NAME: Nikolaos Stefanakis
NATIONALITY: Greek
PLACE OF BIRTH: Heraklion - Crete
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DEGREES

•*2002*	Diploma degree in School of Mechanical Engineering of National Technical University of Athens (NTUA)
•*2008*	PhD degree in School of Electrical and Computer Engineering, NTUA. "*Improvements in the multiple-point method during sound equalization and sound field reproduction in closed spaces*"

SCHOLARSHIPS

•*2006*	Nine month Marie Curie scholarship for *European Doctorate in Sound and Vibration Studies* at the department of Acoustic Technology of the Technical University of Denmark

PROFESSIONAL EXPERIENCE

March 2018 – present	Assistant professor at the Department of Music Technology and Acoustics Engineering, at the Technical Educational Institute of Crete (TEI)
• *Feb 2014 – March 2018*	Post-doc researcher at the Foundation of Research and Technology Hellas
• *Jan 2012 – Dec 2013*	Post-doc researcher in the university of Potsdam, Germany
• *Nov 2010 – Dec 2011*	Post-doc researcher in the research center of INRIA Rennes-Bretagne Atlantique, France
• *Academic year 2009- 2010*	Teaching assistant at the Technical Educational Institute of Crete (TEI)

TEACHING EXPERIENCE

• *Winter semester 2003-04-05*	*Electronics II* (Lab sessions), School of Electrical and Computer Engineering, NTUA
• *Academic years 2009-2010 and 2018-2019*	*Sound Systems II* (Theory +Lab sessions), Department of Music Technology and Acoustics, TEI
• *Winter semester 2009*	*Processing of sound and voice* (Theory), Department of Applied Informatics and Multimedia, TEI
• *Summer semester 2010, 2018 and academic year 2018-2019*	*Applied Acoustics I* (Theory), Department of Music Technology and Acoustics, TEI
• *Academic year 2009-2010*	*Applied Acoustics II* (Lab sessions), Department of Music Technology and Acoustics, TEI
• *Academic year 2009-2010*	*Digital Signal Processing* (Lab sessions), Department of Music Technology and Acoustics, TEI
• *Summer semester 2017*	*Audio Mastering* (Theory and Lab sessions), Department of Music Technology and Acoustics, TEI

VARIOUS SKILLS:

• *Operating Systems*	Windows, Linux
• *Programming languages*	MALTAB, Python
• *Various software*	Software for music production in PC, software for the assessment and processing of acoustical measurements
• *Foreign languages*	Excellent knowledge of English, good knowledge of German, moderate knowledge of French
• *Musical instruments*	Keyboards, electrical-classical guitar

RESEARCH PROJECTS

• J*an 2019 – present*	MyHealthWatcher: Monitoring vital health related information for the elderly
• Sept 2019 – *present*	Βιοπαρακολούθηση: Application of ground-based optical and acoustic sensors and use of information technology for the monitoring of fauna and human activities in protected areas of Greece
• J*an 2016 – Dec 2018*	COGNITUS: Converging broadcast and user generated content for interactive ultra-high definition services (http://cognitus-h2020.eu/)
• *July 2015– present*	LISTEN: Hands-free voice-enabled interface to web applications for smart home environments (http://www.listen-project.eu/)
• *Feb 2014 – Nov 2015*	SeNSE: Audiovisual sensor networks for densely sampling and replayin events (http://sense-project.gr)
• Jan 2012 – Dec 2013	DRUMBOX: Modeling musical instruments by dimension reduction and nonlinear ODEs
• *Nov 2010 – Dec 2011*	ECHANGE: Building a framework for the use of Compressed Sensing techniques applied to acoustic wave fields (http://echange.inria.fr)

JOURNAL PUBLICATIONS

Stefanakis N., Sarris J., Cambourakis G. and Jacobsen F., "Power output regularization in global sound equalization," J. Acous. Soc. Am. **123**, pp 33-36 (2008).
http://orbit.dtu.dk/getResource?recordId=208788&objectId=1&versionId=1

Stefanakis N., Sarris J. and Cambourakis G., "Source placement for equalization in small enclosures," J. Audio Eng. Soc. **56** (5), 357-371 (2008).
http://www.aes.org/e-lib/browse.cfm?elib=12632

Stefanakis N., Sarris J. and Jacobsen F., "Regularization in global sound equalization based on effort variation," J. Acous. Soc. Am. **126**(2), 666-675 (2009).
http://orbit.dtu.dk/getResource?recordId=248311&objectId=1&versionId=1

Stefanakis N., Jacobsen F. and Sarris J., "Effort variation regularization in sound field reproduction," J. Acoust. Soc. Am, **128**(2), 740-750 (2010).
http://link.aip.org/link/?JASMAN/128/740/1

Stefanakis N., Abel M. and Bergner A., "Sound synthesis based on Ordinary Differential Equations," J. Computer Music, **39**(3), 46-58 (2015).

Stefanakis N., Pavlidi D. and Mouchtaris A., "Perpendicular cross-spectra fusion for sound source localization with a planar microphone array," in IEEE Trans. on Audio, Speech and Language Processing, **25**(9), 1517-1531 (2017).

Stefanakis N., Mastorakis Y., Alexandridis A. and Mouchtaris A., "Automating mixing of user-generated audio ecordings from the same event," accepted for publication in Journal of Audio Engineering Society (2019).

