

UNIVERSITÀ DEGLI STUDI DI MILANO

Procedura di selezione per la chiamata a professore di I fascia da ricoprire ai sensi dell'art. 18, comma 1, della Legge n. 240/2010 per il settore concorsuale 01/B1, (settore scientifico-disciplinare INF/01) presso il Dipartimento di Informatica, (avviso bando pubblicato sulla G.U. n. 59 del 26/7/2022) - Codice concorso 5029

## STAVROS NTALAMPIRAS CURRICULUM VITAE

### INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

COGNOME	NTALAMPIRAS
NOME	STAVROS
DATA DI NASCITA	17/12/1983



*Full name:* Ntalampiras Stavros

*Marital status:* Married

*Nationality:* Greek

*Military service (mandatory):* Completed - Served at the Research and Informatics Section of the Hellenic Army, at the Hellenic National Defense College where, amongst other duties, he was the network administrator (Microsoft server, ~50 PCs), web-site administrator ([www.setha.mil.gr](http://www.setha.mil.gr)) and he was responsible for the

set-up and maintenance of the e-learning platform.

*Personal web page:* <https://sites.google.com/site/stavrosntalampiras/home>

*Skype alias:* stavros.ntalampiras.prometheus

*e-mail:* [stavros.ntalampiras@unimi.it](mailto:stavros.ntalampiras@unimi.it)

*Google scholar link:* <http://scholar.google.com/citations?user=Ktqy0r0AAAAJ>

*Linkedin profile:* <http://it.linkedin.com/pub/stavros-ntalampiras/10/ba7/209>

*Orchid profile:* <https://orcid.org/0000-0003-3482-9215>

*Scopus profile:* <https://www.scopus.com/authid/detail.uri?authorId=24830597800>

### Education

- Ph.D. in Artificial Intelligence and Acoustic Signal Processing (Feb. 2007 - June 2010) at the Department of Electrical and Computer Engineering, Polytechnic School of the University of Patras under the supervision of Prof. Nikos Fakotakis, Prof. John Mourjopoulos and Prof. Evangelos Dermatas. Member of the AI Group of the Wire Communications Laboratory (<http://www.wcl.ece.upatras.gr>). He was accepted 1<sup>st</sup>/11 in the postgraduate program.
- Diploma of Electrical and Computer Engineer (5 years, integrated Bachelor and Master), Department of Electrical and Computer Engineering, Polytechnic School of the University of Patras, Greece (2001-2006, graduated 7<sup>th</sup>/82).
- Computer Alfa school graduate (Athens, Greece), 1996-1999. Low level programming languages, operating systems and image processing software (graduated first in his class).

### Diploma Thesis

“Compression of multispectral images using visual perception criterions”, October 2006, rated as Excellent (grade 10/10). Low-level implementation of image compression algorithms and their comparison as regards to the case of multispectral images.

### PhD Thesis

“Digital Processing and Automatic Classification of Environmental Sounds”, June 2010

*Abstract:* The dissertation introduces methods for automatic recognition of generalized sound events. More precisely, the dissertation proposes a series of novel methodologies for the following applications of the

specific technology: a) recognition of urban environmental sound events, b) speech/music discrimination and c) acoustic surveillance of hazardous situations. As regards to the needs of the first application we propose the usage of principal component analysis for the post-processing of the acoustic parameters in combination with an hierarchical classification topology. With respect to the second application we introduce the concurrent usage of feature sets which belong to frequency and wavelet domains. These are fed to hidden Markov models for automatic analysis of radiophonic signals. As regards to the third application we propose a methodology for detection of atypical situations which is self-adaptive to different acoustic conditions. Additionally, we investigate the novelty detection technology for acoustic surveillance of spaces using a database which was recorded under real-world conditions. Lastly the dissertation introduces the idea of temporal feature integration, a process which leads to high recognition rate. This methodology is a general scope one and can be adapted to fit the needs of various applications.

## **Skills**

- *Programming languages:* Qbasic (expert user), Fortran (expert user), Pascal (intermediate user), Visual Basic (intermediate user), C (intermediate user), C++ (intermediate user), Prolog (intermediate user), VHDL (intermediate user), Matlab (expert user), SQL (intermediate user).
- *Platforms:* MS Office, Spice, Microwind, HTK, Torch, Weka ML tool, Latex
- *Operating systems:* Windows and Linux
- *Design:* 3D Studio Max, Autocad, Adobe Photoshop, Adobe Premiere
- *Web page creation:* html, php, JavaScript, xml, FrontPage, Dreamweaver
- *Computer Networks:* Set-up, management and configuration
- *Reporting for the European Commission*
- *European Computing Driving License (New Full Standard)*
- *European Computing Driving License Advanced Spreadsheets*

## **Languages**

Greek (native), English (expert), Italian (advanced)

## **Prizes, Awards and Distinctions**

- Author of the *AMIBIO* (Automatic Acoustic Monitoring and Inventorying of Biodiversity) proposal, Grant: LIFE08 NAT/GR/000539 (Feb. 2010 – March 2013) which was chosen amongst the *best of the best* projects of the LIFE+ program.
- *CRITIS 2014 Young Researcher Award*, 9<sup>th</sup> International Conference on Critical Information Infrastructures Security, Limassol, Cyprus, 13-15 October 2014.
- Winner of *Politecnico di Milano International Fellowship 2015-2017*, Department of Electronics, Information and Bioengineering (3 fellowships were offered while the number of applicants was more than 100).
- Associate Professor habilitation by the Agenzia per la Qualitat del Sistema Universitari de Catalunya, Spain (25/11/2015).
- Member of the IEEE Computational Intelligent Society Task Force on Computational Audio Processing since its foundation in Dec. 2015, where he has organized an extensive quantity of scientific events, such as workshops, special issues, etc. Full information available at <http://ieeeciscap.dii.univpm.it/>
- Winner of International Neural Network Society Conference on Big Data 2016 best regular paper award.
- Winner of the European Research Consortium for Informatics and Mathematics Fellowship (hosted at CNR – IEIT).
- Associate Editor of IEEE Access (23/5/2017-today).
- Microsoft Azure Research Award for the CACTUS project (21/7/2017).

- Outstanding reviewer Award for the following Elsevier journals: Journal of the Franklin Institute, Digital Signal Processing, Applied Soft Computing Journal, Measurement, Expert Systems with Applications.
- Editor of the book entitled “Big Data in Engineering Applications” Editors: Roy, S.S., Samui, P., Deo, R., Ntalampiras, S. (Eds.), Studies in Big Data. Springer, Singapore. ISBN 978-981-10-8476-8.
- Associate Editor for PlosOne Journal (21/6/2018-today).
- Associate Professor habilitation by the Italian Ministry of Education (7/8/2018).
- Winner of the Patrick Turner MBA’78 Prize within the 37<sup>th</sup> INSEAD Venture Competition as a co-founder of the BabyT start-up team (5/12/2018).
- Editor of IEEE MMRP 2019 proceedings published by IEEE CPS.
- Poster presentation award at 2<sup>nd</sup> Annual Joint Research Center of the European Commission Alumni Network event (5/2/2019).
- Recipient of the NVIDIA GPU Grant, 3.000 USD (19/2/2019).
- Lead Guest Editor of the Special Issue entitled “Computational Bioacoustics” within the *Animals*, MDPI journal (submission deadline: 15/10/2020).
- Lead Guest Editor of the Special Issue entitled "Computational Intelligence for Audio Signal Processing" within the *Information*, MDPI journal (submission deadline: 31/5/2020).
- Associate Editor for IET Signal Processing Journal (2/10/2019-today).
- Associate Editor of CAAI Transactions on Intelligence Technology (10/12/2019-today).
- Voting member of IEEE Computer Society Working Group for XML Musical Application (WG\_1599 of the IEEE Standards Association - STDS-1599-WG) for the definition, revision and implementation of IEEE 1599 standard, <https://standards.ieee.org/standard/1599-2008.html>, [https://ieee1599.lim.di.unimi.it/people\\_par\\_rev.php](https://ieee1599.lim.di.unimi.it/people_par_rev.php) (1/9/2018-today).
- Best regular paper award@IEEE International Conference on Computational Intelligence and Virtual Environments for Measurement Systems and Applications, 22-24 June 2020, Tunis, Tunisia.
- Referee for the European Research Council (4/12/2020-today).
- Associate Editor in Frontiers in Signal Processing - Audio and Acoustic Signal Processing (13/6/2021-today).
- Distinguished cover article at the CAAI Transactions on Intelligence Technology at September 2021 issue.
- Inclusion in the top 2% of World’s most impactful scientists according to the evaluation metrics of the Stanford University (<https://elsevier.digitalcommonsdata.com/-datasets/btchxktzyw/3>, 1/8/2021).
- Full Professor habilitation by the Italian Ministry of Education (31/1/2022).
- Contributor to the Research and Innovation Brief - Annual Report on Cybersecurity Research and Innovation Needs and Priorities, European Union Agency for Cybersecurity, <https://www.enisa.europa.eu/publications/research-and-innovation-brief> (12/5/2022).
- EU Regional Chair for the 6th Asian Conference on Artificial Intelligence Technology, Technically Co-Sponsored by the IEEE Computational Intelligence Society, <http://www.acait.cn/> (Oct. 28-30 2022, Changzhou, China).

