Luca Turchet

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Personal website: www.lucaturchet.it
Lab website: www.cimil.disi.unitn.it
Co-founded company website: www.elk.audio
Founded IEEE committee: https://ios.committees.comsoc.org
Founded research network: www.internetofsounds.net

Current positions

Jan. 2022 – present	**Associate Professor** and **Head** of the Creative, Intelligent and Multisensory Interactions Lab, Department of Information Engineering and Computer Science of University of Trento
Mar. 2023 – present	**Chair** of IEEE Emerging Technology Initiative on the Internet of Sounds
Oct. 2014 – present	**Co-founder** and **Advisor** at Elk Audio (former MIND Music Labs)

Research interests

New interfaces for musical expression, Musical Metaverse, generative music AI, music information retrieval, extended reality, human-computer interaction, Internet of Things, real-time audio embedded systems, haptic technology, affective computing, semantic web, sonic interaction design, multimodal perception, sonification, brain-computer interfaces, ethics

Education

Aug. 2013 – Apr. 2015	**Master of Arts in Electronic Music** • Institution: Royal College of Music in Stockholm • Final mark: Pass (according to the institution's policy, there is not a final grade)
Feb. 2010 – Jan. 2013	**Ph.D. in Media Technology** • Institution: Aalborg University Copenhagen, Dept. of Media Technology • Thesis: "Audio-Haptic Feedback for Natural Interactive Walking: Interfaces, Simulations & Perceptual Phenomena"
Dec. 2004 – Sep. 2006	**Master of Science in Intelligent and Multimedia Systems** • Institution: University of Verona, Dept. of Computer Science • Thesis: "Granular Synthesis & ReacTable" • Final mark: 110 e lode (Magna cum laude)
Sep. 2001 – Dec. 2004	**Bachelor of Science in Multimedia Information Technology** • Institution: University of Verona, Dept. of Computer Science • Thesis: "Multimodal Display of surface textures" • Final mark: 110 e lode (Magna cum laude)
Oct. 2006 – Mar. 2009	**Master of Arts in Composition** (Specialisation in Electronic Music) • Institution: Conservatory of Music of Verona • Final mark: 110 e lode (Magna cum laude)
Sep. 1999 – June 2007	**Master of Arts in Classical Guitar** • Institution: Conservatory of Music of Verona • Final mark: 10 e lode (Magna cum laude)
Sep. 1996 – July 2001	**Diploma of Secondary School focusing on Humanities** • Institution: Liceo Classico Scipione Maffei of Verona

Previous academic positions

Jan. 2019 – Jan. 2022	**Assistant Professor (tenure track)** at University of Trento, Dept. of Information Engineering and Computer Science
Nov. 2018 – Nov. 2021	**Honorary Senior Research Associate** at University College London, Institute of Education
May 2017 – Jan. 2019	**Marie-Curie Postdoctoral Research Fellow** at Queen Mary University of London, Center for Digital Music
Nov. 2016 – Feb. 2017	**Postdoctoral researcher** at KTH Royal Institute of Technology, Dept. of Network and Systems Engineering

June 2016 – Aug. 2016	**Associate Research Scientist** at Columbia University, Dept. of Mechanical Engineering
Feb. 2013 – Jan. 2016	**Independent post-doc researcher** at Aalborg University Copenhagen, Dept. of Media Technology, funded by the Danish Council for Independent Research
Feb. 2010 – Jan. 2013	**PhD student** at Aalborg University Copenhagen, Dept. of Media Technology
Mar. 2009 – Jan. 2010	**Research assistant** at Aalborg University Copenhagen, Dept. of Media Technology

Visiting research periods

June 2018	McGill University, Centre for Interdisciplinary Research in Music Media and Technology
Sep. 2015 – May 2016	KTH Royal Institute of Technology, Dept. of Automatic Control
June 2015 – July 2015	Queen Mary University of London, Center for Digital Music
Apr. 2015 – May 2015	KTH Royal Institute of Technology, Dept. of Automatic Control
Jan. 2015 – Mar. 2015	University of Verona, Dept. of Neurological and Movement Sciences
Sep. 2014 – Dec. 2014	KTH Royal Institute of Technology, Dept. of Automatic Control
June 2014 – Aug. 2014	University of Verona, Dept. of Neurological and Movement Sciences
Sep. 2013 – May 2014	KTH Royal Institute of Technology, Dept. of Media Technology and Interaction Design
June 2013 – Aug. 2013	University of Verona, Dept. of Neurological and Movement Sciences
Sep. 2012 – Dec. 2012	University of Padova, Dept. of Information Engineering
Apr. 2012 – July 2012	KTH Royal Institute of Technology, Dept. of Speech, Music and Hearing
July 2011 – Aug. 2011	University of Verona, Dept. of Neurological and Movement Sciences
May 2010 – June 2010	University of Rennes, Institut National de Recherche en Informatique et en Automatique
Sep. 2008 – Feb. 2009	Cork Institute of Technology/Cork School of Music
Apr. 2006 – Aug. 2006	Pompeu Fabra University (Barcelona), Music Technology Group

Funding acquisition

SCIENTIFIC GRANTS	
Feb. 2025	University of Trento research grant for "5 x 1000 fundraising campaign", **PI**, €20.000
July 2024	EIC Pathfinder Open Grant for project "Musical Metaverse made in Europe: an innovation lab for musicians and audiences of the future" (www.musmet.eu), **PI**, funded by the European Innovation Council, €556.000 for UniTn (Consortium total amount: €4.5 M), **Acceptance rate: 3.5%.**
July 2023	PRIN Grant (Projects of Relevant National Interest) of Italian Ministry of University and Research for project "Musical Metaverse", **PI**, €97.000 for UniTn (Consortium total amount: €253.000). **First-ranked** among 287 applications.
May 2022	Grant of Italian Ministry of University and Research for a PhD position of the national doctoral consortium in "Artificial Intelligence", **PI**, €40.000
May 2022	Grant of Italian Ministry of University and Research for a PhD position of the national doctoral consortium in "Sustainable Development and Climate Change", **PI**, €40.000
Oct. 2020	Grant of University of Trento for "Strategic projects for COVID-19", **PI**, €35.000
Sep. 2020	**2-year grant of European Space Agency** ARTES IAP 5G for L'ART Cultural Heritage, for the project "Next generation of augmented reality tourism: enhancing cultural heritage preservation", **PI for University of Trento**, €100.000
Dec. 2019	Starting Grant Young Researchers of University of Trento for application to competitive European calls for projects, **PI**, €10.000
Dec. 2019	**1-year Innovation grant** from EIT Digital - European Institute of Technology, for project "Longjam: a smart box for remote music playing", **PI**, €137.000 for UniTn (Consortium total amount: €528.000)
Apr. 2019 – June 2019	Grant of Fondazione C.M. Lerici/Italian institute of Culture in Stockholm for the research project "The Smart Flute", **PI**, €2.500
Jan. 2019	**1-year Leadership Fellowship** of the Arts and Humanities Research Council of United Kingdom (declined for position at the University of Trento), **PI**, €180.000
June 2017 – Dec. 2017	Grant of Fondazione C.M. Lerici/Italian institute of Culture in Stockholm for the research project "Augmentation of the Neapolitan mandolin", **PI**, €3.000
Feb. 2017	**2-year EU Marie Curie Individual Fellowship** for the project "Towards the Internet of Musical Things - An ecosystem of interoperable devices connecting performers and audiences", **fellow (de-facto PI)**, €186.000
June 2014 – Sep. 2014	Grant of Fondazione C.M. Lerici/Italian institute of Culture in Stockholm for the research project "Augmentation of Traditional Italian Instruments", **PI**, €3.700
Feb. 2013	**3-year grant of the Danish Research Council for Independent Research** for the project "Audio-haptic walking simulations for virtual reality, entertainment and rehabilitation applications", **PI**, €475.000
July 2012	Grant of Otto Mønsted foundation for the research project "Footstep sounds localization", €2.500

MAY 2010 – JUNE 2010	EU Sonic Interaction Design SID-COST grant for the research project "Footstep sounds in desktop VR", €2.500
APR. 2006 – AUG. 2006	Erasmus grant for the research period of 5 months at Music Technology Group of Pompeu Fabra University on the project "Granular Synthesis and ReacTable", €1.500

INNOVATION GRANTS

JUNE 2020	"Finding new ways in the time of a crisis" of Swedish Innovation Agency VINNOVA for Elk, €70.000
MAY. 2020	EIT Digital grant for financing one industrial PhD student at company GTEC, **PI**, €75.000
APR. 2020	EIT Digital grant for co-financing one industrial PhD student at company Elk, **PI**, €40.000
DEC. 2019	1-year Innovation grant from EIT Digital - European Institute of Technology, for Elk €280.000
OCT. 2018	Innovation grant "Audience of the Future: Design Foundations Competition" of the Industrial Strategy Challenge Fund, UK Research and Innovation (**Co-I**), €65.000
NOV. 2017	"Innovative startups – Phase II 2017" of Swedish Innovation Agency VINNOVA for Elk, €90.000
APR. 2017	"RunnerUp 2017" grant of Swedish Innovation Agency VINNOVA for Elk, €50.000
FEB. 2017	"Innovative startups – Phase I 2017" of Swedish Innovation Agency VINNOVA for Elk, €30.000
DEC. 2014	"VFT-1" grant of KTH Innovation for Elk, €5.500
DEC. 2014	"ALMI grant" of Swedish Innovation Agency ALMI for Elk, €2.000
SEP. 2014	"VFT-0" grant of KTH Innovation for Elk

TEACHING GRANTS

MAR. 2025	EIT Digital grant for project "Advanced Realities for Cultural Innovation in Europe", **PI for UniTn**, funded by the European Health and Digital Executive Agency, €130.000 for UniTn (Consortium total amount: €4 M)
MAY. 2025	"Teaching grant" of Euregio Mobility Fund for PhD course "Sound processing and Internet of Sounds", €2.500

FUNDING FROM COMPANIES

MAR. 2025	Smart Keyboard system; customer: Studio Logic (Italy); €5.000
MAY 2024	VR Medical Training application; customer: Digital Mosaik – Metaverse Studio (Italy); €3.500

ARTISTIC GRANTS

APR. 2017	"Movin'Up" Grant of Fondazione Giovani Artisti Italiani for the mobility project "Hypermandolin@NYCEMF", €1.000
SEP. 2008 – FEB. 2009	**Scholarship of Italian Ministry of Foreign Affairs and Government of Ireland** for the music residency period of 6 months at Cork Institute of Technology/School of Music, €17.500

OTHER GRANTS

MAY. 2024	"TC Innovation Fund" of IEEE Communications Society, €6.000
MAY 2023	"TC Innovation Fund" of IEEE Communications Society, €5.000
NOV. 2018	"Micro-grant" of Marie Curie Alumni Association, €1.000
SEP. 2018	Grant for open access fee from Queen Mary University Library, €1.000
JULY 2018	"Micro-grant" of Marie Curie Alumni Association, €1.000
SEP. 2015	Wenner-Gren Foundation scholarship for 2 years subsidy at the Wenner-Gren Center Guest Researchers' Apartments, €10.000
FEB. 2004	With cultural association Novallys, grant of Provincia di Verona for the project "Danze e Musiche tradizionali Europee", €600
AUG. 2004	University of Verona grant for 1-month English course at Nottingham Trent University, €1.000

