Emmanouil Benetos

CONTACT INFORMATION

School of Electronic Engineering
and Computer Science
Queen Mary University of London   *Tel:* +44 (0)20 7882 6206
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London E1 4NS   *Website*: www.eecs.qmul.ac.uk/~emmanouilb/

RESEARCH INTERESTS

Audio signal processing, machine learning, music information retrieval, computational sound scene analysis

EMPLOYMENT

Queen Mary University of London, London, UK

Reader in Machine Listening	**August 2022 - present**
Senior Lecturer	**October 2018 - July 2022**
Lecturer	**September 2015 - September 2018**
Royal Academy of Engineering Research Fellow	**March 2015 - March 2020**

- Host: School of Electronic Engineering and Computer Science

City, University of London, London, UK

University Research Fellow	**January 2013 - March 2015**

- Host: Department of Computer Science, School of Mathematics, Computer Science and Engineering *(selected out of 77 applicants)*

Queen Mary University of London, London, UK

Research Assistant	**November 2012 to December 2012**

- Project: MIReS (EU FP7)
- Principal investigator: Dr. Simon Dixon

University of Crete, Iraklion, Greece

Research Assistant	**November 2008 to July 2009**

- Host: Department of Computer Science
- Principal investigator: Prof. Yannis Stylianou

Aristotle University of Thessaloniki, Thessaloniki, Greece

Research Assistant	**September 2005 to October 2007**

- Projects: VISNET I (EU FP6), MUSCLE (EU FP6), Pythagoras II
- Principal investigator: Prof Constantine Kotropoulos

Software Developer	**June 2004 to July 2004**

- Principal investigator: Prof Ioannis Pitas

EDUCATION

Queen Mary University of London, United Kingdom

PGCert Academic Practice (distinction)	**September 2016 - July 2018**
Ph.D., Electronic Engineering	**September 2009 - December 2012**

- Thesis title: Automatic music transcription exploiting temporal evolution
- Primary supervisor: Dr. Simon Dixon
- Secondary supervisor: Dr. Anssi Klapuri

Aristotle University of Thessaloniki, Greece

M.Sc. (hons), Informatics - Digital Media   **October 2005 - June 2007**
- Dissertation title: Music genre classification using tensor analysis
- Supervisor: Prof. Constantine Kotropoulos

B.Sc. (hons), Informatics   **October 2001 - July 2005**
- Dissertation title: Audio scene classification using the MPEG-7 framework
- Supervisor: Prof. Constantine Kotropoulos

The Alan Turing Institute, London, UK

Turing Fellow   **October 2018 - present**

Higher Education Academy, London, UK

Fellow   **July 2018 - present**

Beijing University of Posts and Telecommunications, Beijing, China

International Academic Expert   **November 2017**
- Host: Key Laboratory of Universal Wireless Communications of Ministry of Education

City, University of London, London, UK

Honorary Visiting Fellow   **May 2015 - November 2020**
- Host: Department of Computer Science, School of Mathematics, Computer Science and Engineering

Royal Academy of Engineering, London, UK

Royal Academy of Engineering Research Fellow   **March 2015 - March 2020**

British Library, London, UK

Project Worker   **July 2014 - May 2017**
- Host: Digital Scholarship Department, Collections Division

Télécom ParisTech, Paris, France

Visiting Scholar   **November - December 2013**
- Host: Audio, Acoustics and Waves Group, Signal and Image Processing department

City, University of London, London, UK

University Research Fellow   **January 2013 - March 2015**
- Host: Department of Computer Science, School of Mathematics, Computer Science and Engineering

Institute for Research and Coordination in Acoustics/Music (IRCAM), Paris, France

Visiting Researcher   **November 2011**
- Host: Music Representations Team (PI: Dr. Arshia Cont)
- Work carried out in acoustic scene classification and real-time automatic music transcription

Queen Mary University of London, London, UK

Module Organiser & Lecturer   **2020/21, 2021/22, 2022/23**
- Module: Data Mining (ECS766). Duties: module leader, module prepatation, delivery, assessment (100% of module).
- Module: Electronic Engineering Mathematics 2 (ECS423). Duties: module prepatation, delivery, assessment (50% of module).
- Module: Music Informatics (ECS7006). Duties: module prepatation, delivery, assessment (50% of module).

Lecturer   **2019/20**
- Module: Music Informatics (ECS7006). Duties: module prepatation, delivery, assessment (50% of module).

Lecturer   **2016/17, 2017/18, 2018/19**
- Module: Signals and Information (ECS411). Duties: module prepatation, delivery, assessment (50% of module).

Guest Lecturer   **2016/17**
- Module: Music and Speech Modelling (ECS792). Duties: preparing and presenting material for one guest lecture.
- Module: Digital Signal Processing (ECS602U) / Fundamentals of DSP (ECS707P). Duties: preparing and presenting material for one guest lecture.

City, University of London, London, UK

Visiting Lecturer   **2017/18**
- Module: Machine Learning (INM431). Duties: module preparation, delivery, exams (25% of module workload).

Visiting Lecturer   **2016/17**
- Module: Machine Learning (INM431). Duties: module preparation, delivery, exams (25% of module workload).

Visiting Lecturer   **2015/16**
- Module: Machine Learning (INM431). Duties: module preparation, delivery, exams (25% of module workload).

Lecturer   **2014/15**
- Module: Machine Learning (INM431). Duties: module preparation, delivery, exams (35% of module workload).

Lecturer   **2013/14**
- Module: Digital Signal Processing (IN3031 / INM424). Duties: module preparation, delivery, and assessment (35% of module workload).

Course co-designer   **2013/14**
- Course: MSc Data Science (based at Department of Computer Science). Duties: co-wrote course application, wrote Big Data module specifications.

Guest Lecturer   **2012/13**
- Module: Music Technology for Games (INM378). Duties: delivery of lecture and lab (1 week).

Queen Mary University of London, London, UK

Teaching Assistant   **2010/11**
- Module: Advanced Transform Methods (ELEM018). Duties: lab assistant, marking lab assignments, invigilator, final exam marking.

Enhancing lyrics transcription with open-source architectures and fine-tuning techniques   **July 2024 to October 2024**
- Role: Primary Investigator; Funding: Moises Systems Inc; Funded value: £11,700

Online speech enhancement in scenarios with low direct-to-reverberant-ratio **September 2024 to February 2025**
- Role: Primary Investigator (QMUL); Funding: L-Acoustics UK Ltd; Funded value: £65,621

Project Maestro - AI Musical Analysis Platform   **September 2024 to October 2025**
- Role: Primary Investigator (QMUL); Funding: Innovate UK; Scheme: Innovate UK Smart Grants; Funded value: £166,349 (QMUL); Grant ref: 10105279

Style classification of podcasts using audio   **March 2024 to March 2026**
- Role: Principal Investigator; Funding: Spotify Ltd; Funded value: £33,000

Music performance assessment and feedback   **March 2024 to August 2025**
- Role: Co-Investigator; Funding: industry R&D / contract research; Funded value: £250,000

Resource-efficient machine listening   **October 2023 to July 2024**
- Role: Principal Investigator (RAEng/Leverhulme Trust Research Fellow); Funding: Royal Academy of Engineering; Scheme: RAEng/Leverhulme Trust Research Fellowships; Funded value: £52,455, Grant Ref: LTRF2223-19-106

