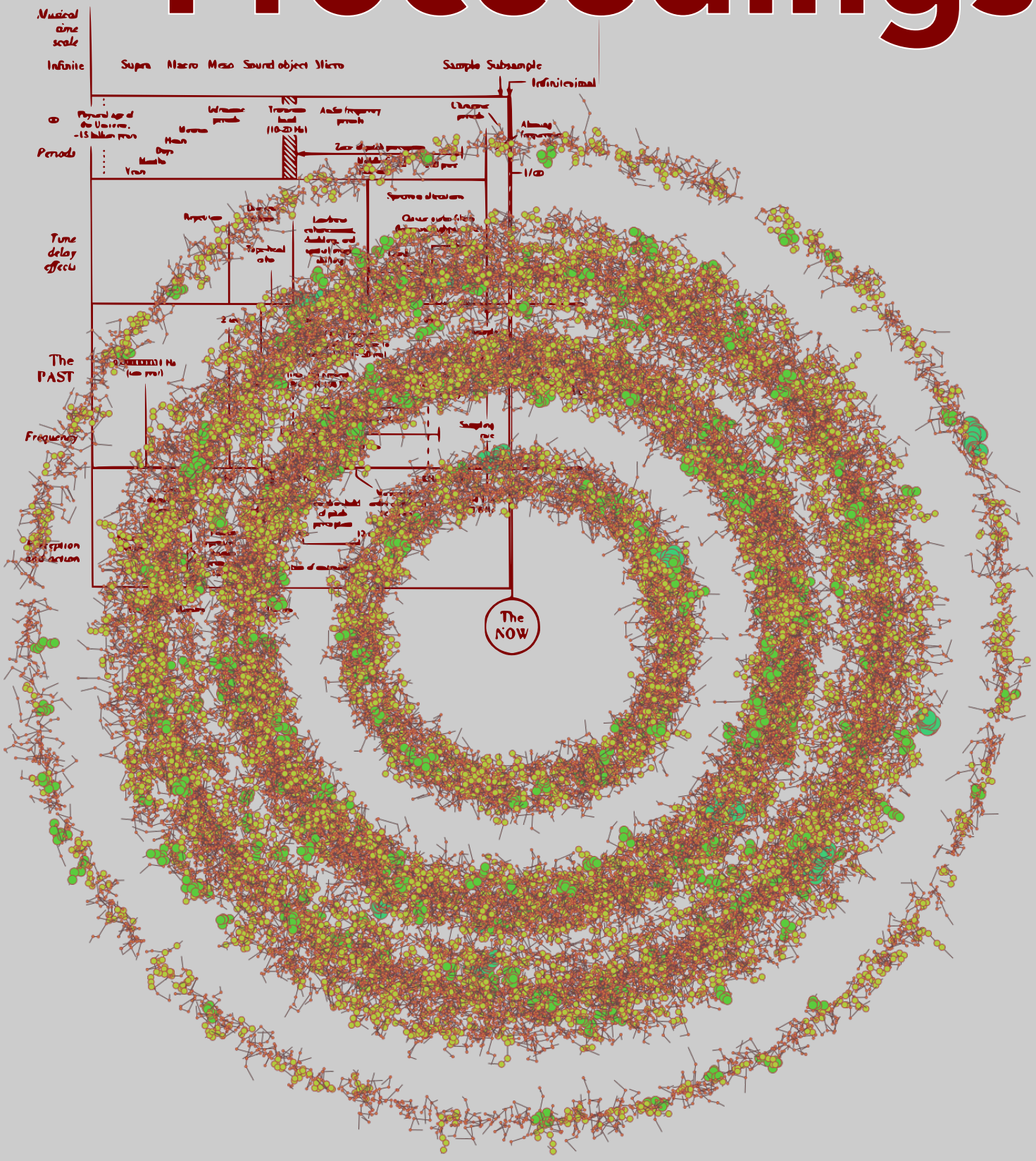
XXIV CIM

Colloquio di Informatica Musicale/Colloquium on Music Informatics

Memorie proiettive/Projecting Memories

Torino, 30/09 - 02/10 2024

Atti
Proceedings



XXIV CIM – Colloquio di Informatica Musicale
24th CIM – Colloquium on Music Informatics

Atti della Conferenza
Conference Proceedings

Torino, 30 Settembre – 2 Ottobre 2024
Torino, September 30th – October 2nd 2024

Davide Andrea Mauro, Simone Spagnol and Andrea Valle, a cura di/*eds.*

AA.VV.
Memorie proiettive/Projecting Memories

XXIV Colloquio di Informatica Musicale
24th Colloquium on Music Informatics

A cura di/eds.:
Davide Andrea Mauro, Simone Spagnol, Andrea Valle

ISBN: 9788890341373
ISSN: 2611-7355
Per gentile collaborazione di Davide Rocchesso e Stefano Delle Monache
Courtesy of Davide Rocchesso and Stefano Delle Monache

Pubblicato da/publisher:
DADI - Dipartimento Arti e Design Industriale, Università IUAV di Venezia

In co-edizione con/co-published with:
CIRMA – Università degli Studi di Torino
AIMI – Associazione Informatica Musicale Italiana
`https://aimi-musica.org/`

BibTeX:

```
@proceedings{24CIMConf,
Editor = {Davide Andrea Mauro, Simone Spagnol and Andrea Valle},
Organization = {AIMI - Associazione Informatica Musicale Italiana},
Publisher = {DADI - Dip. Arti e Design Industriale. Università IUAV di Venezia},
Title = {Memorie proiettive/Projecting Memories. Atti del {XXIV} Colloquio di Informatica Musicale/
Proceedings of the {XXIV} Colloquium on Music Informatics},
Year = {2024}}
```


Cover drawing: algorithmic radial arborescences generated with the Shoebot Python Library (`http://shoebot.net/`) by Andrea Valle
Typeset with ConTEXt (`http://wiki.contextgarden.net/`) by Andrea Valle

With the support of:

UNIVERSITÀ DI TORINO

CONSERVATORIO STATALE DI MUSICA GIUSEPPE VERDI TORINO

TO LISTEN TO

SMET Scuola di Musica Elettronica del Conservatorio di Torino

ART IN MED
L'Arte nella divulgazione delle Scienze Mediche

Finanziato dall'Unione europea NextGenerationEU

Ministero dell'Università e della Ricerca

Italiadomani

UNIVERSITÀ DI TORINO

General chairs
Stefano Bassanese, Conservatorio di Torino
Andrea Valle, Università di Torino

Scientific chairs
Davide Andrea Mauro, Paderborn University
Simone Spagnol, Università IUAV di Venezia
Andrea Valle, Università di Torino

Music chairs
Andrea Agostini, Conservatorio di Torino
Stefano Bassanese, Conservatorio di Torino
Daniele Ghisi, Conservatorio di Torino

Program committee
Andrea Agostini, Conservatorio di Torino
Giacomo Albert, Università di Torino
Carlo Barbagallo, Conservatorio di Torino
Stefano Bassanese, Conservatorio di Torino
Francesco Bianchi, Conservatorio di Torino
Leonardo Gabrielli, Università Politecnica delle Marche
Daniele Ghisi, Conservatorio di Torino
Francesco Giomi, Tempo Reale
Luca Guidarini, Ensemble Collettivo 21
Davide Andrea Mauro, Paderborn University
Simone Spagnol, Università IUAV di Venezia
Anna Terzaroli, Conservatorio di Adria
Luca Turchet, Università di Trento
Andrea Valle, Università di Torino
Paolo Zavagna, Conservatorio di Venezia