## Professional Experience

- Associate Professor at the Department of Computer Science of the University of Milan: Research and Teaching in artificial intelligence, signal processing, computer audition, audio pattern recognition, machine learning, and cyber physical systems. Member of the PhD Directing Board. Member of the Laboratory of

Music Informatics (<http://www.lim.di.unimi.it/index.php>) (1/12/2020-today) *Employer:* University of Milan. Responsible for the following courses:

- Audio Pattern Recognition (Master of Science course)
- Computer Science applied to Music (Undergraduate course)
- Computer Science applied to Sound (Undergraduate course)
- Assistant Professor (RTD-B) at the Department of Computer Science of the University of Milan: Research and Teaching in artificial intelligence, signal processing, computer audition, audio pattern recognition, machine learning, and cyber physical systems. Member of the PhD Directing Board. Member of the Laboratory of Music Informatics (<http://www.lim.di.unimi.it/index.php>) (1/12/2017-30/11/2020) *Employer:* University of Milan. Responsible for the following courses:
  - Audio Pattern Recognition (Master of Science course)
  - Computer Science applied to Music (Laboratory, Undergraduate course)
  - Machine Learning for audio signal processing (PhD Course)
- co-PI for the research team of the Computer Science Department, University of Milan for the VOCAPRA project on Multidisciplinary Approach for Continuous Acoustic Monitoring of Farm Environments funded by Regione Lombardia within FEASR – Programma di Sviluppo Rurale 2014-2020. *Coordinator:* University of Milan, *Partners:* Società Agricola Bagaggera s.r.l., Azienda Agricola Il Boscasso di Onida Maria Chiara, and Società Agricola Il Colmetto dei F.lli Agosti S.S. (Total budget: 514.154,01 Euros, 9/9/2019-28/2/2023).
- co-PI of the PLF4MILK project (part of the AGRIDIGIT project) on processing cow vocalizations with the Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria, <https://www.crea.gov.it/en/-/agridigit-en> (third mission activity, Total budget: 32.498 Euros, 1/6/2022-today).
- Selected Expert for European Union Agency for Cybersecurity (ENISA) for compiling the Research and Innovation Annual Report to be used as input for the following Work Programme of the European Commission <https://www.enisa.europa.eu/publications/research-and-innovation-brief/@@@download/fullReport> (1/5/2021-30/10/2021).
- Co-Founder and Data Science Advisor at Zoundream start-up, <https://zoundream.com/> Design and implementation of machine learning technologies for content-based audio signal processing solutions (1/7/2018-today).
- Mentor for the start-up teams participating the The Sound of AI Accelerator, <https://docs.google.com/document/d/1MJ3jucXw5HxtXzDD0X1CZqGbftOjMQPWGnywyo1hVAM/edit> (25/8/2022-today).
- Scientific advisor for the project entitled “Alternatives to early dairy cow-calf separation for improving animal welfare: farmers' perceptions and scientific evidence” (scored 1<sup>st</sup> place in the evaluation), on the automatic analysis of animal vocalizations funded by the University of Padova within the call *Budget Integrato per la Ricerca dei Dipartimenti* (Third mission activity, total budget ~20.000euros, 1/9/2019-30/11/2020).
- Senior Researcher for the project SONICOM - Transforming auditory-based social interaction and communication in AR/VR, H2020-EU - Overall budget € 5.651.042,50 (1/1/2021-today).
- Senior Researcher of the project entitled “Advanced methods for sound and music computing”, funded from Piano di sostegno alla ricerca, University of Milan (Total budget ~18.000euros annually, 1/1/2020-today).
- Principal Investigator of the project entitled automatic analysis of complex evolving auditory scenes (INSPIRE), funded from Piano di sostegno alla ricerca, University of Milan (Total budget ~3.200euros, 1/1/2019-31/12/2019).
- Associate Researcher of the National Research Center of Italy, Institute of Electronics, Computer and Telecommunications Engineering (26/3/2018-today).
- Professor for the course “Audio Technologies” within the Specialization Course of the IFTS Fondazione Clerici, Academic years 2019/2020/2021, *Employer:* Regione Lombardia.

- ERCIM Fellow at National Research Center of Italy, Institute of Electronics, Computer and Telecommunications Engineering (authored the ERCIM proposal). Analysis traffic data coming from cellular networks based on machine learning technologies (cooperation with Orange in France), transfer learning for audio applications, and signal processing over wireless acoustic sensor networks. Author of the proposal, researcher and developer for the CACTUS project – Climate-Aware Characterization of mobile service Usage (1/4/2017-30/11/2017) *Employer*: European Research Consortium for Informatics and Mathematics.
- Adjunct Lecturer and ECDL examiner at Bocconi University, SEDIN Centro di Servizi Didattici per l'informatica, Milan, Italy (April 2016-Nov. 2017). Course: Computer science (Undergraduate course). *Employer*: Bocconi University.
- Politecnico di Milano Senior Research Fellow: Lecturer, senior researcher, developer and principal investigator of the ARTEMIS project (A fault characterization system based on Machine learning technologies, fully authored by Stavros Ntalampiras (April 2015-March 2017)). *Employer*: Department of Electronics, Information and Bioengineering, Politecnico di Milano.
- Post-doc researcher and developer – Grantholder Cat. 30. Project: Development of modeling tools for critical infrastructure interdependencies assessment, STREST FP7 project: Harmonized approach to stress tests for critical infrastructures against natural hazards, development and application of a resilience optimization methodology for the critical infrastructure of the port of Thessaloniki (May 2013-April 2015). *Employer*: Joint Research Center, European Commission, Institute for the Protection and Security of the Citizen.
- Tutor in the online educational/guidance service of the University of Athens “MentorMe”, *Employer*: National and Kapodistrian University of Athens, (Feb. 2015 - June 2016).
- Post-doc researcher and developer for the European project *i-Sense, Making Sense of Non-Sense*, Contract No: INSFO-ICT-270428. Pattern recognition for heterogeneous signals, methodology development for exploiting redundancies of data coming from multiple sensors, fault diagnosis (Nov. 2011 - May 2013). *Employer*: Department of Electronics and Information, Politecnico di Milano (under the guidance of Prof. Cesare Alippi).
- Post-doc researcher and developer for the European project *AMIBIO* (Automatic Acoustic Monitoring and Inventorying of Biodiversity), Grant: LIFE08 NAT/GR/000539 (July 2010 – Mar. 2013). Contributed to the proposal, responsible for the acoustic monitoring component, statistical signal processing, management of the audio database and field recordings. Chosen as the *best of the best* project of the LIFE+ program. *Employer*: Wire Communications Laboratory, Polytechnic School of the University of Patras.
- Researcher and developer for the Greek program *LOGOS* - A General Architecture for Speech Recognition and (User-Friendly) Dialog Interaction for Advanced Commercial Applications (Feb. 2007 – Jan. 2008), funded by the General Secretariat for Research and Technology of the Greek Ministry of Development. Responsible for the construction of the isolated word recognition component and exploration of a great variety of speech enhancement methodologies. Moreover, I developed a multi-dimensional signal processing algorithm on a custom-made microphone array for detecting the position of the speaker(s). *Employer*: Wire Communications Laboratory, Polytechnic School of the University of Patras.
- Researcher and developer for the European project *MoveON* (Multi-modal and multi-sensor zero-distraction interaction interface for two wheel vehicles on the move), IST-2005-034753, FP6 - STREP (Feb. 2007 – Jan. 2008). Responsible for the audio enhancement module towards improving the speech recognition performance (programming in C++ to develop algorithms for voice technology with respect to a real-time application). *Employer*: Wire Communications Laboratory, Polytechnic School of the University of Patras.
- Researcher and developer for the European project *PROMETHEUS* (Prediction and interpretation of human behavior based on probabilistic structures and heterogeneous sensors), Grant agreement no. 214901, FP7 - STREP (Jan. 2008 – Feb. 2011). Responsible for the development of the audio event detection and recognition component. Creation of a database of heterogeneous sensors (visual, thermal, acoustic etc.) and creation of a real-time adaptive acoustic surveillance system. *Employer*: Wire Communications Laboratory, Polytechnic School of the University of Patras.
- Researcher and developer for the European project *PLAYMANCER* (A European Serious Gaming 3D Environment), Grant agreement no. 215839, FP7 - STREP (Jan. 2009 – Feb. 2011). Responsible for the dialog