Cross-cultural relationships between speech and song   **January 2023 to December 2025**
- Role: Associate Investigator; Funding: Royal Society of New Zealand; Scheme: Marsden Fund Fast-Start Grant; Funded value: 360,000 NZ$; Grant ref: 22-VUW-078

Deep learning technologies for multi-instrument automatic music transcription **February 2022 to October 2023**
- Role: Principal Investigator; Funding: Huawei Technologies Düsseldorf; Funded value: £252,000

Towards complete music transcription: converting performance MIDI to quantized MIDI   **October 2021 to January 2022**
- Role: Principal Investigator; Funding: Bytedance UK; Funded value: £8,125

Unsupervised detection of sound events for complex audio   **March 2021 to March 2023**
- Role: Principal Investigator; Funding: Royal Society; Scheme: International Exchanges; Funded value: £3,800; Grant ref: IEC/NSFC/201382

Automatic guitar tutoring prototype   **March 2021 to September 2021**
- Role: Principal Investigator; Funding: Algorivm Ltd and EPSRC; Scheme: QMUL EPSRC/STFC IAA Large Grants Competition Programme; Funded value: £11,286

Graph Neural Networks for Explainable Artificial Intelligence (GraphNEx) **February 2021 to January 2024**
- Role: Co-Investigator; Funding: EPSRC; Scheme: CHIST-ERA; Funded value: £293,434 (QMUL); Grant ref: EP/V062107/1

Development of next generation music recognition algorithm for content monitoring November 2019 to June 2021

- Role: Co-Investigator; Funding: Innovate UK; Scheme: Innovate UK Smart Grants; Funded value: £148,037 (QMUL); Grant ref: 30863

UKRI Centre for Doctoral Training in Artificial Intelligence and Music July 2019 to December 2027

- Role: Co-Investigator; Funding: UKRI; Scheme: UKRI Centres for Doctoral Training in Artificial Intelligence; Funded value: £6,240,207; Grant ref: EP/S022694/1

Data-driven quality prediction for digitally restored audio archives September 2018 to August 2021

- Role: Co-Investigator; Funding: Science Foundation Ireland; Scheme: Insight-SFI PhD Recruitment Scheme; Funded value: €166,544; Grant ref: SFI/12/RC/2289

New Frontiers in Music Information Processing (MIP-Frontiers) April 2018 to March 2022

- Role: Co-Investigator; Funding: European Commission; Scheme: European Training Networks; Funded value: €819,863 (QMUL), €3,937,088 (total); Grant Ref: 765068

Integrating sound and context recognition for acoustic scene analysis April 2018 to June 2019

- Role: Principal Investigator; Funding: EPSRC; Scheme: First Grant; Funded value: £97,839, Grant Ref: EP/R01891X/1

Automatic transcription of polyphonic music recordings August 2016 to August 2017

- Role: Principal Investigator; Funding: Royal Academy of Engineering; Scheme: Newton Research Collaboration Programme; Funded value: £23,759; Grant Ref: NRCP1617/5/46

Polyfoni-X-Score September 2015 to November 2016

- Role: Co-Investigator; Funding: Industry (DoReMIR Music Research AB); Funded value: £77,445

A Machine Learning Framework for Audio Analysis and Retrieval March 2015 to March 2020

- Role: Principal Investigator (RAEng Research Fellow); Funding: Royal Academy of Engineering; Scheme: RAEng Research Fellowships; Funded value: £404,471, Grant Ref: RF/128

An Integrated Audio-Symbolic Model of Music Similarity (ASyMMuS) September 2014 to October 2015

- Role: Co-Investigator; Funding: AHRC; Scheme: Development Grants; Funded value: £36,607 (City, University of London), £61,570 (Total), Grant Ref: AH/M002454/1

Digital Music Lab - Analysing Big Music Data (DML) January 2014 to March 2015

- Role: Co-Investigator; Funding: AHRC; Scheme: Large Grants; Funded value: £239,876 (City, University of London), £451,750 (Total), Ref: AH/L01016X/1

SCHOLARSHIPS, SMALL & INTERNAL GRANTS, AWARDS

NVIDIA Data Science GPU Grant September 2019

- Awarded a Titan V GPU through the NVIDIA Data Science GPU Grant Program (RRP £3,000).

Alan Turing Institute - Events and Engagement seed funding　　**September 2018**
- £3,000 for organising the 2nd International Workshop on Vocal Interaction in-and-between Humans, Animals and Robots (VIHAR 2019). Lead applicant: Dan Stowell.

Outstanding Contribution to ISMIR Award　　**September 2018**
- Award given by the International Society for Music Information Retrieval

Research Performance Award　　**January 2018**
- Award given by the Faculty of Science & Engineering of Queen Mary University of London

2017 British Library Labs Research Award　　**October 2017**
- Award for project 'A large scale comparison of world music corpora with computational tools' (team: Maria Panteli, Emmanouil Benetos, Simon Dixon).

NVIDIA GPU Grant　　**September 2017**
- Awarded a Titan Xp GPU through the NVIDIA GPU Grant Program (RRP £1,149).

Centre for Digital Music Platform Grant　　**February 2016**
- Grant (£1.8k) for organising the 2016 Workshop on Auditory Neuroscience, Cognition and Modelling (w. M. Pearce, Y. Blokland).

Centre for Digital Music Platform Grant　　**September-October 2015**
- Mini-project (£3.4k) for organising the MIREX 2015 Music/Speech Classification and Detection Task.

Automatic segmentation of audio recordings to speech and music **April-May 2015**
- Role: Co-Investigator; Funding: City University London Research Pump-Priming Fund; Budget: £5,940

A Deep Learning Framework for Automatic Music Transcription **April-July 2014**
- Role: Principal Investigator; Funding: City University London Research Pump-Priming Fund; Budget: £5,768

Télécom ParisTech visiting researcher travel grant for project entitled "Source adaptation in template-based spectrogram factorization models for multi-pitch detection", €2,500.　　**December 2013**

Best reviewer award at ISMIR 2013, Curitiba, Brazil　　**November 2013**

SoundSoftware Reproducible Research Prize for a Conference Submission for EU-SIPCO 2013 paper entitled "A Database and Challenge for Acoustic Scene Classification and Event Detection"　　**June 2013**

7Digital and sonicAPI Best Hack Awards, Music Hack Day Paris　　**April 2013**

Centre for Digital Music Platform Grant　　**November 2011**
- Grant given for one-month research visit at IRCAM, Paris, France

QMUL Central Research Fund　　**October 2011**
- Grant given for presentation at WASPAA 2011, New Paltz, NY, USA

ISMIR 2010 Student Travel Award   **August 2010**
- Grant given for presentation at ISMIR 2010, Utrecht, Netherlands

Westifeld Trust   **September 2009 - September 2012**
- QMUL Research studentship (award based on merit)

Alexander S. Onassis Public Benefit Foundation **September 2006 to July 2007**
- Scholarship for postgraduate studies (award based on merit)

State Scholarships Foundation   **September 2004 to June 2005**
- Scholarship for Outstanding Achievement in Sciences supported by the Papamichailides Foundation (awarded through contest)