Scientific Reviewers
Giacomo Albert, Università di Torino
Adriano Baratè, Università di Milano
Alessio Brutti, FBK - Fondazione Bruno Kessler
Luca Comanducci, Politecnico di Milano
Stefano D'Angelo, dangelo.audio
Stefano Delle Monache, IRCAM
Michele Ducceschi, Università di Bologna
Davide Fantini, Università di Milano
Vanessa Faschi, Università di Milano
Federico Fontana, Università di Udine
Leonardo Gabrielli, Università Politecnica delle Marche
Michele Geronazzo, Università di Padova
Riccardo Giampiccolo, Politecnico di Milano
Luca Andrea Ludovico, Università di Milano
Nicola Orio, Università di Padova
Giorgio Presti, Università di Milano
Niccolò Pretto, Libera Università di Bolzano
Alessandro Giuseppe Privitera, Università di Udine
Davide Rocchesso, Università di Milano
Antonio Rodà, Università di Padova
Cristina Rottondi, Politecnico di Torino
Sylviane Sapir, Conservatorio di Milano
Stefania Serafin, Aalborg University
Giuseppe Silvi, Conservatorio di Bari
Federico Simonetta, Gran Sasso Science Institute
Domenico Stefani, Università di Trento
Anna Terzaroli, Conservatorio di Adria
Marco Tiraboschi, Università di Milano
Gualtiero Volpe, Università di Genova
Stefano Zambon, MIND Music Labs
Victor Zappi, Northeastern University
Laura Zattra, IRCAM / Conservatorio di Rovigo e Vicenza
Paolo Zavagna, Conservatorio di Venezia

Music Reviewers
Alessandro Anatrini, Hochschule für Musik und Theater Hamburg
Nicoletta Andreuccetti, Independent
Massimo Avantaggiato, Conservatorio di Milano
Lorenzo Ballerini, Conservatorio di Trapani
Carlo Barbagallo, Conservatorio di Torino
Angelo Benedetti, Conservatorio di Perugia
Nicola Bernardini, Conservatorio di Roma
Francesco Bianchi, Conservatorio di Torino
Nicola Buso, Conservatorio di Trieste
Francesco Canavese, Tempo Reale
Diego Capoccitti, Independent
Nicola Cappelletti, Conservatorio di Perugia
Maura Capuzzo, Conservatorio di Venezia
Nicola Casetta, Conservatorio di Pesaro
Daniela Cattivelli, Conservatorio di Avellino
Luigi Ceccarelli, Edison Studio
Antonino Chiaramonte, Conservatorio di Frosinone
Walter Cianciusi, Conservatorio di Sassari
Fabio Cifariello Ciardi, Conservatorio di Perugia
Pasquale Citera, Conservatorio di Bologna
Giorgio Colombo Taccani, Conservatorio di Torino
Diego Dall'Osto, Conservatorio di Vicenza
Riccardo Dapelo, Conservatorio di Piacenza
Maria Cristina De Amicis, Conservatorio di L'Aquila
Fabio De Sanctis De Benedictis, ISSM "P. Mascagni" di Livorno
Stefano Delle Monache, IRCAM
Agostino Di Scipio, Conservatorio di L'Aquila
Roberto Doati, Conservatorio di Genova
Giulia Francavilla, Independent
Nicola Frattegiani, Conservatorio di Frosinone
Francesco Giomi, Tempo Reale
Luca Guidarini, Università di Pavia
Giorgio Klauer, Conservatorio di Trieste
Sergio Lanza, Conservatorio di Alessandria
Silvia Lanzalone, CRM, Roma
Ilaria Lemmo, Conservatorio di Torino
Giulia Lorusso, Independent
Marco Marinoni, Conservatorio di Latina
Matteo Marson, Conservatorio di Torino
Damiano Meacci, Conservatorio di Firenze
Alessandro Olla, TiConZero
Federico Ortica, Independent
Claudio Panariello, KTH, Stockholm
Mattia Parisse, Independent
Pietro Polotti, Conservatorio di Trieste
Alessandro Ratoci, Conservatorio di Mantova
Luca Richelli, Conservatorio di Vicenza
Silvia Rosani, Goldsmiths University of London
Dario Sanfilippo, Independent
Andrea Sarto, Independent
Francesco Scagliola, Conservatorio di Bari
Julian Scordato, Conservatorio di Padova
Carlo Siega, 'A. Bruckner' Privatuniversität, Linz/Conservatorio di Trieste
Giuseppe Silvi, Conservatorio di Bari
Anna Terzaroli, Conservatorio di Adria
Matteo Tundo, Independent
Gianluca Verlingieri, Conservatorio di Cuneo
Giovanni Verrando, Scuola Civica "C. Abbado" di Milano
Roberto Zanata, Conservatorio di Cesena
Paolo Zavagna, Conservatorio di Venezia

Table of Contents

Session 3 – Tools and platforms

Session 4 – Analytical approaches

Prefazione/Preface

Per noi organizzatori, questo CIM è stato un lavoro lungo 4 anni.
Quando nel 2020 è scoppiata la pandemia, siamo stati costretti a cambiare sostanzialmente la conferenza CIM/SMC, spostando tutto online e abbandonando la sede di Torino. È stato quindi un grande piacere avere la conferenza CIM a Torino quest'anno. Festeggiamo quindi a 14 anni di distanza (invece che a 10) il precedente CIM torinese.
Quest'anno abbiamo ricevuto un totale di 90 proposte: 35 contributi scientifici e 55 contributi musicali. Delle 35 proposte scientifiche, 13 sono state accettate per la presentazione orale e 7 per la presentazione di poster, con un tasso di accettazione del 57%. Per la traccia musicale sono state accettate 19 proposte, con un tasso di accettazione del 35%.
XXIV CIM ha avuto l'aiuto di 93 revisori che hanno esaminato tutte le proposte per compilare un programma finale. Sulla base delle loro raccomandazioni, insieme ai comitati di programma e ai presidenti, sono state prese le decisioni finali organizzando il lavoro in 4 sessioni di paper, 1 sessione di poster e 3 concerti.
Per questo CIM abbiamo ospitato due relatori principali (Pierre Alexandre Tremblay e Marinos Koutsomichalis), entrambi capaci di oltrepassare i confini della ricerca scientifica e artistica.
Il programma musicale di quest'anno è stato particolarmente ricco, grazie alla collaborazione con la terza edizione del Festival dell'ascolto sperimentale To Listen To (`https://www.to-listen-to.it/`).
Il XXIV CIM si è concluso con la tradizionale attribuzione del premio Teresa Rampazzi e del premio Aldo Piccialli per i migliori contributi rispettivamente al programma musicale e al programma scientifico.
Premio Teresa Rampazzi – *Non è un compendio di etologia numerico-digitale* di Totaleee (Andrea Laudante, Paolo Montella, Giuseppe Pisano), per la qualità sonora di un'opera musicale che riflette un pensiero elettroacustico articolato e denso di riferimenti a espressioni, culture e ambiti musicali multiformi.
Premio Aldo Piccialli – Daniel Scorranese, per la capacità di coniugare ricerca artistica, scientifica e storica in un lavoro di ampio respiro che ben rappresenta lo spirito del Colloquio di Informatica Musicale.

For us as organizers this CIM has been 4 years in the making. When during the 2020 the pandemic struck we were forced to substantially change the CIM/SMC Conference, moving everything online and abandoning the Turin location. It has been then a great pleasure to have the CIM conference in Turin this year. We are therefore celebrating 14 years later (instead of 10) after the previous CIM in Turin.
This year we received a total of 90 submissions: 35 scientific contributions, and 55 music contributions. Out of the 35 scientific submissions 13 have been accepted for oral presentation and 7 for poster presentation, with an acceptance rate of 57%. For the music track 19 submissions have been accepted, with an acceptance rate of 35%.
XXIV CIM had the help of 93 reviewers that examined all the submission in order to compile a final program. Based on their recommendations, together with the Program Committees and Chairs, final decisions were made organizing the work in 4 Paper Sessions, 1 Poster Session, and 3 Concerts.
For this CIM we featured two keynote speakers (Pierre Alexandre Tremblay and Marinos Koutsomichalis), both members crossing the boundaries of the scientific and artistic research.

The music program this year was particularly rich, thanks to the collaboration with the third edition of Festival dell'ascolto sperimentale To Listen To (`https://www.to-listen-to.it/`).
The XXIV CIM concluded with the traditional awarding of the Teresa Rampazzi award and the Aldo Piccialli award for the best contributions to the music program and the scientific program, respectively.
Teresa Rampazzi award – *Non è un compendio di etologia numerico-digitale* by Totaleee (Andrea Laudante, Paolo Montella, Giuseppe Pisano), for the sonic quality of a musical work that reflects an articulated electroacoustic meaning full of references to multifaceted musical expressions, cultures, and fields.
Aldo Piccialli award – Daniel Scorranese, for the ability to combine artistic, scientific, and historical research in a wide-ranging work that well represents the spirit of the Colloquium of Musical Informatics.

