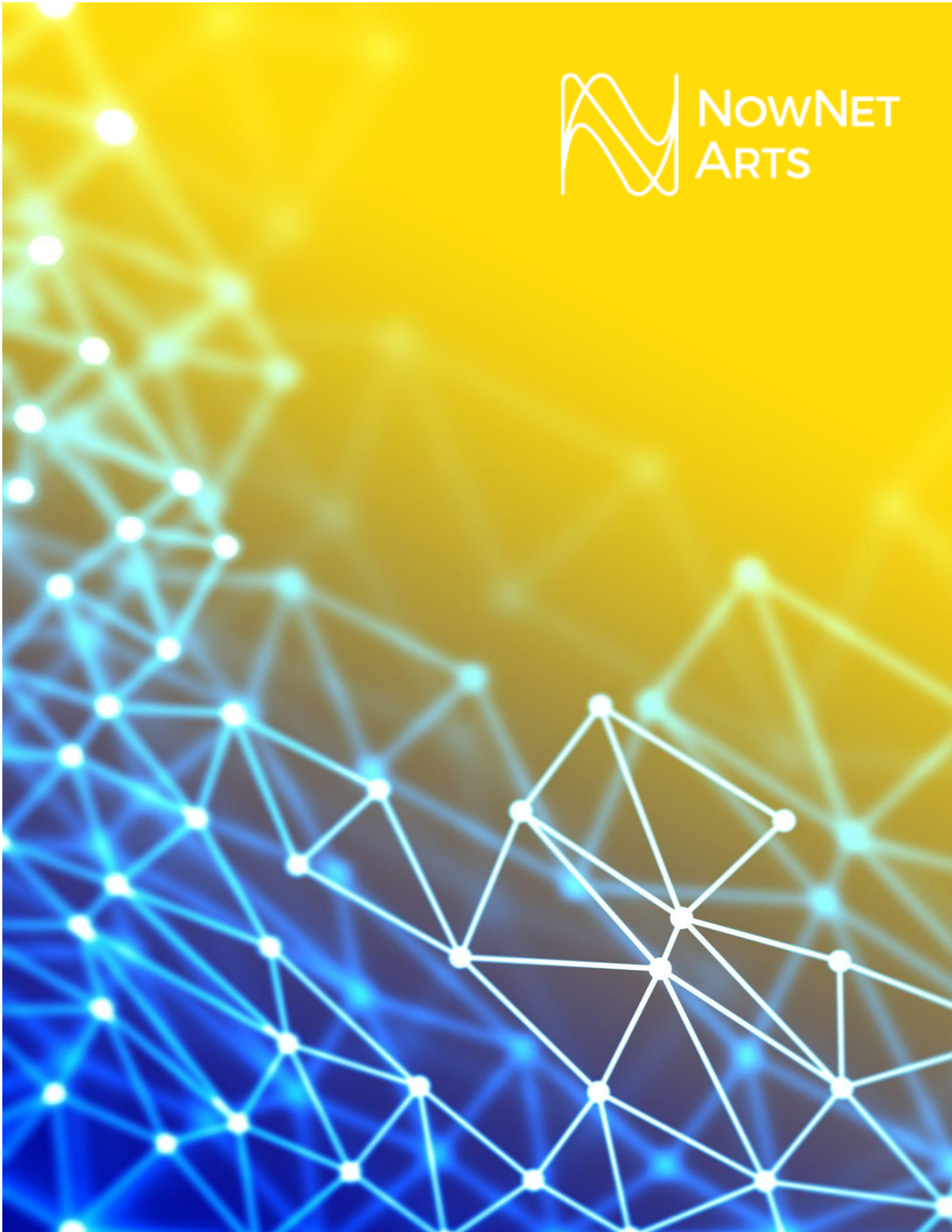


The logo for NOWNET ARTS features a stylized, white, abstract letter 'N' on the left, composed of several overlapping, curved lines. To the right of this symbol, the words 'NOWNET' and 'ARTS' are stacked vertically in a clean, white, sans-serif font.

NOWNET
ARTS



NOWNET ARTS CONFERENCE 2022

Network Arts Stage: Artistic, Technological, and Social Strategies

October 31 - November 6, 2022 (Eastern Daylight Time Zone)

NowNet Arts Conference is an annual event for artists, technologists, researchers, educators, and industry professionals advancing topics in contemporary network arts for the ongoing development of the field. The Network Arts Stage for hybrid and virtual work opens strategies for artistic aspects of creation and performance, technological platforms for transmission of the medium, and societal connection for topics including peace-building, the environment, and diversity. How has network arts artistic work developed during these times of increased activity and adaptation? What is the artistic history of the medium, what is its place in contemporary arts, and what are the long term artistic visions? What are the states of the technological platforms and how can they be further built comprehensively for audio, video, streaming, and recording in hybrid and virtual settings? What are the capacities of network arts to transcend boundaries for peace-building, to inspire action for environmental harmony, to transform the digital divide, and to address inclusion, diversity, equity, and access? The NowNet Arts Conference 2022 presents papers, workshops, presentations, and concert demonstrations that feature this topic and generate new innovations for this work forward.

PRIMARY SITE

Institute for Advanced Computational Science (IACS), Stony Brook University, New York, USA

SATELLITE SITES

Center for Computer Research in Music and Acoustics (CCRMA), Stanford University, California, USA

LASALLE College of the Arts, Singapore

The University of Melbourne, Australia

Orpheus Institute, Ghent, Belgium

The Peabody Institute of the Johns Hopkins University, Maryland, USA

Zurich University of the Arts, Switzerland

CONFERENCE COMMITTEE

Director: Sarah Weaver, NowNet Arts

Chris Chafe, Stanford University

Margaret Schedel, Stony Brook University

NOWNET ARTS CONTACT

info@nownetarts.org

<https://nownetarts.org/nownet-arts-conference-2022>

NOWNET ARTS CONFERENCE 2022

Network Arts Stage: Artistic, Technological, and Social Strategies

October 31 - November 6, 2022

DAILY SCHEDULE

MONDAY OCTOBER 31

12:00PM Concert Demonstration: Osmosis Set 1

Matthias Ziegler, Patrick Müller, and Team, Zurich University of the Arts

Moderator: Chris Chafe, Stanford University

12:30PM Concert Demonstration: Osmosis Set 2

Matthias Ziegler, Patrick Müller, and Team, Zurich University of the Arts

Moderator: Chris Chafe, Stanford University

1:00PM Session Discussion: 12:00PM-1:00PM Presenters and Audience

TUESDAY NOVEMBER 1

10:00AM Paper: Synthesis Series: Music of Sarah Weaver and Collaborations (2020-2022)

Sarah Weaver, NowNet Arts

10:30AM Paper: The Entanglement - volumetric music performances in a virtual metaverse environment

Damian Dziwis, TH Cologne, TU Berlin

11:00AM Concert Demonstration: MICRO. Listening to the Micro Practice of Telesonocephalopoda

HannaH Walter, Zurich University of the Arts

12:00PM Panel: Concert Demonstrations Discussion

Matthias Ziegler, Patrick Müller, HannaH Walter, and Team, Zurich University of the Arts

1:00PM Concert Demonstration: Frederic Rzewski / MTT: Second Structure2

Magno Caliman (Brussels, BE) harmonica & synthesizer, Chris Chafe (Soda Springs, CAL, USA)

dilruba, Henrik von Coler (Berlin, DE) electronics, Jonathan Impett (Norwich, UK) trumpet &

electronics, Fernando Lopez-Lezcano (San Carlos, CAL, USA) applesauce modular synthesizer and

electronics, Juan Parra Cancino (Ghent, BE) modular synthesizer, Simon Waters (Belfast, UK)

guitar & electronics, Alistair Zaldua (Manchester, UK) e-violin

2:00PM Session Discussion: 10:00AM-2:00PM Presenters and Audience

(WEDNESDAY NOVEMBER 2: OFF)

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THURSDAY NOVEMBER 3

9:00PM Workshop: JackTrip and a metaverse
Synthia Payne, California

10:00PM Presentation: Getting started with immersive VR music experiences
Ben Loveridge, The University of Melbourne

11:00PM Concert Demonstration: Oscuterium
Michal Seta, D. Andrew Stewart, Dirk Stromberg, LASALLE College of the Arts, Singapore

12:00AM Presentation: Students' Perspectives on Telematic Improvisation Summer School
Brian O'Reilly, Timothy O'Dwyer, Dirk Stromberg, Alexandra Murray-Leslie, Benjamin Burger, Luca Niggli, Various Locations

1:00AM Session Discussion: 9:00PM-1:00AM Presenters and Audience

FRIDAY NOVEMBER 4

12:00PM Concert Demonstration: Breathing with Chaos
Paulo C. Chagas, University of California, Riverside
Cássia Carrascoza Bonfim, University of São Paulo

1:00PM Presentation: Affect and Post-continuity in Music Videos and Telematic Music
Paulo C. Chagas, University of California, Riverside
Cássia Carrascoza Bonfim, University of São Paulo

1:30PM Paper: Low-latency technologies for instrumental music teaching
Ben Redman, Scotland