ENTERPRISE

Academic Co-Founder, Tonz Inc., Canada   **May 2020 - present**
Consultant, Tido Enterprise GmbH, Germany   **October 2014 - March 2015**
Consultant, DoReMIR Music Research AB, Sweden   **December 2011 to December 2013**
Consultant, AllegroIQ Ltd, Hong Kong   **January 2011 to June 2011**

PHD SUPERVISION (AS PRIMARY/JOINT SUPERVISOR)

Shahar Elisha, Queen Mary University of London
Topic: Cross-cultural audio-based understanding of podcast expression

Christos Plachouras (co-supervised with Johan Pauwels), Queen Mary University of London
Topic: Data-Efficient Learning and Adaptation in Music Models

Antonella Torrisi, Queen Mary University of London
Topic: Enhancing the affective state of chicks through communication with an artificial agent

Aditya Bhattacharjee, Queen Mary University of London
Topic: Self-supervision in audio fingerprinting

Yinghao Ma, Queen Mary University of London
Topic: Self-supervised learning for computational music understanding

Jinhua Liang, Queen Mary University of London
Topic: Audio Understanding with Limited Annotations

Jiawen Huang, Queen Mary University of London
Topic: Deep Learning for Singing Analysis and Manipulation

Inês Nolasco (co-supervised with Huy Phan and Dan Stowell), Queen Mary University of London
Topic: Automatic Acoustic Identification of Individual Animals in the Wild

Shubhr Singh (co-supervised with Huy Phan and Dan Stowell), Queen Mary University of London
Topic: Novel mathematical methods for audio based deep learning

Ilaria Manco (co-supervised with George Fazekas), Queen Mary University of London
Topic: Bridging Audio and Language in Music Understanding Models

Lele Liu, Queen Mary University of London
Topic: Automatic Music Audio-to-Score Transcription with Deep Neural Networks

Arjun Pankajakshan, Queen Mary University of London   **Completed February 2024**
Topic: Sound event detection by exploring audio sequence modelling

Carlos Lordelo (co-supervised with Simon Dixon), Queen Mary University of London and DoReMIR Music Research AB (Sweden)   **Completed November 2023**
Topic: Deep learning methods for musical instrument separation and recognition

Changhong Wang (co-supervised with Elaine Chew), Queen Mary University of London   **Completed November 2021**
Topic: Scattering transform for playing technique recognition

Adrien Ycart, Queen Mary University of London   **Completed October 2020**
Topic: Music language models for automatic music transcription

Bhusan Chettri (co-supervised with Bob Sturm), Queen Mary University of London **Completed August 2020**
PhD Thesis: Voice biometric system security: design and analysis of countermeasures for replay attacks

PhD Supervision (as secondary supervisor)

Ivan Shanin, Queen Mary University of London
Topic: Modeling melodic jazz improvisation

Yu Cao, Queen Mary University of London
Topic: Generative modeling with few-shot learning

Julien Guinot, Queen Mary University of London
Topic: Improved self-supervised learning and human-in-the-loop for musical audio: towards expert, navigable, and interpretable representations of music

Peiling Yi, Queen Mary University of London
Topic: Youth Cyberbullying Detection Across Different Social Media Platforms

Chin-Yun Yu, Queen Mary University of London
Topic: Analysing and controlling extreme vocal expression using differentiable DSP and neural networks

Christopher Mitcheltree, Queen Mary University of London
Topic: Representation learning for audio effect and synthesizer modulations

Yisu Song, Queen Mary University of London
Topic: Machine learning for physical models of sound synthesis

Huan Zhang, Queen Mary University of London
Topic: Computational modelling of expressive piano performance

Andrew Edwards, Queen Mary University of London
Topic: Computational models for jazz piano: transcription, analysis, and generative modeling

Xiaowan Yi, Queen Mary University of London
Topic: Composition-aware music recommendation system for music production

Dimitrios Stoidis, Queen Mary University of London
Topic: Protecting voice biometrics with disentangled representations of speech

Saurjya Sarkar, Queen Mary University of London
Topic: Time-domain Music Source Separation: Developing Novel Tools for Music Production

Yukun Li, Queen Mary University of London
Topic: Computational comparison between different styles of singing voice in terms of pitch

Vinod Subramanian, Queen Mary University of London
Topic: Note level audio features for understanding and visualising musical performance

Edward Hall, Queen Mary University of London
Topic: Modelling perception of large-scale thematic structure in music **Completed December 2023**

Alessandro Ragano, University College Dublin
Topic: Data-driven quality prediction for digitally restored audio archives **Completed December 2022**

Rémi de Fleurian, Queen Mary University of London
Topic: Modelling chills in music **Completed October 2022**

Emir Demirel, Queen Mary University of London
Topic: Deep neural networks for automatic lyrics transcription **Completed April 2022**

Marco A. Martinez Ramirez, Queen Mary University of London **Completed January 2021**
PhD Thesis: Deep learning for audio effects modeling

Saumitra Mishra, Queen Mary University of London **Completed October 2020**
PhD Thesis: Interpretable machine learning for machine listening

Peter Harrison, Queen Mary University of London **Completed May 2020**
PhD Thesis: Modelling the perception and composition of Western musical harmony

Maria Panteli, Queen Mary University of London **Completed April 2018**
PhD Thesis: Computational analysis of world music corpora

RESEARCH STAFF SUPERVISION | Sungkyun Chang, Queen Mary University of London (RA) **July 2022 - November 2023**

Callum Goddard, Queen Mary University of London (RA) **March - August 2021** and **March - August 2022**

Inês Nolasco, Queen Mary University of London (RA) **October - November 2018**

Dr Helen Bear, Queen Mary University of London (PDRA for EPSRC project EP/R01891X/1) **April 2018 - June 2019**

Dr Daniel Wolff, Queen Mary University of London (PDRA for C4DM Platform Grant-funded project) **September - October 2015**

Siddharth Sigtia, City University London (RA for Pump Priming Fund project) **April - July 2014**

PhD Independent Assessor	Ioannis Vasilakis, Queen Mary University of London	**September 2022 - present**
	Ningzhi Wang, Queen Mary University of London	**September 2022 - present**
	Zhengqi Chen, Queen Mary University of London	**October 2022 - present**
	Soumya Vanka, Queen Mary University of London	**May 2022 - present**
	Jingjing Tang, Queen Mary University of London	**April 2021 - present**
	Amani Sabri Abumansour, Queen Mary University of London	**January 2021 - present**
	Yin-Jyun Luo, Queen Mary University of London	**October 2020 - present**
	Christian Steinmetz, Queen Mary University of London	**September 2020 - present**
	Marco Comunità, Queen Mary University of London	**December 2019 - present**
	Mary Pilataki-Manika, Queen Mary University of London	**November 2019 - present**
	Ashish Alex, Queen Mary University of London	**July 2019 - present**
	Elizabeth Wilson, Queen Mary University of London	**January 2019 - present**
	Ruchit Agrawal, Queen Mary University of London	**October 2018 - March 2022**
	Saumitra Mishra, Queen Mary University of London	**January 2018 - May 2018**
	Daniel Stoller, Queen Mary University of London	**August 2016 - July 2020**
	Gnostothea Veroniki Morfi, Queen Mary University of London	**August 2015 - June 2019**
	Pablo Alvarado Duran, Queen Mary University of London	**March 2015 - May 2020**
	Qiuqiang Kong, Queen Mary University of London	**May 2015 - December 2015**
Host - Visiting researchers	Hyon Kim, (Universitat Pompeu Fabra, Spain)	**April - July 2024**
	Ilyass Moummad, (IMT Atlantique, France)	**April - June 2024**
	Emilian Postolache, (Sapienza University of Rome, Italy)	**May - August 2023**
	Charilaos Papaioannou, (National Technical University of Athens, Greece)	**March - May 2023**
	Jose J. Valero-Mas, (University of Alicante, Spain)	**May - July 2015**, **October - November 2016**, and **May - September 2022**
	Yangxiong Li (South China University of Technology, China)	**May-September 2022**
	Ester Vidaña Vila (Universitat Ramon Llull, Spain)	**June-July 2020**