Detmold/Venezia/Torino, Ottobre 2024
Davide Andrea Mauro, Simone Spagnol and Andrea Valle
XXIV CIM Scientific Chairs

Special Session

Polifonia del ricercare - Suono e musica nei progetti di ricerca

Lorenzo Porcaro – AA4MD. Algorithmic Auditing for Music Discoverability
The evolution of online platforms over the past decades has radically transformed the way people discover music, and nowadays thanks to social media and music streaming services listeners have access to an ever-increasing amount of tracks and artists. Within these platforms, one of the goals of Recommender Systems (RS) is to help users discover music without making them feel overwhelmed while exploring the huge catalogues available. However, RSs have come under scrutiny due to their potential negative societal impact, notably with regard to issues of fairness, non-discrimination, inclusion and diversity. Algorithmic auditing has emerged as a tool to analyse the problematic behaviours exhibited by RS, and to offer remedies that can limit their negative impact. The AA4MD project aims to advance this area of research by crafting auditing techniques tailored specifically for music RS. The objective of the project is to demonstrate how the involvement of end-users in the auditing process can contribute to the recognition, analysis, and mitigation of problematic behaviours which may arise while discovering music. Ultimately, the AA4MD project seeks to contribute to addressing the challenges posed by music RS behaviours and to foster a more inclusive and diverse environment for music discovery within the digital landscape.

Giorgio Stefano Gnecco – MOTUS. Automated Analysis and Prediction of Human Movement Qualities
Innovative applications of human movement analysis, e.g., for mitigating/slowing down certain pathological conditions, have recently emerged from the modeling and automated measurement of expressive mid-level individual and group movement qualities, at a higher complexity level than movement qualities derived directly from physical signals. The availability of automated analysis techniques of mid-level expressive movement qualities can contribute to interaction design incorporating performance practices inspired by artistic theories in dance and music. This work, as part of the project MOTUS and in partnership with EuroMov, investigates how such practices and techniques can support embodied interaction design by enabling automated measuring of cues of leadership, cohesion, and fluidity in group movement. In particular, the dance-inspired scientific approach, the data collection protocol, and techniques of analysis for assessing leadership and cohesion within the group and fluidity of the dancers' movement are described.

Matteo Leonardi, Federico Simonetta, Angelica Vomera – LAUDARE. The Italian Lauda: Disseminating Poetry and Concepts Through Melody (12th-16th centuries)
La lauda è un genere di poesia musicale sviluppatosi in Italia a partire dal XII secolo. Era principalmente utilizzata da laici al di fuori della liturgia ufficiale per trasmettere messaggi religiosi e non religiosi a un pubblico per lo più analfabeta e non istruito. Di conseguenza, essa rappresenta una ricca risorsa storica. Il progetto ERC AdG LAUDARE mira a raccogliere e digitalizzare i manoscritti italiani contenenti Laude dal XII al XVI secolo per studiarne il funzionamento interno in termini di composizione, trasmissione, musica e influssi della tradizione orale. Il database ad accesso aperto risultante consentirà indagini su testi e musica, oltre che sui modelli di diffusione geografica. A tal fine, il gruppo di ricerca sta sviluppando strumenti di AI, formati file e protocolli di trascrizione per processare manoscritti e stampe poetico-musicali provenienti da un periodo storico lungo 4 secoli. I risultati del progetto saranno pubblicati in varie forme e presentati in workshop e conferenze.

Stefano Giacomelli – Musical Metaverse: An Inclusive Extended Reality Platform for Networked Musical Interactions
Il Metaverso implementa un universo digitale virtuale immersivo che può affiancarsi al mondo tangibile combinando elementi di Realtà Virtuale (VR) e Realtà Aumentata (AR) e nel quale ogni partecipante interagisce con gli altri attraverso un avatar personalizzato. Il Metaverso Musicale è una parte emergente del Metaverso dedicata alle attività musicali. Attualmente, le opportunità e le sfide tecniche, artistiche e di inclusività sociale del MM sono poco esplorate: le attuali piattaforme di Extended Reality (XR) non supportano con efficacia interazioni in tempo reale tra musicisti in locazioni remote, pochi hanno studiato cosa significa agire musicalmente nell'XR, non vi sono studi sui fattori di diversità (genere, disabilità, ecc.) nel settore. Il progetto mira a definire le linee-guida necessarie per creare più credibili e flessibili ambienti di interazione nel Metaverso Musicale, seguendo tre obiettivi interdipendenti: 1) studiare le esigenze dei musicisti e progettare con loro metodi adeguati; 2) sviluppare soluzioni per l'interconnessione sincrona efficiente in ambienti XR collaborativi; 3) sviluppare servizi per applicazioni musicali. Seguiamo un paradigma metodologico iterativo in tre fasi parzialmente sovrapposte (Design-Develop-Evaluate), ognuna ripetuta due volte per scopi di verifica, operando in diversi contesti di esperienza (composizione, esecuzione, didattica) e ambito culturale (musica classica, sperimentazione, linguaggi di fruizione popolare).

Federico Avanzini – SONICOM. Transforming auditory-based social interaction and communication in AR/VR
Simulating spatially located sounds in virtual or augmented reality (VR/AR) must be done in a unique way for each individual and currently requires expensive and time-consuming individual measurements, making it commercially unfeasible. Furthermore, the impact of immersive audio beyond perceptual metrics such as presence and localisation is still an unexplored area of research, specifically when related with social interaction, entering the behavioural and cognitive realms. SONICOM is designing a new generation of immersive audio technologies and techniques, specifically looking at personalisation and customisation of the audio rendering. Using a data-driven approach, it explores, maps, and models how the physical characteristics of spatialised auditory stimuli can influence observable behavioural, physiological, kinematic, and psychophysical reactions of listeners within social interaction scenarios. The developed techniques and models are evaluated in an ecologically valid manner, exploiting AR/VR simulations as well as real-life scenarios, and developing appropriate hardware and software proofs-of-concept. Finally, in order to reinforce the idea of reproducible research and promoting future development and innovation in the area of auditory-based social interaction, the SONICOM Ecosystem is being created, which will include auditory data closely linked with model implementations and immersive audio rendering components.

Andrea Gulli – S-TWIN. The auditory digital twin of a cochlear implant: framework requirements for immersive sonic interactions with children
This research project investigates the potential of an "auditory digital twin" (DT) to enhance rehabilitation for children who use cochlear implants (CIs). Traditional CI rehabilitation, while effective, faces limitations due to cost and therapist availability. The proposed DT system aims to supplement existing therapy by assisting young children with CIs in learning to identify and locate sounds in their surroundings. Specifically, the project focuses on preverbal children aged 3-6 and aims to create engaging tasks that encourage learning through movement. By analyzing data

on how children move in response to the sounds, the DT would personalize the experience and dynamically adapt to their individual needs.

Davide Rocchesso – MAHATMA. Multiscale Analysis of Human and Artificial Trajectories: Models and Applications

Trajectories are paths followed by objects in motion through space, as functions of time. Our senses continuously detect and interpret trajectories for surviving in environments populated by human, animal, and artificial moving agents. In general, trajectories unfold in space and time, with possible degenerate cases when one of the two domains is collapsed to a single point in space (e.g., point-like tactile stimulation) or time (e.g., the trace left by a snake on the sand). The project is aimed at providing consistent representations of trajectories at different scales of the egocentric space, through a variety of technological means that exploit the different senses at the scale they are most effective. Applications are developed as proofs-of-concept for the trajectory models, in the areas of sport and performing arts, with implications in a variety of fields, including culture- and art-enabled motor reactivation and rehabilitation, and navigation help for sensory-impaired people.