management system and the feature extraction part of the emotion recognition component (programming in C++ and Matlab for improving the interaction of the user with the gaming platform). *Employer*: Wire Communications Laboratory, Polytechnic School of the University of Patras.

- Researcher and developer for the Department of Music Technology and Acoustics of the Technological Educational Institute of Crete (European project *AMIBIO* - Automatic Acoustic Monitoring and Inventorying of Biodiversity), Grant: LIFE08 NAT/GR/000539 (Sept. 2011 – Dec. 2011). Development and implementation of a framework for long-term bird species detection (MATLAB and C++).
- Teaching Assistant under the umbrella of the European program *ETIEAK II* towards improving the undergraduate curriculum with respect to the laboratory of the Speech Technology class of the Electrical and Computer Engineering Department of the Polytechnic School of the University of Patras (construction of an integrated platform for conducting the laboratory exercises online) (Jan. 2008 – Apr. 2008).
- Teaching Assistant at the *Computer Analysis College* (private school). He was responsible for preparing laboratory material/exercises and teaching of the classes: Signals and Systems I, Signals and Systems II and Digital Telecommunications. (Sept. 2010-July 2011).
- Laboratory Assistant at the *Electrical and Computer Engineering Department of the University of Patras* including Speech Technology and C++ Lab. (Feb. 2007-June 2010).
- Technician at *Computer Alfa* company (ACOM, Athens, Greece) (1999, duration 8 months, putting together electronic equipment, setup operating systems, etc.).

#### **Evaluator of research projects/proposals**

- Referee for the European Research Council (4/12/2020-today).
- External Reviewer for the National Agency for the Evaluation of Universities and Research Institutes, VQR 2015-2019.
- Expert Evaluator for International Training Networks, Horizon Europe, Marie Skłodowska-Curie action (01/12/2021-28/2/2022), *Employer*: European Commission.
- Invited Expert Evaluator and Rapporteur for various organizations, such as European Institute of Innovation and Technology, standICT - Supporting European Experts Presence in International Standardisation Activities in ICT, EUHubs4data, PROMIS Science Fund of the Republic of Serbia (ERC-level grants awarded by the Republic of Serbia), European Language Grid, NGI Atlantic: Bridging EU-US research on Next Generation Internet, PROCESS Marie-Curie Action, Digital Innovation Hubs in Healthcare Robotics, FAR 2020 University of Modena and Reggio Emilia.
- Expert Evaluator for International Training Networks, Horizon 2020, Marie Skłodowska-Curie action (07/02/2020-29/03/2020), *Employer*: European Commission.
- Reviewer of Marie Curie proposals for Junta de Andalucía, Agenzia Andaluza del Conocimiento, Consejería de Economía, Innovación, Ciencia y Empleo (Nov. 2014).

#### **IEEE Standardization Activity**

- ❖ Definition, Revision and Implementation of IEEE 1599 Standard for the music industry. Voting member of the IEEE Committee for the standard definition and regulation of the IEEE Recommended Practice for Defining a Commonly Acceptable Musical Application Using XML. This activity falls within the IEEE Computer Society Working Group for XML Musical Application (WG\_1599 of the IEEE Standards Association - STDS-1599-WG) for the definition, revision and implementation of IEEE 1599 standard, <https://standards.ieee.org/standard/1599-2008.html>, [https://ieee1599.lim.di.unimi.it/people\\_par\\_rev.php](https://ieee1599.lim.di.unimi.it/people_par_rev.php) (1/9/2018-today).

#### **Seminars and Keynote**

- “Let’s Network”, lectures about computer and transportation networks, Budapest, Hungary, Budapest’s University of Technology and Economics (11-24 August 2006).
- “From papyrus to postcards”, Stockholm’s Royal Institute of Technology, KTH (8-17 June 2007).

- “The electrifying truth about piezoelectrics”, Denmark, Copenhagen’s Technical University of Denmark, DTU (21-29 July 2007).
- Matlab for generating C/C++ code, Mathworks, Torino, 28/5/2013.
- Joint Research Center seminar on 5G — the next generation of wireless communications, Ispra, Italy, 12/2/2015.
- Smart Grid Research at Nations Renewable Energy Laboratory's Energy Systems Integration Facility, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, 16/7/2015.
- *Stavros Ntalampiras*, “Cognitive fault detection and isolation in large scale cyber physical systems”, Invited talk at Workshop "Diagnostics and Prognostics for Maintenance Engineering and Management: Achievements and Challenges", 20th November 2015, Politecnico di Milano, Milano, Italy, organized by the Reliability and Risk Analysis of Nuclear and Industrial Components and Systems Group of Politecnico di Milano.
- Distributed Energy Resources (DER) and Grid Modernization, IEEE Smart Grid Webinar, 14/12/2015.
- Grid Architecture: Discipline, Methods, and Recent Developments, IEEE Smart Grid Webinar, 23/6/2016.
- Invited talk “Probabilistic Novelty Detection and Model-free fault diagnosis”, at CNR – IEIT, 7/3/2017.
- Invited talk “Model-free fault diagnosis for large scale cyber physical systems”, at Politecnico di Torino, 16/5/2017.
- Keynote speaker at 6<sup>th</sup> International Conference on New Music Concepts April 13-14, 2019 Treviso – Italy, entitled “Transfer learning: Introduction and Audio signal processing opportunities”.
- Professor of PhD course “Machine Learning for Audio Signal Processing”, 29th Summer PhD School of Information Engineering SSIE 2019 jointly organized by DEI University of Padova and IEEE Italy Section, “Artificial Intelligence & Machine Learning for ICT Applications”, Casa della Gioventù, via Rio Bianco, 39042 Bressanone (BZ), Italy July 8 – 12, 2019.

### **PhD Examination & Supervision**

1. Member of PhD review committee: Xavier Valero González, “Perceptually-based signal features for environmental sound classification”, PhD Thesis, Universidad Ramon Llull, La Salle BCN, Barcelona, Feb. 2013.
2. Member of PhD review committee: Pepe Giovanni, “Deep Learning Algorithms for Voice Activity Detection and Speaker Localization in Indoor Environments”, Università Politecnica delle Marche, Dec. 2021.
3. Supervisor of PhD thesis on *Multimodal Music Analysis*, Federico Simonetta, Department of Computer Science, University of Milan, Oct. 2019-April 2022.
4. Certified Supervisor of AI Doctoral Academy; AIDA is a joint initiative of the European projects: AI4Media, VISION, HumanE-AI NET, ELISE, and TAILOR, that aims to support world-level AI education and research programme by offering access to knowledge and expertise and attracting PhD talents in Europe (25/1/2022-today).

### **Summary of Didactic Experience**

1. Course “Speech Technology Laboratory”, 01/02/2007-30/6/2010, 2007-8, 2008-9, 2009-10, Department of Electrical and Computer Engineering Department of the University of Patras, Patras, Greece, 36h/year.
2. Course “Computer science for Economics”, 01/02/2016-30/11/2017, Adjunct Lecturer and ECDL examiner at Bocconi University, SEDIN Centro di Servizi Didattici per l’informatica, Milan, Italy, 48h, 6 ECTS.
3. Course “Audio Technologies” within the Specialization Course of the IFTS Fondazione Clerici, Academic years 2019/2020/2021, Employer: Regione Lombardia, 30h/year.