Stefanakis N., "Efficient implementation of superdirective beamforming in a half-space environment," accepted for publication in Journal of Acoustical Society of America (2019).

CONFERENCE PUBLICATIONS

Stefanakis N. and Sarris J., "Sound field reproduction using the boundary element method," in Proc. of 13th Int. Congress Sound Vib. (ICSV), Vienna, 2006.

Sarris J. C., Stefanakis N. J. and Cambourakis G. E., "Signal processing techniques for robust multichannel sound equalization," 116th Convention of the Audio Engineering Society, Berlin, Germany, 2004, preprint 6087.
http://www.aes.org/e-lib/browse.cfm?elib=12632

Sarris J., Stefanakis N. and Cambourakis G., "Sound equalization in a large region of a rectangular room" Acoustics 2004, Hellenic Institute of Acoustics, National Conference, Thessaloniki, September 2004.

Stefanakis N., Dalianis S., Karatzas T. and Cambourakis G., "Power output regularization in the active reproduction of sound fields in rooms," in Proceedings of Acoustics' 08, Paris, France.
http://intellagence.eu.com/acoustics2008/acoustics2008/cd1/data/articles/001704.pdf

Stefanakis N. and Zervas P., "A method for broad-band sound field reproduction in a large spatial region of a closed space," Hellenic Institute of Acoustics, National Conference, Athens, October 2010.

Stefanakis. N., Marchal J., Emiya V., Bertin N., Gribonval. R. and Cervenka P., "Sparse underwater acoustic imaging: A case study," in Proceedings of ICASSP 2012, Kyoto, Japan.

Stefanakis. N., Marchal J., Emiya V., Bertin N., Gribonval. R. and Cervenka P., "Sparse reconstruction techniques for near-field underwater acoustic imaging," presented in Acoustics 2012, Nantes, France.

Stefanakis. N., Mastorakis Y. and Mouchtaris A., "Instantaneous detection and classification of impact sound: Turning simple objects into powerful musical control interfaces," joint ICMC-SMC conference 2014, Athens, Greece.

Stefanakis. N. and Mouchtaris A., "Foreground suppression in capturing and reproduction of crowded acoustic environments," ICASSP 2015, Brisbane, Australia.

Stefanakis. N. and Mouchtaris A., "A multi-sensor approach for real-time detection and classification of impact sounds," in EUSIPCO 2015, Nice, France.

Stefanakis. N. and Mouchtaris A., "Capturing and reproduction of a crowded sound scene using a circular microphone array", in EUSIPCO 2016, Budapest.

Stefanakis. N. and Mouchtaris A., "DOA estimation in front of a reflective plane using a circular microphone array", in EUSIPCO 2016, Budapest.

Stefanakis. N., Chonianakis S. and Mouchtaris A., "Automatic matching and synchronization of user generated videos from a large scale sport event", in ICASSP, 2017.

Alexandridis A., Stefanakis N. and Mouchtaris A., "Towards wireless acoustic sensor networks for location estimation and counting of multiple speakers in real life conditions," in ICASSP 2017, pp. 6140-6144.

Stefanakis. N., Viskadouros M. and Mouchtaris A., "A subjective evaluation on mixtures of crowdsourced audio recordings", in EUSIPCO, 2017.

Stefanakis. N. and Mouchtaris A., "Maximum Component Elimination in Mixing of User Generated Audio Recordings", in MMSP, 2017.

Stefanakis. N. and Mouchtaris A., "Normalization of partly overlapping recordings from the same event based on relative signal power", in ICASSP, 2018.

Stefanakis. N., Delikiaris-Manias S. and Mouchtaris A., "Acoustic beamforming in front of a reflective plane", in EUSIPCO, 2018.

Zervas P., Kouzoupis S. and Stefanakis. N., "Evaluating a low-cost acoustic sensor for smart environments applications", Hellenic Institute of Acoustics, National Conference, Patra, October 2018.

BOOK CHAPTERS

Alexandridis A., Pavlidi D., Stefanakis N. and Mouchtaris A., "Applications of TF-domain parametric spatial audio techniques in teleconferencing and remote presence," in Parametric time-frequency-domain spatial audio, Pulkki V., Delikaris-Manias S. and Politis A., Eds, Wiley (in press).

PATENTS

Abel M., Bergner A., Stefanakis N. and Ahnert K., "Method and system for synthetic modeling of a sound signal," European Patent Office, EP 3012832 A1, 2016.
http://google.com/patents/EP3012832A1?cl=zh

Stefanakis N. and Mouchtaris A., "Direction of arrival estimation and sound source enhancement in the presence of a reflective surface, apparatuses, methods, and systems", USPTO Non-Provisional Application No. 15/276,785, filed September 26, 2016 (accepted).

Stefanakis N. and Mouchtaris A., "Capturing and reproducing spatial sound apparatuses, methods and systems", USPTO Non-Provisional Application No. 15/183,554, filed June 15, 2016.

Stefanakis N. and Mouchtaris A., "Foreground signal suppression apparatuses, Methods, and Systems", USPTO Non-Provisional Application No. 15/183,573, filed June 15, 2016.

Stefanakis N. and Mouchtaris A., "Direction of arrival (DOA) estimation apparatuses, methods and systems", USPTO Non-Provisional Application No. 15/183,538, filed June 15, 2016.

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