: Rutgers- Health Communication & Health Inequalities Across the Health Professions in Greece & the U.S.”, summer school, 2023
- “A short tutorial on Domain Generalization”, invited tutorial at IEEE BigDataservice 2023 (with Aristotelis Ballas)
- “Artificial Intelligence for Healthcare and Applications in the Study of Childhood Obesity” (in Greek), Conference of Child and Adolescent Endocrinology, 2023
- “Applications of Artificial Intelligence in Endocrinology and Measurement of Dietetic Behavior” (in Greek), Annual Greek Paediatrician College Conference, 2023

- “Artificial Intelligence and Machine Learning for Objective Intake Monitoring”, Invited talk at ICONSD 2022, May. 2022
- “New Methods for Objective Measurements of Eating Behavior in Free-Living Conditions”, Invited talk at SSIB 2021, Jul 2021
- “Machine Learning for Objective Behavior Measurement and its Potential in Improving Health Communication”, 1st Harokopio-Rutgers University joint e-Symposium, June 2021
- “Artificial Intelligence for Eating Behavior Monitoring (in Greek)”, Seminar of the Informatics and Telematics postgraduate programme, Mar 2021
- “Big Data Against Childhood Obesity: Methods and Prospects for Use in Public Health (in Greek)”, Invited talk at the 13th MSD conference, Sep. 2020

Evaluation Committees

- 2020-2025 Examiner for
- 1 Ph.D. thesis at the Bournemouth University, UK
 - 2 Ph.D. theses at the University of Newcastle, New South Wales, Australia
 - 4 Ph.D. theses at the Department of Informatics and Telematics, Harokopio University of Athens
 - 3 Ph.D. theses at the Electrical and Computer Engineering Department, Aristotle University of Thessaloniki
 - 1 Ph.D. thesis at the Department of Informatics, Aristotle University of Thessaloniki
 - 1 Ph.D. thesis at the Department of Informatics, Ionian University
- 2022- Evaluator for research projects funded by the European Commission

Awards

- 2023 Best paper award in IEEE BigDataService 2023 for [C19] (with Anastasios Iliopoulos, Ioannis Violos and Iraklis Varlamis)
- 2022 Best paper award in AIAI 2022 for [C29] (with Niki Kiriakidou)
- 2023, 2024 Teaching award for the overall highest rated course from the Department of Informatics and Telematics, Harokopio University of Athens
- 2020-2022 Two consecutive teaching awards for highest-rated mandatory course from the Department of Informatics and Telematics, Harokopio University of Athens
- 2012 Excellence scholarship for postdoctoral research from the Aristotle University

2007	Award for academic performance by the Technical Chamber of Greece
2005-2008	Three-year scholarship by the Greek National Scholarships Foundation
1999	Scholarship for top performance (1st) in the admission exams for the Electrical and Computer Engineering Department of AUTH

Scientific Publications

The following publications have received over 1800 citations as of Feb, 2026, according to [Google Scholar](#).

Thesis

- [T] Christos Diou. "Semantic Analysis of Multimedia Data with Machine Learning (in Greek)". Ph.D. Thesis. Electrical and Computer Engineering Department, Aristotle university of Thessaloniki, Nov. 2010.

Journals

- [J1] Jorgen Cani, Christos Diou, Spyridon Evangelatos, Vasileios Argyriou, Panagiotis Radoglou-Grammatikis, Panagiotis Sarigiannidis, Iraklis Varlamis, and Georgios Th Papadopoulos. "Illicit object detection in X-ray imaging using deep learning techniques: A comparative evaluation". In: *IEEE Access* (2026).
- [J2] Marius Stensland, Karina F Bru, Marie Austdal, Ingrid H Dahl, Kristin Jonsdottir, Tone H Lende, et al. "Monitoring cancer-related fatigue and quality of life in breast and prostate cancer patients after primary treatment: a study protocol for the REBECCA trials in Norway". In: *Clinical and Experimental Medicine* (2026).
- [J3] Barlo Hillen, Gabrielle Oestreicher, Lisa Schwab, Kira Enders, Perikles Simon, Anneli Elme, et al. "Digital and AI-assisted multimodal supportive care, combining physical activity, nutrition, and pain management during chemotherapy for advanced pancreatic cancer patients: study protocol of the European multicenter randomized controlled trial of the RELEVIMUM project". In: *BMC cancer* 25.1 (2025), p. 1610.
- [J4] Anastasios Iliopoulos, John Violas, Christos Diou, and Iraklis Varlamis. "Feature Bagging with Nested Rotations (FBNR) for anomaly detection in multivariate time series". In: *Future Generation Computer Systems* 163 (2025), p. 107545. ISSN: 0167-739X.
- [J5] Vasileios Papapanagiotou, Ioannis Sarafis, Leonidas Alagialoglou, Vasileios Gkolemis, Christos Diou, and Anastasios Delopoulos. "A system for objectively measuring behavior and the environment to support large-scale studies on childhood obesity". In: *IEEE Journal of Biomedical and Health Informatics* (2025).
- [J6] John Violas, Fotios Voutsas, Christos Diou, and Aris Leivadeas. "Detecting application transitions and identifying application types for intent-based network assurance: A machine learning perspective". In: *Computer Networks* (2025), p. 111872.
- [J7] Aristotelis Ballas and Christos Diou. "Multi-Scale and Multi-Layer Contrastive Learning for Domain Generalization". In: *IEEE Transactions on Artificial Intelligence* (2024), pp. 1–14.