Keynotes

Keynote 1

Pierre-Alexandre Tremblay

All In: The wager of entangled musicking research(es)

Over the past decades, definitions and (dis)agreements on what is valid research in musicking have been in flux, with anchors of various flavours: auto-ethnographic, techno-scientific, strictly aesthetic, wider cultural critic... but what happens when a researcher's musicking straddles across many fields, in an un-disciplined approach? Furthermore, as all attendees of this conference will certainly know, music/sound practice/research with/through/against technology is a fantastic Petri dish for rich interdisciplinary tensions; therefore, what could we learn from our many multi-faceted endeavours, and the various communities in/from which they are happening? Even more daringly, what if we gamble all in, a wager on a monistic view of musicking research where all divisions are considered perspectival, for the benefit of ever-evolving hybrids that challenge stagnating disciplinary boundaries and centres? This talk will present and question the author's holistic assumptions candidly, towards an emerging claim that a return to music itself, in all its forms, should be at the centre of the various episteme of music research, mixed with a healthy challenge to the primacy of the word and the various institutions that depend on it.

About the speaker

Pierre Alexandre Tremblay (Montréal, 1975) is a composer and a performer on bass guitar and sound processing devices, in solo and within various ensembles. He is a member of the London-based collective Loop, and his music is released on Empreintes DIGITALes and Ora.
He formally studied composition with Michel Tétreault, Marcelle Deschênes, and Jonty Harrison, bass guitar with Jean-Guy Larin, Sylvain Bolduc, and Michel Donato, analysis with Michel Longtin and Stéphane Roy, studio technique with Francis Dhomont, Robert Normandeau, and Jean Piché. Pierre Alexandre has bee Professor in Composition and Improvisation at the University of Huddersfield (England, UK), he anchored the ERC funded Fluid Corpus Manipulation project. He is now Research Professor in Composition at the Conservatorio della Svizzera italiana, Lugano. He previously worked in popular music as producer and bassist, and has a keen interest in creative coding.

`https://www.pierrealexandretremblay.com/`

Keynote 2

Marinos Koutsomichalis

Vectors of care & musical informatics. From sinewaves to AI: Tactics to synthesize audio with computers

Intended as an overview of the state of the art, this keynote accounts for historical and topical tactics vis-à-vis the synthesis of audio with computers. It more deeply elaborates on specific examples (also drawing on the speaker's practice over two decades) aiming at bridging canonical with niche tactics and experimental with hackneyed ones. In tandem with this narrative, it also outlines affairs of care in the arts and highlights related areas of concern as well as opportunities in the broader field of Musical Informatics.

About the speaker

Marinos Koutsomichalis is an artist, scholar, and creative technologist. He is broadly interested in the materiality of self-generative systems, (post-)digital objecthood, sound, image, data, electronic circuitry, perception, selfhood, landscapes/environments, and the media/technologies we rely upon to mediate, probe, interact, or otherwise engage with the former. He is an Assistant Professor in Creative Multimedia at the Cyprus University of Technology (Limassol, CY) where he co-directs the Media Arts and Design Research Lab. He has administrated three National and three EU funded projects either as the Principle Scientific Coordinator or the Leader of some individual work package. These include the COST Action 'Toolkit of Care' (Action Chair), the HORIZON-MSCA Staff Exchange project 'Epistemology in Science, Technology, Engineering, Arts, and Maths' (WP Leader), the E+ KA220 project 'Aesthetics and Ecology in Technological Education' (PR Leader) and others.

`https://marinoskoutsomichalis.com/`

Paper Abstracts

Fabio De Sanctis De Benedictis – Memoria come Composizione, Composizione come Memoria: strumenti algoritmici in Poisson Trio e Anamniseis

This paper examines the algorithmic compositional techniques implemented in two of the writer's compositions, recalling composers and techniques of the past.. After a brief introduction, we move on to very briefly describe the author's algorithmic composition library, in which memory plays a main role, being based on the formalization of compositional techniques from the twentieth century onwards.. Subsequently, some algorithmic functions used in two of own compositions are analyzed: Poisson Trio, for B flat clarinet, alto saxophone and bassoon, and Anamniseis, a quadriphonic electroacoustic work, inspired by the figure of Xenakis. Specifically, it illustrates how the matrix used by Xenakis in Achorripsis is used to control rhythmic density and polyphony in Poisson Trio, while pitches are determined by sieve theory. In Anamniseis we illustrate some audio generation methods in which some functions of the algorithmic composition library intersect with the OpenMusic libraries based on Csound. We thus have banks of filters, synthesis tools from physical models (Modalys), creation of OMChroma classes from Csound code, algorithmic spatialization.

At the end of this, brief conclusions follow, with considerations on the role of memory in composition, on the relationship between past, present and future in the field of compositional techniques, and some reflections on tradition and avant-garde in note.

Stefano Catena and Enrico Dorigatti – Missing memories: why we need to analyse spatialisation

This paper aims to foster a discussion over the necessity of developing an analysis and classification framework of the spatial parameter in music, especially within the electroacoustic and acousmatic music contexts. As the exploration of space as an artistic feature is not novel in music, our discourse builds up from a review of the field, investigating its origins and identifying previous key experiences. This paper considers the state of the art of spatial analysis, comparing it with issues currently affecting electroacoustic and acousmatic music musicology, namely the lack of an agreed notation system and the technological fragmentation of the field. The following discussion proposes spatialisation as an experiential feature and recommends a perspective that contrast the dominant philosophy which interprets space from a geometrical and technological perspective. From this novel standpoint, we advocate that spatialisation should be studied independently from the technology employed, focusing only on aural implications. By inviting a conversation on this matter, we also suggest that the proposed perspective could work retrospectively, improving the analysis of electroacoustic pieces belonging to the historical repertoire.

Daniele Giuseppe Annese, Francesco Vitucci, Anthony Di Furia, Francesco Scagliola and Giuseppe Silvi – Archeotopologie: implementazione critica di memorie senza colore

In the study of electronic music, the critical observation of archetypal algorithms and computer architectures is a technical and stylistic exercise comparable to studying passages from the repertoire for acoustic musical instruments. Specifically, it involves practising signal processing skills for educational purposes and the sustainability of musical and cultural heritage.

The reference literature relates to the emergence of digital reverberation techniques through the construction and relationships of filters. The texts by Manfred R. Schroeder express moments of mathematical and physical insights, the re-construction of which offers inevitable technical, computer, and musical reflections.

Implementation through textual computer languages and appropriate signal analysis models allows access to historical literature in a contemporary understanding, ensuring future continuity of the text and opening perspectives for new algorithmic construction.

Daniel Scorranese and Agostino Di Scipio – Gli 'sciami di glissando' in Diamorphoses. Ricostruzione mediante Digital Morphophone Environment
Iannis Xenakis' first electroacoustic work, Diamorphoses (for magnetic tape, 1957), has been studied and analyzed by various scholars, usually in analysis approaches based on listening and perceptual features. Information concerning the production means is limited and uncertain. Some authors mention the use of the phonogéne as well as of the morphophone, magnetophonic processing systems developed in the '50s at GRM in Paris, where the piece was made. Here, based on the historical sources and clues gathered, we put forth the hypothesis that the morphophone was used to produce very peculiar sonorities sometimes described as "glissando swarms" or in other, similar ways. To test the hypothesis, in concrete operational manners, we resort to the Digital Morphophone Environment, a recent audio digital application written in Max. By way of reconstructing the accumulation process of innumerable short glissando sounds, we prove the hypothesis to be essentially correct. The paper also provides hints as to how Xenakis might have tried to manage the 'density' of his thick sound textures.

Cristiano Bocci and Andrea Valle – Fully generalized Fibonacci series modulo n as music sequence generators
In this paper we introduce fully generalized Fibonacci sequences as useful tools for the generation of integers that can be interpreted in the musical context for algorithmic composition. In particular, we take into account the modulo operation on Fibonacci sequences resulting in various periodic behaviors that we interpret in the pitch class domain. First we introduce Fibonacci sequences and generalized Fibonacci sequences, then we discuss the modulo operator applied to sequences. We propose various interpretations of the resulting sequences in terms of pitches and pitch classes, and describe some possible operations. Finally, we introduce fully generalized Fibonacci sequences and describe a possible implementation in an algorithmic composition environment.