Awards

SCIENTIFIC AWARDS

DEC. 2024	**IEEE ComSoc Distinguished Lecturer** (position for years 2025 and 2026)
MAY 2024	**Fellow** of the European Alliance for Innovation (EAI)
DEC. 2023	National Scientific Qualification for full professor position in Computer Science, awarded by the Italian Ministry for Education, University and Research
MAR. 2023	**IEEE Senior Member**
MAY 2019	National Scientific Qualification for associate professor position in Computer Science, awarded by the Italian Ministry for Education, University and Research
NOV. 2018	Best demo and best poster award at the IEEE Open Innovations Association FRUCT 2018
DEC. 2013	Best poster award at the Interactive Sonification Workshop 2013
OCT. 2010	Top 10% paper award at IEEE International Workshop on Multimedia Signal Processing 2010

MAR. 2010	Selected among 10 best papers at IEEE VR Conference 2010 and invited to submit an extended journal paper for IEEE Transactions on Visualization and Computer Graphics

INNOVATION AWARDS

AUG. 2023	**Finalist** at the MIDI Innovation Award 2023, for the smart guitar prototype developed at University of Trento
JAN. 2019	With Elk, **Best New Technology Award** at National Association of Music Merchants Trade Show 2019 (Los Angeles) awarded by Sonicstate.com
NOV. 2017 – NOV. 2019	With Elk, **6 times** awarded of the **Seal of Excellence** from the European Commission (SME Instrument Phase 2)
JUNE 2017	Graduated as STING Alumnus for the 18-month incubator programme of Stockholm Innovation and Growth
APR. 2017	With Elk, Seal of Excellence from the European Commission (SME Instrument Phase 1 - Open Disruptive Scheme)
OCT. 2016	With Elk, **winner of Music Tech Summit** (San Francisco)
AUG. 2016	With Elk, finalist of Startup Competition at BIME Startup Summit (Bilbao)
JUNE 2016	With Elk, **winner of Midemlab 2016 Music Startup Competition**
JUNE 2016	With Elk, awarded of the **first prize at Midemlab 2016 international pitching competition in the Hardware/Internet of Things category**
JUNE 2016	With Elk, awarded of the second prize at Sonar+D Startup Garden Competition
JUNE 2016	With Elk, awarded of the third prize at Stockholm TechCrunch event
NOV. 2014	Course for entrepreneurs "STING's start-up ICT program" awarded by Stockholm Innovation & Growth

ARTISTIC AWARDS

MAR. 2025	**Best demonstration award** for "Esteso: an AI Music Duet Based on Extended Double Bass Techniques", at DIMMI 2024 (Dizionario Musicale Multidisciplinare Integrato)
SEP. 2024	**Selected** for the music programme of International Conference on New Interfaces for Musical Expression 2024
APR. 2018	**Selected** for the music programme of International Conference on New Interfaces for Musical Expression 2018
SEP. 2017	**Selected** for the music programme of Audio Mostly Conference 2017
MAR. 2017	**Selected** for the music programme of New York City Electronic Music Festival 2017
MAR. 2007 – JUNE 2007	**First prizes** as classical solo guitarist at Val Tidone International Music Competition (Piacenza), at International Competition of Musical Interpretation "Cogololeto 2007" (Genova), and at Concorso Musicale per Giovani Talenti (Rivarolo Canavese)
SEP. 2007	Prize for the best graduated in classical guitar at Conservatory of Music of Verona

Non-academic work experience

MARCH 2025 – PRESENT	**Consultant** for Studio Logic
MAY 2022 – MAY 2024	**Consultant** for Digital Mosaik – Metaverse Studio
JAN 2019 – PRESENT	**Advisor** at Elk Audio
OCT. 2014 – JAN 2019	**Head of Sound and Interaction Design** at Elk Audio. Main activities: project management, product management, inventions and patent writing, sound design, interaction design, software development
OCT. 2014	**Co-funder** of the company Elk Audio (former Mind Music Labs)
NOV. 2013 – SEP. 2014	Consultant for Benincaso Guitars AB. Main activities: sound design
OCT. 2007 – SEP. 2008	IT Consultant for Volkswagen Group Italia. Main activities: Business Intelligence, SAS and Java programming, datawarehouse and server administration
OCT. 2006 – SEP. 2007	Freelance programmer. Main activities: Web design, JSP and Servlet
MAR. 2004 – JUNE 2004, JAN. 2006 – APR. 2006	Trainee at Computer Music Dept. of Conservatory of Music of Verona. Main activities: C++ and Processing programming

Organization of scientific meetings

OCT. 2025	**Chair** of the 2nd IEEE International Workshop on the Musical Metaverse (L'Aquila, Italy)
OCT. 2025	**Chair** of the 3rd IEEE International Workshop on Networked Immersive Audio (L'Aquila, Italy)
OCT. 2024	**Chair** of the 1st IEEE International Workshop on the Musical Metaverse (Erlangen, Germany)
OCT. 2024	**Chair** of the 2nd IEEE International Workshop on Networked Immersive Audio (Erlangen, Germany)

Nov. 2023	**Co-chair** of the Technical Program Committee of the 12th EAI International Conference: ArtsIT, Interactivity & Game Creation (Campinas, Brazil)
Oct. 2023	**Chair** of the 1st International Workshop on Networked Immersive Audio (Pisa, Italy)
Oct. 2022	**Paper Chair** of the 23rd Colloquio di Informatica Musicale (Ancona, Italy)
Sep. 2022	**Chair** of the 3rd International Workshop on the Internet of Sounds (St. Polten, Austria)
Sep. 2021	**Chair** of the 2nd International Workshop on the Internet of Sounds (Trento, Italy)
Sep. 2021	**Chair** of the ACM Audio Mostly Conference (Trento, Italy)
Sep. 2020	**Chair** of the 27th IEEE FRUCT Conference (Trento, Italy)
Sep. 2020	**Chair** of the 1st International Workshop on the Internet of Sounds (Trento, Italy)
May 2017	Staff member in the organization of the London Audio and Music Hackaton (Center for Digital Music of the Queen Mary University of London, UK)
June 2010	Staff member in the organization of the Haptic-Audio Interaction Design Conference 2010 (Aalborg University Copenhagen, Denmark)

Commissions of trust

May 2025 – present	**Steering Committee Member** of the IEEE Metaverse Initiative (part of IEEE Future Directions)
Mar. 2023 – present	**Chair** of the IEEE Emerging Technology Initiative on the Internet of Sounds
Jan. 2023 – present	**Mentor** at The Sound of AI Accelerator
2023 – present	**Board Member** of IEEE Tactile Internet Committee (technical committee of the IEEE Communications Society)
2023 – present	**Member** of the Teaching Board for the **Doctorate on Digital Humanities** of Telematic University Pegaso
Nov. 2022 – present	**Founder** and **President** of the Internet of Sounds Research Network (www.internetofsounds.net)
Aug. 2022 – Dec. 2022	**Appointed consultant** for the German Council on Foreign Relations for a "Comparative study on Ethics and AI in China and EU"
Oct. 2022 – present	**Board Member** of the Italian section of the Audio Engineering Society (AES Italia)
Oct. 2022 – present	**Board Member** of the Italian Association of Music Informatics (AIMI)
Nov. 2020 – present	**Member** of the scientific committee of the "Dictionary for Multidisciplinary Music Integration" conference at Trento Conservatory of Music
Jan. 2020 – present	**General Chair** of the International Symposium on the Internet of Sounds
Oct. 2021 – present	**Steering Committee Member** of the Audio Mostly International Conference
Jan. 2019 – 2024	**Board Member** of the "IEEE WG_1599 - Working Group for XML Musical Application teaching and research", IEEE standardization activity

Evaluator of grant proposals	• EU Marie Sklodowska-Curie Individual Fellowships (2020 – present) • Spanish Ministry of Universities (2023 – present) • Natural Sciences & Engineering Research Council of Canada (2022 – present) • Estonian Research Council (2022 – present) • Research Council of Norway (2020 – present) • Israel Science Foundation (2020 – present)
Assistant professor external examiner	• University of Genova, Department of Informatics, Bioengineering, Robotics and Systems Engineering, 2022
Doctoral thesis external examiner	• Dr. Matteo Sacchetto, Department of Electronics and Telecommunications, Politecnico di Torino, Italy, 2025 • Dr. Eleonora Di Fina, Department of Engineering and Information and Mathematics Sciences, University of L'Aquila, Italy, 2024 • Dr. Mohamed Nabih, Fondazione Bruno Kessler, Italy, 2023
Master's thesis external examiner	• Master's theses in Electrical & Computer Engineering at McGill University (2023 – present) • Master's theses at Faculty of Fine Arts and Music of The University of Melbourne (2022 – present) • Master's theses in Music, Communication and Technology at the University of Oslo (2022 – present)

PC MEMBER

- International Conference on New Interfaces for Musical Expression 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025
- International Conference on Digital Audio Effects 2018, 2019, 2020, 2021, 2022, 2024, 2025
- ACM Audio Mostly International Conference 2017, 2018, 2019, 2020, 2021, 2022, 2025
- ACM Creativity & Cognition 2022, 2023, 2024, 2025
- Sound and Music Computing Conference 2018, 2019, 2020, 2021, 2022
- AES International Conference on Artificial Intelligence and Machine Learning for Audio
- Web Audio Conference 2022
- Workshop on Haptic & Audio Interaction Design 2022
- Audio Engineering Society Convention 2022, 2023, 2024
- Workshop on Ubiquitous Music 2018, 2019, 2020, 2021, 2022
- IEEE Conference of Open Innovations Association FRUCT 2018, 2019, 2020, 2021
- International Symposium on Computer Music Multidisciplinary Research 2017
- International Conference on Technologies for Music Notation and Representation 2023

PANEL CHAIR

- 1st IEEE International Workshop on the Musical Metaverse 2024
- 1st International Workshop on Networked Immersive Audio 2023

SESSION CHAIR

- International Audio Mostly Conference 2020
- International Symposium on Computer Music Multidisciplinary Research 2017

Service to the Department

INSTITUTIONAL RESPONSIBILITIES

- **Delegate** for Third Mission activities at DISI – University of Trento (Nov. 2024 – present)
- **President** of the PhD selection committee at University of Trento (May 2023 – Sep 2023)
- **Delegate** for the activities of internships at DISI – University of Trento (Feb. 2019 – Nov. 2024)
- **Member** of the Teaching Board for the **ICT Doctoral School** at DISI – University of Trento (Mar. 2019 – present)
- **Coordinator** for Trento node of the **EIT Digital Master School in "Human-Computer Interaction and Design" - specialization in Cognitive Interaction** - European Institute of Innovation and Technology (Jan. 2019 – present)
- **Delegate** for Master's Degree in Human-Computer Interaction – University of Trento (Feb. 2019 – present)
- **Coordinator** of the teaching and research "Multisensory Interaction Laboratories" at DISI – University of Trento (Jan. 2019 – present)