4. Course “Audio Pattern Recognition” (Masters level), Department of Computer Science of the University of Milan, Academic years 2017/2018/2019/2020/2021/2022, 48h/y, 6 CFU.
5. Course “Computer Science applied to Music” (Laboratory, Undergraduate course), Department of Computer Science of the University of Milan, Academic years 2017/2018/2019/2020/2021/2022, 24h/y, 3 CFU.
6. Course “Computer Science applied to Sound” (Laboratory, Undergraduate course), Department of Computer Science of the University of Milan, Academic year 2022, 48h/y, 6 CFU.
7. Course “Machine Learning for audio signal processing” (PhD Course), 29th Summer PhD School of Information Engineering SSIE 2019 jointly organized by DEI University of Padova and IEEE Italy Section, “Artificial Intelligence & Machine Learning for ICT Applications”, Casa della Gioventù, via Rio Bianco, 39042 Bressanone (BZ), Italy July 8 – 12, 2019.
8. Master’s Course “Audio Pattern Recognition” is included in the shared courses 4EU+ academic year 2022/2023, <https://4euplus.eu/4EU-379.html>
9. Course “Programmazione I”, (Laboratory, Undergraduate course), Department of Mathematics of the University of Milan, Academic year 2020-2021, 36h/y.

### **Summary of Editing Experience**

- Associate Editor of IEEE Access (23/5/2017-today).
- Editor of the book entitled “Big Data in Engineering Applications” Editors: Roy, S.S., Samui, P., Deo, R., Ntalampiras, S. (Eds.), Studies in Big Data. Springer, Singapore. ISBN 978-981-10-8476-8.
- Associate Editor for PlosOne Journal (21/6/2018-today).
- Editor of IEEE MMRP 2019 proceedings published by IEEE CPS.
- Lead Guest Editor of the Special Issue entitled “Computational Bioacoustics” within the Animals, MDPI journal (submission deadline: 15/10/2020).
- Lead Guest Editor of the Special Issue entitled "Computational Intelligence for Audio Signal Processing" within the Information, MDPI journal (submission deadline: 31/5/2020).
- Associate Editor for IET Signal Processing Journal (2/10/2019-today).
- Associate Editor of CAAI Transactions on Intelligence Technology (10/12/2019-today).
- Associate Editor in Frontiers in Signal Processing - Audio and Acoustic Signal Processing (13/6/2021-today).

### **Institutional roles**

1. Member of Collegio Docenti, University of Milan (2017-today).
2. Member of Collegio Docenti, Dottorato in Informatica, University of Milan (2018-today).
3. Committee for research assistant position (post-doc, assegno tipo-B) on “Progettazione e realizzazione del Sistema Museale Virtuale di Ateneo”, University of Milan (10/12/2019).
4. Committee for research assistant position (post-doc, assegno tipo-B) on “VOCAPRA - Approccio multidisciplinare per la messa a punto di un sistema di monitoraggio continuo in allevamenti caprini da latte mediante analisi delle vocalizzazioni”, University of Milan (11/02/2020).
5. Head of the Committee for research assistant position (post-doc, assegno tipo-B) on “VOCAPRA - Approccio multidisciplinare per la messa a punto di un sistema di monitoraggio continuo in allevamenti caprini da latte mediante analisi delle vocalizzazioni”, University of Milan (14/02/2020).
6. Member of the Committee for fellowship for young graduates (post-graduate borsa) on “VOCAPRA - Approccio multidisciplinare per la messa a punto di un sistema di monitoraggio continuo in allevamenti caprini da latte mediante analisi delle vocalizzazioni”, University of Milan (14/12/2020).
7. Member of the Committee for research assistant position (post-doc, assegno tipo-B) on “Personalized augmented reality audio (Personalizzazione di audio per la realtà aumentata)”, funded by SONICOM EU H2020 project (17/05/2021).



8. Member (as appointed by the University Rector) of the Examination Committee for the admission process in the PhD in Computer Science, Department of Computer Science, University of Milan (academic year 2021-22).
9. Member of the Committee for the decision regarding the External Consultant for the VOCAPRA project on app development including audio classification capabilities (22/2/2022).
10. Head of the Committee for the decision regarding the External Consultant for the project entitled "ALGEBRAIC ANALYSIS OF HMAC-SHA-1", Codice Identificativo, CTE\_INT19AVISC\_01 (8/5/2022).
11. Member of the Committee for the decision regarding a scholarship (borsa di studio) funded by SONICOM EU H2020 project (23/5/2022).
12. Member of the Committee for research assistant position (post-doc, assegno tipo-B) on "Personalized augmented reality audio (Personalizzazione di audio per la realtà aumentata)" and "Automatic Processing of Goat Vocalizations", funded by SONICOM EU H2020 and VOCAPRA projects (04/07/2022).
13. Member of the Committee for student fellowship for the PLF4MILK project on cow vocalizations with the Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria (06/07/2022).

## **Publications<sup>1</sup>**

### **A. Journals**

1. Stavros Ntalampiras, Ilyas Potamitis, and Nikos Fakotakis, "An Adaptive Framework for Acoustic Monitoring of Potential Hazards", *EURASIP Journal on Audio, Speech, and Music Processing* Volume 2009 (2009), Article ID 594103, doi:10.1155/2009/594103 (impact factor: 0.341).
2. Stavros Ntalampiras, Ilyas Potamitis, and Nikos Fakotakis, "Exploiting Temporal Feature Integration for Generalized Sound Recognition", *EURASIP Journal on Advances in Signal Processing*, Volume 2009 (2009), Article ID 807162, doi:10.1155/2009/807162, (impact factor: 1.012).
3. Stavros Ntalampiras, Ilyas Potamitis, and Nikos Fakotakis, "A Practical System for Acoustic Surveillance of Hazardous Situations", *International Journal of Artificial Intelligence Tools*, vol. 20(1), doi: 10.1142/S021821301100005X (impact factor: 0.320).
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## **B. Book Chapters**