Hideo Daikoku (Keio University, Japan)   **December 2019**

Roberto Piassi Passos Bodo (University of São Paulo, Brazil) **September 2019 - February 2020**

Prof. Ye Wang (National University of Singapore, Singapore) **August-September 2019**

Felix Gontier (École centrale de Nantes, France)   **November 2018**

Qing Zhou (Xi'an Jiaotong University, China)   **October 2017 - March 2018**

Andrew McLeod (University of Edinburgh, UK)   **August 2017**

Mina Mounir (KU Leuven, Belgium)   **May 2017**

Dr Rodrigo Schramm (Universidade Federal do Rio Grande do Sul, Brazil) **August 2016 - August 2017**

Juan José Bosch Vicente (Universitat Pompeu Fabra, Spain)   **September - December 2015**

PROJECT SUPERVISION	Undergraduate final year projects: 11 in total (7 in 2021/22; 4 in 2022/23) MSc projects: 16 in total (2 in 2016/17; 3 in 2017/18; 2 in 2019/20; 1 in 2020/21; 8 in 2021/22) MSc by research projects: 1 in total (1 in 2021/22)
EXAMINER	PhD External Examiner, Xinhao Mei, University of Surrey **June 2024**

PhD Internal Examiner, Yang Liu, Queen Mary University of London **September 2023**

PhD External Examiner, Yann Teytaut, IRCAM / Sorbonne University **July 2023**

PhD External Examiner, Hemlata Tak, EURECOM / Sorbonne University   **May 2023**

External Examiner, MSc Data Science, City, University of London **March 2023 - present**

Course Approval External Advisor, BSc (Hons) Creative Computing & BA (Hons) Creative Technology, Norwich University of the Arts   **May 2022**

PhD Internal Examiner, Benjamin Marshall, Birkbeck, University of London **May 2022**

PhD External Examiner, Gerardo Roa Dabike, University of Sheffield **April 2022**

PhD External Examiner, Eduardo Fonseca, Pompeu Fabra University **December 2021**

PhD External Examiner, Roberto Piassi Passos Bodo, University of São Paulo **July 2021**

PhD External Examiner, Xavier Favory, Pompeu Fabra University   **March 2021**

PhD External Examiner, Miguel Ángel Román García, University of Alicante **January 2021**

MSc External Examiner, Nicolas Figueiredo, University of São Paulo   **December 2020**

PhD External Examiner, Marc C. Green, University of York   **October 2020**

PhD External Examiner, Mina Mounir, KU Leuven   **May 2020**

PhD External Examiner, Anastasios Vafeiadis, De Montfort University **April 2020**

PhD External Examiner, Pierre Beauguitte, Technological University Dublin   **October 2019**

PhD External Examiner, Jose Javier Valero-Mas, University of Alicante **July 2017**

MSc External Examiner, Sofia-Elpiniki Giannikaki, University of Crete   **March 2015**

CITATIONS   Total citation count: 6700; h-index: 38 (source: Google Scholar)

ACADEMIC
SERVICE

[24th International Society for Music Information Retrieval Conference (ISMIR 2023)](#)
November 2023
- Tutorial program co-chair

[2022 Intelligent Sensing Winter School](#)   **December 2022**
- Co-organiser

[EURASIP JASM special issue on Recent advances in computational sound scene analysis](#)   **2022**
- Lead guest editor

[2020 Intelligent Sensing Summer School](#)   **September 2020**
- Co-organiser

[27th European Signal Processing Conference (EUSIPCO 2019)](#)   **September 2019**
- Special session co-organiser. Session title: Music Information Processing

[2nd International Workshop on Vocal Interactivity in-and-between Humans, Animals and Robots (VIHAR 2019)](#)   **August 2019**
- Website Chair, Scientific Review Committee Member

[19th International Society for Music Information Retrieval Conference (ISMIR 2018)](#)
September 2018
- Programme co-chair

[Workshop on Detection and Classification of Acoustic Scenes and Events 2017 (DCASE 2017)](#)   **September 2017**
- Programme co-chair

[IEEE Challenge on Detection and Classification of Acoustic Scenes and Events 2016 (DCASE 2016)](#)   **September 2015 - September 2016**
- Challenge and workshop co-organiser
- Duties: proposal co-author, coordinator of Task 2 - Synthetic audio sound event detection

16th International Conference on New Interfaces for Musical Expression (NIME 2016)   **July 2016**
- Proceedings editor

2016 Workshop on Auditory Neuroscience, Cognition and Modelling   **February 2016**
- Workshop co-organiser

IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2016)   **October 2015**
- Special session co-organiser. Session title: Acoustic Scene and Event Analysis in Multisource Environments

MIREX 2015 Music/Speech Classification and Detection Task   **October 2015**
- Task co-captain

Listening in the Wild 2015 Workshop   **August 2015**
- Organising committee member

ASyMMuS Workshop on Audio-Symbolic Music Similarity Modelling   **July 2015**
- Organising committee member

Digital Music Lab Final Workshop on Analysing Big Music Data   **March 2015**
- Organising committee member

Digital Music Lab 1st Workshop on Analysing Big Music Data   **March 2014**
- Organising committee member

IEEE Challenge on Detection and Classification of Acoustic Scenes and Events 2013
July 2012 to October 2013
- Challenge co-organiser
- Duties: proposal co-author, dataset creation, baseline system creation, metrics implementation, evaluation, website/maling list maintenance

QMUL IEEE Student Branch   **January 2012 to December 2012**
- Student Branch Chair
- Duties: Organise IEEE-related events, secure branch funding, submit budget reports, preside branch meetings

9th Int. Symposium Computer Music Modeling and Retrieval (CMMR)   **June 2012**
- Organizing committee member
- Duties: creation of conference proceedings and programme guide

IEEE UKRI Student Branch Congress 2011   **September 2011**
- Congress secretary and content manager
- Duties: registration, creating promotional materials and sponsorship documents

Centre for Digital Music, QMUL   **April 2010 to November 2011**
- Research seminar coordinator
- Duties: liaise with seminar speakers, book rooms, create and send seminar announcements, record and edit seminar videos

LEADERSHIP OF PROFESSIONAL ORGANISATIONS

Member, EURASIP Acoustic, Speech and Music Signal Processing Technical Area Committee (ASMSP TAC)   **January 2023 - December 2025**

Secretary, International Society for Music Information Retrieval (ISMIR) **January 2022 - December 2024**