OTHER SERVICES TO THE DEPARTMENT

- **Organization of hackathons:** Hackhathon on brain-computer interfaces, part of the worldwide hackathon https://www.br41n.io/ (2024). My students won the first prize in the category "BCI Programming & Art projects".
- **Organization of seminars:** Prof. Jeremy Cooperstock from McGill University (2019); Prof. Balandino di Donato from Edinburgh Napier University (2019); Dr. Valerio Velardo from the Sound of AI Accelerator (2023); Prof. Michel Buffa from Université Côte d'Azur (2024).
- **Organization staff of ICT days 2021**
- **Participation to ICT days** (every year since 2019)
- **Labs open doors** for high school students (every year since 2019)
- **Creation of conventions:** with Conservatories of Music of: Pescara, Verona, Venezia, La Spezia, L'Aquila

Teaching experience

JAN 2019 – PRESENT	At University of Trento: • **Lecturer** for the full module "Immersive Technologies" (graduate), 48 hours, 6 ECTS • **Lecturer** for the full module "Human-Computer Interaction" (undergraduate and graduate), 48 hours, 6 ECTS • **Lecturer** for the full module "Multisensory Interactive Systems" (graduate), 48 hours, 6 ECTS • **Lecturer** for the full module "Programming in Python" (undergraduate), 60 hours, 6 ECTS • **Lecturer** for the PhD course on "Audio processing and Internet of Sounds" (PhD students), 4 hours • **Guest Lecturer and examiner** for module "ICT Innovation" (graduate), 24 hours • **Supervision** of post-docs, PhDs, research assistants, and master and bachelor students • **Completed supervisions**: Domenico Stefani (PhD), Luca Vignati (PhD), Matteo Tomasetti (PhD), Nishal Silva (PhD), Ngadhnjim Sutaj (research assistant), Marco Lanini (research assistant), Laura Corso (research assistant), Michele Romani (research assistant) • **Ongoing postdocs supervision** of: Alberto Boem, Domenico Stefani, Nishal Silva • **Ongoing PhD supervision** of: Michele Rossi, Gregorio Andrea Giudici, Filippo Daniotti • **Member** of the committee assessing the qualifying exams of PhD students
MAY 2017 – DEC. 2018	At Queen Mary University of London: • Guest lecturer for the course of "Sound Recording and Production Techniques" • Co-supervision of 1 PhD student
DEC. 2014 – APR. 2015	At KTH Royal Institute of Technology: • Guest lecturer for the course of "Internet of Things" • Co-supervision (de facto main supervisor) of 2 Erasmus Placement students • Co-supervision (de facto main supervisor) of 1 master student • Supervisor of 1 bachelor and 1 master student for the Individual Course in Media Technology
FEB. 2010 – MAR. 2012	At Aalborg University Copenhagen (teaching assistant for a total of 729 hours): • Frontal lessons for the courses "Audio Design", "Audio-Visual Production", "Procedural Programming", "Sound and Music Computing" and "LaTeX typesetting program" (about 50 students per course) • Laboratory supervision for the courses "Sound and Music Computing", "C++ programming" and "Linear algebra" • Supervision of 10 projects of groups of 3-6 undergraduate students • Examiner for all courses mentioned above and for courses "Image Processing", "Statistics", and "Problem-based learning"

Invited talks at scientific meetings

27 MAY 2025	**IEEE Distinguished Lecturer** at MIT Media Lab, Massachusetts Institute of Technology, Boston, USA; lecture title: "From the Internet of Musical Things to the Musical Metaverse: enabling technologies and open challenges"
16 APR. 2025	**IEEE Distinguished Lecturer** at CCRMA: Center for Computer Research in Music and Acoustics, Stanford University, Stanford, USA; lecture title: "From the Internet of Musical Things to the Musical Metaverse: enabling technologies and open challenges"
18 MAR. 2025	**IEEE Distinguished Lecturer** at School of Music Carnegie Mellon University, Pittsburgh, USA; lecture title: "From the Internet of Musical Things to the Musical Metaverse: enabling technologies and open challenges"
28 SEP. 2024	**Keynote speaker** at 1st VR/AR in Music Education Symposium, Osnabrück, Germany; keynote title: "Opportunities and Challenges for the Musical Metaverse"
26 JUNE 2024	**Keynote speaker** at 29th IEEE Symposium on Computers and Communications - Workshop "Next-Generation Multimedia Services at the Edge", Paris, France; keynote title: "The Emerging Field of the Internet of Musical Things: Enabling Technologies and Open Challenges"

28 May 2024	**Panelist** at 13th Journée d'Études of the Extended Reality Research and Creative Center (XR2C2) - Université Côte d'Azur, Sophia-Antipolis, France
28 May 2024	**Keynote speaker** at 13th Journée d'Études of the Extended Reality Research and Creative Center (XR2C2) - Université Côte d'Azur, Sophia-Antipolis, France; keynote title: "Opportunities and Challenges for the Musical Metaverse"
24 March 2024	**Keynote speaker** at 11th International Conference on New Music Concepts, Treviso, Italy; "The Emerging Field of the Internet of Musical Things: Enabling Technologies and Open Challenges"
15 June 2021	**Tutorial** on "The Emerging Field of the Internet of Musical Things: Enabling Technologies and Open Challenges". 7th IEEE World Forum on Internet of Things, New Orleans, Louisiana, USA
21 May 2021	**Talk** on "The Internet of Musical Things" at the "Computer Networks Meet Music Instruments" seminars organized by University of Vienna, Austria
25 Jan. 2019	**Panelist** at the International Workshop on Multilayer Music Representation and Processing, Milan, Italy
14 Dec. 2018	**Seminar** on "The Internet of Musical Things" at the Mixed Reality Lab of University of Nottingham, United Kingdom
14 Nov. 2018	**Keynote speaker** at IEEE FRUCT/IEEE International Workshop on Semantic Audio and the Internet of Things, Advanced Research Center on Electronic System of University of Bologna, Bologna, Italy; keynote title: "The Internet of Musical Things"
12 June 2018	**Seminar** on "Multimodal locomotion interfaces" at the Dept. of Mechanical Engineering, McGill University (Montreal, Canada)
11 June 2018	**Seminar** on "Smart Musical Instruments" at the Centre for Interdisciplinary Research in Music Media and Technology, McGill University (Montreal, Canada)
14 June 2017	**Seminar** on "Smart Instruments and the Internet of Musical Things" at Center for Digital Music, Queen Mary University of London
16 May 2017	**Lecture** on "Smart Instruments" at Dept. of Network and Systems Engineering, KTH Royal Institute of Technology
1 June 2016	**Seminar** on "Multimodal locomotion interfaces" at Dept. of Mechanical Engineering of Columbia University (New York, USA)
22 Jan. 2013	**Seminar** on "Multimodal locomotion interfaces" at Dept. of Engineering of University of Modena and Reggio (Italy)

Editorial service

2024 – present	**Associate Editor** of IEEE Transactions on Human-Machine Systems
2021 – 2025	**Associate Editor** of the Journal of the Audio Engineering Society
2020 – 2025	**Associate Editor** of IEEE Access
2025	**Leading guest editor** of the special issue on the "Ethical Innovation with/in Music Technology" topic at the IEEE Transactions on Technology and Society. Editors: Luca Turchet, Nick Bryan-Kynns, James Brusseau, Pamela Burnard.
2024	**Leading guest editor** of the special issue on the "Haptics for the Arts" topic at the IEEE Transactions on Haptics. Editors: Luca Turchet, Jeremy Cooperstock, Mounia, Yongjae Yoo
2024	**Leading guest editor** of the special issue on the "Signal Processing for the Internet of Sounds" topic at the EURASIP Journal on Audio, Speech, and Music Processing. Editors: Luca Turchet, Nils Peters, Toon van Waterschoot, Tuomas Virtanen.
2024	**Leading guest editor** of the special issue on the "Internet of Sounds" topic at the IEEE Communications Magazine. Editors: Luca Turchet, Maximo Cobos, Woon Seng Gan, Hossein Shokri Ghadikolaei
2024	**Editor** of the Proceedings of the 2024 IEEE 5th International Symposium on the Internet of Sounds published in the IEEEXplore Library
2023	**Editor** of the Proceedings of the 2023 International Symposium on the Internet of Sounds published in the IEEEXplore Library
2023	**Guest editor** of the special issue on the topic "Ubimus contributions to digital creative practices" at the Digital Creativity Journal. Editors: Damian Keller, Victor Lazzarini, Luca Turchet, Anthony Brooks
2022	**Guest editor** of the special issue on the topic "New Materials and Technologies for Haptics that Enhance VR and AR" of the Frontiers in Virtual Reality. Editors: Jin Ryong Kim; Luca Turchet, Tae-Heon Yang, Hye Kim
2022	**Leading guest editor** of the special issue on the topic "Sonic Experiences: Interaction, Connectivity, and Multi-Sensory Technologies" at the Journal of Personal and Ubiquitous Computing. Editors: Luca Turchet, Alan Chamberlain, Maria Kallionpää

2022	**Editor** of the Proceedings of the 2022 Audio Mostly Conference published in the ACM Digital Library
2021	**Leading guest editor** of the special issue on the "Internet of Sounds" topic at the Journal of the Audio Engineering Society (resulted in 2 volumes). Editors: Luca Turchet, George Fazekas, Cristina Rottondi, Carlo Fischione
2020	**Editor of the book** "Ubiquitous Music Ecologies", Routledge Press, 2020. Editors: Victor Lazzarini, Damian Keller, Nuno Otero, Luca Turchet

Reviewing activities

Grant proposals

- Marie Sklodowska-Curie Individual Fellowships of the European Commission (32 proposals)
- Research Council of Norway (26 proposals)
- Natural Sciences & Engineering Research Council of Canada (1 proposal)
- Spanish Ministry of Universities (1 proposal)
- Estonian Research Council (1 proposal)
- Israel Science Foundation (1 proposal)

Journals

- IEEE/ACM Transactions on Audio, Speech and Language Processing (1 paper)
- IEEE Transactions on Affective Computing (1 paper)
- IEEE Transactions on Haptics (1 paper)
- IEEE Transactions on Visualization and Computer Graphics (1 paper)
- IEEE Transactions on Industrial Informatics (1 paper)
- IEEE Internet of Things Journal (1 paper)
- IEEE Open Journal of the Computer Society (1 paper)
- IEEE Pervasive Computing (1 paper)
- IEEE Access (4 papers)
- ACM Transactions on Human-Robot Interaction (1 paper)
- International Journal of Human-Computer Studies (3 papers)
- International Journal of Human-Computer Interaction (1 paper)
- Scientific Reports (1 paper)
- Journal of the Audio Engineering Society (4 papers)
- Journal of New Music Research (1 paper)
- Journal of the Royal Musical Association (1 paper)
- Personal and Ubiquitous Computing (2 papers)
- Computers in Human Behavior Reports (1 paper)
- Computer Music Journal (1 paper)
- Organized Sounds (1 paper)
- Leonardo Music Journal (1 paper)
- Applied Acoustics (1 paper)
- Frontiers in Psychology (1 paper)
- HardwareX (1 paper)