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48. Michelangelo Acconciaco and *Stavros Ntalampiras*, “Acoustic Identification of Nocturnal Bird Species”, Fifth International Symposium on Signal Processing and Intelligent Recognition Systems (SIRS'19), December 18-21, 2019, Trivandrum, Kerala, India (invited).
49. *Stavros Ntalampiras*, “Deep Learning of Attitude in Children’s Emotional Speech”, IEEE International Conference on Computational Intelligence and Virtual Environments for Measurement Systems and Applications, 22-24 June 2020, Tunis, Tunisia. **Winner of best regular paper award**
50. Federico Avanzini, Adriano Barattè, Goffredo Haus, Luca Andrea Ludovico, *Stavros Ntalampiras*, “Preservation, Promotion and New Perspectives of Opera Cultural Heritage: The Experience of LaScala Theatre”, 22<sup>nd</sup> International Conference on Human-Computer Interaction, Copenhagen, Denmark, 19-24 July 2020.
51. Ilyas Potamitis, Iraklis Rigakis, Panagiotis Eliopoulos, *Stavros Ntalampiras*, Nicolaos-Alexandros Tatlas, and Stelios Potirakis, “Insect Surveillance meets IoT and Artificial Intelligence”, XXVI International Congress of Entomology, Helsinki, Finland, 2021.
52. Axel Chemla Romeu Santos, Philippe Esling, and *Stavros Ntalampiras*, “Représentations variationnelles inversibles: une nouvelle approche pour la synthèse sonore”, Journées d'Informatique Musicale 2020, Strasbourg, 25-27 May 2020.
53. *Stavros Ntalampiras*, Andrea Pezzuolo, Silvana Mattiello, Monica Battini, and Marta Brscic, “Automatic detection of indoor-housed cow vocalizations”, 43rd International Conference on Telecommunications and Signal Processing, July 7-9, 2020, Milan, Italy.
54. Federico Simonetta, *Stavros Ntalampiras*, Federico Avanzini, “ASMD: An Automatic Framework for Compiling Multimodal Datasets”, Sound and Music Computing Conference, 20-26 June 2020, Torino, Italy.
55. Marco Tiraboschi, Federico Avanzini and *Stavros Ntalampiras*, “Spectral Analysis for Modal Parameters Linear Estimate”, Sound and Music Computing Conference, 20-26 June 2020, Torino, Italy.
56. Davide Andrea Mauro, Federico Avanzini, Adriano Barate, Luca Andrea Ludovico, *Stavros Ntalampiras*, Smilen Dimitrov, and Stefania Serafin, “16 years of Sound & Music Computing: A look into the history and trends of the conference and community”, Sound and Music Computing Conference, 20-26 June 2020, Torino, Italy.
57. Michelangelo Acconciaco and *Stavros Ntalampiras*, “One-shot learning for acoustic identification of bird species in non-stationary environments”, 25th International Conference on Pattern Recognition, January 10-15, 2021, Milano, Italy.
58. Luca Andrea Ludovico, Giorgio Presti, *Stavros Ntalampiras*, Silvana Mattiello, Simona Cannas and Monica Battini, “CatMeows: A Publicly-Available Dataset of Cat Vocalizations”, International Conference on Multimedia Modeling, Prague, Czech Republic, January 25-27, 2021.
59. Simone Mastrangelo and *Stavros Ntalampiras*, “Automatic Acoustic Diagnosis of Heartbeats”, International Conference on Signal Processing and Multimedia Applications, 6-8 July 2021.
60. *Stavros Ntalampiras*, Danylo Kosmin and Javier Sanchez, “Acoustic classification of individual cat vocalizations in evolving environments”, IEEE International Conference on Telecommunications and Signal Processing, 26-28 July 2021.
61. Alessandra Saitta and *Stavros Ntalampiras*, “Language-agnostic speech anger identification”, IEEE International Conference on Telecommunications and Signal Processing, 26-28 July 2021.
62. Davide Fantini, Federico Avanzini, *Stavros Ntalampiras* and Giorgio Presti, “HRTF Individualization Based on Anthropometric Measurements Extracted from 3D Head Meshes” International Conference on Immersive and 3D Audio 2021, Bologna, Italy, 8-10 Sept. 2021.
63. Maksim Kukushkin and *Stavros Ntalampiras*, “Automatic acoustic classification of feline sex”, AudioMostly 2021, Internet of Sounds Workshop, Trento, Italy, 1-3 Sept. 2021.

64. Federico Simonetta, *Stavros Ntalampiras*, Federico Avanzini, “Audio-to-Score Alignment Using Deep Automatic Music Transcription”, IEEE International Workshop on Multimedia Signal Processing 2021, Tampere, Finland, Oct. 6–8, 2021.
65. William Raccagni and *Stavros Ntalampiras*, “Acoustic Classification of Cat Breed Based on Time and Frequency Domain Features”, IEEE FRUCT 2021, Oulu, Finland 27-29 Oct. 2021.
66. Marco Colussi and *Stavros Ntalampiras*, “Interpreting urban sound classification in driving environment via Layer-wise Relevance Propagation”, arxiv 2021.
67. *Stavros Ntalampiras*, “Adversarial attacks against audio surveillance systems”, European Signal Processing Conference, Belgrade, Serbia, 29 Aug.-2 Sept., 2022.
68. *Stavros Ntalampiras*, “Learning relationships between audio signals based on reservoir networks”, IEEE International Joint Conference on Neural Networks, Padova, Italy, 18-23 July, 2022.
69. Stefania Celozzi, Monica Battini, *Stavros Ntalampiras*, Luca Andrea Ludovico, Giorgio Presti, Mael Vittorio Vena, Emanuela Prato Previde Albrisi Colombani, Silvana Mattiello, “Why do goats bleat?”, International Conference on Precision Dairy Farming 2022.
70. Michele Cozzatti, Federico Simonetta, and *Stavros Ntalampiras*, “Variational Autoencoders for Anomaly Detection in Respiratory Sounds”, International Conference on Artificial Neural Networks 2022, Bristol, UK, 6-9 Sept. 2022.
71. Alessandro Maria Poirè, Federico Simonetta, and *Stavros Ntalampiras*, “Deep Feature Learning for Medical Acoustics”, International Conference on Artificial Neural Networks 2022, Bristol, UK, 6-9 Sept. 2022.
72. Federico Simonetta, *Stavros Ntalampiras*, Federico Avanzini, “Acoustics-specific Piano Velocity Estimation”, IEEE International Workshop on Multimedia Signal Processing 2022 (accepted).

**D. Citations and bibliometric analysis: up to date list at <http://scholar.google.com/citations?user=Ktgy-0r0AAAAJ> and <https://www.scopus.com/authid/detail.uri?authorId=24830597800>**

SCOPUS h-index: 22 and 1347 citations (date 5/9/2022)

#### **E. Technical Reports (indicative list)**

1. *Stavros Ntalampiras*, “MoveOn Deliverable D5.10.1: Overview on Speech Enhancement Algorithms,” October 2007.
2. Thomas Winkler, Todor Ganchev, Theodoros Kostoulas, Iosif Mporas, Alexandros Lazaridis, *Stavros Ntalampiras*, Atta Badii, Rick Adderley, Christian Bonkowski, “MoveOn Deliverable D5: Report on Audio databases, Noise processing environment, ASR and TTS modules”, December 2007.
3. *Stavros Ntalampiras* et al., “Usage scenarios, functional specifications and hardware components”, Prometheus deliverable 2.2, March 2009.
4. *Stavros Ntalampiras* et al., “Multimodal database description, data collection and annotation tasks”, Prometheus deliverable 2.3, March 2009.
5. *Stavros Ntalampiras* et al., “A modular dynamic model for interdependencies assessment of critical infrastructures”, Scientific and Policy Reports of the European Commission, 2014.

#### **Miscellaneous**

1. *Stavros Ntalampiras*, A short overview of Activity Theory, available at [Θεωρία Δραστηριοτήτων](#) (in greek)
2. Coauthor of the proposal for the project “AMIBIO – Automatic Monitoring of Biodiversity”, (1/2/2010-30/6/2013) FP7 Life+, 1.800.000,00 Euros.
3. O. Jahn, K. Riede, G. Lehmann, U. Marckmann, K.-L. Schuchmann, A. Weller, and *S. Ntalampiras*, “AUTOMATED BIODIVERSITY MONITORING AT HYMETTUS – GATHERING THE BASELINE INFORMATION”, newsletter for the AMIBIO project.
4. Yannis Soupionis, Luca Galbusera, *Stavros Ntalampiras*, Christos Siaterlis Georgios Giannopoulos, “Assessing interdependencies of energy and ICT infrastructure on realistic topologies using experimental

facilities and high level models”, Forschung und Innovation – Herausforderungen durch die Energiewende, 10.12.2013, Vienna, Austria (invited).

5. *Stavros Ntalampiras*, “A fault characterization system based on machine learning technologies (ARTEMIS)”, accepted research project proposal for the Politecnico di Milano International Fellowships, Department of Electronics, Information and Bioengineering, 1/4/2015-31/3/2017, 105.000 euros.

6. Press reference to J16, <http://biotechnin.asia/2015/07/07/diagnosis-of-the-pathological-state-of-the-baby-from-its-cry/>, 7/7/2015.

7. Research Group presentation@OpenHouse, Politecnico di Milano, Department of Electronics, Information, and Bioengineering, 1 October 2015.

8. *Stavros Ntalampiras*, “Intelligence for Cyber-Physical Systems”, 1<sup>st</sup> Italian Workshop on Embedded Systems, Pisa, Italy, 19-20 September 2016 (invited).

9. Research Group presentation@OpenHouse, Politecnico di Milano, Department of Electronics, Information, and Bioengineering, 27 September 2016.

10. Author of the CACTUS – Climate-Aware Characterization of mobile service Usage proposal (accepted at the Data for Climate Action Challenge - <http://dataforclimateaction.org/>)

11. Interviewed by the Journal of the Audio Engineering Society for the issue of Oct. 2019 regarding the paper “Generalized Sound Recognition in Reverberant Environments” (22 October 2019).

12. Committee for research assistant position (post-doc, assegno tipo-B) on “Progettazione e realizzazione del Sistema Museale Virtuale di Ateneo”, University of Milan (10/12/2019).