- [J8] Aristotelis Ballas, Vasileios Papapanagiotou, and Christos Diou. "Which Augmentation Should I Use? An Empirical Investigation of Augmentations for Self-Supervised Phonocardiogram Representation Learning". In: *IEEE Access* (2024).
- [J9] Charalampos Davalas, Dimitrios Michail, Christos Diou, Iraklis Varlamis, and Konstantinos Tserpes. "A rehearsal framework for computational efficiency in online continual learning". In: *Applied Intelligence* (2024), pp. 1–17.
- [J10] Georgia Ioannou, Ioulia Petrou, Maria Manou, Athanasia Tragomalou, Eleni Ramouzi, Aikaterini Vourdoumpa, et al. "Dietary and Physical Activity Habits of Children and Adolescents before and after the Implementation of a Personalized, Intervention Program for the Management of Obesity". In: *Nutrients* 16.20 (2024). ISSN: 2072-6643.
- [J11] Niki Kiriakidou, Aristotelis Ballas, Cristina Meliá Hernando, Anna Miralles, Teta Stamati, Dimosthenis Anagnostopoulos, and Christos Diou. "A Causal Inference Methodology to Support Research on Osteopenia for Breast Cancer Patients". In: *Applied Sciences* 14.21 (2024), p. 9700.
- [J12] Antonios Makris, Evangelos Psomakelis, Ioannis Korontanis, Theodoros Theodoropoulos, Ioannis Kontopoulos, Maria Pateraki, Christos Diou, and Konstantinos Tserpes. "Edge-driven Docker registry: facilitating XR application deployment". In: *Computing* (2024), pp. 1–23.
- [J13] Pietro Melzi, Ruben Tolosana, Ruben Vera-Rodriguez, Minchul Kim, Christian Rathgeb, Xiaoming Liu, et al. "FRCSyn-onGoing: Benchmarking and comprehensive evaluation of real and synthetic data to improve face recognition systems". In: *Information Fusion* 107 (2024), p. 102322. ISSN: 1566-2535.
- [J14] Ioannis Sarris, Christos Koutlis, Symeon Papadopoulos, and Christos Diou. "FLAC: Fairness-Aware Representation Learning by Suppressing Attribute-Class Associations". In: *IEEE Transactions on Pattern Analysis and Machine Intelligence* (2024), pp. 1–13.
- [J15] Polychronis Charitidis, Sotirios Moschos, Archontis Pipertzis, Ioakeim James Theologou, Michael Michailidis, Stavros Doropoulos, Christos Diou, and Stavros Vologiannidis. "StreetScouting: A Deep Learning Platform for Automatic Detection and Geotagging of Urban Features from Street-Level Images". In: *Applied Sciences* 13.1 (2023), p. 266.
- [J16] Friska Dhammadwati, Petter Fagerberg, Christos Diou, Ioanna Mavrouli, Evangelia Koukoula, Eirini Lekka, et al. "Ultra-Processed Food vs. Fruit and Vegetable Consumption before and during the COVID-19 Pandemic among Greek and Swedish Students". In: *Nutrients* 15.10 (2023), p. 2321.
- [J17] Christos Diou, Konstantinos Kyritsis, Vasileios Papapanagiotou, and Ioannis Sarafis. "Intake monitoring in free-living conditions: Overview and lessons we have learned". In: *Appetite* 176 (2022), p. 106096. ISSN: 0195-6663.
- [J18] Adele R Tufford, Christos Diou, Desiree A Luccassen, Ioannis Ioakimidis, Grace O'Malley, Leonidas Alagialoglou, et al. "Towards Systems Models for Obesity Prevention: A Big Role for Big Data". In: *Current Developments in Nutrition* (July 2022). ISSN: 2475-2991.
- [J19] Ioanna-M. Chatzigeorgiou, Christos Diou, Kyriakos C. Chatzidimitriou, and Georgios T. Andreou. "Demand Response Alert Service Based on Appliance Modeling". In: *Energies* 14.10 (2021). ISSN: 1996-1073.