Conferences

- International Conference on New Interfaces for Musical Expression 2018 - **mostly meta-reviewer** - (8 papers), 2019 (5 papers), 2020 (7 papers), 2021 (4 papers), 2022 (3 papers), 2023 (2 papers), 2024 (2 papers), 2025 (2 papers)
- Audio Engineering Society Convention 2022 (1 paper), 2023 (1 paper), 2024 (1 paper)
- IEEE International Symposium on the Internet of Sounds 2020 (3 papers), 2021 (3 papers), 2022 (3 papers), 2023 (3 papers), 2024 (3 papers)
- IEEE Virtual Reality Conference 2016 (1 paper), 2018 (1 paper), 2024 (1 paper)
- IEEE International Symposium on Mixed and Augmented Reality 2022 (1 paper)
- IEEE World Haptics Conference 2019 (1 paper)
- IEEE GLOBECOM 2024 (1 paper)
- IEEE Conference of Open Innovations Association FRUCT 2018 (3 papers), 2019 (1 paper), 2020 (2 papers)
- IEEE International Conference on Semantic Computing 2018 (1 paper)
- IEEE Symposium on Computers and Communications 2024 (2 papers)

- ACM CHI Conference on Human Factors in Computing Systems 2019 (2 papers), 2021 (1 paper), 2023 (1 paper), 2024 (1 paper)
- ACM International Conference on Multimodal Interaction 2021 (1 paper), 2022 (1 paper), 2023 (1 paper)
- ACM Creativity & Cognition 2019 (1 paper), 2022 (1 paper), 2023 (1 paper)
- ACM International Conference on Interactive Media Experiences 2023 (1 paper)
- ACM Symposium on Spatial User Interaction 2023 (1 paper)
- Audio Mostly Conference 2017 (3 papers and 2 music submissions), 2018 (5 papers), 2019 (2 papers), 2020 (2 papers), 2021 (5 papers), 2022 (2 papers), 2025 (3 papers)
- Digital Audio Effects Conference 2018 (2 papers), 2020 (1 paper), 2021 (1 paper), 2022 (1 paper), 2024 (2 papers), 2025 (1 paper)
- Sound and Music Computing Conference 2012 (3 papers), 2013 (2 papers), 2018 (2 papers), 2019 (2 papers), 2020 (2 papers), 2021 (2 papers), 2022 (3 papers)
- AES International Conference on Artificial Intelligence and Machine Learning for Audio 2025 (2 papers)
- Workshop on Ubiquitous Music 2018 (2 papers), 2019 (1 paper), 2020 (1 paper), 2020 (2 papers)
- Workshop on Haptic & Audio Interaction Design 2022 (1 paper)
- Web Audio Conference 2022 (1 paper)
- Eurohaptics 2018 (2 papers)
- International Symposium on Computer Music Multidisciplinary Research 2017 (2 papers)
- Colloquio di Informatica Musicale 2014 (1 paper), 2022 (7 papers)
- International Conference on Technologies for Music Notation and Representation 2023 (1 paper)
- European Control Conference 2023 (1 paper)
- Dictionary for Multidisciplinary Music Integration 2024 (2 papers)

Industrial outputs

2020	With Elk, Product: Elk Live networked music performance system
2018	With Elk, Product: Elk Audio OS embedded operating system
2016	With Elk, Product and Registered Design Trademark: the Sensus Smart Guitar
2016	With Elk, 2 international patents
2016-2019	With Elk, Showcases at NAMM (Los Angeles), Websummit (Dublin), Slush Music (Helsinki), MTV Digital Days (Barcelona)

Third mission

16 June 2025	**Article in online press** "Il tocco della musica: pubblicato da Scientific Reports lo studio di UniTrento sulle persone sorde" (Agenzia Internazionale Stampa Estero)
15 June 2025	**Article in online press** "Stimoli tattili migliorano l'ascolto per chi ha deficit uditivi" (altoadige.it)
14 June 2025	**Article in online press** "Stimoli tattili migliorano l'ascolto per chi ha deficit uditivi" (ANSA.it)
13 June 2025	**Press release** of University of Trento "Il tocco della musica" (Trento, Italy)
13 June 2025	**Article in press** "La musica? Grazie a un gilet vibrotattile e a un algoritmo è possibile «sentirla» anche con il corpo" (Corriere della Sera, national Italian newspaper)
16 May 2025	**Panel** "Metaverso ed Atelier Viturali" at Distori Heritage (Ancona, Italy)
11 Mar. 2025	**Interview** about the "Musical Metaverse" at SUPSI Magazine (Lugano, Switzerland)
6 Mar. 2025	**Radio interview** about "Music and AI" and "Musical Metaverse" at Radio Capodistria (Koper, Slovenia)
4 Mar. 2025	**Interview** about the Musical Metaverse at UniTn Magazine (Trento, Italy)
23 Nov. 2024	**Panelist** at Milano Music Week on the "Musical Metaverse" topic
12 Nov. 2023	**Talk** on "Music, AI and interaction: the case of Smart Musical Instruments and the Internet of Musical Things" at SoundMIT International Synth Expo, Torino, Italy
23 June 2023	**Talk** on "Music, AI and interaction: the case of Smart Musical Instruments and the Internet of Musical Things" at The Sound of AI Accelerator (online)
28 Mar. 2023	Seminar on Internet of Musical Things at the high school Liceo Scientifico Galilei (Trento, Italy)
7 July 2022	**Online interview** on "Musical Haptics" at Haptics Club
9 June 2022	**Online interview** on "The Internet of Musical Things" at Italian Music Tech Meetup
27 Oct. 2020	**Panelist** on "Network as a place" at "Physically Distant #3: the network, the pandemic, and telematic performance", at Ecology, Site And Place – Piteå Performing Arts Biennial 2020.
12 June 2020	**Online interview** on "The Internet of Musical Things" at IoT Radar

27 Sep. 2019	**Demo** of "Smart Musical Instruments" at European Researchers' Night at Trento Science Museum (Trento, Italy)
21 Sep. 2019	**Demo** and presentation of "Smart Musical Instruments" at Trento Smart City Week (Trento, Italy)
28 Sep. 2018	**Demo** at European Researchers' Night at Natural History Museum (London, UK)
2 May 2018	**Talk** "Towards the Internet of Musical Things" at Re:publica media convention (Berlin, Germany)
20 July 2016	**Radio Interview** about Sensus Smart Guitar by Elk at GearGuysRadio (New Jersey, USA)

Involvement in national and international research projects as key researcher

May 2017 – Jan. 2019	"Audio Commons", project funded by the European Union's Horizon 2020 research and innovation programme
Sep. 2016 – Sep. 2018	"Tactile cyber-physical networks", SRA ICT TNG Swedish Research Council
Oct. 2015 – Oct. 2016	"Joint Project", University of Verona, University Hospital of Verona, and Cochlear Ltd
Mar. 2009 – Oct. 2012	"Natural Interactive Walking", European Union's Seventh Framework Programme under FET-Open grant agreement 222107

Demos at international events

29–30 Nov. 2024	"Demos of CIMIL technologies" at DIMMI 2024, Trento, Italy
1–2 Oct. 2024	"Demos of CIMIL technologies" at IEEE International Symposium on the Internet of Sounds 2024, Fraunhofer Institute, Erlangen, Germany
19 Sep. 2024	"Demo of a smart musical instrument-based real time pattern detection system" at Audio Mostly Conference, Milan, Italy
11 Nov. 2023	"Demo of a smart musical instrument-based real time pattern detection system" at SoundMIT International Synth Expo, Torino, Italy
9 Nov. 2023	"Demo of a smart musical instrument-based real time pattern detection system" at the Conference of the International Society for Music Information Retrieval 2023 (Milano, Italy)
8 Sep. 2020	Demo of a "Voice-based interface for soundscape composition: composing soundscapes by vocally querying online sounds repositories" at the IEEE Open Innovations Association FRUCT 2020 (Trento, Italy)
16 Nov. 2018	Demo of a "semantically-enriched Internet of Musical Things architecture" at the IEEE Open Innovations Association FRUCT 2018 (Bologna, Italy)
4 June 2018	Demo of "Smart Mandolin–Musical Haptic Wearables interactions" at the International Conference on New Interfaces for Musical Expression (Blacksburg, USA)
8 March 2018	Demo of "Embodied Interactions with E-Textiles and the Internet of Sounds for Performing Arts" at the International Conference on Tangible, Embedded, and Embodied Interaction (Stockholm, Sweden)
3 Dec. 2015	Demo of the Sensus Smart Guitar at the EIT Digital Demo Day - European Institute of Innovation and Technology (Stockholm, Sweden)

Artistic skills and competences

Musician	Classical and acoustic guitar, mandolin, percussions, hurdy-gurdy and bagpipe
Composer	Classical contemporary music, folk music, computer music and live electronics
Dancer	Traditional European dances
Background actor	Played various extra roles in the lyric operas Carmen, Aida, Turandot, Madama Butterfly, Nabucco, and Così fan tutte, for four lyric seasons (2002–2005) both at the amphitheater Arena and at the theatre Filarmonico of Verona. Directed by various worldwide famous directors including Franco Zeffirelli.
Writer	Author of the book "Folk Soul", ISBN 978-1-291-60240-1 (available in English, Italian and French)
Other	President and artistic director of the cultural association Novallys, from September 2005 to September 2008

Artistic production and performances (selected)

Compositions

2019	"Skeppis" – fantasy on traditional Swedish themes, for solo Smart Mandolin
2018	"Dialogues with Folk-RNN", for solo Smart Mandolin
2017	"Omaggio a Stoccolma", for solo Hyper-Mandolin
2015	"The Integrated Consciousness" – for Hyper-Hurdy-Gurdy, chamber orchestra and live electronics
2014	"Incantesimo" – for Hyper-Hurdy-Gurdy and live electronics
2009	"The love which moves the sun and the other stars" – for flute, soprano, video and live electronics
2008	"2008 TIBET" – for video and live electronics