Member & Chair of Education subcommittee, IEEE Audio and Acoustic Signal Processing Technical Committee (AASP TC)   **January 2022 - December 2024**

Committee member, IEEE UK and Ireland Signal Processing Chapter **September 2017 - present**

EDITORIAL
SERVICE

IEEE/ACM Transactions on Audio, Speech, and Language Processing   **August 2022 - present**
- Associate Editor

Pattern Recognition Letters (Elsevier)   **June 2019 - August 2022**
- Associate Editor

EURASIP Journal on Audio, Speech, and Music Processing   **February 2018 - present**
- Associate Editor

UNIVERSITY &
INSTITUTE
SERVICE

Director of Research, School of EECS, QMUL   **2023 - present**

Deputy Director and Research Director, UKRI Centre for Doctoral Training in Artificial Intelligence and Music, QMUL   **2023 - present**

Deputy Director of Research, School of EECS, QMUL   **2022 - 2023**

QMUL-Turing Liaison Committee Member, QMUL   **2022 - present**

AI and Data Modelling Leadership Team Member, Faculty of Science & Engineering, QMUL   **2022 - present**

Turing Skills Group member, The Alan Turing Institute   **2021 - present**

Open Access / Open Science Coordinator, School of EECS, QMUL   **2020 - 2022**

Admissions Officer, UKRI Centre for Doctoral Training in Artificial Intelligence and Music, QMUL   **2019 - 2022**

REVIEWING

Reviewer in international journals:
- IEEE/ACM TASLP; IEEE SPM; IEEE SPL; IEEE TSP; IEEE TMM; IEEE MultiMedia; IEEE JSTSP; IEEE TETCI; IEEE TPAMI; PLOS ONE; JASA (AIP); JASA-EL; JASA (T&F); JAES; Frontiers Digital Humanities; Digital Signal Processing (Elsevier); EURASIP JASP; EURASIP JASMP; TISMIR; PRL (Elsevier); CMJ (MIT Press); JNMR (T&F); Radioengineering; Advances in Multimedia; ACM JOCCH; ACM TIST, Applied Acoustics (Elsevier); J. Franklin Institute; Computer Speech & Language; Empirical Musicology Review; The Computer Journal (OUP); Physics Today; Scientific Reports; PMLR

Meta-reviewer in international conferences:
- ISMIR (2015-24); IEEE ICASSP (2023-24); IEEE WASPAA (2023); EUSIPCO (2023-24)

Reviewer in international conferences:

- ISMIR (2011-14); IEEE ICASSP (2013,15-21); IEEE WASPAA (2011,15,17,19); EUSIPCO (2007,09,12-15,17-20); ISCAS (2009); DSP (2011); AES Semantic Audio (2011,14,17); CMMR (2012); SMC (2010-14,16-17); IJCAI (2013); AAAI (2014); FMA (2014-20); MCM (2015); AAWM (2016,18); MML (2016-17); Audio Mostly (2017), QoMEX (2020); DSLW (2021); IJCNN (2020)

Reviewer for research proposals:
- European Research Council (ERC)
- Engineering and Physical Sciences Research Council (EPSRC, UK) - Member, EPSRC Peer review college
- Arts and Humanities Research Council (AHRC, UK) - Member, AHRC Peer review college
- Royal Academy of Engineering (RAEng, UK)
- National Science Foundation (NSF, USA)
- National Research Agency (ANR, France)
- Hellenic Foundation for Research & Innovation (HFRI, Greece)
- Belgian Federal Science Policy Office (BELSPO, Belgium)
- Linz Institute of Technology (LIT, Austria)
- Natural Sciences and Engineering Research Council (NSERC, Canada)
- Vienna Science and Technology Fund (WWTF, Austria)
- Swiss Data Science Center (SDSC, Switzerland)
- Chilean National Agency for Research and Development (ANID, Chile)

PROFESSIONAL
MEMBERSHIPS

Senior Member, IEEE & IEEE Signal Processing Society

Affiliate member, IEEE Technical Committee on Machine Learning for Signal Processing

Member, IEEE CIS Task Force on Computational Audio Processing

Member, International Society for Music Information Retrieval (ISMIR)

Member, European Association for Signal, Speech, and Image Processing (EURASIP)

Member, UK Acoustics Network (UKAN)

Member, Data Science and Digital Humanities interest group, The Alan Turing Institute

Member, EPSRC Peer Review College

Working Group Member, International Federation for Information Processing (IFIP) WP14.10 – Sound and Music Computing

Fellow, Digital Environment Research Institute (DERI), Queen Mary University of London

ARTISTIC SKILLS

Diploma of the Associated Board of the Royal Schools of Music in Piano Performance, December 2010.

B.Mus. in Piano Performance by the New Conservatory of Thessaloniki, subject to the Greek Ministry of Culture, July 2009.

Grade 5 degree of the Associated Board of the Royal Schools of Music in Music Theory, 2001.

KEYNOTE TALKS

E. Benetos, "Music informatics & computational musicology: A case study in automatic music transcription," Keynote talk at *First Annual TROMPA Workshop for Music Scholars*, London, UK, Apr. 2019.

E. Benetos, "Automatic transcription of world music collections," Keynote talk at *8th International Workshop on Folk Music Analysis*, Thessaloniki, Greece, June 2018.

E. Benetos, "Music informatics & computational musicology: A case study in automatic music transcription," Keynote talk at *Symposium for Digital Musicology*, London, UK, Sep. 2017.

INVITED TALKS   E. Benetos, "Machine learning paradigms for music and audio understanding," *Telecom Paris ListenLab 4th semi-annual workshop*, April 2024.

E. Benetos, "Learning methodologies for music and audio data," *Dynamics, Data and Deep Learning Workshop*, March 2024.

E. Benetos, "Learning methodologies for music and audio data," *BAAI Music & Audio Processing Workshop invited talk*, June 2023.

E. Benetos, "Learning methodologies for music and audio data," *ByteDance SAMI invited talk*, October 2021.

E. Benetos, "Learning methodologies for music and audio data," invited talk, *Huawei MTI Forum*, March 2021.

E. Benetos, "Machine learning for machine listening," invited talk, *Institute of Applied Data Science colloquium*, London, UK, November 2019.

E. Benetos, "The Digital Music Lab project: summary and perspectives," invited talk, *Digital Musicology and Libraries: Challenges and Opportunities study day*, London, UK, July 2019.

E. Benetos, "Signal processing methods for sound recognition," invited talk, School of Computing, National University of Singapore, Singapore, January 2019.

E. Benetos, "Automatic Music Transcription," tutorial, School of Computing, National University of Singapore, Singapore, January 2019.

E. Benetos, "Automatic Music Transcription: Representations and Categorical (mis)Conceptions," *Fifth International Conference on Analytical Approaches to World Music*, Thessaloniki, Greece, June 2018.

E. Benetos, "Automatic transcription of world music collections," *International Symposium on Computational Ethnomusicological Archiving*, Hamburg, Germany, Dec. 2017.

E. Benetos, "Automatic Music Transcription using Matrix Decomposition Methods," *Music Informatics and Cognition Workshop*, Edinburgh, UK, Jul. 2016.