2:00PM Presentation: Networked Music and an Increase in Cultural Understanding
Dana Kemack Goot, Indiana University-Purdue University

2:30PM Panel: Network Arts Technology
Marc Ainger, Ohio State University
Chris Chafe, Stanford University
Sarah Weaver, NowNet Arts
Moderator: Juan Parra, Orpheus Institute

3:30PM Session Discussion: 12:00PM-3:30PM Presenters and Audience, plus Constantin Basica, Stanford University

(4:30PM-8:00PM Break)

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8:00PM Concert Demonstration: Digital Void

Lynn Baker, Oregon

Conrad Kehn, University of Denver

9:00PM Concert Demonstration: Trio Janela

Cássia Carrascoza Bonfim, University of São Paulo

Viv Corringham, New York

Diane Roblin, Toronto

10:00PM Concert Demonstration: Modality

Charles Nichols, Clark Grant, Ben Weiss, Jay Bruns, Various locations in Montana and Virginia

11:00PM Session Discussion: 8:00PM-11:00PM Presenters and Audience

SATURDAY NOVEMBER 5

12:00PM Concert Demonstration: NowNet Arts Hub

Sarah Weaver, NowNet Arts

Katherine Liberovskaya, Experimental Intermedia

Mike O'Connor, Wisconsin

Various performers and locations

1:00PM Concert Demonstration: P/REPAIRATION

Gloria Damijan, Vienna

Mike O'Connor, Wisconsin

1:30PM Concert Demonstration: Ghost

Anna Pasztor, New York

Ximena Alarcon, United Kingdom

Gloria Damijan, Vienna

Jane Wang, Boston

2:00PM Concert Demonstration: From Elemental Singularities to Unified Complexities

Eric Lemmon, New York

Anne Sophie Andersen, Denmark

3:00PM Concert Demonstration: The Sonic Arts Ensemble

Marc Ainger, Ohio State University

Various performers and locations

4:00PM Concert Demonstration: MA

Amy Melissa Reed, California

Biggi Vinkeloe, Sweden

5:00PM Session Discussion: 12:00PM-5:00PM Presenters and Audience

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Network Arts Stage: Artistic, Technological, and Social Strategies

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SUNDAY NOVEMBER 6

12:00PM Concert Demonstration: Transience

Ensemble Decipher: Joseph Bohigian, Robert Cosgrove, Eric Lemmon, Chelsea Loew, Taylor Long, Niloufar Nourbakhsh, Various locations

1:00PM Concert Demonstration: Ting Luo - piano improvisation and collaboration

Ting Luo, California

Gloria Damijan, Vienna

Levi Lu, Baltimore

2:00PM Presentation: DANCEDEMIC IN A PANDEMIC: A New Networked Reality

Ellen Pearlman, Thoughtworks Arts

3:00PM Session Discussion: 12:00PM-3:00PM Presenters and Audience

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Network Arts Stage: Artistic, Technological, and Social Strategies

October 31 - November 6, 2022

FULL SCHEDULE

MONDAY OCTOBER 31

12:00PM Concert Demonstration: Osmosis Set 1, Set 2

Matthias Ziegler, Patrick Müller, and Team, Zurich University of the Arts

Moderator: Chris Chafe, Stanford University

Generally telematic connections are considered being symmetric settings of two or more spaces connected by internet. In fact asymmetry is the main factor determining the communication between distant locations. «Osmosis» tackles the asymmetric constellations of connected spaces and their impact on performances. Diffusion and absorption are just two of the basic processes of osmotic reactions between the cells of an organism in nature. In the performance of «Osmosis» the virtual space between locations is considered a semipermeable membrane which selectively transmits parameters of a space into another location, allowing elements to change size or speed of gesture as well as other aspects during transition. Osmosis also stands for continuous suggestion and effortless, often unconscious assimilation of performative ideas over internet. A special feature of the project is the live streaming and documentation in the internet. As the entire performance will be executed locally between two rooms at Zurich University of the Arts a new format will be developed exclusively for the live streaming. Between two performances of 20' each, people will switch rooms to get the overall picture of the whole setting.

Matthias Ziegler is one of the world's most versatile and innovative flutists. He is committed both to the traditional literature for flute as well as to contemporary music and concepts that cross the boundaries between classical music and jazz. Accordingly, his performances take place in a vast range of contexts: he was principal flute with the Zurich Chamber Orchestra, has toured with the percussionist Pierre Favre, performed with the pianist George Gruntz as well as with the American contrabass player Mark Dresser. He has been cofounder of the "Collegium Novum Zurich", where he has worked with Mauricio Kagel, Heinz Holliger and George Crumb. Concert tours have brought him to the US, Japan, Australia, South America and Israel. Many recordings on CD document his inclusive musical interests. Matthias Ziegler teaches at the Zurich University of the Arts, where he is involved in a research project of the Swiss National Science Foundation about the Telematic Performance Format. Searching for new sounds he enormously broadened the expressive potential of the traditional flute and the electroacoustically amplified contrabass flute. Amplifying the flute allows him to increase the volume of the microsound structures of the flute to an audible level.
www.matthias-ziegler.ch

1:00PM Session Discussion: 12:00PM-1:00PM Presenters and Audience

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TUESDAY NOVEMBER 1

10:00AM Paper: Synthesis Series: Music of Sarah Weaver and Collaborations (2020-2022)
Sarah Weaver, NowNet Arts

"Synthesis Series" (2020-2022) is a collection of solo, chamber, and large ensemble pieces on contemplative concepts of networked synchrony across realities, transformation of distance, and synthesis activation for healing and transcendence. "Synthesis Series" follows "Synchrony Series" and "Source Series" as sequences of works by Weaver and collaborations since 1998. This essay outlines the technological context of performances, artistic strategies for synthesis, examples from the pieces, and new directions for the work going forward.

Sarah Weaver, Ph.D. is a New York-based contemporary composer, conductor, technologist, educator, and researcher working internationally as a specialist in large ensemble and network arts. Her work innovates contemplative concepts on network, synchrony, synthesis, and interconnection for artistic and social purpose. Weaver has composed solo, chamber, and large ensemble works for groundbreaking musicians for twenty-five years, integrating influences of classical, jazz, world, contemplative, electronic music, and individual music languages of performers. She is an innovator in network arts advancing live performance via the internet by musicians and artists in different geographic locations. Weaver is the Director of NowNet Arts and Sarah Weaver Ensemble, Executive Director of JackTrip Foundation, Editor of the Journal of Network Music and Arts (JONMA), and Faculty of The New School College of Performing Arts.

www.sarahweaver.org

10:30AM Paper: The Entanglement - volumetric music performances in a virtual metaverse environment

Damian Dziwis, TH Colognue, TU Berlin

We present the implementation of a multi-user metaverse environment for telematic concert performances. It uses low-latency, real-time WebRTC-based peer-to-peer (P2P) broadcasting for audiovisual volumetric rendering with binaural spatial audio and 3D video streaming from depth cameras. The system is realized using a web-based framework to implement a platform-independent online multi-user environment compatible with the WebXR standard. The performers', as well as the audience's audio, can be streamed and shared in the environment and is rendered binaurally. In addition, the performers' depth image is streamed from 3D cameras and rendered in the environment as a three-dimensional point cloud. The result is a real-time 6-DoF audiovisual volumetric performance in a virtual 3D world that provides an immersive concert experience. It can be experienced with WebXR compatible devices, whether screen-based on the computer, mobile or on VR and AR systems. The implemented system was developed and evaluated with a first-of-this-kind virtual performance, "The Entanglement."

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Damian T. Dziwis was born 1986 in Chorzów (Poland). The Düsseldorf (Germany) based composer and engineer creates multimedia works with audiovisual generative algorithms, machine learning and live coding. He began his artistic education in instrumental composition under David Graham, followed by electronic composition under Christian Banasik and finalized it with his master studies in electronic composition under Michael Beil in Cologne. Damian's compositions and installations were played and exhibited at various festivals, like the CTM Festival in Berlin, Music Tech Fest Stockholm, inSonic Festival at the ZKM Karlsruhe, Beethoven Fest Bonn, the ACHT BRÜCKEN festival in Cologne, die digitale festival in Düsseldorf, 60x60 Festival in Chicago or the THE WRONG - New Digital Art Biennale. Damian was Artist in Residence at the ZKM Karlsruhe as well as ICST at the Zürcher Hochschule der Künste and participated in various art labs from festivals like the Ars Electronica in Linz, the Gamma Festival in Saint Petersburg, MUTEK Festival Montreal and the PatchXR hackathon at AMAZE festival. Beside his artistic work he has an engineer's degree in media technology, is working as a lecturer for Creative Coding at the Peter Behrens School of Arts (HS Düsseldorf) and is doing a Ph.D. (TH Cologne & TU Berlin) in the field of spatial audio and machine learning for composition practice and immersive media; researching and developing applications for virtual acoustics and art expression which were published at conferences like the AI Music Creativity, Sound and Music Computing, I3DA, AES, DAGA, ICMI and TEI.