Paolo Paradiso – La sperimentazione vocale nell'epoca dell'Intelligenza Artificiale
This essay will take into consideration some innovative creative possibilities offered by digital technologies with artificial intelligence (hereinafter AI) in the field of vocal experimentation. Given the transformative scope of these technologies, it is extremely necessary to distinguish what about AI is a reality today and what, instead, falls within the scope of speculation and science fiction. AI challenges important social, political and cultural issues on several fronts. Furthermore, it poses philosophical questions about the human entity itself: does the traditionally understood definition of "human" need to be rethought in light of increasingly advanced technological progress? Are we heading towards a "posthumanism"? And what consequences can all this have in music? These and other questions will be addressed in this essay, not always claiming to provide univocal and definitive answers, but rather opening the way to diversified discussions, with the aim of trying to bring greater clarity on what it means to make music using AI today. The case study analyzed concerns the experimental composition ULTRACHUNK, for voice and AI, by the composer Jennifer Walshe, which allows us to convene reflections on the philosophical theories of posthumanism and apply them to the musical world.

Marco Matteo Markidis – Mediation Process in a Computer Music interpretation: an Ecosystemic Approach
This paper presents an interpretation of Audible Ecosystemics no. 3a, a piece for solo live electronics by Agostino Di Scipio. The project implements the digital signal processes transcribed in the score to realize the piece in an audio synthesis environment, independently from the original computing environment. The work consists of two parts: (1) an implementation phase based only on schemes and scores written by the composer and (2) a second phase of direct testing with the original audio synthesis environment. Finally, the project aims to execute this version in a concert and to distribute implemented libraries.

Barbara Grosso and Andrea Valle – Sonification of Edoardo Sanguineti's poems
Edoardo Sanguineti's poems are characterized by a very idiosyncratic style, which includes not only aural but also visual features, as poems show peculiar structures, sound repetitions, extra- and multi- alphabetical components, and multilingualism.
The paper introduces a sonification system that allows the parallel display of these stylistic aspects. After identifying a corpus of 20 poems representative of the aforementioned features, a preliminary design step (which includes scenario analysis, task analysis and data analysis) has led to a sonification scheme in which each single character is associated with a sound, in particular an earcon.
In the sonification algorithm, the text is processed linearly and values for sound parameters are retrieved for each character so to generate an earcon stream based on different synthesis techniques. We discuss implementation in SuperCollider and introduce a graphical interface, which enables playback management and parameter control, so that the features of each poem can be explored interactively.

Giovanni Sparano – Software di supporto all'esecuzione musicale in MiraWeb: due casi di studio
The paper describes the implementation and the operating instructions of software tools that support musical performance, designed in Max/MSP with the aid of MiraWeb. These tools have dynamic graphic interfaces, updated in real time, and are served over the network to the performers. The software are developed as client-server systems based on websocket technology. Two case studies are presented, concerning the digital adaptations of the scores and the creation of the performance instructions for Variations II by John Cage, and Frame by the author. Both of them are for variable ensembles. The software are open source and distributed freely, upon request to the author, under the CC BY-NC-SA 4.0 license.

Davide Commone – Manifold Voyager, Itinerario sperimentale tra forme musicali ricorsive
This paper briefly presents the compositional method used for creating a piece for trombone trio, fixed media, and live electronics. It also discusses the musical, scientific, and technological inspirations that contributed to the composition. The work is proposed as a musical experiment, aiming to formulate a compositional method where sound distribution over time is managed by an algorithm. This algorithm, drawing from data extracted from soundscapes recordings and employing recursive procedures, generates a grid of instructions on how to arrange musical materials over time. The focus on diverse thematic areas – such as music theory, the study of soundscapes, and information theory – primarily arises from three different suggestions: the influences of repetition

and transformation in Steve Reich's musical production, studies linking soundscapes to their musical properties, notably those by Murray Schafer, and research on information theory and formal logic in relation to certain artistic production, as conducted by cognitive and computer scientist Douglas Richard Hofstadter.

Giuseppe de Benedittis – Partiture di Voltaggio, Metodo di notazione per sintetizzatore modulare
The reproducibility of a musical work, in the absence of the author or the machines/instruments on which it was con- cepted, but especially its notation, are two problems in electroacoustic music. Over the years, musicologists, performers, and composers have addressed these issues but have failed to reach agreement on a common system. This is mainly due to the willingness and interest of the composer to have his or her work performed but also to the use of specific instruments, which are often difficult to access and for which there is no codified writing system to define parameter values over time. Therefore, it is not difficult to be faced with the creation of personal forms of notation that very often are not easy to interpret or too sketchy.
Through observation and comparison of the work done in this regard by great artists, a method of notation for modular synthesizers through the use of voltage control (CV) is proposed here.

Alexandrina Bargan, Maximiliano Romero and Simone Spagnol – Studio di un'interfaccia musicale per pazienti con demenza di Alzheimer lieve
Non-pharmacological therapies currently represent the set of interventions that focus on the well-being and quality of life of people with cognitive impairment, in particular those affected by Alzheimer's dementia. Among the most common interventions is music therapy, whose benefits - that can be seen starting from the initial phase of the disease - are the maintenance and enhancement of those skills that are still present. Within this context, the objective of the article is to describe the process that led to the (still ongoing) development of an interface to create frequent opportunities for musical activity, even outside of purely therapeutic sessions. It is equipped with a series of interactive handles through which participants, in the presence of professionals or volunteers, can control the playback of musical tracks and soundscapes with high gestural freedom.

Daniel Scorranese – Riproposizione digitale di uno strumento pionieristico. Digital Morphophone Environment
This paper introduces a digital rendering of the morphophone, a complex magnetophonic device (tape loop delay) developed in the 1950s within the laboratories of the GRM (Groupe de Recherches Musicales) in Paris. The analysis, design and implementation methodologies underlying the Digital Morphophone Environment are discussed. Through a detailed analysis of historical sources and available documentation, including a limited amount of literature and mostly repertory images, the essential processes of morphophone were modeled in the Max visual programming environment. The goals for this include, on the one hand, the opportunity to study and make available a now obsolete, no longer available tool and, on the other hand, the opportunity for possible explorations in computer music and research.

Costantino Rizzuti and Fabrizio Rizzuti – Controllo remoto via OSC di un prototipo di synth basato su Raspberry Pi
SynthBerry Pi is the prototype of a standalone synthesizer based on the Raspberry Pi mini computer and the Pure Data development environment. The prototype is equipped with a control surface made up of eight potentiometers connected to the computer which allow to change in real time

the parameters of the sound generation processes. Furthermore, by sending Open Sound Control (OSC) messages over a wireless network, the Pure Data patches can be controlled remotely also using mobile devices such as tablets or smartphones.

Riccardo Ancona – Una prospettiva critica sui dataset per la sintesi text-to-audio
Text-to-audio synthesis (TTA) promises sound generation mediated solely by natural language. Like all generative deep learning techniques, it derives its world memory and semantic boundaries from the dataset with which it is trained. Following a humanistic tradition of critical algorithm analysis, this article examines the datasets employed by various text-to-audio synthesis models and how they are designed and manipulated by researchers. Datasets are not inert informational structures, but socio-technical objects involving specific symbolisations mediated by cultural, political, and industrial perspectives. A comparative study of label datasets, caption datasets, and algorithmically augmented datasets reveals the technical and ethical limitations associated with a quantitative approach to data collection. In contrast to a purely computational dataset evaluation paradigm, a qualitative analysis methodology is proposed to interpret the connotative capability of models and suggest alternative practices in the collection of information.

Leonardo Gabrielli – Considerazioni su VCV Rack come piattaforma didattica per l'ingegnere e il musicista
Academic institutions teaching subjects like digital sound processing are small in number and take different approaches depending on the type of training required: from engineering to electroacoustic music composition. Nevertheless, the variety of languages and software platforms useful for teaching is extremely diverse, making it difficult for the teacher preparing new teaching materials to choose. This article discusses the potential adoption of a relatively recent software, VCV Rack, as a tool that can serve a good number of different educational contexts. Rack is an open-source software developed by VCV that emulates a Eurorack modular system where users can load plugins written in C++ in addition to those provided by the community. Programming such plugins is ideal for engineers who want to delve into DSP module programming, while the presence of a modular workspace makes the software suitable for musical improvisation, synthesis, and random composition. Some of the author's experiences are reported along with suggestions and an overview of the advantages and disadvantages.