E. Benetos, "Multiple-timbre note tracking using linear dynamical systems," *5th Joint Meeting of the Acoustical Society of America and the Acoustical Society of Japan*, Honolulu, Hawaii, USA, Nov. 2016. Abstract published at *Journal of the Acoustical Society of America*, vol. 140, no. 4, pt. 2, pp. 3039, Oct. 2016.

E. Benetos, "Matrix Decomposition Methods for Audio Analysis," *Intelligent Sensing Summer School*, London, UK, Sep. 2016.

E. Benetos, "Matrix Decomposition Methods for Audio Analysis," *Audio Analytic Tech Talk*, Cambridge, UK, Feb. 2016.

E. Benetos, "Automatic music transcription using spectrogram factorization methods," in Proc. *3rd Vienna Talk on Music Acoustics*, p. 297, Vienna, Austria, Sep. 2015.

E. Benetos, "Spectrogram factorization methods for music and audio analysis," Centre for Vision, Speech, and Signal Processing, University of Surrey, Mar. 2015.

E. Benetos and T. Weyde, "Instrument transcription & instrumentation recognition," Workshop on Musical Timbre, Télécom ParisTech, Nov. 2014.

D. Wolff and E. Benetos, "The DML Project: Objectives and Methodology," British Library, July 2014.

E. Benetos, "Music informatics / music signal analysis research at City University London," Signal and Image Processing Dept., Télécom ParisTech, Paris, France, Nov. 2013.

E. Benetos, S. Cherla, and D. Wolff, "The Music Informatics Research Group (MIRG)", Music Tech Fest, London, UK, May 2013.

E. Benetos and S. Dixon, "Polyphonic music transcription using shift-invariant latent variable models," Signal and Image Processing Dept., Télécom ParisTech, Paris, France, Nov. 2011.

S. Dixon, D. Tidhar, M. Mauch, and E. Benetos, "Automatic estimation of harpsichord inharmonicity and temperament," Institute of Musical Research, University of London, UK, Oct. 2011.

TUTORIALS

E. Benetos and R. Schramm, "Music information retrieval and automatic music transcription," in *Workshop on Electronic Music and Computer Music*, Porto Alegre, Brazil, Sep. 2017.

Z. Duan and E. Benetos, "Automatic music transcription," in *16th International Society for Music Information retrieval Conference (ISMIR)*, Malaga, Spain, Oct. 2015.

PUBLICATIONS

PATENTS

K. O'Hanlon, E. Benetos, and S. Dixon, "Detecting Cover Songs with Key-Invariant Pitch Class Networks," UK patent application 2113253.5, filing date 16 Sept. 2021.

M. A. Martinez Ramirez, E. Benetos, and J. D. Reiss, "Time-varying and nonlinear audio processing using deep neural networks", United States Patent Application 20230197043, filing date 12 May 2020.

BOOKS AND BOOK CHAPTERS

L. Liu and E. Benetos, "From audio to music notation", in *Handbook of Artificial Intelligence for Music*, E. Miranda (ed.), pp. 693-714, Springer, 2021 (ISBN: 978-3-030-72115-2).

E. Benetos, D. Stowell, and M. D. Plumbley, "Approaches to complex sound scene analysis", in *Computational Analysis of Sound Scenes and Events*, T. Virtanen, M. D. Plumbley, D. Ellis (eds.), pp. 215-242, Springer, 2018 (ISBN: 978-3-319-63450-0).

X. Serra, M. Magas, E. Benetos, M. Chudy, S. Dixon, A. Flexer, E. Gómez, F. Gouyon, P. Herrera, S. Jorda, O. Paytuvi, G. Peeters, J. Schlüter, H. Vinet, G. Widmer, "Roadmap for Music Information ReSearch," G. Peeters (ed.), Creative Commons BY-NC-ND 3.0 license, 2013 (ISBN: 978-2-9540351-1-6).

E. Benetos, S. Siatras, C. Kotropoulos, N. Nikolaidis, and I. Pitas, "Movie analysis with emphasis to dialogue and action scene detection", in *Multimodal Processing and Interaction: Audio, Video, Text*, P. Maragos, A. Potamianos and P. Gros (eds.), pp. 157-177, Springer-Verlag, 2008 (ISBN: 978-0-387-76315-6).

JOURNAL
PUBLICATIONS

Y. Ozaki, A. Tierney, P. Q. Pfordresher, J. M. McBride, E. Benetos, P. Prout-skouva, G. Chiba, F. Liu, N. Jacoby, S. C. Purdy, P. Opondo, W. T. Fitch, S. Hegde, M. Rocamora, R. Thorne, F. Nweke, D. Sadaphal, P. Sadaphal, S. Hadavi, S. Fujii, S. Choo, M. Naruse, U. Ehara, L. Sy, M. L. Parselelo, M. Anglada-Tort, N. Chr. Hansen, F. Haiduk, U. Færøvik, V. Magalhães, W. Krzyżanowski, O. Shcherbakova, D. Hereld, B. S. Barbosa, M. A. C. Varella, M. van Tongeren, P. Dessiatnitchenko, S. Zar Zar, I. El Kahla, O. Muslu, J. Troy, T. Lomsadze, D. Kurdova, C. Tsope, D. Fredriksson, A. Arabadjiev, J. P. Sarbah, A. Arhine, T. Ó Meachair, J. Silva-Zurita, I. Soto-Silva, N. E. M. Millalonco, R. Ambrazevičius, P. Loui, A. Ravignani, Y. Jadoul, P. Larrouy-Maestri, C. Bruder, T. P. Teyx-okawa, K. Kuikuro, R. Natsitsabui, N. B. Sagarzazu, L. Raviv, M. Zeng, S. D. Varnosfaderani, J. S. Gómez-Cañón, K. Kolff, C. Vanden Bosch der Nederlanden, M. Chhatwal, R. M. David, I Putu Gede Setiawan, G. Lekakul, V. N. Borsan, N. Nguqu, and P. E. Savage, "Globally, songs and instrumental melodies are slower and higher and use more stable pitches than speech: A Registered Report," *Science Advances*, vol. 10, no. 20, 2024.

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A. Ragano, E. Benetos, and A. Hines, "Automatic quality assessment of digitized and restored sound archives", *Journal of the Audio Engineering Society*, vol. 70, no. 4, pp. 252-270, April 2022.

C. Wang, E. Benetos, V. Lostanlen, and E. Chew, "Adaptive scattering transforms for playing technique recognition", *IEEE/ACM Transactions on Audio, Speech and Language Processing*, vol. 30, pp. 1407-1421, March 2022.

E. Benetos, A. Ragano, D. Sgroi, and A. Tuckwell, "Measuring national mood with music: using machine learning to construct a measure of national valence from audio data", *Behavior Research Methods*, Feb. 2022.

A. Terenzi, N. Ortolani, I. Nolasco, E. Benetos, and S. Cecchi, "Comparison of feature extraction methods for sound-based classification of honey bee activity", *IEEE/ACM Transactions on Audio, Speech and Language Processing*, vol. 30, pp. 112-122, 2022.

A. Holzapfel, E. Benetos, A. Killick, and R. Widdess, "Humanities and engineering perspectives on music transcription", *Digital Scholarship in the Humanities*, Oct. 2021.