- [J20] Petter Fagerberg, Evangelia Charmandari, Christos Diou, Rachel Heimeier, Youla Karavidopoulou, Penio Kassari, et al. "Fast Eating Is Associated with Increased BMI among High-School Students". In: *Nutrients* 13.3 (2021). ISSN: 2072-6643.
- [J21] Dimitris Filos, Irini Lekka, Vasileios Kilintzis, Leandros Stefanopoulos, Youla Karavidopoulou, Christos Maramis, et al. "Exploring Associations Between Children's Obesogenic Behaviors and the Local Environment Using Big Data: Development and Evaluation of the Obesity Prevention Dashboard". In: *JMIR Mhealth Uhealth* 9.7 (July 2021), e26290. ISSN: 2291-5222.
- [J22] Konstantinos Kyritsis, Christos Diou, and Anastasios Delopoulos. "A Data Driven End-to-end Approach for In-the-wild Monitoring of Eating Behavior Using Smartwatches". In: *IEEE Journal of Biomedical and Health Informatics* (2020).
- [J23] Billy Langlet, Christos Maramis, Christos Diou, Nikolaos Maglaveras, Petter Fagerberg, Rachel Heimeier, et al. "Formative Evaluation of a Smartphone App for Monitoring Daily Meal Distribution and Food Selection in Adolescents: Acceptability and Usability Study". In: *JMIR Mhealth Uhealth* 8.7 (July 2020), e14778. ISSN: 2291-5222.
- [J24] Athanasia Tragomalou, George Moschonis, Yannis Manios, Penio Kassari, Ioannis Ioakimidis, Christos Diou, et al. "Novel e-Health Applications for the Management of Cardiometabolic Risk Factors in Children and Adolescents in Greece". In: *Nutrients* 12.5 (2020), p. 1380.
- [J25] Konstantinos Kyritsis, Christos Diou, and Anastasios Delopoulos. "Modeling Wrist Micromovements to Measure In-Meal Eating Behavior from Inertial Sensor Data". In: *IEEE Journal of Biomedical and Health Informatics* (2019).
- [J26] Billy Langlet, Petter Fagerberg, Anastasios Delopoulos, Vasileios Papapanagiotou, Christos Diou, Christos Maramis, et al. "Predicting real-life eating behaviours using single school lunches in adolescents". In: *Nutrients* 11.3 (2019), p. 672.
- [J27] Janet van den Boer, Annemiek van der Lee, Lingchuan Zhou, Vasileios Papapanagiotou, Christos Diou, Anastasios Delopoulos, and Monica Mars. "The SPLENDID Eating Detection Sensor: Development and Feasibility Study". In: *JMIR mHealth and uHealth* 6.9 (2018).
- [J28] Christos Diou, Pantelis Lelekas, and Anastasios Delopoulos. "Image-Based Surrogates of Socio-Economic Status in Urban Neighborhoods Using Deep Multiple Instance Learning". In: *Journal of Imaging* 4.11 (2018), p. 125.
- [J29] Mayram Esfandiari, Vasileios Papapanagiotou, Christos Diou, Modjtaba Zandian, Jenny Nolstam, Per Södersten, and Cecilia Bergh. "Control of Eating Behavior Using a Novel Feedback System". In: *J. Vis. Exp.* e57432.135 (2018).
- [J30] Georgios Mamalakis, Christos Diou, Andreas Symeonidis, and Leonidas Georgiadis. "Of daemons and men: Reducing false positive rate in Intrusion Detection Systems with filesystem footprint analysis". In: *Neural Computing and Applications* (2018).
- [J31] Vasileios Papapanagiotou, Christos Diou, Ioannis Ioakimidis, Per Sodersten, and Anastasios Delopoulos. "Automatic analysis of food intake and meal microstructure based on continuous weight measurements". In: *IEEE Journal of Biomedical and Health Informatics* (2018). ISSN: 2168-2194.
- [J32] Billy Langlet, Anna Anvret, Christos Maramis, Ioannis Moulos, Vasileios Papapanagiotou, Christos Diou, et al. "Objective measures of eating behaviour in a Swedish high school". In: *Behaviour & Information Technology* 36.10 (2017), pp. 1005–1013.

- [J33] Vasileios Papapanagiotou, Christos Diou, Lingchuan Zhou, Janet van den Boer, Monica Mars, and Anastasios Delopoulos. “A Novel Chewing Detection System Based on PPG, Audio, and Accelerometry”. In: *IEEE Journal of Biomedical and Health Informatics* 21.3 (2017), pp. 607–618. ISSN: 2168-2194.
- [J34] Antonios Chrysopoulos, Christos Diou, Andreas L Symeonidis, and Pericles A Mitkas. “Response modeling of small-scale energy consumers for effective demand response applications”. In: *Electric Power Systems Research* 132 (2016), pp. 78–93.
- [J35] Ioannis Sarafis, Christos Diou, and Anastasios Delopoulos. “Online training of concept detectors for image retrieval using streaming clickthrough data”. In: *Engineering Applications of Artificial Intelligence (EAAI)* 51 (2016), pp. 150–162.
- [J36] Vasileios Papapanagiotou, Christos Diou, and Anastasios Delopoulos. “Improving Concept-Based Image Retrieval with Training Weights Computed from Tags”. In: *ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)* 12.2 (2015), p. 32.
- [J37] Ioannis Sarafis, Christos Diou, and Anastasios Delopoulos. “Building effective SVM concept detectors from clickthrough data for large-scale image retrieval”. In: *International Journal of Multimedia Information Retrieval* 4.2 (2015), pp. 129–142.
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