13. Committee for research assistant position (post-doc, assegno tipo-B) on “VOCAPRA - Approccio multidisciplinare per la messa a punto di un sistema di monitoraggio continuo in allevamenti caprini da latte mediante analisi delle vocalizzazioni”, University of Milan (11/02/2020).

14. Head of Committee for research assistant position (post-doc, assegno tipo-B) on “VOCAPRA - Approccio multidisciplinare per la messa a punto di un sistema di monitoraggio continuo in allevamenti caprini da latte mediante analisi delle vocalizzazioni”, University of Milan (14/02/2020).

15. Committee for fellowship for young graduates (post-graduate borsa) on “VOCAPRA - Approccio multidisciplinare per la messa a punto di un sistema di monitoraggio continuo in allevamenti caprini da latte mediante analisi delle vocalizzazioni”, University of Milan (14/12/2020).

16. Reference@Geekwire for the Data Science Consulting for Akvelon and the MeowTalk application <https://www.geekwire.com/2020/meowtalk-app-that-translates-cat-sounds-is-pet-project-for-former-alexa-engineer/> (3/11/2020).

18. Committee for research assistant position (post-doc, assegno tipo-B) on “Personalized augmented reality audio (Personalizzazione di audio per la realtà aumentata)”, funded by SONICOM EU H2020 project (17/05/2021).

19. Member (as appointed by the University Rector) of the Examination Committee for the admission process in the PhD in Computer Science, Department of Computer Science, University of Milan (academic year 2021-22).

20. Interviewed by Rai Radiotelevisione Italiana regarding the advancements of the VOCAPRA project (23/12/2021).

21. Member of the Committee for the decision regarding the External Consultant for the VOCAPRA project on app development including audio classification capabilities (22/2/2022).

22. President of the Committee for the decision regarding the External Consultant for the project entitled “ALGEBRAIC ANALYSIS OF HMAC-SHA-1”, Codice Identificativo, CTE\_INT19AVISC\_01 (8/5/2022).

23. Member of the Committee for the decision regarding a scholarship (borsa di studio) funded by SONICOM EU H2020 project (23/5/2022).

24. Committee for research assistant position (post-doc, assegno tipo-B) on “Personalized augmented reality audio (Personalizzazione di audio per la realtà aumentata)” and “Automatic Processing of Goat Vocalizations”, funded by SONICOM EU H2020 and VOCAPRA projects (04/07/2022).
25. Committee for student fellowship for the PLF4MILK project on cow vocalizations with the Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria (06/07/2022).
26. Milano Digital week, LIM presentation, University of Milan (2018, 2019).
27. Fiera Internazionale della Musica (FIM), Milano (2018, 2019).
28. Interviewed by the New York Times for the research conducted on bioacoustics and more specifically on the analysis of cat vocalizations [J32, J40, C58, C60, C63, C65], <https://www.nytimes.com/2022/08/29/science/cats-pets-ommunication-artificial-intelligence.html> (24/8/2022).

## **Theses Supervision**

### *Master Theses*

1. Automatic speech segmentation, University of Patras, 2009 (student Theodorou Theodoros).
2. Using speech enhancement techniques for denoising general sound events, University of Patras, 2010 (student Athanasiou Georgia).
3. Annotation of words and sound events in a Greek database for automatic emotion recognition, University of Patras, 2010 (student Tomaras Ioannis).
4. Music genre recognition under noisy conditions, University of Patras, 2010 (student Papanikolaou Panagiotis).
5. Automatic segmentation of popular music, University of Milan in cooperation with University of Aegean, 2018 (student Stratos Kampiotis).
6. Individualized binaural rendering through pinna anthropometry extraction from 3D images, University of Milan, 2019 (student Fantini Davide). [published International Conference on Immersive and 3D Audio 2021]
7. One-shot learning for acoustic bird species identification, University of Milan, 2020 (student Acconciaioco Michelangelo). [published at International Conference on Pattern Recognition 2021]
8. Real-time audio synthesis based on classification of environmental sounds, University of Milan, 2020 (student Giulia Clerici).
9. Beneficios de aplicar técnicas de aprendizaje no supervisadas antes del reconocimiento de sonido en un dispositivo hardware, Comillas Pontifical University, Madrid, Spain, 2020 (student Carlos Arranz Herrero).
10. Variational Autoencoders for anomaly detection in respiratory sounds, University of Milan, 2022 (student Michele Cozzati). [published at International Conference on Artificial Neural Networks 2022]
11. Automatic Discovery of Features for Medical Acoustics, University of Milan, 2022 (student Alessandro Maria Poirè). [published at International Conference on Artificial Neural Networks 2022]
12. Adversarial ML for audio and music processing, University of Milan, 2022 (student Nicolas Facchinetti)
13. Automatic acoustic monitoring of goat farms using a smartphone application, University of Milan, 2022 (student Mael Vittorio Vena)
14. Sound classification in the presence of missing samples, University of Milan, 2022 (student Davide Pedretti)
15. Optical Music Recognition for Cultural Heritage, University of Milan, 2022 (student Rishav Mondal)

### *Bachelor Theses*

1. Cross-language speech emotion recognition: the Italian-German case, University of Milan, 2018 (student Mattia Panza).

2. Between class learning for acoustic surveillance, University of Milan, 2019 (student Gregorio Citterio).
3. MIDI velocity estimation of singular notes from polyphonic piano recordings, University of Milan, 2019 (student Francesco Festorazzi).
4. Identificazione automatica di brani musicali presenti su Spotify potenzialmente adatti a pubblicità, University of Milan, 2021 (student Gianmarco Lodi).
5. Two-factor Authentication System using Speaker Recognition, University of Milan, 2021 (student Federico Bargiggia).
6. Sistema di Machine Learning per la Hit Prediction basato sulle audio features di Spotify, University of Milan, 2021 (student Isacco Valsecchi).
7. One-shot learning for music genre recognition, University of Milan, 2021 (student Sebastiano Silipo).
8. Audio-based human activity recognition based on transfer learning, University of Milan, 2021 (student Marco Nicolini).
9. Parametrizzazione Automatica di un Sintetizzatore tramite Deep Learning, University of Milan, 2021 (student Andrea Cinquepalmi)
10. Riconoscimento di soundscapes con finalità di acustica forense, University of Milan, 2021 (student Luca Citterio)
11. Analysis of a convolutional model for melody-line identification, University of Milan, 2022 (student Carlotta Bellomo).
12. Medical Acoustics using Bayesian Neural Networks, University of Milan, 2022, (student Emanuele Peratello)
13. Analyzing emotion prediction system across different classes of sounds, University of Milan, 2022, (student Francesca Certo)

### **Memberships**

1. Technical Chamber of Greece, TEE.
2. Hellenic Artificial Intelligence Society, EETN.
3. Institute of Electrical and Electronics Engineers, IEEE.
4. International Speech Communication Association, ISCA.
5. Association for Computing Machinery, ACM.

### **Organization roles**

[in brief: TPC member for 89 international conferences including world-class events such as European Conference on Artificial Intelligence, IEEE International Joint Conference on Neural Networks, IEEE International Conference on Acoustics, Speech, & Signal Processing, European Signal Processing Conference, INTERSPEECH, etc.]

1. Local organization committee member European Conference on Artificial Intelligence 2008 (ECAI 2008).
2. TPC member for Artificial Intelligence Applications and Innovations 2014, 2nd International Workshop on Learning strategies and data Processing in nonStationary environments.
3. TPC member for International Conference on Electronic Design 2014 (ICED'14).
4. TPC member for 2015 IEEE International Circuits and Systems Symposium.
5. TPC member for 2015 Symposium on "Intelligence for Cyber-physical and Embedded Systems" at IEEE Symposium Series in Computational Intelligence 2015, 7 – 10 December 2015, Cape Town, South Africa.
6. TPC for 2015 IEEE Student Conference on Research and Development (SCOREd 2015).
7. TPC for PECON 2016, 2016 IEEE International Conference on Power and Energy.
8. TPC for IEEE Industrial Electronics and Applications Conference 2016.
9. TPC for Advanced Research on Circuits and Systems International Conference 2016.
10. TPC member for 2016 Symposium on "Intelligence for Cyber-physical and Embedded Systems" at IEEE Symposium Series in Computational Intelligence 2016, 6 – 9 December 2016, Athens, Greece.
11. TPC for 2016 International Conference on Electrical, Electronic, Communication and Control Engineering.
12. TPC for SPECOM 2017.