C. Lordelo, E. Benetos, S. Dixon, S. Ahlbäck, and P. Ohlsson, "Adversarial Unsupervised Domain Adaptation for Harmonic-Percussive Source Separation," *IEEE Signal Processing Letters*, vol. 28, pp. 81-85, 2021.

B. Chettri, E. Benetos, and B. L. Sturm, "Dataset artefacts in anti-spoofing systems: a case study on the ASVspoof 2017 benchmark," *IEEE/ACM Transactions on Audio, Speech and Language Processing*, vol. 28, pp. 3018-3028, Nov. 2020.

B. Chettri, T. Kinnunen, and E. Benetos, "Deep generative variational autoencoding for replay spoof detection in automatic speaker verification," *Computer Speech and Language*, vol. 63, article no. 101092, Sept. 2020.

A. Ycart and E. Benetos, "Learning and evaluation methodologies for polyphonic music sequence prediction with LSTMs," *IEEE/ACM Transactions on Audio, Speech and Language Processing*, vol. 28, pp. 1328–1341, Apr. 2020.

A. Ycart, L. Liu, E. Benetos, and M. T. Pearce, "Investigating the Perceptual Validity of Evaluation Metrics for Automatic Piano Music Transcription", *Transactions of the International Society for Music Information Retrieval*, vol. 3, no. 1, pp. 68-81, June 2020.

M. A. Martínez Ramírez, E. Benetos, and J. D. Reiss, "Deep learning for black-box modeling of audio effects," *Applied Sciences*, vol. 10, no. 2, Jan. 2020.

Q. Zhou, Z. Feng, and E. Benetos, "Adaptive noise reduction for sound event detection using subband-weighted NMF", *Sensors*, vol. 19, no. 14, July 2019.

E. Covas and E. Benetos "Optimal Neural Network Feature Selection for Spatial-Temporal Forecasting", *Chaos*, vol. 29, no. 6, 2019.

E. Benetos, S. Dixon, Z. Duan, and S. Ewert, "Automatic Music Transcription: An Overview", *IEEE Signal Processing Magazine*, vol. 36, no. 1, pp. 20-30, Jan. 2019.

J. J. Valero-Mas, E. Benetos, and J. M. Iñesta, "A supervised classification approach for note tracking in polyphonic piano transcription", *Journal of New Music Research*, vol. 47, no. 3, pp. 249-263, June 2018.

H. Ali, S. N. Tran, E. Benetos, and A. S. d'Avila Garcez, "Speaker recognition with hybrid features from a deep belief network," *Neural Computing and Applications*, vol. 29, no. 6, pp. 13-19, March 2018.

M. Panteli, E. Benetos, and S. Dixon, "A review of manual and computational approaches for the study of world music corpora", *Journal of New Music Research*, vol. 47, no. 2, pp. 176-189, March 2018.

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M. Panteli, E. Benetos, and S. Dixon, "A computational study on outliers in world music", *PLoS ONE*, vol. 12, no. 12, article no. e0189399, Dec. 2017.

A. McLeod, R. Schramm, M. Steedman, and E. Benetos, "Automatic Transcription of Polyphonic Vocal Music", *Applied Sciences*, vol. 7, no. 12, article no. 1285, Dec. 2017.

E. Benetos, G. Lafay, M. Lagrange, and M. D. Plumbley, "Polyphonic Sound Event Tracking using Linear Dynamical Systems," *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, vol. 25, no. 6, pp. 1266-1277, June 2017.

D. Stowell, E. Benetos, and L. F. Gill, "On-bird Sound Recordings: Automatic Acoustic Recognition of Activities and Contexts," *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, vol. 25, no. 6, pp. 1193-1206, June 2017.

S. Abdallah, E. Benetos, N. Gold, S. Hargreaves, T. Weyde, and D. Wolff, "The Digital Music Lab: A Big Data Infrastructure for Digital Musicology," *ACM Journal on Computing and Cultural Heritage*, vol. 10, no. 1, pp. 2:1-2:21, April 2017.

G. Lafay, M. Lagrange, M. Rossignol, E. Benetos, and A. Roebel, "A morphological model for simulating acoustic scenes and its application to sound event detection," *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, vol. 24, no. 10, pp. 1854-1864, Oct. 2016.

S. Sigtia, E. Benetos, and S. Dixon, "An End-to-End Neural Network for Polyphonic Piano Music Transcription," *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, vol. 24, no. 5, pp. 927-939, May 2016.

E. Benetos and A. Holzapfel, "Automatic transcription of Turkish microtonal music," *Journal of the Acoustical Society of America*, vol. 138, no. 4, pp. 2118-2130, Oct. 2015.

D. Stowell, D. Giannoulis, E. Benetos, M. Lagrange and M. D. Plumbley, "Detection and classification of acoustic scenes and events," *IEEE Transactions on Multimedia*, vol. 17, no. 10, pp. 1733-1746, Oct. 2015.

D. Tidhar, S. Dixon, E. Benetos, and T. Weyde, "The temperament police," *Early Music*, vol. 42, no. 4, pp. 579-590, Nov. 2014.
Most read paper in 2014 for Early Music journal and in top five most read music journal articles in 2014 for Oxford University Publishing

E. Benetos, S. Dixon, D. Giannoulis, H. Kirchhoff, and A. Klapuri, "Automatic music transcription: challenges and future directions," *Journal of Intelligent Information Systems*, vol. 41, no. 3, pp. 407-434, Dec. 2013.

E. Benetos and S. Dixon, "Multiple-instrument polyphonic music transcription using a temporally constrained shift-invariant model," *Journal of the Acoustical Society of America*, vol. 133, no. 3, pp. 1727-1741, Mar. 2013.

E. Benetos and S. Dixon, "A shift-invariant latent variable model for automatic music transcription," *Computer Music Journal*, vol. 36, no. 4, pp. 81-94, Winter 2012.

E. Benetos and S. Dixon, "Joint multi-pitch detection using harmonic envelope estimation for polyphonic music transcription", *IEEE Journal on Selected Topics in Signal Processing*, vol. 5, no. 6, pp. 1111-1123, Oct. 2011.

A. Anglade, E. Benetos, M. Mauch, and S. Dixon, "Improving music genre classification using automatically induced harmony rules", *Journal of New Music Research*, vol. 39, no. 4, pp. 327-339, Dec. 2010.

E. Benetos and Y. Stylianou, "Auditory spectrum-based pitched instrument onset detection", *IEEE Transactions on Audio, Speech, and Language Processing*, vol. 18, no. 8, pp. 1968-1977, Nov. 2010.

E. Benetos and C. Kotropoulos, "Non-negative tensor factorization applied to music genre classification", *IEEE Transactions on Audio, Speech, and Language Processing*, vol. 18, no. 8, pp. 1955-1967, Nov. 2010.

M. Kotti, E. Benetos, and C. Kotropoulos, "Computationally efficient and robust BIC-based speaker segmentation", *IEEE Transactions on Audio, Speech, and Language Processing*, vol. 16, no. 5, pp. 920-933, July 2008.

M. Kotti, E. Benetos, C. Kotropoulos, and I. Pitas, "A neural network approach to audio-assisted movie dialogue detection", *Neurocomputing*, vol. 71, pp. 157-166, Dec. 2007.