11:00AM Concert Demonstration: MICRO. Listening to the Micro Practice of Telesonocephalopoda

HannaH Walter, Zurich University of the Arts

In a timeless present, we are immersed in the fragmented world of sound and experience of a pregnant posthuman being. It is neither reality nor fiction, neither statement nor silence, neither universality nor particularity. The Chimaera is with her unborn children in the singular-plural state and intimate experience of the presence of the Other, the relationship to the unknown, the not-yet of the world. MICRO (Greek μικρός/mikrós 'small', 'close') stands for the small, intimate, sonic micropractices of her unborn children, the imaginary telesonocephalopodes, who intra-act with each other and with their meta-mother in the cyberuterus. Their poésie sonore with matter and microphones is an attempt to make contact with our reality through telematic vibrational spaces and to be in resonance with human or more-than-human actors. MICRO is a telematic concert installation by HannaH Walter and Robert Torche aka. Chimère Électrique for 7 performers in 7 locations becoming through sound and matter connected via the internet. Produced by Collective Mycelium in co-production with the telematic-performance-format group at ZHdK and Ensemble Interface.

I'm a violinist becoming a cyborg, a vyborg. I create formats and fictions in which humans and more-than humans communicate and perform over distance with each other. Sympoietically we explore means of traveling as soundbytes and pixels through telematic space-times. Together with my companion-instrument, the violin, I studied in

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Düsseldorf, Berlin, Frankfurt and Paris. In Switzerland I continued the (trans)formation with my body extension in the Master Program of Contemporary Music (Basel Music Academy) and in the Master in Transdisciplinarity (Zurich University of the Arts, ZHdK). In my becoming with my instrument and sounding environment I was encouraged through scholarships from the Studienstiftung des Deutschen Volkes, the Yehudi Menuhin Live Music Now Association, the Stendal Jütting Foundation, the Oscar and Vera Ritter Foundation, and the Swiss Federal Excellence Scholarship for Foreign Artists, among others. In 2017 we won the second prize at the Concours Nicati, Swiss National Contemporary Music Interpretation Competition. We perform with WeSpoke, Ensemble Vortex, the Solistenensemble Kaleidoskop, Ensemble Musikfabrik or Ensemble Modern at major festivals in Europe. HannaH is a founding member and artistic director of the collective Mycelium. Also they are a member of Ensemble of Nomads and Ensemble Interface. From 2019 - 2021 HannaH is working as a teaching assistant in the Master in Transdisciplinarity (MTR) at ZHdK. Since February 2021 we have a PhD position in the SNF funded project "Spatial Dis/Continuities in Telematic Performances" at ZHdK. We are part of Florian Dombois' PhD group in the Transdisciplinarity research focus and at the Linz University of the Arts. At the MTR HannaH is a research assistant in teaching.

12:00PM Panel: Concert Demonstrations Discussion

Matthias Ziegler, Patrick Müller, HannaH Walter, and Team, Zurich University of the Arts

1:00PM Concert Demonstration: Frederic Rzewski / MTT: Second Structure2

Magno Caliman (Brussels, BE) harmonica & synthesizer, Chris Chafe (Soda Springs, CAL, USA) dilruba, Henrik von Coler (Berlin, DE) electronics, Jonathan Impett (Norwich, UK) trumpet & electronics, Fernando Lopez-Lezcano (San Carlos, CAL, USA) applesauce modular synthesizer and electronics, Juan Parra Cancino (Ghent, BE) modular synthesizer, Simon Waters (Belfast, UK) guitar & electronics, Alistair Zaldua (Manchester, UK) e-violin

Fifty years ago, Frederic Rzewski wrote his Second Structure for Musica Elettronica Viva. In a carefully structured architecture, it uses the tenses of language to explore the boundary between improvised action and compositional thought – a boundary revealed to be as spurious as the notion of ‘present’ itself, here surrounded by near and remote past and future. Rzewski already allows for the use of electronic instruments. Here, we use computer-extended instruments to realise the piece – instruments in which relationships with time are both more flexible and more explicit. Its dimensionality is expanded to include space, mirroring the temporal structures with connections within the telematic performance network.

Jonathan Impett is Director of Research at the Orpheus Institute, Ghent, where he leads the research group Music, Thought and Technology, and Associate Professor at Middlesex University, London. He is active as a composer, trumpet-player, improviser and theorist. His work is concerned with the evolving nature of musical artifacts and practices – the reconfiguration of composition and improvisation, score and code,

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material and virtual, music creation and musicology. His recent monograph on the musical thought of Luigi Nono is the first comprehensive study of the composer's work; a forthcoming book on Critical Technical Practice considers the musical relevance of AI theorist Philip Agre. He continues to perform with The Orchestra of the Eighteenth Century and The Amsterdam Baroque Orchestra, as well as the experimental chamber ensemble Apartment House. A recent CD of his music was released by Attacca Amsterdam.

Juan Parra Cancino studied Composition at the Catholic University of Chile and Sonology at The Royal Conservatoire The Hague (NL), where he obtained his Masters degree with focus on composition and performance of electronic music. In 2014, Juan obtained his PhD degree from Leiden University with his thesis "Multiple Paths: Towards a Performance practice in Computer Music". His work in the field of live electronic music has made him recipient of numerous grants such as NFPK, Prins Bernhard Cultuurfonds and the International Music Council. Founder of The Electronic Hammer, a Computer and Percussion trio and Wiregriot (voice & electronics), he collaborates regularly with Ensemble KLANG (NL) and Hermes (BE), among many others. Since 2009 Parra is a fellow researcher at the Orpheus Institute (Ghent, BE), focused on performance practice in Computer Music. Juan has been recently appointed as Regional Director for Europe of the International Computer Music Association for the period 2022-2026.

2:00PM Session Discussion: 10:00AM-2:00PM Presenters and Audience

THURSDAY NOVEMBER 3

9:00PM Workshop: JackTrip and a metaverse
Synthia Payne, California

Zoom Fatigue is real. Instead of Zoom, JackTrippers can use a VR platform to "see" each other in a different way, while also using JackTrip's concert-quality audio to play music together in real time collaborations with others over the Internet. Synthia will demonstrate how to run a JackTrip session while simultaneously being present as an avatar in a metaverse called, Sinespace. If attendees would like to follow along with Synthia, please refer to the system requirements below.

Materials For Workshop Participants:

- * computer with basic gaming-level resources, i.e. graphics card, quad-core (or more)
- * WIRED ETHERNET CONNECTION
- * Internet upload/download speed of at least 5mbps
- * Download and install two free apps:

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1. JackTrip: [https://github.com/jacktrip/jacktrip/...](https://github.com/jacktrip/jacktrip/)

1b. Windows users also need an ASIO driver. If using an external audio interface, check manufacturer's webpage for ASIO driver download. Otherwise, download from ASIO4ALL.org (be careful to click only on the ASIO4ALL app download - there are a lot of ads.)

2. Sinespace: <https://sine.space/>

Sign up, download and install Sinespace

Synthia Payne began using the JackTrip core application in 2005 and has developed expert-level skills for the setup and operation of a JackTrip studio, including instruction and consultation, and volunteering to help moderate the JackTrip Community Forum. Synthia is a vocalist and improviser and earned an MFA in Digital Arts and New Media from UC Santa Cruz.

10:00PM Presentation: Getting started with immersive VR music experiences

Ben Loveridge, The University of Melbourne

As the field of virtual reality (VR) continues to mature, so too does the potential for creative and immersive musical experiences in the medium. However, of the thousands of applications now available across the various app stores, only a small number of commercially available titles focus on the ability to create musical content. This presentation will provide an overview of the current state of creative VR musical applications and demonstrate their capability for performance as well for teaching and learning.

As the Coordinator of Immersive Media (AR/VR) at The University of Melbourne, Ben assists with the integration of immersive technology through teaching and research. Along with building community among staff and students, his role covers support and consultancy for virtual and augmented reality as well as digital audio, video and virtual production. He is currently a graduate researcher at The University of Melbourne in the Faculty of Fine Arts and Music investigating networked music singing performance in virtual reality. Recent research work includes as an inter-disciplinary team member investigating the Ethics of Biometric Capture in Music Performance through the Centre for Artificial Intelligence and Digital Ethics (CAIDE).

11:00PM Concert Demonstration: Oscuterium

Michal Seta, D. Andrew Stewart, Dirk Stromberg, LASALLE College of the Arts, Singapore

The artists of RedSpills (Seta, Stewart, and Stromberg) embrace new musical instrument technologies (digital lutherie) and how these instruments can be reapplied in performance. They share their music through innovative approaches that engage audiences in both experimental and contemporary mediums involving telematic performances and VR/XR. At the forefront of RedSpills' activities is an interest in improving an integrated technological delivery of distributed live sound performances and 3D imagery. Music performances combine internet infrastructure (e.g., browser-based VR/XR

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landscapes, audio/video transmission protocols) with experimental approaches to sound synthesis (e.g., integration of the Faust programming language into the metaverse).