Andrea Gulli, Federico Fontana, Hanna Järveläinen and Michele Geronazzo – A mobile game app for adaptive assessment of pitch discrimination in children with different hearing ability
Recent advancements in audiological testing and rehabilitation prioritize utmost personalization and minimal stress in patients, especially the young ones. Hearing health assessments integrate innovative approaches, emphasizing ecological listening scenarios and patient engagement. Driven by these principles, a mobile application tailored for pitch discrimination in children has been designed. The app implements intuitive game mechanics with a captivating graphical interface and harnesses machine-learning algorithms to adapt sound pressure levels to individual comfort levels. It utilizes simple yet effective acoustic stimuli obtained from second-order digital resonators, ensuring a more ecological approach. The pitch discrimination threshold is obtained with adaptive psychometric techniques to guarantee reliable and faster measurements. Preliminary qualitative evaluations involving normal hearing and single-sided deaf with cochlear implant children yield promising outcomes. The resulting perceptual thresholds align with established literature, envisioning the app's efficacy in delivering accurate assessments. The presented tool paves the

way for the use of gameplay in young hearing-impaired individuals' rehabilitation after treatment with cochlear implants.

Alessandro Anatrini – WavePilot: framework multidimensionale per l'esplorazione dello spazio parametrico di strumenti digitali
The increasing spread of deep learning techniques for multimedia content generation has opened new possibilities in sonic and visual exploration and human-computer interaction (HCI). In this context, I present WavePilot, a framework designed to facilitate the exploration and manipulation of Digital Multimedia Instrument (DMmI) parameters. WavePilot employs a Variational Autoencoder (VAE) to translate the values of one or more DMmIs into a multidimensional representation of their parameter space. The primary goal is to enhance interaction by providing the user with a high-level graphical user interface (GUI) in the form of a navigable virtual space, simplifying the programming of DMmIs. Unlike more conventional approaches that are limited to the multidimensional representation of a Digital Music Instrument's (DMI) timbral space and rely on analyzing the perceptual characteristics of audio, this approach focuses exclusively on parametric values to offer an immediate visual representation context, agnostic to the type of devices applied, be they audio generators, video generators, or effects.
This approach aims to stimulate critical reflection among various stakeholders in the musical and technological fields, such as musicians, researchers, developers, and designers. The focus is on rethinking interaction modalities with artistic material in light of the new possibilities offered by AI-based devices. This paper provides the motivations behind the development of WavePilot, along with an analysis of its architecture and usage methods.

Angelica Speroni and Alessandro Bile – Il potere dell'intermedialità nella creazione della memoria artistica: il caso di enigma 33 di Lucia Romualdi
In the contemporary arts scene, intermediality is the fundamental concept that constitutes the very fabric of works. Intermediality, understood as an artistic meto- dology that dialectically involves different expressive languages, not only dissolves traditional boundaries between disciplines, but also acts as a po- tential catalyst for memory. In this context, Lucia Romualdi's work stands out for its ability to weave together musical, visual, and conceptual elements, resulting in works that transcend the conventional boundaries of art by creating a memory in the viewers. This talk aims to explore the power of intermediality in the construction of arti- stic memory, focusing on the eloquent example of enigma 33, the artist's latest work.
This is presented as a contemporary epic, an enchanted fable written in captivity in the Nazi camps that unravels through the meanders of historical memory and imagination, an installation to which the projected images, Claudio Jacomucci's spatialized accordion and Franco Mazzi's narrator's voice contribute. The very fact that it is conceived as an interme- dial work determines its structuring as memory, and for it to survive its intermedial quality will have to be preserved.
Similarly, biological mnemonic processes construct memories by relating different districts of memory, and where their communication is prevented the created memory is lost.

Claudia Rinaldi and Marco Pennese – A Pierre. Dell'azzurro silenzio, inquietum (1985). Analisi Formale
This study provides a formal analysis of the piece "A Pierre. Dell'azzurro silenzio, inquietum" composed by Luigi Nono in 1985, which stands as an emblematic work within the electroacoustic tradition. Employing an interdisciplinary approach that integrates attentive listening with score

analysis, we delve into the sonic layers and formal structures that characterize this composition. Additionally, we contextualize the work within the history and aesthetic evolution of the composer, focusing on his later works to grasp the creative context and influences that have shaped this masterpiece.

Abstract dei lavori musicali/Musical Works Abstract

Concerto inaugurale/Inaugural Concert (September 30th 2024)

Karlheinz Stockhausen, Klavierstücke I-IV (1952-53)
Roberto Doati, Studi I-IV (2021)
Karlheinz Stockhausen, Klavierstück V (1954)
Roberto Doati, Studio V (2020)
Karlheinz Stockhausen, Klavierstück VI (1955-1961)
Roberto Doati, Studio VI (2021)
Karlheinz Stockhausen, Klavierstück VII (1954)
Roberto Doati, Studio VII (2021)
Karlheinz Stockhausen, Klavierstück VIII (1954)
Roberto Doati, Studio VIII (2021)
per pianoforte e elettronica
Ciro Longobardi pianoforte, Roberto Doati elettronica
I Klavierstücke I-VIII di Karlheinz Stockhausen ruotano intorno all'esperienza elettronica degli Elektronische Studie I e II. Se i Klavierstücke I-IV (1952-53, dedicati a Marcelle Mercenier) rappresentano una sorta di schizzo dei pezzi elettronici che verranno, i Klavierstücke V-VIII (1954-55, dedicati a David Tudor) rivelano una nuova attenzione al fattore temporale che nel contempo 'dilata' la forma secondo "criteri statistici" e consente all'autore di costruire timbri diversi (quasi in competizione con quelli elettronici su cui aveva lavorato per 18 mesi) che emergono dal costante uso di risonanze prodotte dalla pressione silenziosa dei tasti. Inoltre le due serie rappresentano il passaggio dal serialismo integrale al controllo aleatorio delle strutture, dalla musica per 'punti' (Punkte) alla musica per 'gruppi' (Gruppen). Nella nostra esecuzione, la serie V-VIII verrà amplificata secondo le indicazioni dello stesso Stockhausen che voleva 'immergere' l'ascoltatore nelle risonanze dello strumento. Gli Studi elettronici I-VIII di Roberto Doati prendono ispirazione dai Klavierstücke I-VIII. L'autore ha voluto ricreare il suono elettronico degli anni '50: nella sua morfologia principale tanto simile a quella dei suoni di pianoforte (dovuta a tagli netti del nastro magnetico) e nel suo 'colore' ottenuto anche grazie alla convoluzione con la risposta all'impulso del riverbero a piastra EMT 140, quello usato da Stockhausen per Kontakte. Ogni studio adotta generazioni spettrali e articolazioni diverse in una sorta di 'mala copiatura' dei Klavierstücke, ma sempre concependo ogni suono come una momentform la cui durata e istante di inizio siano imprevedibili, ed entro cui talvolta è possibile sentire l'eco appena accennata di una composizione strumentale.

Concerto/Concert I (October 1st 2024)

Arazzi Laptop Ensemble (Luca Richelli, Giovanni Sparano, Julian Scordato, Paolo Zavagna) – All vivid noise (2023, rev. 2024)
per organico variabile di strumenti acustici e laptop
Lorenzo Di Marco flauto, Alessandro Mazzacane violoncello, Daniele Nava pianoforte
Il brano presentato, per organico variabile di strumenti acustici e laptop, è un omaggio ad Alvise Vidolin. Le lettere del titolo vengono utilizzate come dispositivo generatore di materiali e articolazioni sonore nel tempo, principalmente attraverso permutazioni di lettere/note componenti il nome. Si tratta di una realtime composition che si sviluppa e realizza nel momento dell'esecuzione grazie a una partitura grafica generativa. Quest'ultima viene poi tradotta sia in notazione per tutti gli esecutori, sia in dati di controllo liberamente interpretabili dagli esecutori ai laptop.

Stefano Catena – Travelling Without Moving (2023)
per fixed media
"Travelling Without Moving" is a journey in acousmatic composed spaces and environments, from granular rainy textures, to sonic trajectories circling around the listener. The concepts of "journey" and "motion" are investigated musically: the experience "moves" between soundscapes, leading to always-changing sonic worlds, both from the spectral and spatial perspectives. The piece was composed during a residency at the Royal College of Music in Stockholm, and most of the atmospheres are inspired by the acoustic experiences I had during my stay in the city. More importantly, the spatial component of the music is paramount, as the piece was composed for the 29.4 partial dome system hosted in Lilla Salen.