13. TPC for 2016 IEEE Asia-Pacific Conference on Applied Electromagnetics.
14. TPC for International Conference on Computer Science and Application Engineering 2017, <http://www.csaconf.org/OC.aspx>.
15. TPC for SPECOM 2018.
16. TPC for AsiaSim 2017.
17. Main chair of Intelligent Systems for Audio-based Monitoring @ EANN 2017 <https://sites.google.com/site/workshopisam2017/>
18. TPC for the Third International Symposium on Emerging Topics in Circuits and Systems 2017, <http://icacci-conference.org/2017/setcas-committee>.
19. TPC for IEEE TENSYPMP 2017, <http://tensymp2017.org/committee/>.
20. TPC for IEEE IEACON 2017.
21. TPC for the Third International Symposium on Signal Processing and Intelligent Recognition Systems (SIRS'17).
22. PC member of Applications of Intelligent Systems, APPIS 2018.
23. Chair of the Session entitled "Ontologies on Big Data" at the INNS Conference on Big Data 2016.
24. TPC for EANN 2017.
25. TPC for 2017 IEEE Asia Pacific Conference on Postgraduate Research in Microelectronics and Electronics.
26. TPC member of the 14th IFIP Artificial Intelligence Applications and Innovations.
27. TPC member for 2018 IEEE International Conference on INnovations in Intelligent SysTems and Applications.
28. TPC for Special Sessions: a) Concept Drift, Domain Adaptation and Learning in Dynamic Environments, and b) Deep Neural Audio Processing IJCNN 2018.
29. PC of 19th International Conference on Engineering Applications of Neural Networks.
30. TPC for the Fourth International Symposium on Signal Processing and Intelligent Recognition Systems (SIRS'18).
31. PC member of AIAI 2018.
32. PC member of IEEE (SMC) INISTA 2018.
33. TPC for the IEEE Shared task on Detecting Malicious Domain names (DMD 2018) a workshop co-located with ICACCI'18 and SSCC'18.
34. Program Committee member of 27th International Conference on Artificial Neural Networks (ICANN 2018).
35. TPC for International Conference on Neural Information Processing (ICONIP 2018).
36. TPC for 18th International Conference on Computer Analysis of Images and Patterns.
37. TPC for 2018 IEEE International Conference on Power and Energy (PECon).
38. International Program Committee member of Applications of Intelligent Systems, APPIS 2019.
39. PC member for Artificial Intelligence Applications and Innovations 2019.
40. Scientific and Local Organizing Committee of the First International Workshop on Multilayer Music Representation and Processing 2019.
41. PC member of EANN 2019.
42. TPC for SPECOM 2019 (21ST INTERNATIONAL CONFERENCE ON SPEECH AND COMPUTER).
43. International Program Committee of IEEE International Symposium on INnovations in Intelligent SysTems and Applications (INISTA 2019), July 3-5, 2019 in Sofia, Bulgaria.
44. Program committee of SMC2019.
45. Technical program committee for RSM 2019 (2019 IEEE Regional Symposium on Micro and Nanoelectronics).
46. TPC for Deep Neural Audio Processing IJCNN 2019.
47. TPC for Computer Analysis of Image and Patterns 2019.
48. Technical Program Committee for the Fifth International Symposium on Signal Processing and Intelligent Recognition Systems (SIRS'19).
49. Technical Program Committee for 2019 IEEE 11th International Conference on Engineering Education (ICEED).
50. International Program Committee member of Applications of Intelligent Systems, APPIS 2020.
51. TPC for 2019 International Conference on Electrical, Electronic, Communication and Control Engineering.
52. PC member for Artificial Intelligence Applications and Innovations 2019 and Engineering Applications of Neural Networks 2019.

53. TPC for Bulletin of Electrical Engineering and Informatics, BEEI 2020.
54. TPC for 2020 International Conference on INovations in Intelligent SysTems and Applications (INISTA'20).
55. Program Committee member for the 8th International Conference on Mining Intelligence & Knowledge Exploration 2020.
56. Member of International Program Committee of 1st International Special Session on Computer Supported Music Education, CSME 2020.
57. TPC for 2020 1st Conference on Internet of Things and Embedded Intelligence.
58. Program Committee of 22nd International Conference on Speech and Computer 2020.
59. TPC for 2020 IEEE International Conference on Power and Energy.
60. TPC member for CoCoNet'20 (Fourth International Conference on Computing and Network Communications).
61. Programme Committee member for DAFx2020.
62. Technical Program Committee for the Sixth International Symposium on Signal Processing and Intelligent Recognition Systems (SIRS'20).
63. Program Committee member for International Conference on Neural Information Processing 2020.
64. Program Committee member for 27th IEEE Conference of Open Innovations Association FRUCT 2020.
65. Member of International Program Committee of 2nd International Special Session on Computer Supported Music Education, CSME 2021.
66. Program Committee member for 28th IEEE Conference of Open Innovations Association FRUCT 2021.
67. Program Committee member of Conference on Novelties in Intelligent Systems 2021.
68. Member of the Program Committee of the 22nd EANN (Engineering Applications of Neural Networks) 18th AIAI (Artificial Intelligence Applications and Innovations) Jointed International Conference, 2021.
69. Program Committee member for 29th IEEE Conference of Open Innovations Association FRUCT 2021.
70. Program Committee member of the 1<sup>st</sup> International Conference on Novelties in Intelligent Digital Systems 2021.
71. Programme Committee member for DAFx2021.
72. TPC for 2021 IEEE Asia Pacific Conference on Circuits and Systems.
73. Program committee of SPECOM 2021.
74. Program Committee of Audio Mostly 2021.
75. Program Committee member for 30th IEEE Conference of Open Innovations Association FRUCT 2021.
76. TPC for 2021 44<sup>th</sup> IEEE International Conference on Telecommunications and Signal Processing (TSP).
77. TPC for the 28th International Conference on Neural Information Processing 2021.
78. TPC for 2021 IEEE Industrial Electronics and Applications Conference.
79. Program Committee for 8th International Conference on Mining Intelligence & Knowledge Exploration 2021.
80. Program Committee member for 31st IEEE Conference of Open Innovations Association FRUCT 2021.
81. Program Committee member for Sound and Music Computing Conference 2022.
82. PC Member for the (18th International Conference on Artificial Intelligence Applications and Innovations (AIAI 2022)).
83. International Program Committee of 2nd International Special Session on Computer Supported Music Education 2022.
84. Program Committee member for 31st IEEE Conference of Open Innovations Association FRUCT 2022.
85. International Program Committee of 2nd International Special Session on Computer Supported Music Education 2022.
86. Program committee of DAFx20in22 (25-th International Conference on Digital Audio Effects) 2022.
87. Program Committee of the 32nd IEEE Conference of Open Innovations Association FRUCT 2022.
88. Program Committee of the 29th International Conference on Neural Information Processing 2022.
89. Program Committee for SPECOM 2022 (24<sup>th</sup> International Conference on Speech and Computer).
90. Program Committee for the 3rd International Special Session on Computer Supported Music Education 2023.

### **Reviewing - Journals**

1. Pattern Recognition Letters, Elsevier.
2. IET Signal Processing.
3. IEEE Transactions on Audio, Speech and Language Processing.