Performances

10 Nov. 2025	Multisensory Mixed Reality concert, University of Trento (Italy). Video: https://youtu.be/axEHkdnxFB8
11 May 2019	Smart Mandolin soloist performance at TED X Trento Salonen, University of Trento (Italy). Video: https://www.youtube.com/watch?v=kbJ89_wOmAY
6 June 2018	Smart Mandolin soloist performance at International Conference on New Interfaces for Musical Expression 2018 (Blacksbourg, Virgina, USA). Video: https://www.youtube.com/watch?v=VmJdLqejb-E
20 Nov. 2017	Smart Mandolin soloist performance at Being Human Festival 2017 (London, United Kingdom). Video: www.youtube.com/watch?v=1XOVajLpfYY
20 Sep. 2017	Hyper Mandolin soloist performance at International Audio Mostly Conference 2017 (London, United Kingdom). Video: www.youtube.com/watch?v=rRJBTQziBEA
29 Apr. 2017	Hyper Mandolin soloist performance at Kulturnatt Stockholm 2017 (Stockholm, Sweden). Video: www.youtube.com/watch?v=ecCooDhatj4
9 Dec. 2015	Live electronics performance at "LJUDBIO II - Electronic Music Festival", Slottsbiografen (Uppsala, Sweden)
22 July 2015	Hyper Hurdy-Gurdy soloist performance at Performance Lab of the Center For Digital Music della Queen Mary University of London (London, United Kingdom)
5 Apr. 2015	Performance for Hyper Hurdy Gurdy, chamber orchestra and live electronics, at "LjudOljud 2015" contemporary music festival, Audiorama concert venue (Stockholm, Sweden)
11 Apr. 2014	Hyper Hurdy-Gurdy soloist performance at "LjudOljud 2014" contemporary music festival, Audiorama concert venue (Stockholm, Sweden)
16 May 2009	Performance for flute, soprano and live electronics at Cork Institute of Technology/School of Music a Cork (Cork, Ireland)
18 Feb 2009	Performance for flute, soprano and live electronics at Cork Institute of Technology/School of Music a Cork (Cork, Ireland). Video: www.youtube.com/watch?v=AXrZnODhzX4

Recordings

2012	Guest musician in the album Melodeonía of Giuliano Gabriele & Ensemble. www.giulianogabriele.it

Memberships

2023 – present	Member of IEEE Tactile Internet Committee (IEEE ComSoc)
2021 – present	AES member: Audio Engineering Society
2010 – present	IEEE Senior member (since 2023), IEEE Member (2010–2023): Institute of Electrical and Electronics Engineers
2017 – present	ACM member: Association for Computer Machinery
2011 – present	AIMI member: Associazione Informatica Musicale Italiana

Publications

Editorial works

1. [E1] V. Lazzarini, D. Keller, N. Otero, and **L. Turchet**. "Ubiquitous Music Ecologies", Routledge, 2020.

Journal papers

2. [J1] L. Vignati and **L. Turchet**. *On the lack of a perceptually-motivated evaluation metric for Packet Loss Concealment in Networked Music Performances.* Journal of the Audio Engineering Society, 2025 (In press).

3. [J2] **L. Turchet**, C. Marotta and A. Boem. *Multisensory Music Listening in Affective Virtual Environments.* IEEE Transactions on Affective Computing, 2025 (In press).

4. [J3] **L. Turchet**, R. Rosaia, A. Diodati, and M. Carner. *Exposure to vibrotactile music improves audiometric performances in individuals with cochlear implants.* Scientific Reports, 2025 (In press).

5. [J4] D. Stefani and **L. Turchet**. *Real-Time Playing Technique Recognition Embedded in a Smart Acoustic Guitar.* EURASIP Journal on Audio, Speech, and Music Processing, 2025 (In press).

6. [J5] D. Stefani, M. Binelli, A. Farina and **L. Turchet**. *Improved Real-Time Six-degrees-of-freedom Dynamic Auralization Through Non-uniformly Partitioned Convolution.* Journal of the Audio Engineering Society, 2025 (In press).

7. [J6] **L. Turchet**, F. Gentilini, S. Malandra, A. Veccia, A. Antonelli, C. Scoffone. *Medical Training in Virtual Reality: a Gamification Approach.* Virtual Reality, 2025 (In press).

8. [J7] M. Tomasetti, B. Van Kerrebroeck, M. M. Wanderley, D. Stefani and **L. Turchet**. *SonoSpatia: a Virtual Reality Interface for the Creation of 3D Spatial Audio Trajectories.* Journal of the Audio Engineering Society, 2025 (In press).

9. [J8] G.A. Giudici, F. Caspe, L. Gabrielli, S. Squartini and **L. Turchet**. *Distilling DDSP: Exploring Real-Time Audio Generation on Embedded Systems.* Journal of the Audio Engineering Society, 2025 (In press).

10. [J9] M. Carner, L. Bianconi, L. Sacchetto, V. Arietti, R. Nocini, M. S. Salvetta, G. Maulu, A. Diodati and **L. Turchet**. *The "symbiotic" regulation approach in bimodal hearing adults..* Indian Journal of Otolaryngology and Head & Neck Surgery, 77, 2239-2246, 2025.

11. [J10] A. Boem, M. Tomasetti and **L. Turchet**. *Issues and Challenges in Audio Technologies for the Musical Metaverse.* Journal of the Audio Engineering Society, 2025 (In press).

12. [J11] O. Hödl and **L. Turchet**. *The TMAP Framework: describing the design space of Technology-Mediated Audience Participation in live music,* IEEE Access, 2025 (In press).

13. [J12] S. Ppali, E. Ppali, S. Scorer, A. Boem, B. Branch, **L. Turchet**, C. Siang Ang, and A. Covaci. *The Virtual Concert-goer: Audience Perspectives on Remote Music Performances.* Proceedings of the ACM on Human-Computer Interaction, 2025 (In press).

14. [J13] **L. Turchet**, C. Sassi, D. Vecchia and G.P. Picco. *Real-time Musical Haptics with Ultra-wideband: A Study on Latency, Reliability, and Perception.* IEEE Transactions on Haptics, 2025 (In press).

15. [J14] L. Gabrielli, E. Principi and **L. Turchet**. *Sustainability and the Internet of Sounds: analysis of some case studies.* IEEE Transactions on Technology and Society, 6(2), 165-180, 2025.

16. [J15] J. Brusseau and **L. Turchet**. *An Ethics Framework for the Internet of Musical Things.* IEEE Transactions on Technology and Society, 6(2), 155-164, 2025.

17. [J16] **L. Turchet**, M. Cobos, W.S. Gan, H.S. Ghadikolaei. *Guest Editorial: Internet of Sounds.* IEEE Communications Magazine, 62(12), 16-17, 2024.

18. [J17] **L. Turchet** and S. Krustulovic. *DSP as a Service: Foundations and Directions.* IEEE Open Journal of the Communications Society (2024, In press).

19. [J18] **L. Turchet**. *Entangled Internet of Musical Things and People: A more-than-human design framework for networked musical ecosystems.* IEEE Transactions on Technology and Society, 2024 (In press).

20. [J19] M. Tomasetti and **L. Turchet**. *Handheld controller-based locomotion in Virtual Reality as an approach to interactive music composition: insights from composers' preferences.* Digital Creativity, 2024 (In press).

21. [J20] **L. Turchet** D. Stefani and J. Pauwels. *Musician-AI partnership mediated by emotionally-aware smart musical instruments.* International Journal of Human-Computer Studies, 2024 (In press).

22. [J21] **L. Turchet**, B. O'Sullivan, R. Ortner and C. Guger. *Emotion Recognition of Playing Musicians from EEG, ECG, and Acoustic Signals.* IEEE Transactions on Human-Machine Systems, 2024 (In press).

23. [J22] **L. Turchet** and P. Casari. *On the Impact of 5G Slicing on an Internet of Musical Things System.* IEEE Internet of Things Journal, 2024 (In press).

24. [J23] **L. Turchet**, C. Rinaldi, C. Centofanti, L. Vignati, and C. Rottondi. *5G-enabled Internet of Musical Things Architectures for Remote Immersive Musical Practices.* IEEE Open Journal of the Communications Society, 2024 (In press).

25. [J24] R. Masu, N. Merendino, A. Rodà and **L. Turchet**. *Sustainable Internet of Musical Things: Strategies to Account for Environmental and Social Sustainability in Network-Based Interactive Music Systems.* IEEE Access, 2024 (In press).

26. [J25] A. Boem and **L. Turchet**. *Selection as Tapping: an evaluation of 3D input techniques for timing tasks in musical Virtual Reality.* International Journal of Human-Computer Studies, 185, 103231, 1–23, 2024.

27. [J26] L. Vignati, G. Nardini, M. Centenaro, P. Casari, S. Lagén, B. Bojovic, S. Zambon and **L. Turchet**. *Is Music in the Air? Evaluating 4G and 5G Support for the Internet of Musical Things.* IEEE Access, 2024 (In press).

28. [J27] **L. Turchet**, S. Luiten, T. Treub, M. Van Der Burgt, C. Siani, A. Boem. *Hearing loss prevention at loud music events via real-time visuo-haptic feedback.* Journal on Multimodal User Interfaces, 18, 43–53, 2024.

29. [J28] D. Keller, V. Lazzarini, **L. Turchet** and A. L. Brooks. *Ubimus contributions to digital creative practices (Editorial).* Digital Creativity, 35:1, 1–12. 2024.

30. [J29] **L. Turchet** and P. Casari. *Latency and Reliability Analysis of a 5G-Enabled Internet of Musical Things system.* IEEE Internet of Things Journal, 11(1), 1228–1240, 2024.

31. [J30] M. Tomasetti and **L. Turchet**. *Playing with others using headphones: musicians prefer binaural audio with head tracking over stereo.* IEEE Transactions on Human-Machine Systems, 53(3), 501–511, 2023.

32. [J31] **L. Turchet**, M. Lagrange, C. Rottondi, G. Fazekas, N. Peters, J. Østergaard, F. Font, T. Bäkström, and C. Fischione. *The Internet of Sounds: Convergent Trends, Insights and Future Directions.* IEEE Internet of Things Journal, 10(13), 11264–11292, 2023.

33. [J32] **L. Turchet**, C. Zanotto and J. Pauwels. *"Give Me Happy Pop Songs in C Major and with a Fast Tempo": a Vocal Assistant for Content-Based Queries to Online Music Repositories.* International Journal of Human-Computer Studies, 173, 103007, 2023, Elsevier.

34. [J33] **L. Turchet**. *Musical Metaverse: vision, opportunities and challenges.* Personal and Ubiquitous Computing Journal, 17, 1811–1827, 2023.

35. [J34] **L. Turchet** and M. De Cet. *A web-based distributed system for integrating mobile music in choral performance.* Personal

and Ubiquitous Computing Journal, 27, 1829–1842, 2023.

36. [J35] **L. Turchet** and F. Antoniazzi. *Semantic Web of Musical Things: achieving interoperability in the Internet of Musical Things.* Journal of Web Semantics, 75, 100758, 2023. Elsevier.

37. [J36] **L. Turchet**, M. Carraro and M. Tomasetti. *FreesoundVR: soundscape composition in Virtual Reality using online sound repositories.* Virtual Reality, 2022 (In press).

38. [J37] **L. Turchet** and C. Rottondi. *On the relation between the fields of Networked Music Performances, Ubiquitous Music, and Internet of Musical Things.* Personal and Ubiquitous Computing Journal, 2022 (In press).

39. [J38] **L. Turchet**. *Musical haptics for the listener: reflections of a design practitioner.* Multimodality & Society, 2(4), 379–385, 2022.

40. [J39] J. Lohman and **L. Turchet**. *Evaluating Cybersickness of Walking on an Omnidirectional Treadmill in Virtual Reality.* IEEE Transactions on Human-Machine Systems, 52(4), 613-623, 2022.

41. [J40] **L. Turchet** and C. N. Ngo. *Blockchain-based Internet of Musical Things.* Blockchain: Research and Applications, 3(3), 100083, 2022. Elsevier.