Michal Seta: I'm a sound artist, improviser and coder (in any order) flirting with various media. I co-founded No One Receiving band with Lorne Shapiro and Hiroya Miura as well as UniSecs, a duet of spoken word and electroacoustic music. As a coder, I fueled works by other artists (and my own) and currently I work as a researcher/developer at SAT's Metalab. I have ventured into interactive art installations with [IR]rationnel, commissioned by the Montreal Science Center and award-winning Re-Collect, shown in North America, Europe and the Middle-East. My short film [*]nScape was selected for the first Drone Cinema Film Festival and was followed by several music releases in fairly rapid succession, mainly on Silent Records label.

<http://djiannot.xyz>

D. Andrew Stewart: D. Andrew Stewart is a composer, pianist and digital musical instrumentalist. A convergence of acoustic and electroacoustic instrumental praxis is at the centre of Stewart's oeuvre. His music is dedicated to exploring composition and performance for new interfaces for musical expression by adapting and evolving traditional praxis. Stewart's work asks whether musical idea - concept, theory, material, technique and means - has kept pace with developments in digital lutherie; furthermore, what are the essential constituents for creating a viable digital instrument for the twenty-first century performer. Stewart has contributed to the field of music technology through his demonstrations at: the International Conference on New Interfaces for Musical Expression, International Computer Music Conference / International Computer Music Association, Electroacoustic Music Studies Network, Electronic Music Foundation, ACM SIGCHI Conference on Human Factors in Computing Systems, Society for Music Theory, and the Guthman Musical Instrument Competition. Andrew Stewart's music has been featured in countries such as: The UK, Netherlands, Switzerland, Czech Republic, Poland, USA, Germany, France, Mexico, Norway, Denmark, Austria, Italy, Korea Republic and his home country of Canada. <http://dandrewstewart.ca>

Dirk Stromberg: Dirk Johan Stromberg is an American music technologist, composer, and improviser. His body of work explores the dynamic interaction between performer, technology and performance practice. Designing both hardware and software has led to the development of a variety of interfaces, synthesis techniques, installation works, electro-acoustic instruments, and interdisciplinary production works and most notably his Phallophone, an electro-acoustic sensor-based instrument. Current projects include a series of presentations and development of his tactile interactive installation "Line Segments" and the collaborative video and movement work "Images of Ascension". His touring has led to a number of performances in Asia, North America and Europe including Moers Festival (Moers Germany), KLEX Festival (Kuala Lumpur, Malaysia), Map Festival (Melaka, Malaysia), Choppa Festival (Singapore), Open Waters Festival (Halifax Canada), Duong Dai Festival (HCMC and Hanoi, Vietnam), M1 Fringe Festival (Singapore) and Dear Himalaya From Chiang Mai (Chiang Mai, Thailand). <https://dirkstromberg.org>

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12:00AM Presentation: Students' Perspectives on Telematic Improvisation Summer School
Brian O'Reilly, Timothy O'Dwyer, Dirk Stromberg, Alexandra Murray-Leslie, Benjamin Burger, Luca Niggli, Various Locations

Shared Campus is a cooperation platform for learning. Students from Hong Kong Baptist University, City University of Hong Kong, Kyoto Sekai University, LASALLE College of the Arts, Taipei National University, University of the Arts London, and Zurich University of the Arts have opportunities to create, learn and explore creative bounds together. In this presentation, students from the 2022 Shared Campus program, "Improvisation Summer School". The 2022 Improvisation Summer School was a collaborative interdisciplinary student-led telematic project based in Zurich University of the Arts, LASALLE College of the Arts and Trondheim Academy of Fine Arts.

1:00AM Session Discussion: 9:00PM-1:00AM Presenters and Audience

FRIDAY NOVEMBER 4

12:00PM Concert Demonstration: Breathing with Chaos
Paulo C. Chagas, University of California, Riverside
Cássia Carrascoza Bonfim, University of São Paulo

Theoretical Background

In the second decade of the 21st century the mindscape and the social world are flooded by flows of unhappiness and violence. Eric Garner uttered the words "I can't breathe" eight times, less and less audible, when the New York City Police Department put him in a chokehold and ultimately killed him. Since then, these words have been chanted by thousands of people all over the world, expressing the general sentiment of physical and psychological breathlessness of our times.

The degradation of the environment and the outbreak of the pandemic made even precarious the condition of the majority of exploited workers, increased poverty, suffering and the pervading fear of violence and aggression. Most recently the outbreak of a military conflict in Europa brings us on the verge of atomic annihilation. The existential feeling of apocalypse roams about our future. As the Italian philosopher Berardi points out, the contemporary condition of breathlessness is fueled by the chaos of financial capitalism and propelled by the technology of information and information (telematics). The acceleration of cyberspace breaks the rhythm of mental time and blurred the boundaries between what is relevant and irrelevant. It establishes the inability to attribute meaning to the flow, which we call "chaos". How to reverse the present condition of chaos? The French psychoanalyst and philosopher Félix Guattari (1995) proposed the term chaosmosis to define the process of rebalancing the osmosis between the mind and chaos. Chaosmosis means breathing with chaos—

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“osmosis” implies breathing together—“but in this osmosis with chaos a new harmony emerges, a new sympathy, a new syntony” (Berardi 2018, 31). Chaosmosis is ultimately an act of poetry escaping the automatism of financial capitalism and technical apparatuses that enable the emergence of a new form of life, the reactivation of the organic body and intellect. It is a quest of rhythm inside the chaos, the re-composition of fragments of noise through a sound that embodies a conscious vibrational intention.

Concert Demonstration

In the NowNet Arts Conference 2022 we would like to present our current research on audiovisual telematic immersion (Chagas) and telematic performance (Carrascoza). Since the beginning of 2020, when we established our artistic partnership, we have been exploring different technologies for sound/image creation and processing, along with the investigation of communication parameters for performing in the virtual environment. We propose to present two audiovisual compositions by Paulo C. Chagas (including a premiere) performed live by Cássia Carrascoza, flute/alto flute/bass flute, and Paulo C. Chagas, electronics/visuals.

1. Sound Imaginations Improv (2022) - for flute, alto flute, bass flute, electronics and 3D video - 28 min
2. I hear you breathe (2022) - premiere - for bass flute, voice, electronics and interactive video - 14 min.

Sound Imaginations Improv (2022) is an immersive telematic audiovisual work focused on the idea of listening cultures. The audiovisual composition presents 3D videos and ambisonic sounds that Paulo C. Chagas captured in São Paulo (Brazil), Riverside (CA), Moscow (Russia), Mannheim (Germany), and Pune (India). They reflect on the diversity of listening cultures, habits and techniques from these different geographic and cultural areas. Projected on a virtual green screen, the audiovisual composition becomes a resonating space for Cássia Carrascoza's performance featuring improvisations with flute, alto flute and bass flute in combinations with electronics. The performance proposes an experimental sonic word that interacts with the pre-existent soundscapes by exploring a wide universe of extended techniques and live-electronics sound processing. The live-improvisation sheds a light of nonconventional meaning on the existing word, revealing possible spheres of experience not yet experienced. It acts between the conscious and the unconscious, re-assigning meaning to the cultures of listening and soundscapes.

I hear you breathe (2022) is new work for bass flute, voice, electronics, and interactive video by Paulo C. Chagas dedicated to Cássia Carrascoza. The composition is a vibrational search in the world of chaos beyond the limits of noise, voice and language. The music explores rhythm and chaos as the main vectors of human interaction with the cosmic vibration, for instance rhythms of noise produced by breathing and other expanded techniques for bass flute in conjunction with different algorithms of

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electronic sound synthesis. Rhythm refers not only to acoustic emission of the breath on the flute, but also to vocal emissions: fragments of noise, spams of sound that collapse into noise, and voices oscillating between the scream and the inaudible, the extension of language into noise as an act of escaping the technical automatism and reactivating the organic potency of the body. In summary, *I hear you breathe* (2022) propose the opening to the ordered system of chaotic flows and vibrations, the surrendering to the vertigo and fascination of chaos and noise, seeking for rhythms that allow the organism to tune to the cosmos.

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Paulo C. Chagas is a professor of composition at the University of California, Riverside. He created more than 180 works for orchestra, chamber music, electroacoustic, audiovisual and multimedia. His works resulted from numerous orders and have been acclaimed in the United States, Europe, Russia, Asia and Brazil. Chagas develops extensive research in semiotics, philosophy, electroacoustics, multimedia, and technology. His book *Unsayable Music* (Leuven University Press, 2014) presents theoretical, critical and analytical reflections on key themes of contemporary music. He recently edited the book *Sounds from Within: Phenomenology and Practice* (Springer, 2021) and published the book *Zwischen Klängen und Apparaten: zur Theorie und Praxis der elektronischen Musik [Between sounds and apparatuses: theory and practice of electronic music]* (Rediroma, 2021) Chagas has received several international awards, including recently the prestigious Fulbright research grant for an audiovisual composition project in Moscow, Russia, which has been re-assigned to Berlin, Germany (2022/23).