Peer-Reviewed Conference Publications

B. Weck, I. Manco, E. Benetos, E. Quinton, G. Fazekas, D. Bogdanov, "MuChoMusic: Evaluating music understanding in multimodal audio-language models," in *25th International Society for Music Information Retrieval Conference (ISMIR)*, accepted.

C. Steinmetz, S. Singh, M. Comunita, I. Ibnyahya, S. Yuan, E. Benetos, J. D. Reiss, "ST-ITO: Controlling audio effects for style transfer with inference-time optimization," in *25th International Society for Music Information Retrieval Conference (ISMIR)*, accepted.

Q. Deng, Q. Yang, R. Yuan, Y. Huang, Y. Wang, X. Liu, Z. Tian, J. Pan, G. Zhang, H. Lin, Y. Li, Y. Ma, J. Fu, C. Lin, E. Benetos, W. Wang, G. Xia, W. Xue, Y. Guo, "ComposerX: multi-agent symbolic music composition with LLMs," in *25th International Society for Music Information Retrieval Conference (ISMIR)*, accepted.

Z. Zhou, Y. Wu, Z. Wu, X. Zhang, R. Yuan, Y. Ma, L. Wang, E. Benetos, W. Xue, Y. Guo, "Can LLMs "reason" in music? An evaluation of LLMs' capability of music understanding and generation," in *25th International Society for Music Information Retrieval Conference (ISMIR)*, accepted.

B. Weck, I. Manco, E. Benetos, E. Quinton, G. Fazekas, D. Bogdanov, "Evaluating music understanding in multimodal audio-language models," in *ICML 2024 Workshop on Data-Centric Machine Learning Research (DMLR)*, accepted.

J. Huang and E. Benetos, "Towards building an end-to-end multilingual automatic lyrics transcription model," in *32nd European Signal Processing Conference (EUSIPCO)*, accepted.

J. Liang, I. Nolasco, B. Ghani, H. Phan, E. Benetos, D. Stowell, "Mind the domain gap: a systematic analysis on bioacoustic sound event detection," in *32nd European Signal Processing Conference (EUSIPCO)*, accepted.

R. Yuan, H. Lin, Y. Wang, Z. Tian, S. Wu, T. Shen, G. Zhang, Y. Wu, C. Liu, Z. Zhou, L. Xue, Z. Ma, Q. Liu, T. Zheng, Y. Li, Y. Ma, Y. Liang, X. Chi, R. Liu, Z. Wang, C. Lin, Q. Liu, T. Jiang, W. Huang, W. Chen, J. Fu, E. Benetos, G. Xia, R. Dannenberg, W. Xue, S. Kang, Y. Guo, "ChatMusician: understanding and generating music intrinsically with LLM," *Findings of the Association for Computational Linguistics: ACL 2024*, accepted.

A. Xompero, M. Bontonou, J.-M. Arbona, E. Benetos, A. Cavallaro, "Explaining models relating objects and privacy," *3rd Explainable AI for Computer Vision (XAI4CV) Workshop at CVPR 2024*, June 2024.

Z. Deng, Y. Ma, Y. Liu, R. Guo, G. Zhang, W. Chen, W. Huang, E. Benetos, "MusiLingo: bridging music and text with pre-trained language models for music captioning and query response," in *2024 Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL)*, June 2024.

J. Liang, H. Zhang, H. Liu, Y. Cao, Q. Kong, X. Liu, W. Wang, M. D. Plumbley, H. Phan, E. Benetos, "WavCraft: Audio Editing and Generation with Large Language Prompts," in *ICLR 2024 Workshop on LLM Agents*, May 2024.

Y. Li, R. Yuan, G. Zhang, Y. Ma, X. Chen, H. Yin, C. Xiao, C. Lin, A. Ragni, E. Benetos, N. Gyenge, R. Dannenberg, R. Liu, W. Chen, G. Xia, Y. Shi, W. Huang, Z. Wang, Y. Guo, J. Fu, "MERT: acoustic music understanding model with large-scale self-supervised training," in *12th International Conference on Learning Representations (ICLR)*, accepted.

J. Liang, H. Phan, E. Benetos, "Learning from taxonomy: multi-label few-shot classification for everyday sound recognition," in *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, pp. 771-775, April 2024.

E. Postolache, G. Mariani, L. Cosmo, E. Benetos, E. Rodolà, "Generalized multi-source inference for text conditioned music diffusion models," in *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, pp. 6980-6984, April 2024.

D. Li, Y. Ma, W. Wei, Q. Kong, Y. Wu, M. Che, F. Xia, E. Benetos, W. Li, "MERTech: Instrument playing technique detection using self-supervised pre-trained model with multi-task finetuning," in *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, pp. 521-525, April 2024.

A. Ragano, E. Benetos and A. Hines, "Learning Music Representations with wav2vec 2.0", *31st Irish Conference on Artificial Intelligence and Cognitive Science (AICS 2023)*, Dec. 2023.

O. Deb, E. Benetos, and P. Torr, "Remaining-useful-life prediction and uncertainty quantification using LSTM ensembles for aircraft engines," in *NeurIPS Workshop on Advancing Neural Network Training (WANT): Computational Efficiency, Scalability, and Resource Optimization*, Dec. 2023.

I. Manco, B. Weck, S. Doh, Y. Zhang, D. Bogdanov, Y. Wu, K. Chen, P. Tovstogan, E. Benetos, E. Quinton, G. Fazekas, J. Nam, and M. Won, "The Song Describer Dataset: a corpus of audio captions for music-and-language evaluation," in *NeurIPS Machine Learning for Audio Workshop*, Dec. 2023.

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C. Papaioannou, E. Benetos, and A. Potamianos, "From West to East: Who can understand the music of the others better?," in *24th International Society for Music Information Retrieval Conference (ISMIR)*, Nov. 2023.

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L. Zhuo, R. Yuan, J. Pan, Y. Ma, Y. Li, G. Zhang, S. Liu, R. Dannenberg, J. Fu, C. Lin, E. Benetos, W. Chen, W. Xue, Y. Guo, "LyricWhiz: Robust Multilingual Lyrics Transcription by Whispering to ChatGPT," in *24th International Society for Music Information Retrieval Conference (ISMIR)*, Nov. 2023.

C. Vahidi, S. Singh, G. Fazekas, E. Benetos, D. Stowell, H. Phan, M. Lagrange, "Perceptual musical similarity metric learning with graph neural networks," in *IEEE Workshop on Applications of Signal Processing to Audio and Acoustics (WASPAA)*, Oct. 2023.

S. Sarkar, L. Thorpe, E. Benetos, M. Sandler, "Leveraging synthetic data for improving chamber ensemble separation," in *IEEE Workshop on Applications of Signal Processing to Audio and Acoustics (WASPAA)*, Oct. 2023.
Best student paper award

J. Liang, X. Liu, H. Liu, H. Phan, E. Benetos, M. Plumbley, W. Wang, "Adapting language-audio models as few-Shot audio learners," *24th Annual Conference of the International Speech Communication Association (INTERSPEECH)*, Aug. 2023.

A. Ragano, E. Benetos, M. Chinen, H. B. Martinez, C. K. A. Reddy, J. Skoglund, A. Hines, "A Comparison Of Deep Learning MOS Predictors For Speech Synthesis Quality," Irish Signals & Systems Conference (ISSC), June 2023.

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