42. [J41] **L. Turchet** and J. Pauwels. *Music emotion recognition: intention of composers-performers versus perception of musicians, non-musicians, and listening machines.* IEEE Transactions on Audio, Speech and Language Processing, 30, 305–316, 2022.

43. [J42] L. Vignati, S. Zambon, and **L. Turchet**. *A Comparison of Real-time Linux-Based Architectures for Embedded Musical Applications.* Journal of the Audio Engineering Society, 70 (1/2), 83–93, 2022.

44. [J43] **L. Turchet**, P. Bouquet, A. Molinari, G. Fazekas. *The Smart Musical Instruments Ontology.* Journal of Web Semantics, 73, 100687, 2022.

45. [J44] N. Sutaj, M. Walchshofer, L. Schreiner, **L. Turchet**, H. Pretl, and C. Guger. *Evaluating a novel P300-Based Real-Time Image Ranking BCI.* Frontiers in Computer Science, 3, 1–11, 2021.

46. [J45] **L. Turchet** and D. Golishev. *SMIF: a format for the offline exchange of Smart Musical Instruments configuration and data.* Journal of the Audio Engineering Society, 69(12), 946–955, 2021.

47. [J46] **L. Turchet** and E. Rinaldo. *Technical performance assessment of the Ableton Link protocol over Wi-Fi.* Journal of the Audio Engineering Society, 69(10), 748–756. 2021.

48. [J47] **L. Turchet** and C. Fischione. *Elk Audio OS: an open source operating system for the Internet of Musical Things.* ACM Transactions on the Internet of Things, 2(2), 1–18, 2021.

49. [J48] **L. Turchet**, R. Hamilton and A. Çamci. *Music in Extended Realities.* IEEE Access, 9, 15810–15832, 2021.

50. [J49] **L. Turchet**, G. Fazekas, M. Lagrange, S. Ghadikolaei, and C. Fischione. *The Internet of Audio Things: state-of-the-art, vision, and challenges.* IEEE Internet of Things Journal, 7(10), 10233–10249, 2020.

51. [J50] **L. Turchet**, T. West, and M.M. Wanderley. *Touching the audience: Musical Haptic Wearables for augmented and participatory live music performances.* Personal and Ubiquitous Computing Journal, 1–21, 2020.

52. [J51] **L. Turchet**, F. Antoniazzi, F. Viola, F. Giunchiglia, and G. Fazekas. *The Internet of Musical Things Ontology.* Journal of Web Semantics, 60, 100548, 2020.

53. [J52] **L. Turchet**, J. Pauwels, C. Fischione, and G. Fazekas. *Cloud-Smart Musical Instrument Interactions: Querying a Large Music Collection with a Smart Guitar.* ACM Transactions on the Internet of Things, 1(3), 1–29, 2020

54. [J53] M. Mannone, F. Favali, B. Di Donato, and **L. Turchet**. *Quantum GestART: Identifying and Applying Correlations between Mathematics, Art, and Perceptual Organization.* Journal of Mathematics and Music, 1–33, 2020.

55. [J54] **L. Turchet** and M. Barthet. *An ubiquitous smart guitar system for collaborative musical practice.* Journal of New Music Research, 48(4), 352–365, 2019.

56. [J55] **L. Turchet** and M. Barthet. *Co-design of Musical Haptic Wearables for electronic music performer's communication.* IEEE Transactions on Human-Machine Systems, 49(2), 183–193, 2019.

57. [J56] **L. Turchet**. *Smart Musical Instruments: vision, design principles, and future directions.* IEEE Access, 7, 8944–8963, 2019.

58. [J57] **L. Turchet**, C. Fischione, G. Essl, D. Keller, and M. Barthet. *Internet of Musical Things: Vision and Challenges.* IEEE Access, 6, 61994–62017, 2018.

59. [J58] **L. Turchet**, A. McPherson, and M. Barthet. *Real-time hit detection in a Smart Cajón.* Frontiers in ICT, 5:16, 2018.

60. [J59] **L. Turchet**, A. McPherson, and M. Barthet. *Co-design of a Smart Cajón.* Journal of the Audio Engineering Society, 66(4), 1–11, 2018.

61. [J60] **L. Turchet**, I. Camponogara, F. Nardello, P. Zamparo, and P. Cesari. *Interactive footsteps sounds modulate the sense of effort without affecting the kinematics and metabolic parameters during treadmill-walking.* Applied Acoustics, 129, 379–385, 2018.

62. [J61] **L. Turchet**, D. Zanotto, A. Rodà, S. Minto and S. K. Agrawal. *Emotion rendering in plantar vibro-tactile simulations of imagined walking styles.* IEEE Transactions on Affective Computing, 8(3), 340–354, 2017.

63. [J62] **L. Turchet** and A. Rodà. *Emotion rendering in auditory simulations of imagined walking styles.* IEEE Transactions on Affective Computing, 8(2), 241–253, 2017.

64. [J63] **L. Turchet**, D.J. Moffat, A. Tajadura-Jiménez, J. Reiss, and T. Stockman. *What do your footsteps sound like? An investigation on interactive footstep sounds adjustment.* Applied Acoustics, 111, 77–85, 2016.

65. [J64] I. Camponogara, **L. Turchet**, M. Carner, and P. Cesari. *To hear or not to hear: sound availability modulates the sensory-motor integration.* Frontiers in Neuroscience, 10 (22), 1–7, 2016.

66. [J65] **L. Turchet**, S. Spagnol, M. Geronazzo and F. Avanzini. *Localization of self generated synthetic footstep sounds on different walked-upon materials through headphones.* Virtual Reality, 20 (1), 1–16, 2016.

67. [J66] **L. Turchet**. *Footstep sounds synthesis: design, implementation, and evaluation of foot-floor interactions, surface materials, shoe types, and walkers' features.* Applied Acoustics, 107, 46–68, 2016.

68. [J67] **L. Turchet**. *Designing presence for real locomotion in immersive virtual environments: an affordance-based experiential approach.* Virtual Reality, 19(3), 277-290, 2015

69. [J68] **L. Turchet** and R. Bresin. *Effects of interactive sonification on emotionally expressive walking styles.* IEEE Transactions on Affective Computing, 6(2), 152–164, 2015.

70. [J69] **L. Turchet**, I. Camponogara and P. Cesari. *Interactive footstep sounds modulate the perceptual-motor aftereffect of*

treadmill walking. Experimental Brain Research, 233(1), 205–214, 2015.

71. [J70] **L. Turchet**. *Custom made wireless systems for interactive footstep sounds synthesis.* Applied Acoustics, 83, 22–31, 2014.

72. [J71] **L. Turchet** and S. Serafin. *Semantic congruence in the audio-haptic simulation of footstep sounds.* Applied Acoustics, 75(1), 59–66, 2014.

73. [J72] **L. Turchet**, S. Serafin, and P. Cesari. *Walking pace affected by interactive sounds simulating stepping on different terrains.* ACM Transactions on Applied Perception, 10(4), 23:1–23:14, 2013.

74. [J73] **L. Turchet**, P. Burelli and S. Serafin. *Haptic feedback for enhancing realism in walking simulations.* IEEE Transactions on Haptics, 6 (1), 35–45, 2013.

75. [J74] **L. Turchet** and S. Serafin. *Investigating the amplitude of interactive footstep sounds and soundscape reproduction.* Applied Acoustics, 74 (4), 566–574, 2013.

76. [J75] **L. Turchet** and S. Serafin. *Temporal and amplitude aspects in sonically simulating walking over bumps, holes and flat surfaces.* Acoustical Science and Technology, 33(5), 1–10, 2012.

77. [J76] R. Nordahl, S. Serafin, **L. Turchet**, N.C. Nilsson. *A multimodal architecture for simulating natural interactive walking in virtual environments.* PsychNology, 9(3), 245–268, 2012.

78. [J77] R. Nordahl, **L. Turchet** and S. Serafin. *Sound synthesis and evaluation of interactive footsteps and environmental sounds rendering for virtual reality applications.* IEEE Transactions on Visualization and Computer Graphics, 17(9), 1234–1244, 2011.

ARTICLES IN CONFERENCE PROCEEDINGS

79. [C1] F. Dal Rí, G.A. Giudici, **L. Turchet** and N. Conci. *Exploring multi-descriptor disentangled representations of acoustic instrument notes.* In Proceedings of the 33rd European Signal Processing Conference (EUSIPCO 2025), 2025.

80. [C2] F. Dal Rí, D. Stefani, **L. Turchet** and N. Conci. *MorphDrive: Latent Conditioning for Cross-Circuit Effect Modeling and a Parametric Audio Dataset of Analog Overdrive Pedals.* In Proceedings of the Digital Audio Effects Conference, 2025.

81. [C3] M. Rossi, G. Iacca and **L. Turchet**. *Automatic classification of chains of guitar effects through evolutionary neural architecture search.* In Proceedings of the Digital Audio Effects Conference, 2025.

82. [C4] R. Calcagno, E. Salvadori, O. Mayora, G. Varni and **L. Turchet**. *Demo: Automated Multiparty Conversations Analysis in VR Massive Multiplayer Online Games Environments.* In Proceedings of IEEE Virtual Reality 2025.

83. [C5] A. Boem, D. Dziwis, M. Tomasetti, S. Etezazi and **L. Turchet**. *"It Takes Two" - Shared and Collaborative Virtual Musical Instruments in the Musical Metaverse.* In Proceedings of the 5th IEEE International Symposium on the Internet of Sounds, 2024.

84. [C6] L. Nijs and **L. Turchet**. *Internet of Musical Things for Children.* In Proceedings of the 5th IEEE International Symposium on the Internet of Sounds, 2024.

85. [C7] M. Mannone and **L. Turchet**. *Dice Cubes: Quantum-Based Networked Performance with CubeHarmonic.* In Proceedings of the 5th IEEE International Symposium on the Internet of Sounds, 2024.

86. [C8] **L. Turchet**, J. Tomelleri and A. Ruffo. *MusicoNet: a social network for musicians based on the Internet of Musical Things and People paradigm.* In Proceedings of the 5th IEEE International Symposium on the Internet of Sounds, 2024.

87. [C9] **L. Turchet** and P. Casari. *The Internet of Musical Things Meets Satellites: Evaluating Starlink Support for Networked Music Performances in Rural Areas.* In Proceedings of the 5th IEEE International Symposium on the Internet of Sounds, 2024.

88. [C10] M. Romani, G. A. Giudici, D. Stefani, D. Zanoni, A. Boem and **L. Turchet**. *BCHJam: a Brain-Computer Music Interface for Live Music Performance in Shared Mixed Reality Environments.* In Proceedings of the 5th IEEE International Symposium on the Internet of Sounds, 2024.

89. [C11] N. Silva and **L. Turchet**. *Real-Time Pattern Recognition of Symbolic Monophonic Music.* In Proceedings of Audio Mostly Conference, 2024.

90. [C12] D. Stefani, G. A. Giudici, **L. Turchet**. *On the Importance of Temporally Precise Onset Annotations for Real-Time Music Information Retrieval: Findings from the aGPTset Dataset.* In Proceedings of Audio Mostly Conference, 2024.