Cássia Carrascoza is Professor in the Music Department at the Faculty of Philosophy, Sciences and Letters of Ribeirão Preto, University of São Paulo (USP). She is currently a visiting scholar at the University of California, Riverside, working on a research on telematic performance under the supervision of Prof. Paulo C. Chagas. In 2022 she was awarded the Jacktrip Foundation Equipment Grant. From 1999 to 2018 she was principal flutist of the Symphonic Orchestra of the Municipal Theater of São Paulo and, from 2000 to 2014, principal flutist of the São Paulo State Symphonic Jazz Orchestra. She was a member of the Brazilian contemporary music ensemble *Camerata Aberta* since its foundation in 2010. She received the APCA Contemporary Music Award (São Paulo Association of Arts Critics) in 2010 and the 8th Bravo Award in 2012. As a soloist, she performed with several orchestras in Brazil and abroad and gave concerts in many countries such as Hungary, Holland, France, Portugal, Belgium, the United States and Argentina. She premiered in Brazil and abroad many pieces by Brazilian composers such as Silvio Ferraz, Alexandre Lunsqui, Rodolfo Coelho de Souza, Flo Menezes, Mathias Kadar, Eduardo Alvares, Arrigo Barnabé, Mikhail Malt, Danilo Rossetti, and Paulo C. Chagas. In 2017, he released the CD *Tempo transversal - expanded flute* (SESC label), recorded in São Paulo and at IRCAM, Paris with works by Brazilian composers, which was

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nominated one of the 10 unmissable CDs of classical music of the year by the magazine Bravo. Currently, she develops research in collaborative composition, telematic performance and improvisation with electronics. Since December 2020 she has been a member of NowNet Arts Lab Ensemble, an international group dedicated to telematic performance. She has been invited to research and perform at international institutions such as IRCAM (Paris), University of California - Riverside, and Pontificia Universidad Católica (Chile).

1:00PM Presentation: Affect and Post-continuity in Music Videos and Telematic Music

Paulo C. Chagas, University of California, Riverside

Cássia Carrascoza Bonfim, University of São Paulo

In the universe of telematic music, there has been a growing interest in the visual presentation. Telematic music performances are being coupled with video and visual elements that are products of cutting-edge audiovisual technologies. The audiovisual has the potential to bring telematic music to a broader audience, as it addresses a multimodal perception and sensibility, intensify the immersive, sensorial experience and try to raise the consciousness on the interweaving of hearing and listening as modes of being in the world. In this research paper, we reflect on audiovisual aspects of telematic performance by comparing it to popular genres of music video. As music performance forms, both telematic music and music videos are bound to technology and evolve as technology changes. As Shaviro points out, music videos “are often deeply self-reflexive and strikingly innovative in form and technique” (2017, 8) as they experiment with new modes of visualization and expression. In this sense, they share with telematic performance the fact that the image is attached to some music that is sufficient to itself (Chion 1994, 166). Also, music videos are often non-narrative and conceived to be distributed through digital networks and shown in small screens. Recent music videos give us an experience that extends human subjectivity to radical new forms of sensibility. As Massumi (2002) claims, we observe in the contemporary world a qualitative transformation, a shift into the abstract, or no-present, dimensions of experience. The paradoxical question is how the virtual, which is the concrete in the abstract, might be felt. In other words, how affect escapes the confinement of the virtual space?

On the other hand, we will examine how the concept of post-continuity, which is closely related to some radical developments of contemporary cinema, could be brought in connection to telematic music and performance. The post-continuity style, which became very common in action films through sequences that eliminate the sense of spatiotemporal continuity to deliver a continual series of shocks to the audience, focus on immediate effects instead of the overall narrative. It reflects a preoccupation with the present moment that opens up a space of free invention that reduces coherence and ultimately pushes us to the experience of chaos. Recently the question of post-continuity has been associated with the ideas of “chaos-cinema” (Stork 2011). In a broad sense, the rise of post-continuity expresses both the development of internet-based media and the social, economic and political conditions of neoliberal

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capitalism. Finally we intend to confront these concepts with the idea of telematic dialog as the substrate of telematic music, as a playful game in which man and machines act as partners devoting themselves to the generation of information and trying to escape the functionality of neoliberal machines. However, as the relation between man and machine is ambivalent; playing with apparatuses is a risky game, as they intensify the rendering of the action by shrinking the space of reflection, a tendency that has been associated with the “financialization” of the lived experience (Shaviro, 2010).

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1:30PM Paper: Low-latency technologies for instrumental music teaching

Ben Redman, Scotland

This session will draw on my doctoral research into the use of videoconferencing and low-latency technologies for instrumental music teaching. I will focus on the expanded teaching possibilities arising from low-latency technologies and their potential to disrupt the traditional one-to-one music lesson. Using examples from recent international collaborations, I will also consider issues of inclusion, diversity, equity, access, technological challenges, and environmental sustainability.

Ben Redman is a musician, an instrumental music teacher and a researcher. He trained as a percussionist and has performed internationally in a wide variety of styles and genres, including orchestras, jazz ensembles and traditional/folk music. Ben recently completed his doctoral studies at the Royal Conservatoire of Scotland and the University of St Andrews. His research interests include the use of videoconferencing and low-latency technologies for instrumental music teaching. He has presented his

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research at international conferences, including conservatoires in Copenhagen, Milan and Oslo, and is a former co-editor of the *Scottish Journal of Performance*.

2:00PM Presentation: Networked Music and an Increase in Cultural Understanding
Dana Kemack Goot, Indiana University-Purdue University

The use of online technology is not new as a tool for distance education and has also served as a facilitator of intercultural exchange as part of that scholastic process. It has been documented that for differing cultures to engage in an internationally based online course a safe learning and teaching environment must be secured with adjustments to accommodate cultures and languages that are different than the host culture and language. The accommodation of cultures in the form of online technology should also be considered when an exchange is taking place. In network music this accommodation may be actuated and may increase cultural understanding, being that the online connection of different places and cultures is not entirely without the sensorial cues that would be experienced when visiting a distant place. Considering the impediments of latency and technical proficiency, the experience of network music musicians can be studied to determine if there is an increase in cultural understanding and the means to that end. Analysis of the cultural exchange may be made through the institution of project-based work and by establishing academic online jam sessions.

However, to extrapolate a phenomenological approach, analysis of real-life network scenarios may be undertaken. By studying what has not been constructed based on the description of the subjects' experiences, an understanding of a "real-world" versus a created environment can be achieved. For instance, JamKazam includes a live global chat directly within their application, which creates a social network connection to other potential participants. JamKazam Jammers is a social media page on Facebook that supports technical questions and related social media sharing. Cultural themes emerge based on JamKazam Jammer events, such as the reggae sessions. Started by a Canadian and now also run by a "jammer" from Argentina, participants add elements of reggae to almost any song they play. Posts encourage players to participate and try out a session with physical distance between players being mentioned as a concern due to increased latency. Jamulus (official group) also offers a page on Facebook which allows open technical discussion and invitation to jam sessions. The English language is predominantly on the page posts, but posts are also in French and Portuguese. The page also invites members to join a "Jamulus Session" on various dates. There is no exclusion to any time zone, which permits any country or culture to join the jam. "The Jamulus World Jam" Facebook page hosts a World Jam from Europe every Saturday afternoon. Musicians from around the world jam together using Jamulus and Zoom for two hours of live, online music making. Formal analysis of the social media posts of network music application groups, along with demographic questionnaires, surveys, and interviews of network music participants can highlight the shared experiences and cultural insights brought to them. In the shared experience of music making the transference of cultural knowledge can be experienced by individuals of different cultures that would not ordinarily be able to be physically together.

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Dana Kemack Goot is a PhD student in music technology at Indiana University-Purdue University and a Donald Tavel Arts and Technology Research Center Fellow. Her research is focused on network music applications and their use as a tool to cross cultural and socio-economic barriers. She has a broad background in music, voice, and composition, and an academic background in networked music and human-computer interaction. In 2017 she presented “The Isomorphic Relationship Between Music and Emotion: A Subconscious Nonphysical Resistance by Concentration Camp Prisoners,” at Capacious, an affect study conference at Millersville University in Pennsylvania. She presented A Spectrum of Online Rehearsal Applications: A Potential Means for Cultural Connection at the NowNet Arts Conference 2021 and a journal article of the same name was recently published in the Journal of Network Musical and Arts. Dana has performed with the Indianapolis Symphony Orchestra and the Indianapolis Symphonic Choir on productions including Carmen in 2016 and The Magic Flute in 2018, and at Carnegie Hall during the 2016–17 season and the Kennedy Center during the SHIFT festival in April 2018. Dana also performed with Madonna during the Super Bowl XLVI half-time show and served as artist-in-resident in the Western Galilee of Israel. In addition, Dana leads her world music band.

2:30PM Panel: Network Arts Technology

Marc Ainger, Ohio State University

Chris Chafe, Stanford University

Sarah Weaver, NowNet Arts

Moderator: Juan Parra, Orpheus Institute

The panel will discuss updates on the JackTrip system for high-quality low-latency audio network performance over the Internet and video art strategies for virtual performance.