4. IEEE Transactions on Multimedia.
5. Knowledge-based Systems Journal, Elsevier.
6. Archives of Acoustics.
7. Computers in Industry, Elsevier.
8. British Journal of Mathematics & Computer Science.
9. Journal of Audio Engineering Society.
10. IEEE Signal Processing Letters.
11. Digital Signal Processing, Elsevier.
12. Ecological Informatics, Elsevier.
13. IEEE Transactions on Systems, Man and Cybernetics: Systems.
14. Artificial Intelligence Review, Springer
15. Neural Networks, Elsevier.
16. Reliability Engineering & System Safety, Elsevier.
17. IEEE Transactions on Neural Networks and Learning Systems.
18. IEEE Transactions on Industrial Informatics.
19. International Journal of Electrical Power & Energy Systems, Elsevier.
20. IET Computer Vision.
21. Expert Systems with Applications, Elsevier.
22. Neurocomputing, Elsevier.
23. Progress in Nuclear Energy, Elsevier.
24. Interdisciplinary Sciences: Computational Life Sciences, Springer.
25. IEEE Computational Intelligence Magazine.
26. IEEE Systems Journal.
27. IEEE Intelligent Transportation Systems Magazine.
28. Special issue "Intelligent Audio Processing, Semantics, and Interaction", of the Journal of Audio Engineering Society.
29. Sensors, MDPI.
30. Applied Soft Computing, Elsevier.
31. Measurement, Elsevier.
32. IEEE Transactions on Industrial Electronics.
33. Data Mining and Knowledge Discovery, Springer.
34. Computational Intelligence and Neuroscience, Hindawi.
35. KSII Transactions on Internet and Information Systems.
36. Handbook on Neural Computation, Elsevier.
37. Applied Sciences, MDPI.
38. IEEE Access Journal.
39. IEEE Systems Journal.
40. Journal of the Acoustical Society of America.
41. IET Healthcare Technology Letters.
42. IEEE Transactions on Emerging Topics in Computational Intelligence.
43. Special Issue on Computational Intelligence for End-to-End Audio Processing, IEEE Transactions on Emerging Topics in Computational Intelligence.
44. Journal of Industrial Information Integration.
45. IEEE Transactions on Information Forensics and Security.
46. IEEE Transactions on Reliability.
47. IEEE Journal of Biomedical and Health Informatics.
48. IET Control Theory & Applications.
49. Neural Computing and Applications, Springer.
50. Elsevier Book Proposal entitled Human-Computer Interaction.
51. EURASIP Journal on Audio, Speech, and Music Processing
52. Information, MDPI.
53. Ad-Hoc Networks, Elsevier.
54. IAES International Journal of Robotics and Automation.
55. Big Data Research, Springer.
56. Applied Mathematical Modelling, Elsevier.
57. Speech Communication, Elsevier.

58. Scientific Reports, Nature.

### **Reviewing – Conferences**

1. European Conference on Artificial Intelligence 2018.
2. Review committee of International Multiconference on Computer Science and Information Technology, Computational Linguistics – Applications (CLA IMCSIT 2009-2011).
3. IEEE International Joint Conference on Neural Networks (2012-today).
4. International Symposium on Neural Networks 2012.
5. IEEE Conference on Control, Systems & Industrial Informatics 2012.
6. IEEE International Conference on Electronics Design, Systems and Applications (ICEDSA 2012).
7. International Conference on Neural Computation Theory and Applications 2012.
8. IEEE International Power and Energy Conference (PECON 2012).
9. IEEE Symposium Series on Computational Intelligence 2013.
10. ICICIP 2013: 4th International Conference on Intelligent Control and Information Processing.
11. IEEE Symposium on Industrial Electronics & Applications 2013.
12. 9th IFIP International Conference on Artificial Intelligence Applications and Innovations (AIAI 2013).
13. IEEE International Conference on Clean Energy & Technologies 2013.
14. IEEE International Conference on Electronics, Circuits, and Systems 2013.
15. IEEE Innovative Smart Grid Technologies Conference 2014.
16. ICNC 2014 (Second International Conference on Advanced Micro and Nanocomposite for Engineering 2014).
27. IEEE Symposium Series on Computational Intelligence 2014.
28. IEEE International Conference on Power and Energy 2014.
29. International Conference on Information Society and Technology 2015.
30. IEEE Conference on Energy Conversion 2015.
31. 11th IFIP International Conference on Artificial Intelligence Applications and Innovations (AIAI 2015).
32. IEEE Conference on Energy Conversion (Cencon2015).
33. Special Session on Computational Intelligence Algorithms for Digital Audio Applications, IJCNN 2016.
34. IEEE World Congress on Computational Intelligence 2016.
35. Special Session on Concept Drift, Domain Adaptation and Learning in Dynamic Environments, IJCNN 2016.
36. International Conference on Speech and Computer 2016.
37. International Joint Conference on Computer, Electrical and Electronics Engineering 2017.
38. IEEE Student Conference on Research and Development.
39. 2017 International Conference on Control Theory and Its Application.
40. Computational Methods for Audio Analysis Special Session at 25th EUSIPCO 2017.
41. International Conference on Sound and Vibration 2017.
42. IEEE Regional Symposium on Micro and Nanoelectronics 2017.
43. 24th International Conference On Neural Information Processing.
44. International Conference on Electrical, Electronic, Communication and Control Engineering 2017.
45. IEEE Conference on Energy Conversion 2017.
46. IEEE 9th International Conference on Engineering Education 2017.
47. World Congress on Circuits and Systems Conference 2018.
48. IEEE PES Asia-Pacific Power and Energy Engineering Conference 2018.
49. IEEE World Congress on Computational Intelligence 2018.
50. Hellenic Conference on Artificial Intelligence, SETN 2018.
51. Sound and Music Computing Conference 2018.
52. International Conference On Creative and Innovative Technology in Education (i-CITE2018).
53. IEEE International Conference on Semiconductor Electronics 2018.
54. IEEE 10th International Conference on Engineering Education 2018.
55. International Conference on Electrical, Electronic, Communication and Control Engineering 2018.
56. Technical review committee for CENCON 2019 (2019 4th IEEE Conference on Energy Conversion).
57. Activities of International Speech Communication Association including Interspeech 2019, 2020, 2021, 2022.
58. Sound and Music Computing Conference 2020.
59. International Conference on Vocational Education and Training (ICOVET 2020).

60. IEEE International Conference on Audio, Speech and Signal Processing 2021 (ICASSP).
61. IEEE International Conference on Multimedia and Expo 2021.
62. Sound and Music Computing Conference 2021.
63. European Signal Processing Conference 2021.
64. IEEE International Conference on Telecommunications and Signal Processing 2021.
65. IEEE International Conference on Audio, Speech and Signal Processing 2022 (ICASSP).
66. IEEE International Conference on Multimedia and Expo 2022.
67. International Conference on Pattern Recognition 2022.
68. Sound and Music Computing Conference 2022.
69. European Signal Processing Conference 2022.

### **Session Chairing**

1. International Conference on Engineering Applications of Neural Networks 2017, Session entitled “Classification Pattern Recognition”.
2. International Workshop on Multilayer Music Representation and Processing 2019, Session entitled “Applications”.
3. International Conference on Neural Information Processing 2020, Session entitled “Human Activity Recognition”.
4. European Signal Processing Conference 2022, Session entitled “Applications of audio and acoustics: Anomaly detection”.
5. International Conference on Artificial Neural Networks 2022, Session entitled “Medical Acoustics”.

### **Events, Workshops and Special Issues organized by the IEEE Computational Intelligent Society Task Force on Computational Audio Processing**

- DCASE2021, Co-organization of Task 4 Sound Event Detection and Separation in Domestic Environments
- IJCNN2020 Special Session on Deep Neural Audio Processing
- EUSIPCO2020 Special Session on Deep Machine Listening
- IEEE MMSP2020 Special Session on Computational Audio Intelligence for Immersive Applications
- Deep Learning for Applications in Acoustics: Modeling, Synthesis, and Listening – A Special Issue of MDPI Applied Sciences – 2020
- IJCNN2019 Special Session on Deep Neural Audio Processing
- EUSIPCO2019 Special Session on Machine Audition: recent advances and applications
- IEEE MMSP2019 Special Session on Computational Audio Intelligence for Immersive Applications
- IJCNN2018 Special Session on Deep Neural Audio Processing
- Computational Acoustic Scene Analysis – A Special Issue of MDPI Applied Sciences – 2018
- EUSIPCO2018 Special Session on Computational Audio Processing in Real Acoustic Environments
- IJCNN2017 Special Session on Computational Intelligence Algorithms for Digital Audio Applications
- Computational Intelligence for End-to-End Audio Processing – A Special Issue of the IEEE Transactions on Emerging Topics in Computational Intelligence – 2017
- EUSIPCO2017 Special Session on Computational Methods for Audio Analysis
- IJCNN2016 Special Session on Computational Intelligence Algorithms for Digital Audio Applications
- MSLP2016 Special Session on Computational Methods for Audio Analysis

*Up-to-date list available at <https://ieeeciscap.dii.univpm.it/>*

Data

7/9/2022

Luogo

Milano