91. [C13] **L. Turchet** and P. Casari. *Performance Analysis of Slicing on a 10-Node 5G Architecture for Networked Music Performances.* In Proceedings of the 29th IEEE Symposium on Computers and Communications, 2024.

92. [C14] D. Lionetti, P. Bellucco, M. Zanoni and **L. Turchet**. *Muscle-Guided Guitar Pedalboard: Exploring Interaction Strategies Through Surface Electromyography and Deep Learning.* International Conference on New Interfaces for Musical Expression, 2024.

93. [C15] A. Boem, M. Tomasetti and **L. Turchet**. *User needs in the Musical Metaverse: a case study with electroacoustic musicians.* International Conference on New Interfaces for Musical Expression, 2024.

94. [C16] A. Boem, M. Tomasetti, A. Gabriele, A. Di Scipio and **L. Turchet**. *Harmonizing the Musical Metaverse: unveiling needs, tools, and challenges from experts' point of view.* International Conference on New Interfaces for Musical Expression, 2024.

95. [C17] D. Stefani, M. Tomasetti, F. Angeloni, and **L. Turchet**. *Esteso: Interactive AI Music Duet Based on Player-Idiosyncratic Extended Double Bass Techniques.* International Conference on New Interfaces for Musical Expression, 2024.

96. [C18] L. Vignati, S. Dallona and **L. Turchet**. *PLC Testbench: a modular tool for the study and comparison of audio Packet Loss Concealment algorithms.* In Proceedings of the 4th International Symposium on the Internet of Sounds, 2023 (accepted).

97. [C19] **L. Turchet**, F. Vella and S. Fiore. *The potential of high-performance computing for the Internet of Sounds.* In Proceedings of the 4th International Symposium on the Internet of Sounds, 2023.

98. [C20] **L. Turchet** and P. Casari. *Assessing a Private 5G SA and a Public 5G NSA Architecture for Networked Music Performances.* In Proceedings of the 4th International Symposium on the Internet of Sounds, 2023 (accepted).

99. [C21] A. Boem and **L. Turchet**. *Musical Metaverse Playgrounds: exploring the design of shared virtual sonic experiences on web browsers.* In Proceedings of the 4th International Symposium on the Internet of Sounds, 2023 (accepted).

100. [C22] D. Stefani and **L. Turchet**. *Real-Time Embedded Deep Learning on Elk Audio OS.* In Proceedings of the 4th International Symposium on the Internet of Sounds, 2023 (accepted).

101. [C23] M. Mannone and **L. Turchet**. *Theoretical Quantum Modeling of Improvisation in Networked Music Performances to*

Regulate the Behaviour of Artificial Musicians. In Proceedings of the 4th International Symposium on the Internet of Sounds, 2023 (accepted).

102. [C24] M. Rossi, G. Iacca and **L. Turchet**. *Explainability and Real-Time in Music Information Retrieval: Motivations and Possible Scenarios.* In Proceedings of the 4th International Symposium on the Internet of Sounds, 2023 (accepted).

103. [C25] **L. Turchet** and M. Tomasetti. *Immersive networked music performance systems: identifying latency factors.* In Proceedings of the International Conference on Immersive and 3D Audio, 2023 (accepted).

104. [C26] M. Tomasetti and **L. Turchet**. *Latency of spatial audio plugins: a comparative study.* In Proceedings of the International Conference on Immersive and 3D Audio, 2023 (accepted).

105. [C27] M. Tomasetti, A. Boem and **L. Turchet**. *How to Spatial Audio with the WebXR API: a survey of the tools and techniques for creating immersive sonic experiences on the browser.* In Proceedings of the International Conference on Immersive and 3D Audio, 2023 (accepted).

106. [C28] **L. Turchet**, N. Garau, and N. Conci. *Networked Musical XR: where's the limit? A preliminary investigation on the joint use of point clouds and low-latency audio communication.* In Proceedings of Audio Mostly Conference, 226–230, 2022.

107. [C29] T. Borgogno and **L. Turchet**. *ImproScales: a self-tutoring web system for using scales in improvisations.* In Proceedings of Audio Mostly Conference, 219–225, 2022.

108. [C30] D. Cocchiara and **L. Turchet**. *Democratizing access to collaborative music making over the network using air instruments.* In Proceedings of Audio Mostly Conference, 211–218, 2022.

109. [C31] L. Gabrielli and **L. Turchet**. *Towards a Sustainable Internet of Sounds* In Proceedings of Audio Mostly Conference, 231–238, 2022.

110. [C32] N. Silva and **L. Turchet**. *A Structural Similarity Index Based Method to Detect Symbolic Monophonic Patterns in Real-Time.* In Proceedings of the Digital Audio Effects Conference, 161–168, 2022.

111. [C33] D. Stefani and **L. Turchet**. *On the Challenges of Embedded Real-Time Music Information Retrieval.* In Proceedings of the Digital Audio Effects Conference, 177–184, 2022.

112. [C34] D. Stefani and **L. Turchet**. *A Comparison of Deep Learning Inference Engines for Embedded Real-Time Audio Classification.* In Proceedings of the Digital Audio Effects Conference, 256–263, 2022.

113. [C35] D. Stefani and **L. Turchet**. *Bio-Inspired Optimization of Parametric Onset Detectors.* In Proceedings of the Digital Audio Effects Conference, 268–275, 2021.

114. [C36] **L. Turchet** and P. Bouquet. *Smart Musical Instruments preset sharing: an ontology-based data access approach.* In Proceedings of the 7th IEEE World Forum on Internet of Things, 1–6, 2021.

115. [C37] **L. Turchet**, T. Stockman and D. Baker. *Musical Haptic Wearables for Synchronisation of Visually-impaired Performers: a Co-design Approach.* In Proceedings of the ACM International Conference on Interactive Media Experiences, 20–27, 2021.

116. [C38] W. Sahqani and **L. Turchet**. *Co-designing Employees' Data Privacy: a Technology Consultancy Company Use Case.* In Proceedings of the IEEE Conference of Open Innovations Association (FRUCT), 398-406, 2021.

117. [C39] F. Macchi, P. Rosin, J. M. Mervi and **L. Turchet**. *Image-based Approaches for Automating GUI Testing of Interactive Web-based Applications.* In Proceedings of the IEEE Conference of Open Innovations Association (FRUCT), 278-285, 2021.

118. [C40] **L. Turchet**, S. Willis, G. Andersson, A. Gianelli, and M. Benincaso. *On making physical the control of audio plugins: the case of the Retrologue Hardware Synthesizer.* In Proceedings of Audio Mostly Conference, 146–151, 2020.

119. [C41] **L. Turchet** and A. Zanetti. *Voice-based interface for accessible soundscape composition: composing soundscapes by vocally querying online sounds repositories.* In Proceedings of Audio Mostly Conference, 160–167, 2020.

120. [C42] M. Centenaro, P. Casari and **L. Turchet**. *Towards a 5G Communication Architecture for the Internet of Musical Things.* In Proceedings of the IEEE Conference of Open Innovations Association (FRUCT), 38–45, 2020.

121. [C43] **L. Turchet**, G. Zhu, and P. Bouquet. *Populating the Smart Musical Instruments Ontology with data.* In Proceedings of the IEEE Conference of Open Innovations Association (FRUCT), 260-267, 2020.

122. [C44] N. Silva, C. Fischione, and **L. Turchet**. *Towards Real-Time Detection of Symbolic Musical Patterns: Probabilistic vs. Deterministic Methods.* In Proceedings of the IEEE Conference of Open Innovations Association (FRUCT), 238-246, 2020.

123. [C45] D. Stefani and **L. Turchet**. *Demo of the TimbreID-VST Plugin for Embedded Real-Time Classification of Individual Musical Instruments Timbres.* In Proceedings of the 27th Conference of FRUCT Association, 412-413, 2020.

124. [C46] A. Zanetti and **L. Turchet**. *Demo of Voice-based Interface for Soundscape Composition: Composing Soundscapes by Vocally Querying Online Sounds Repositories.* In Proceedings of the 27th Conference of FRUCT Association, 414-415, 2020.

125. [C47] **L. Turchet**. *Interactive sonification and the IoT: the case of smart sonic shoes for clinical applications.* In Proceedings of Audio Mostly Conference, 252–255, 2019.

126. [C48] **L. Turchet**, T. West, and M. M. Wanderley. *Smart Mandolin and Musical Haptic Gilet: effects of vibro-tactile stimuli during live music performance.* In Proceedings of Audio Mostly Conference, 168–175, 2019.

127. [C49] **L. Turchet** and M. Barthet. *Haptification of performer's control gestures in live electronic music performance.* In Proceedings of Audio Mostly Conference, 244–247, 2019.

128. [C50] S. D'Angelo, L. Gabrielli and **L. Turchet**. *Fast Approximation of the Lambert W Function for Virtual Analog Modelling.* In Proceedings of Digital Audio Effects Conference, 2019.

129. [C51] L. Gabrielli, S. D'Angelo and **L. Turchet**. *Analysis and Emulation of Early Digitally-Controlled Oscillators Based on the Walsh-Hadamard Transform.* In Proceedings of Digital Audio Effects Conference, 2019.

130. [C52] **L. Turchet** and P. Kudumakis. *Requirements for a file format for smart musical instruments.* In Proceedings of the International Workshop on Multilayer Music Representation and Processing, 5–9, 2019.

131. [C53] A. Rostami, C. Rossitto, D. McMillan, J. Tholander, L. Barkhuus, C. Fischione, and **L. Turchet**. *Musicians' Initial Encounters with a Smart Guitar.* In Proceedings of the ACM Nordic Conference on Human-Computer Interaction, 13–24, 2018.

132. [C54] **L. Turchet**, F. Viola, G. Fazekas, and M. Barthet. *Towards a semantic architecture for the Internet of Musical Things.* In Proceedings of the IEEE Conference of Open Innovations Association (FRUCT), 382–390, 2018. **[Best poster and best demo award]**.

133. [C55] **L. Turchet** and M. Barthet. *Jamming with a Smart Mandolin and Freesound-based accompaniment.* In Proceedings of the IEEE Conference of Open Innovations Association (FRUCT), 375–381, 2018.

134. [C56] F. Viola, **L. Turchet**, F. Antoniazzi and G. Fazekas. *C Minor: a Semantic Publish-Subscribe Broker for the Internet of Musical Things.* In Proceedings of the IEEE Conference of Open Innovations Association (FRUCT), 405–415, 2018.

135. [C57] **L. Turchet** and M. Barthet. *Ubiquitous Musical Activities with Smart Musical Instruments.* In Proceedings of the Workshop on Ubiquitous Music, 2018.

136. [C58] **L. Turchet**. *Smart Mandolin: autobiographical design, implementation, use cases, and lessons learned.* In Proceedings of Audio Mostly Conference, 13:1–13:7, 2018.

137. [C59] **L. Turchet**. *Some reflections on the relation between augmented and smart musical instruments.* In Proceedings of Audio Mostly Conference, 17:1–17:7, 2018.