Marc Ainger is active as a composer and sound designer. He has worked extensively in the area of computer and electronic music, using computers alone and in combination with traditional instruments, as well as in combination with other media such as film, dance, and theater. Significant commissions and performances include the Aspen Music Festival, the American Film Institute, the KlangArts Festival, Gagego New Music Ensemble, Guangdong Modern Dance, the Royal Danish Ballet, the New Circus, Streb, and Late Night with David Letterman. Awards include the Boulez Composition Fellowship, the Irino International Chamber Music Competition, Musica Nova, Meet the Composer, the Esperia Foundation, and the Ohio Arts Council. As a sound designer, Ainger has worked with such institutions as the Los Angeles Philharmonic, Tempo Reale, IRCAM, the Olympic Arts Festival, and Pacific Coast Soundworks. He holds a PhD in composition from the University of California–Santa Barbara, and an undergraduate degree from California Institute of the Arts. As a student, he worked with a number of composers, including Stephen Mosko, Barry Schrader, Morton Subotnik, Karlheinz Stockhausen, John Adams, Morton Feldman, Earle Brown, John Cage, Steve Reich, Vinko Globakar and Bill Kraft. Before joining the faculty of The Ohio State University, he taught composition and computer music at the University of California–Santa Barbara.

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Chris Chafe is a composer, improviser, and cellist, developing much of his music alongside computer-based research. He is Director of Stanford University's Center for Computer Research in Music and Acoustics (CCRMA). In 2019, he was International Visiting Research Scholar at the Peter Wall Institute for Advanced Studies The University of British Columbia, Visiting Professor at the Politecnico di Torino, and Edgard-Varèse Guest Professor at the Technical University of Berlin. At IRCAM (Paris) and The Banff Centre (Alberta), he has pursued methods for digital synthesis, music performance and real-time internet collaboration. CCRMA's jacktrip project involves live concertizing with musicians the world over.

Sarah Weaver, Ph.D. is a New York-based contemporary composer, conductor, technologist, educator, and researcher working internationally as a specialist in large ensemble and network arts. Her work innovates contemplative concepts on network, synchrony, synthesis, and interconnection for artistic and social purpose. Weaver has composed solo, chamber, and large ensemble works for groundbreaking musicians for twenty-five years, integrating influences of classical, jazz, world, contemplative, electronic music, and individual music languages of performers. She is an innovator in network arts advancing live performance via the internet by musicians and artists in different geographic locations. Weaver is Director of Sarah Weaver Ensemble, Director of NowNet Arts, Editor of the Journal of Network Music and Arts (JONMA), Director of JackTrip Foundation, and Faculty of The New School College of Performing Arts.

3:30PM Session Discussion: 12:00PM-3:30PM Presenters and Audience, plus Constantin Basica, Stanford University

(4:30PM-8:30PM Break)

8:00PM Concert Demonstration: Digital Void

Lynn Baker, Oregon

Conrad Kehn, University of Denver

Performance/Demonstration of telematic improvisation utilizing JackTrip and Ableton Live technologies. The duo will explore two contrasting sonic environments and how those environments influence our improvisational choices.

Digital Void constructs extemporaneous compositions in a telemetric environment. This results in a sometimes complex and surprising blending of elements the sum of which greatly exceeds its parts.

This duo draws from a common palette of urban groove samples, chant traditions, and contemporary producer aesthetics to produce an ever-evolving tribute to contemporary improvisation.

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9:00PM Concert Demonstration: Trio Janela

Cássia Carrascoza Bonfim, University of São Paulo

Viv Corringham, New York

Diane Roblin, Toronto

Trio Janela is a group of three professional women musicians based in three different countries. We came together during the pandemic specifically to make contemporary work for the internet and related technologies. Working collaboratively we create, develop and perform music live via the platforms of Jacktrip and Zoom, accepting and working with their latencies and the properties of the virtual environment. The music draws from our various backgrounds in classical music, improvisation, electronics and jazz. As an international group we use our varied skills to create music telematically through live, network-based, online performance. "We Hear You" is the basis of a piece in development. We want to create a work that reminds everyone that music is international, healing and links people together across all continents, bringing diversity and equity amongst all citizens of the world, and hopefully peace.

Trio Janela was born from their artistic relationship that grew from the NowNet Arts Hub, NowNet Arts Lab and Say That Again group. We have performed together in various combinations for over two years and are now exploring the creative possibilities of a trio.

Viv Corringham is a vocalist, composer and sound artist. She holds an MA Sonic Art from Middlesex University, London, and a Deep Listening teaching certificate. She explores people's sense of place and the link with memory through concerts, soundwalks, installations and listening workshops. Awards include two McKnight Composer Fellowships through American Composers Forum. Work has been presented in 26 countries in venues including Hong Kong Arts Centre, Fonoteca Nacional de Mexico, Issue Project Room New York, Onassis Centre Athens, Serralves Museum Portugal, Ohrenhoch Sound Gallery Berlin, Taipei University Taiwan, Shantou University China, Institute of Contemporary Art London and universities in Bangalore, Calcutta and Delhi. Articles about her work have appeared in many publications, including In the Field (UK), Leonardo Music Journal (US), Art of Immersive Soundscapes (Canada), Organised Sound (UK), Musicworks (Canada), Catskill Made (US), Playing With Words (UK) and For Those Who Have Ears (Ireland).

10:00PM Concert Demonstration: Modality

Charles Nichols, Clark Grant, Ben Weiss, Jay Bruns, Various locations in Montana and Virginia

The band Modality, with violinist and computer musician Charles Nichols, guitarist Clark Grant, keyboardist Ben Weiss, and electronic artist and video synthesist Jay Bruns, will perform a set of structured improvisations, streaming audio and video between their four studios, in Missoula and Butte, Montana, and Blacksburg, Virginia.

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Modality is Charles Nichols on electric violin and computer, Clark Grant on electric guitar, Ben Weiss on keyboards, and Jay Bruns on electronics and video synthesis. This Montana and Virginia based collective swims through oceans of sound, conjuring immersive, psychedelic, beautifully strange worlds, sonic excursions for fans of drone, ambient, krautrock, and contemporary music. Their practice is to co-compose, through recording free-improvisation, harvesting material, and collaboratively arranging and rerecording. Since 2013, they have rehearsed, recorded, produced, and performed telematically between their four studios, in Missoula and Butte, Montana, and Blacksburg, Virginia. In 2016, the band toured Montana, Illinois, Indiana, Ohio, and Virginia, starting with a performance at the DAT Music Conference in Missoula and ending with a performance at the Cube Fest at Virginia Tech. In 2020, they performed telematically, streamed live to Newcastle Upon Tyne, England, for the Network Music Festival, and recorded live and streamed from St. Petersburg, Russia, for the Theremin Fest. In 2021, they performed telematically, streamed live to Stanford, CA, for the Society for ElectroAcoustic Music in the United States (SEAMUS) Virtual National Conference. Modality have co-composed and recorded four albums, Particle City, their debut, Under the Shadow of this Red Rock, a double LP, The Moruvians, a split with the band Lazertüth, and Megacycles, their latest album. These and other recordings can be found at <https://modality.bandcamp.com>

11:00PM Session Discussion: 8:00PM-11:00PM Presenters and Audience

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12:00PM Concert Demonstration: NowNet Arts Hub

Viv Corringham, voice, electronics (New York), Ximena Alarcon, voice (UK), Cássia Carrascoza Bomfim, flute (Brazil), Anne Sophie Andersen, violin (Denmark), Biggi Vinkeloe, alto saxophone (Sweden), Lynn Baker, tenor saxophone (Oregon), Colin James Gibson, guitar (Toronto), James Ilgenfritz, bass (California), Steve Rust, bass (New York), Diane Roblin, piano, electric keyboards (Toronto), Jane Wang, multi-instrumentalist (Boston), Gloria Damijan, toy pianos, percussion, objects (Vienna), Rebekkah Palov, electronics (New York), Kit Fitzgerald, live video (New York), Beth Warshafsky, live video (New York), Mike O'Connor, audio technology, field recordings (Wisconsin), Katherine Liberovskaya, visual director (New York), Sarah Weaver, composer, conductor (New York)

NowNet Arts Hub is an international virtual contemporary audiovisual performance group in partnership with Experimental Intermedia and Harvestworks Digital Media Arts Center. The Hub works with performance-quality network arts technology including JackTrip audio. The Hub was formed in 2022, evolving from the NowNet Arts Lab Ensemble (2020-2022) in the Covid-19 pandemic. The Hub has included performers from 17 countries connecting virtually from individual locations.