Luca Spanedda – Riti: room is the instrument (2023)
per live electronics
Questo brano si basa su un sistema complesso in grado di manifestare comportamenti emergenti e caotici, dove la personalità acustica di un ambiente (digitale o fisico) diviene oggetto di studio per la performance e viene riflessa in termini di variazione del comportamento del sistema stesso. La prima versione del brano è stata concepita durante il periodo di Laurea Biennale al Conservatorio Santa Cecilia di Roma. Il sistema è costruito utilizzando delle soluzioni di equazioni differenziali di sistemi caotici (L'Attrattore di Lorenz, L'oscillatore di Duffing) come motore di sintesi del suono, opportunamente influenzate da banchi di filtri che hanno il compito di simulare tramite un approccio di modellazione acustica, permettendo nella performance il manifestarsi di risonanze modali che ricordino il suono uno strumento musicale (o altro). Nella versione qui presentata, l'analisi di alcune note di violoncello viene utilizzata per influenzare degli oscillatori forzati di Duffing, i cui parametri sono modificati in tempo reale dall'esecutore che ne esplora le transizioni fra le risonanze modali dello strumento e la soglia del caos. L'idea dell'acronimo RITI evoca l'articolo "Sound is the interface" (SITI) di Agostino Di Scipio, che presenta una prospettiva musicale con capacità di un sistema di autoosservarsi tramite l'ambiente circostante

Totaleee (Andrea Laudante, Paolo Montella, Giuseppe Pisano) – Non è un compendio di etologia numerico-digitale (2023)
per fixed media
In this work we wanted to challenge the idea that acousmatic music composition is an individual activity. We decided to act collectively, to share practices and tools, to let our respective works and sounds influence each other, and to find solutions that would otherwise be unexpected. The work was carried out first remotely then the final composition and spatial mixing process was done in a multichannel studio with a 24-loudspeaker dome.

Agostino Di Scipio – Audible Ecosystemics n. 3a (2003) / realizzazione di Marco Matteo Markidis (2024)
per live electronics
Audible Ecosystemics n. 3a explores the structural relationships that intervene between a digital signal processor, an electroacoustic chain composed of an analog mixer, condenser microphones, and loudspeakers, and the environment, understood as the set of acoustic space, electronic interpreter, and audience. And the sonic material that such an environment creates during the execution. Indeed, this composition uses the background noise of the environment and amplifies it, distorts it, and creates sonic movements and polyphonies while trying to regulate and auto-regulate

its dynamics, growth, and, finally, its own annihilation. This new version realized in Pure Data programming language is an original attempt to create a realization starting directly from the score provided by the composer and to finally have a version that behaves systematically as the score expects but keeps its distinct behavior of its own, new version, untied from the original one. Indeed, the version does not try to replicate the exact behavior of the original implementation, but it tries to have an its own original identity, within its characteristics and peculiarity.
Audible Ecosystemics n. 3a is a piece for solo live electronics, the third one of the series Audible Ecosystemics, that the Italian composer Agostino Di Scipio wrote dating from the beginning of the 2000s. This version, entirely written in Pure Data, aims to create a new version of such a piece, while mediating between the score, a confront with the original environment, when needed, and the actual environment.

Stefano Mancuso – 3 Haiku [Omaggio a Matsuo Bashō] (2024)
per violoncello e live electronics
Alessandro Mazzacane, violoncello
Il lavoro è suddiviso in tre sezioni, ciascuna relativa ad un diverso componimento del poeta giapponese Matsuo Bashō (1644 – 1694). Nell'ottica del tema "Memorie Proiettive", l'incredibile attualità della filosofia zen che permea i componimenti citati suggerisce la possibilità di sperimentare paesaggi sonori creati attraverso la trasmutazione in tempo reale del suono del violoncello, nel piano temporale, frequenziale e spaziale. Il lavoro è suddiviso in tre sezioni, ciascuna relativa ad un diverso componimento.
Le nubi di tanto in tanto ci danno riposo mentre guardiamo la luna:
La melodia eseguita viene scomposta e ricomposta in vari strati, sovrapponendosi al suono naturale del violoncello, concetto che si lega al dualismo tipico della filosofia orientale.
L'allodola canta per tutto il giorno ed il giorno non è lungo abbastanza:
Metafora della vita, il violoncello esegue frammenti melodici di carattere ripetitivo, sempre più energicamente e velocemente fino a raggiungere un apice, dal quale inesorabilmente rallenta la sua corsa ammirando i frutti della sua vita, i grani accumulati nel corso dell'esecuzione.
Tracce d'un sogno di guerrieri nell'erba d'estate:
Il violoncellista recita un proverbio samurai, un canto di guerra. Queste parole riecheggiano in un ambiente dapprima instabile, ma etereo, attraverso l'uso di un vocoder. Il tappeto generato tende via via a stabilizzarsi su rapporti stabili, perturbato dalla melodia del violoncello trasmutata in tempo reale. Ciò che resta nel tempo del canto dei guerrieri è solo erba estiva.

Riccardo Tesorini – HyperReal (2021)
per fixed media
A light beating of wings, from which microcosms, very distant worlds, abrupt tugs spring up like a domino effect. Temporary windows, silences and brutal sound walls.
Excruciating screams that rip and tear until they find an unexpected peace. Writhing in a thousand folds, until it settles placidly in a teeming magma. Until it goes out among lapilli of light.

Nicola Casetta – Waking cloud (2024)
per live electronics
Dynamically controlled feedback systems for solo live electronics
"Waking Cloud" is a dynamic live-set performance, centering on intricate internal feedback processes. The piece unfolds through a series of meticulously curated feedback states, offering a delicate

balance between controlled parameters and improvisational freedom. Its temporal evolution is characterized by a remarkable flexibility, capable of seamlessly adapting to the unique dynamics of each performance setting. The title of the performance, “Waking Cloud”, draws inspiration from James Joyce's seminal work, “Finnegans Wake”. In Joyce's novel, time experiences a feedback state, reflecting the cyclical and recursive nature of human experience. The title alludes to this theme of temporal feedback, suggesting a parallel between the fluid, ever-shifting nature of time in Joyce's narrative and the dynamic, flexible temporal development of the performance. "Waking Cloud” aims to create an immersive sonic experience where time itself becomes a fluid and malleable element, shaped by intricate feedback processes and improvisational exploration.

Lidia Zielinska – Insektarion (2024)
per fixed media
“Insektarion” is a piece about Wroclaw - one of the biggest cities in Poland. “My” Wroclaw is not so much the city’s audiosphere, but rather a mental sketch of memory. The work established anew the atmosphere, sound logos, symbols and sonic emblems recalling different situations and people in Wroclaw. I used a field recordings made by myself and from the archive of the Laboratory of the University of Wroclaw.

Jacopo Cenni – H U N T (2022)
teatro sonoro per performer e lampade a incandescenza
La specie umana cerca da sempre di comprendere la complessità del mondo in cui vive.
Creando strumenti d'analisi sempre più sofisticati è arrivata a ottenere risposte via via più rigorose.
Nonostante ciò, non è mai riuscita a catturare la luce che va cercando.
HUNT parla dell'incessante ricerca della Verità. La performance prevede due personaggi sul palco: il performer, che impersona l'Umano, e una serie di lampade a incandescenza, che rappresentano il concetto di Verità.
Al centro del palco il performer sta in piedi, immobile, nell'oscurità quasi totale. Inizia a esplorare lo spazio che lo circonda, sperimentando con gli strumenti a sua disposizione. Acquisisce confidenza, ma presto perde il controllo delle sue azioni: questo eccesso innesca la luce, della quale inizialmente ha paura, ma che successivamente lo incuriosisce.
L'oscillazione tra il dominio dell'Umano e la perdita di controllo sulla luce determina lo sviluppo della performance, mettendone in evidenza la caparbietà e la crescente frustrazione. Gli stati d'animo dell'Umano, in cui si alternano egomania e stati di delirio, sono amplificati dal suono. Quest'ultimo, inoltre, rende evidente la relazione cacciatore- preda tra i due personaggi, delineando due identità sonore distinte, rispettivamente concreta e sintetica, materica e astratta.
L'utilizzo di tecniche di spazializzazione del suono immersive ribalta la fruizione dello spettatore, collocando quest'ultimo al centro dell'esperienza e trasformandolo nell'oggetto stesso dell'opera.
L'autore si propone di ricostruire l'inesauribile sete umana di conoscenza attraverso materiali teatrali e musicali, allestendo una performance di teatro sonoro sempre più tesa e disperata.