138. [C60] **L. Turchet**. *Hard real-time onset detection of percussive sounds.* In Proceedings of Digital Audio Effects Conference, 349–356, 2018.

139. [C61] **L. Turchet** and M. Barthet. *Demo of interactions between a performer playing a Smart Mandolin and audience members using Musical Haptic Wearables.* In Proceedings of the international conference on New Interfaces for Musical Expression, 82–83, 2018.

140. [C62] A. Stolfi, M. Ceriani, **L. Turchet**, and M. Barthet. *Playsound.space: Inclusive Free Music Improvisations Using Audio Commons.* In Proceedings of the international conference on New Interfaces for Musical Expression, 228–233, 2018.

141. [C63] S. Skach, A. Xambò, R. Stewart, M. Barthet, **L. Turchet** and A. Stolfi. *Embodied Interactions with E-Textiles and the Internet of Sounds for Performing Arts.* In Proceedings of the ACM International Conference on Tangible, Embedded and Embodied Interactions, 80–87, 2018.

142. [C64] **L. Turchet** and M. Barthet. *An Internet of Musical Things architecture for performers-audience tactile interactions.* In Proceedings of the Digital Music Research Network Workshop, 2017.

143. [C65] **L. Turchet** and M. Barthet. *Envisioning Smart Musical Haptic Wearables to Enhance Performers' Creative Communication.* In Proceedings of International Symposium on Computer Music Multidisciplinary Research, 538–549, 2017.

144. [C66] **L. Turchet**. *The Hyper-Mandolin.* In Proceedings of the AudioMostly Conference, 1:1–1:8, 2017.

145. [C67] **L. Turchet**, M. Benincaso, and C. Fischione. *Examples of use cases with Smart Instruments.* In Proceedings of the AudioMostly Conference, 47:1–47:5, 2017.

146. [C68] **L. Turchet**, C. Fischione, and M. Barthet. *Towards the Internet of Musical Things.* In Proceedings of Sound and Music Computing Conference, 13–20, 2017.

147. [C69] **L. Turchet**. *The Hyper Hurdy-Gurdy.* In Proceedings of Sound and Music Computing Conference, 491–497, 2016.

148. [C70] **L. Turchet**. *The Hyper-Zampogna.* In Proceedings of Sound and Music Computing Conference, 485–490, 2016.

149. [C71] **L. Turchet**, A. McPherson, and C. Fischione. *Smart Instruments: Towards an Ecosystem of Interoperable Devices Connecting Performers and Audiences.* In Proceedings of Sound and Music Computing Conference, 498–505, 2016.

150. [C72] D. Zanotto, **L. Turchet**, E. M. Boggs and S. K. Agrawal. *SoleSound: towards a novel portable system for audio-tactile ecological underfoot feedback.* Proceedings of the 5th IEEE International Conference on Biomedical Robotics and Biomechatronics, 193–198, 2014.

151. [C73] **L. Turchet**, R. Pugliese and T. Takala. *Physically based sound synthesis and control of jumping sounds on an elastic trampoline.* In Proceedings of the 4th Interactive Sonification Workshop, 87–94, 2013. **[Best poster award].**

152. [C74] R. Nordahl, N.C. Nilsson, **L. Turchet** and S. Serafin. *Vertical Illusory Self-motion Through Haptic Stimulation of the Feet.* IEEE VR 2012 Workshop on Perceptual Illusions in Virtual Environments, 2012.

153. [C75] R. Nordahl, S. Serafin, **L. Turchet**, and N.C. Nilsson. *Enhancing realism in virtual environments by simulating the audio-haptic sensation of walking on ground surfaces.* In Proceedings of the IEEE Virtual Reality Conference, 2012.

154. [C76] **L. Turchet** and S. Serafin. *A preliminary study on sound delivery methods for footstep sounds.* In Proceedings of Digital Audio Effects Conference, 53–58, 2011.

155. [C77] S. Serafin, **L. Turchet**, and R. Nordahl. *Auditory feedback in a multimodal balancing task: walking on a virtual rope.* In Proceedings of Sound and Music Computing Conference, 2011.

156. [C78] R. Nordahl, S. Serafin, and **L. Turchet**. *Sound synthesis and evaluation of interactive footsteps for virtual reality applications.* In Proceedings of the IEEE Virtual Reality Conference, 147–153, 2010. **[Top 10 paper award].**

157. [C79] **L. Turchet**, S. Serafin, S. Dimitrov, and R. Nordahl. *Physically based sound synthesis and control of footsteps sounds.* In Proceedings of Digital Audio Effects Conference, 161–168, 2010.

158. [C80] **L. Turchet**, S. Serafin, and R. Nordahl. *Examining the role of context in the recognition of walking sounds.* In Proceedings of Sound and Music Computing Conference, 2010.

159. [C81] S. Serafin, **L. Turchet**, and R. Nordahl. *Do you hear a bump or a hole? An experiment on temporal aspects in footsteps recognition.* In Proceedings of Digital Audio Effects Conference, 169–173, 2010.

160. [C82] S. Serafin, **L. Turchet**, R. Nordahl, S. Dimitrov, A. Berrezag, and V. Hayward. *Identification of virtual grounds using virtual reality haptic shoes and sound synthesis.* In Proceedings of Eurohaptics symposium on Haptic and Audio-Visual Stimuli: Enhancing Experiences and Interaction, 61–70, 2010.

161. [C83] **L. Turchet**, M. Marchal, A. Lécuyer, R. Nordahl, and S. Serafin. *Influence of auditory and visual feedback for perceiving walking over bumps and holes in desktop VR.* In Proceedings of the 17th ACM Symposium on Virtual Reality Software and Technology, 139–142. ACM, 2010.

162. [C84] **L. Turchet**, R. Nordahl, A. Berrezag, S. Dimitrov, V. Hayward, and S. Serafin. *Audio-haptic physically based simulation of walking on different grounds.* In Proceedings of IEEE International Workshop on Multimedia Signal Processing, 269–273. IEEE Press, 2010. **[Top 10% paper award].**

163. [C85] S. Serafin, **L. Turchet**, and R. Nordahl. *Extraction of ground reaction forces for real-time synthesis of walking sounds.* In Proceedings of the Audio Mostly Conference, 99–105, 2009.

BOOK CHAPTERS

164. [B1] J. Brusseau and **L. Turchet**. *How AI Generates Creativity from Inauthenticity.* In Artificial Creativity, Eds. A. Micallizzi et al., 2025, Springer.

165. [B2] P. Casari and **L. Turchet**. *Internet of Musical Things for Smart Cities.* Wireless Sensor Networks in Smart Environments:

Enabling Digitalization from Fundamentals to Advanced Solutions, Wiley-IEEE (Ed. D. Ciuonzo and P. S. Rossi), 2025.

166. [B3] V. Lazzarini, D. Keller, N. Otero, and **L. Turchet**. *The ecologies of ubimus.* Ubiquitous Music Ecologies, Routledge (Ed. V. Lazzarini, D. Keller, N. Otero, and L. Turchet), 1–22, 2020.

167. [B4] **L. Turchet**, G. Essl, and C. Fischione. *Ubiquitous music in the Internet of Musical Things.* Ubiquitous Music Ecologies, Routledge (Ed. V. Lazzarini, D. Keller, N. Otero, and L. Turchet), 154–169, 2020.

168. [B5] **L. Turchet** and J. Hueller. *Promoting awareness on sustainable behaviors thorough an AR-based art gallery.* In: De Paolis L., Bourdot P. (eds) Augmented Reality, Virtual Reality, and Computer Graphics. AVR 2020. Lecture Notes in Computer Science, vol 12243. Springer, Cham, 53–65, 2020.

169. [B6] M. Mannone and **L. Turchet**. *Shall we (math and) dance?* In: M. Montiel, F. Gomez-Martin, O. Agustín-Aquino. (eds) Mathematics and Computation in Music. MCM 2019. Lecture Notes in Computer Science, vol 11502, 84–97. Springer, Cham.

170. [B7] **L. Turchet** and M. Barthet. *Smart Musical Instruments: Key Concepts and Do It Yourself Tutorial.* Foundations in Sound Design for Embedded Media. Routledge (Ed. M. Filimowicz), 275–296, 2019.

171. [B8] N.C. Nilsson, R. Nordahl, **L. Turchet** and S. Serafin. *Audio-haptic simulation of walking on virtual ground surfaces to enhance realism.* HAID 2012, LNCS 7468, 61–70, Springer-Verlag Berlin Heidelberg, 2012.

172. [B9] **L. Turchet**, N.C. Nilsson and S. Serafin. *Inside the boundaries of the physical world: audio-haptic feedback as support for the navigation in virtual environments.* EuroHaptics 2012, Part I, LNCS 7282, 577–588, Springer-Verlag Berlin Heidelberg, 2012.

173. [B10] N.C. Nilsson, R. Nordahl, E. Sikström, **L. Turchet** and S. Serafin. *Haptically Induced Illusory Self-motion and the Influence of Context of Motion.* EuroHaptics 2012, Part I, LNCS 7282, 349–360, Springer-Verlag Berlin Heidelberg, 2012.

174. [B11] R. Nordahl, A. Lècuyer, S. Serafin, **L. Turchet**, S. Papetti and F. Fontana. *Evaluation of multimodal ground cues.* Walking with the senses - Perceptual techniques for walking in simulated environments, 2011

175. [B12] S. Serafin, F. Fontana, **L. Turchet**, and S. Papetti. *Auditory rendering and display techniques.* Walking with the senses - Perceptual techniques for walking in simulated environments, 2011

176. [B13] **L. Turchet** and S. Serafin. *An investigation on temporal aspects in the audio-haptic simulation of footsteps.* Time and Time Perception 2010, 101–115, Springer-Verlag Berlin Heidelberg 2011.

177. [B14] **L. Turchet**, S. Serafin, S. Dimitrov, and R. Nordahl. *Conflicting audio-haptic feedback in physically based simulation of walking sounds.* Haptic and Audio Interaction Design, 97–106, Springer-Verlag Berlin Heidelberg 2010.

178. [B15] R. Nordahl, A. Berrezag, S. Dimitrov, **L. Turchet**, V. Hayward, and S. Serafin. *Preliminary experiment combining virtual reality haptic shoes and audio synthesis.* Haptics: Generating and Perceiving Tangible Sensations, 123–129, Springer-Verlag Berlin Heidelberg 2010.

INTERNATIONAL PATENTS

179. [P1] M. Benincaso, A. De Angelis, C. Fischione, **L. Turchet**, and S. Zambon. *Method to control the timbre of a target stringed instrument in real-time*, 2018, (PCT/SE2016/050494).

180. [P2] M. Benincaso, A. De Angelis, C. Fischione, **L. Turchet**, and S. Zambon. *Method for applying sensors on a stringed instrument*, 2018 (PCT/SE2016/050493).

SUMMARY OF BIBLIOMETRIC INDICATORS

N. publications	180
N. books	1
N. journal articles	77
N. book chapters	15
N. conference articles	85
N. international patents	2
N. first-authored articles	96
N. last-authored articles	57
N. first + last-authored articles	153
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N. citations on Scopus	2172
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