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1:00PM Concert Demonstration: P/REPAiRATION

Gloria Damijan, Vienna

Mike O'Connor, Wisconsin

P/REPAiRATION is a video score by Gloria Damijan based on a filmed drawing layered with sequences of videos produced on hiking tours on the border between Vienna and Lower Austria during the lockdowns in 2021. It deals with the power of nature experience especially when it comes to finding a way to cope with loneliness and uncertain perspectives regarding future life. (<https://youtu.be/kfWjHjkt7KI>)

Gloria Damijan on Toy Pianos/Percussion and Objects and Mike O'Connor on electronics will set this video to music using elements of live improvisation and composition. Many of the sounds Mike O'Connor will be using are coming from recordings that arise from a bioacoustics project. (<https://www.earsinthedriftless.com/>) In this project Mike and Marcie O'Connor monitor the restoring of an old Prairie and Savanna Habitat in Western Wisconsin. During her hikes Gloria Damijan also passed by protected areas that are part of a renaturation program, which is an interesting coincidence underlining the significance of the topic "nature and technology". O'Connor and Damijan will create soundscapes fluctuating between mimicry and abstraction, also playing with the different soundings of a Prairie vs a deciduous forest creating delicate irritating moments. These soundscapes will be cued by various parameters represented in the video, like color, brightness, rhythmical structures, degree of abstraction, change of scenery, including overlapping structures that conduct the balance between different sounds. Approximate duration: 9 minutes

Gloria Damijan...studied piano and music pedagogy at Music University Vienna with a focus on contemporary music and free improvisation. She has studied with Manon-Liu Winter, Burkhard Stangl, Franz Hautzinger and Ian Pace and collaborated with Stefan Fraunberger, Vinzenz Schwab, Klaus Filip, Arnold 'Noid' Haberl, Christine Schörkhuber and Ye Hui. Working together with composers Tamara Friebe, Margareta Ferek-Petric, Veronika Mayer, Matthias Kranebitter. Damijan has performed in Vienna, Graz, Innsbruck, Berlin, Barcelona, Lisboa, Porto, Oslo, Hamburg and is a member of the Viennese Improvisers-Network snim. gloriadamijan.wixsite.com/website

Mike O'Connor: Retired. I became moderately famous in Minnesota as the co-founder of an ISP called Gofast.net and one of the people who popularized the Internet back in the mid-90's. I'm also one of the geeks who registered a few one-word domain names (who knew where that would wind up) and got involved with ICANN as a result. These days I help Marcie restore 500 acres of Driftless Area habitat in Wisconsin (Prairie Haven). During the COVID years, I've also been helping musicians rehearse, perform and produce over the Internet.

My background tended toward managing large-scale technology projects and leading non-profit sector development efforts. A few highlights include: starting a community radio station (WORT-FM - Madison, WI), co-founding the National Federation of Community Broadcasters (NFCB), successfully opposing "frac sand" mining in in our Wisconsin

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county (FracSandFrisbee), doing cool complicated projects as a Managing Associate at what is now called PwC, and falling in love with that “Internet” thing as Associate Vice President of Finance (and Controller) at the University of Minnesota. I graduated from Grinnell College with a Bachelors Degree in Economics, and received a Masters in Business Administration from the Johnson Graduate School of Management at Cornell University.

1:30PM Concert Demonstration: Ghost

Anna Pasztor, New York

Ximena Alarcon, United Kingdom

Gloria Damijan, Vienna

Jane Wang, Boston

“Ghost” by Anna Pasztor, video and live visuals (New York), Jane Wang, multi-instrumentalist (Boston), Ximena Alarcon, voice (UK), Gloria Damijan, toy pianos, percussion, objects (Vienna)

“Ghost” is a mixed media piece with a 10-minute-long pre-edited video with live visual intervention of Anna Pasztor and live soundscape created by Jane Wang, Ximena Alarcon, and Gloria Damijan. It is a piece about loss and disorientation. Inspired by recent events near and far. It is a way of reflection from a global point of view.

The collaborating artists live in different parts of the world, yet they are concerned about very similar, or even the same issues. It is important to discover ways to humanize the use of technology. We think that network arts can be a tool to achieve more inclusion and diversity as more and more open-source programs become available.

Jane Wang is a composer/multi-instrumentalist, musical instrument builder and multimedia artist. She has composed scores for dance and theater primarily with each of her long time collaborators, performance artist Hanne Tierney and choreographer Nathan Andary. She is a member of Sarah Weaver’s NowNet Arts Hub, is one of the regular artists in the annual Maudslay State Park Outdoor Sculpture Group Exhibition and has had her pieces included in the first two issues of the fluxus influenced WowNow!
https://en.wikipedia.org/wiki/Jane_Wang

Ximena Alarcón is a sound artist-researcher interested in listening to sonic migrations. She is a Deep Listening® tutor, with a PhD in Music Technology and Innovation. Through her career, she has created telematic sonic improvisations and interfaces for relational listening, to understand sensorially her and others’ migratory experience, as if in search of a collective interface that holds such sonic in-betweenness. She is a member of NowNet Hub and Raspberry Pi ensembles. Her major projects are Sounding Underground, Networked Migrations, and INTIMAL.
<http://ximenaalarcon.net>

Gloria Damijan studied piano and music pedagogy at Music University Vienna with a focus on contemporary music and free improvisation. She has studied with Manon-Liù Winter,

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Burkhard Stangl, Franz Hautzinger and Ian Pace and collaborated with Stefan Fraunberger, Vinzenz Schwab, Klaus Filip, Arnold 'Noid' Haberl, Christine Schörkhuber and Ye Hui. Working together with composers Tamara Friebel, Margareta Ferek-Petric, Veronika Mayer, Matthias Kranebitter. Gloria Damijan has performed in Vienna, Graz, Innsbruck, Berlin, Barcelona, Lisboa, Porto, Oslo, Hamburg and is a member of the Viennese Improvisers-Network snim. www.gloriadamijan.com

Anna Pasztor is a New York based multidisciplinary artist, a former dancer and choreographer whose interest moved towards visual arts. Her multimedia media projects were shown in numerous galleries in the US and in Europe. She received grants, awards and scholarships from the Puffin Foundation, Harvestworks, Lower Manhattan Cultural Council, New York Foundation of Arts, Outpost Artists' Resources, Luso-American Foundation, among others. Her interest lies in creating narratives where there is a seamless combination of traditionally and digitally crafted art.
<https://annapasztor.wixsite.com/annapasztor>

2:00PM Concert Demonstration: From Elemental Singularities to Unified Complexities

Eric Lemmon, New York

Anne Sophie Andersen, Denmark

Eric Lemmon and Anne Sophie Andersen present From Elemental Singularities to Unified Complexities: a microcosmic journey, for 2-4 performers and electronics in a completely networked setting. This work was commissioned by the New Music for Strings 2021 Festival as part of a triptych of collaborative compositions that are linked by the theme "remote connections." The work was originally composed and designed for networked performance. As composers, we were challenged by the pandemic to think of new ways of collaborating remotely. From the beginning of this collaborative process, we wished to explore themes related to communication, including how communication evolves within the structure and mediation of society, as well as how it breaks down due to polarization and conflict. Inspired by writings on systems theory and telematics, we sought to generate a microcosmic space: a simulacrum that is reified by the sonic elements.

These elements gradually amalgamate into representations of individuals and collectives, which are embodied sonically by the players. Communication between individuals and collectives and with an overarching universe (represented by the electronics), is realized within the dualism of autopoiesis and separate agency. The piece is a result of this imaginarium and a means of artistic creation that reflects the ruleset, which governs its process of creation and performance. The players achieve these artistic goals by reading a series of notated and graphical cells presented by a score GUI. Each cell represents one of five elements (earth, wind, water, fire, ether) or various aggregates of the elements. The graphical cells can be interpreted freely by performers when the score instructions allow for it. During the course of the work, performers will be presented formal sections by the score GUI that change their rules of engagement for each work. The players' improvisational attention should be open for engagement always.

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Composer Eric Lemmon's artistic practice and academic research is preoccupied with the politics that circumscribe and are woven into our musical technologies and institutions. His music has been reviewed by the New York Times and featured on WQXR's Q2, and has been performed in venues ranging from underground bars (le) Poisson Rouge and SubCulture to the DiMenna Center for Classical Music and FIGMENT arts festival on Governors Island. Eric's work has been recognized locally and internationally with grants and residencies like MetLife's Creative Connections Grant, UMEZ and LMCC Arts Engagement Grants, multiple Puffin Foundation Grants, a Tofte Lake Center Emerging Artist Residency, a Can Serrat International Artist Residency, a Westben Performer-Composer Residency, and ConEd's Exploring the Metropolis Residency. Further, he has been awarded a Mancini Fellowship, a long-term fellowship from the German Academic Exchange Service (DAAD), Stony Brook University's Presidential Dissertation Completion Fellowship, and a Fulbright Award for his artistic research and profile as a performer. Eric has written works for Yarn|Wire, Cadillac Moon Ensemble, Jacqueline LeClaire, and The Chelsea Symphony. He is a member of the experimental and technology-focused music collective Ensemble Decipher and received his Ph.D. in music composition from Stony Brook University.

Praised for her "passionate playing" and "precise execution" (The Strad), violinist-composer Anne Sophie Andersen is the recipient of the 2017 Samuel Baron prize as well as work stipends from KODA (2020) and the Danish Arts Foundation (2021). Ms. Andersen's output ranges from acoustic composition to works involving electronics and structured improvisation. Her musical aesthetic is non-hierarchical and timbrally focused, favoring subtle expression within dense layers of complex textures.