Concerto/Concert II (October 2nd 2024)

Paolo Montella – Cairo backwards (2023)
per fixed media
On the Muqattam hill of Cairo, we believed we had discovered an ideal spot to experience the call to Fajr prayer, the dawn adhan. From the rooftop of the Arab Foundation for Digital Expression, the day before, we had marveled at a breathtaking view of the city, and the acoustics seemed

promising. However, upon ascending to the rooftop, we find something unexpected. A low, resonant and rumbling hum from an air conditioner would have accompanied our descent into the field where 300 minarets would echo their own psalmody.
Even when lacking a poetic breath, a narrative is always a subjective representation of the world. Consequently, a representation of the world in the form of art shifts reality from a plane of absolute integrity and adherence to itself to a metaphorical and symbolic plane. In the context of Field Recording, this composition analyzes the ritual of field recordings as a completed process that forces us to endlessly vary the discrete representation of a continuous appearance. Through the recorder as a medium, we are willing to perceive it as a musical paradigm that dictates its syntax, connections, and structural functions. The composition also introduces possible developments on the role that the electroacoustic composer plays in this poiethics and on the political implications that derive from the degree of adherence to the reality of this specific world construction.
This composition almost exclusively of recordings made in Cairo during the month of February 2023, using only the Zoom H2n recorder.

João Pedro Oliveira – Singularity (2019)
per violoncello e fixed media
Alessandro Mazzacane, violoncello
A singularity is a phenomenon that relates to several areas of knowledge. In cosmology, the singularity lies at the center of a black hole (resulting from a collapsing star), where matter compresses into an unimaginably small region whose density becomes infinite. Everything that passes within a certain proximity of a singularity will be inexorably attracted and can never escape this attraction. This piece operates with very heavy densities in the electronics part in opposition to the instrument. The instrument tries continually (and without success) to escape the weight and force transmitted by the electronics.

Antonio Forastiero – Animated grains / Reflections (2023)
per fixed media
Animated grains is a compositional experience that starts from the electronic processing of sound events obtained by manipulating small mechanical games. Sounds related to movement and rotation are processed and combined in particular sound combinations capable of generating a particularly dynamic sound result. A timbral exploration that leads to the development of complex and articulated sound situations, rich in sound elements of different nature, linked to sensations of temporal and spatial movement.
Reflections is an electro-acoustic work in which undefined reverberated sound spaces develop, contrasted by non-reverberated dynamic sound situations. Within this environment, recurring sound elements, subject to multiple reflections, through different levels of reverberation, recreate particular multidimensional and variable sound interweaving, giving life to a continuous exchange between movement and stillness.

Ekaterina Khmelevskaya – East West Jungle Disco (2023)
per flauto ed electronics
Lorenzo Di Marco, flauto
The piece reveals the nature of an ancient musical instrument. The voices of flutes from different parts of the planet combine in a driving and slightly mystical dance cocktail.

The piece is a kind of an open score inviting the performer to collaborate with the composer. The piece consists of a live performance and a fixed soundtrack. The performer can play solo or in an ensemble (1-4 performers are possible). The performer plays several instruments of the flute family. It is preferable to use not only an alto flute and piccolo, but also ethnic varieties of flutes. The performer independently determines which fragments from the score and which instruments he will play. The rest of the parts of the score must be pre-recorded by the performer, or it is possible to use a ready-made soundtrack provided by the composer.
The soundtrack was created in stereo format. The performance requires microphone amplification of the flute and signal processing using hall and delay effects.

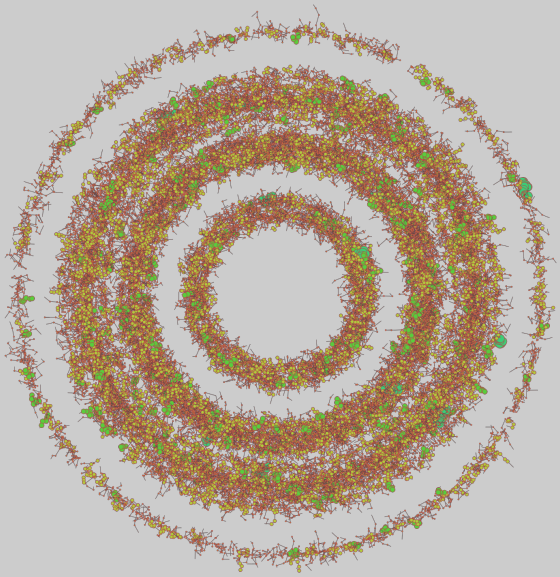
Andrea Laudante – 12th perception of Prakṛti (2023)
per fixed media
This piece is the 12th piece of the series "Perceptions of Prakṛti", a work in which I explore repetition and randomness.The 12th perception of Prakṛti was composed using samples from the instruments of Productions Totem Contemporain in Montreal, Quebec.

Aurés Moussong – Abîmes de Motashem* (2016)
per violoncello e fixed media
Alessandro Mazzacane, violoncello
Composition for cello and tape, which is the result of a process of hybridization and exchange of particles, explored through the "composition in abyss", an artistic or literary technique in which an element within a work represents the entire work or contains repeated versions of itself in a recursive structure, like a miniature universe found within the same creative work. One of the most extraordinary representations of this phenomenon is found in the dreamlike carpets of Kashan, a region in Iran where Motashem Kashan carpets are manufactured, named after the 16th-century Persian poet.
The electronics are primarily made with samples of Iranian cello, setar, and santoor, the latter two performed and recorded by the composer. These samples were processed and transformed to create various sonic dimensions and a narrative within the tape that engages and interacts with the soloist.

Antonio Scarcia – Grainstone (2010)
per fixed media
Grainstone è un lavoro che si snoda attraverso un approccio integrato di composizione e microcomposizione, mediante tecniche di sintesi basate sul campionamento e sul trattamento dei materiali sonori nei domini del tempo e della frequenza applicate a combinazione di gesti tesi ad articolare una contrapposizione tra classi di suono visti come antagonisti. La realizzazione, con tecniche che richiamano quelle del classico tape studio in chiave digitale, è il risultato di un processo che ha integrato Common Music ed elaborazione tramite Supercollider.

Andrea Fabris e Chiara Vitofrancesco – Dimora inquieta (2023)
per grancassa, live electronics e live video
DIMORA INQUIETA nasce dallo studio del concetto di alterazione dell'immaginazione dovuta allo stato di deprivazione sensoriale in una condizione di isolamento. Ciò causa la caduta della reattività dei sensi e aberrazioni
percettive. La monotonia degli stimoli in una condizione di isolamento porta alla perdita dei punti di riferimento rendendoci vulnerabili al desiderio di simulazione di quel qualcosa che non

è disponibile nell'ambiente impoverito in cui siamo, come accade ai marinai che in balia del mare, percepiscono cose altre. È un progetto in duo di Andrea Fabris (Grancassa e Live Electronics) e Chiara Vitofrancesco (VJ) derivato da azioni audiovisive che nascono dall'incontro di due discipline ad oggi complementari: musica post acusmatica e la videoarte che trovano terreno comune nella pratica dell'improvvisazione. È espressione di potenziale immaginifico che ha lo scopo di tenere insieme vari mondi e mostrare le connessioni tra essi: i due performer si pongono in una reciproca posizione di ascolto allo scopo di rispondere e mettere l'altro nella condizione di reagire creando un andamento dinamico, un corpo/forma impermeabile come luogo di scambio continuo, inquieto, mai stabile in uno solo dei due ambiti.
In tale luogo la realtà viene descritta attraverso l'intensità gestuale generata dagli strumenti adoperati dai due performer.



Memorie proiettive/Projecting Memories

Atti del XXIV Colloquio di Informatica Musicale
Proceedings of the XXIV Colloquium on Music Informatics

ISBN: 978-8-89034-137-3