Ms Andersen is the founding Artistic Director and a faculty member of the New Music for Strings festival, which celebrated its fifth season in August 2021. Her music has received performances in Scandinavia, South America, Asia, and the US east and west coasts. Recent works include commissions for the 2021 New Music for Strings Festival under the theme Remote Connections. Her piece for two violins, Lebhaft, was commissioned and premiered as part of her visit to the Hong Kong Baptist University, and her String Quartet No. 1 was premiered by the Friction Quartet. Ms. Andersen was a featured composer of Synesthesia Project, a collaboration between composers, designers and visual artists commissioned and championed by pianist Jocelyn Ho (Assistant Professor UCLA), as well as the 2016 NYCEMF festival and the Unheard-of series. Ms. Andersen's music has been broadcast on NY radio and Ecuadorian television. Her research in connection with creating a visual model of Grisey's Talea has been published by NIME (2021 conference), and she was a presenter at the 2015 TEDxSBU conference. Anne Sophie Andersen holds a Master of Arts degree in composition and a Doctor of Musical Arts Degree in violin performance from Stony Brook University (NY). She is an alumna of Future Music Lab.

3:00PM Concert Demonstration: The Sonic Arts Ensemble

Marc Ainger, Ohio State University

Various performers and locations

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The Sonic Arts Ensemble will present 3 pieces (Quintet/Trio; Octet/Nonet/Sextet; and Quintet/Quartet/Trio) that demonstrate some of the approaches we have taken to online performance. After the performances, we will discuss the variety of approaches that various members have taken to online performance.

Our discussion will center on some of the social aspects of online performance, and how this social interaction informs the music and other activities of the performers. Marc Ainger, Laptop (USA), Ann Stimson, Flutes, Alto Flute, Piccolo, Viola (USA) Andreas Weixler Guitar, Laptop (guest artist representing Atelier Avant Austria) Se-Lien Chuang Yangqin,, Voice, Mouth Organ, Bass Recorder (guest artist representing Atelier Avant Austria), Scott Deal, Percussion (USA), Jacob Kopcienski, Extended Saxophone (USA), Fede Camara Halac, Thornblower (Argentina), James Croson, Keyboards (USA), Sammy Gardner, Keyboards (USA), Berenice Llorens, guitar (Argentina), Joe Sferra, Clarinet (USA), Charles Woodman, guest performer, visuals in the second piece (USA)

The Sonic Arts Ensemble is interested in extending traditional instruments and modes of performance into new, imaginative realms of action and interaction. Relationships between the physical and the imagined worlds are re-imagined through sound and motion. The group is interested in sound and music as a multi-modal, embodied phenomenon. Their repertoire ranges from through-composed, complexly notated scores, to freely-structured improvisations, and many things in between.

4:00PM Concert Demonstration: MA

Amy Melissa Reed, California

Biggi Vinkeloe, Sweden

Live performance via online/telematic demonstrating how telematic, networked research and performance during the past few years has expanded listening and shifted practice. I call them live listening scores for world wide harmony. For me the work expresses the potential for healing, collaboration, and global community building through hybrid and telematic performance/research and the newfound willingness of the world to participate especially when invited into creative accessible networks and practice.

Amy Melissa Reed is a California Painter and improviser working in the realms of Creative and Electronic Music. Moving in and contributing to practices of listening, sound, performance, video, composition, ecology and community building. They have performed and co-organized many different ensembles including working with Biggi Vinkeloe, Pauline Oliveros, Ione, Lisa E. Harris, Collette McCaslin (CJ Borosque), Vinny Golia, Ross Hammond, Donald Robinson and Phillip Greenlief. AM spent over ten years with students in Sacramento creating safe and beautiful spaces for children to paint and express during dramatic changes to our schools and communities. They founded Ma Series in 2013 creating a space for women composers and improvisers to curate, workshop, and perform new work and we co-founded MA SERIES ARTS in 2018 an artist-led organization of support. Ordained as Priestess in 2020 and invited Board of Trustee at the Ministry of Maat 2022.

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5:00PM Session Discussion: 12:00PM-5:00PM Presenters and Audience

SUNDAY NOVEMBER 6

12:00PM Concert Demonstration: Transience

Ensemble Decipher: Joseph Bohigian, Robert Cosgrove, Eric Lemmon, Chelsea Loew, Taylor Long, Niloufar Nourbakhsh, Various locations

Networked performance by Ensemble Decipher of music by Levi Lu, Paula Matthusen, and an extended improvisation inspired by Alvin Lucier's *I Am Sitting in A Room*.

Ensemble Decipher is a modular, experimental music group that performs with vintage, contemporary, and emerging technologies. Founded in 2017 by Niloufar Nourbakhsh, Ensemble Decipher strives to redefine performer virtuosity by drawing on the technological advancements of our time in order to highlight new voices and ways of listening. By reexamining new music and integrating technology into their performance practice, Ensemble Decipher seeks to reflect on and challenge the power structures that lace the field of electroacoustic music. Recent works commissioned by the group have mobilized network technologies, accelerometers attached to rocks, boxes trained via machine learning to respond to touch, acoustic instruments, and laptops. This has led Ensemble Decipher to collaborate with notable composers and technologists including Mara Helmuth, Margaret Schedel, Hannah Davis, Yaz Lancaster, and Lainie Fefferman and premiere works by many others. Recent feature performances include concerts at the Society for Electro-Acoustic Music in the United States, International Computer Music Conference, New York City Electroacoustic Music Festival, Network Music Festival, and an ensemble residency at EarFest. Current members include Joseph Bohigian, Robert Cosgrove, Eric Lemmon, Chelsea Loew, Taylor Long, and Niloufar Nourbakhsh.

1:00PM Concert Demonstration: Ting Luo - piano improvisation and collaboration

Ting Luo, California
Gloria Damijan, Vienna
Levi Lu, Baltimore

First set: Improvisation for piano with feedback performance

Ting Luo will perform piano improvisation with feedback performance by Baltimore-based performer and improviser Levi Lu. The set will explore how the sound in different environments respond to one another and form a new dialogue.

Second set: Improvisation for piano duo with Gloria Damijan

Ting Luo and Gloria Damijan will improvise a piano duo with found sounds and prepared piano. Gloria and Ting will expand the possibility of piano instruments and make the piano music community more diversified through this hybrid collaboration.

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Ting Luo, pianist, and director of New Arts Collaboration. She has performed and lectured in prestigious venues in China and U.S., advocating contemporary music. Ting Luo has curated a multimedia music and art project New Arts Collaboration since 2020. She actively collaborates with artists from multiple disciplines including visual artists, composers, and sound artists. Works by NAC have been featured in The San Luis Obispo Museum of Art's Digital Shorts Film Festival, Fresh Inc Festival, New Music Gathering Conference/Festival, and are programmed in Old First Concert Series, The Center of New Music, Thailand New Music and Arts Symposium, Tokyo International Short Film Festival and Pune Shorts International Film Festival. Ting currently resides in Bay Area, California. <https://ltingarts.com/>

Qiujiang Levi Lu is a Baltimore-based composer, free-improviser, and sound artist whose works explore the spatiality of electroacoustic sound, audio-visual interactivity between performer and audience, and phenomenology of sound. <https://levilu.com>

Gloria Damijan, Toy Piano/Piano, studied piano and music pedagogy at Music University Vienna with a focus on contemporary music and free improvisation. She has studied with Manon-Liù Winter, Burkhard Stangl, Franz Hautzinger and Ian Pace and collaborated with Stefan Fraunberger, Vinzenz Schwab, Klaus Filip, Arnold 'Noid' Haberl, Christine Schörkhuber and Ye Hui. Working together with composers Tamara Friebe, Margareta Ferek-Petric, Veronika Mayer, Matthias Kranebitter. Damijan has performed in Vienna, Graz, Innsbruck, Berlin, Barcelona, Lisboa, Porto, Oslo, Hamburg and is a member of the Viennese Improvisers-Network snim. <https://gloriadamijan.wixsite.com/website>

2:00PM Presentation: DANCEDEMIC IN A PANDEMIC: A New Networked Reality

Ellen Pearlman, Thoughtworks Arts

Over the summer of 2020 two international teams made up of dancers, artists, technologists were incubated by Art-A-Hack, producing two breakthrough dance performances which feature live biometrics in response to lockdown.

Dr. Ellen Pearlman is a new media artist, curator, critic and educator. She is an MIT Research Fellow, both a Fulbright Scholar and a Fulbright Specialist in Art, New Media and Technology, a Vertigo STARTS Laureate, a ZeroOne American Arts Incubator/U.S. State Department Artist, an Senior Research Assistant Professor at RISEBA University in Latvia, as well as Director and Founder of ThoughtWorks Arts, a global research and innovation lab. She created "Noor - A Brainwave Opera : Is There A Place In Human Consciousness Where Surveillance Cannot Go?", "AIBO: An Emotionally Intelligent Artificial Intelligence Brainwave Opera - Can An AI Be Fascist?" and is working on "Language Is Leaving Me: An Opera Of The Skin - Can An AI Have Epigenetic Or Inherited Traumatic Memory".

3:00PM Session Discussion: 12:00PM-3:00PM Presenters and Audience