

ICLC 2023 Catalogue

19 - 23 April 2023, Utrecht, Netherlands

This is the catalogue of the **7th International Conference on Live Coding**.

Theme: Displacement

(Wikipedia: Displacement (linguistics), the ability of humans (and possibly some animals) to communicate ideas that are remote in time and/or space. Forced displacement, by persecution or violence. Displacement (psychology), a sub-conscious defense mechanism.)

The last few years, and probably also the years that will follow, show us how easily physical spaces we once considered safe and secure can become increasingly hostile environments due to new strains of pathogens, climate change or aggression. At the same time, we are confronted with new technologies for automated creation that might drastically change the value of the digital artisan's craft.

We invite you to reflect on the roles and opportunities that live coding practices, techniques and communities can play in these times of displacement –but equally to be inspired by other uses of the term, e.g. rhythmic displacement in music, displacement shaders, displacement in terms of physics, linguistics or psychology or generally being out-of-place, in many places at the same time or in representation instead of in situ.

This catalogue doesn't contain the complete proceedings, but it contains all abstracts, the event schedules, and a register of people involved. Each abstract of an article includes a link to its official DOI. If available, you'll also find links to supplementary materials such as recordings or photo galleries of the respective event.

The full articles can be found on Zenodo: <https://zenodo.org/communities/iclc/>

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General

Resources

Publications, Media and Recordings are accessible from within the catalogue. You can also browse them on these sites:

- **Zenodo** (Proceedings, full articles) - <https://zenodo.org/communities/iclc/>
- **Flickr** (Photographs of the Events)
- <https://www.flickr.com/photos/creativecodingutrecht/collections/72157721695992917/>
- **YouTube** (Recordings of the Live Stream & Videos) - <https://www.youtube.com/@incolico>

Schedule

Paper Presentations

- **Welcome & Paper Session 1**
Wednesday, April 19th, 09:45
- **Paper Session 2**
Wednesday, April 19th, 11:30
- **Paper Session 3**
Wednesday, April 19th, 15:15
- **Paper Session 4**
Thursday, April 19th, 10:00
- **Paper Session 5**
Thursday, April 19th, 11:30

Community Reports

- **Community Report Session 1**
Friday, April 21st, 10:00
- **Community Report Session 2**
Friday, April 21st, 11:15

Keynote Sessions

- **Opening & Keynote: Kate Sicchio**
Wednesday, April 19th, 13:45
- **Keynote: Marije Baalman**
Thursday, April 20th, 14:00
- **Keynote: Click Nilson & Closing Words**
Friday, April 21st, 14:00

Concerts

- **Choreographic Coding**
Wednesday, April 19th, Doors 19:30 / Show: 20:00
- **Lunch & Concert 1**
Thursday, April 20th, Doors 12:45 / Show: 13:10
- **Alternative Algorithms**
Thursday, April 20th, Doors 19:30 / Show: 20:00
- **Lunch & Concert 2**
Friday, April 21st, Doors 12:45 / Show: 13:10
- **Immersed in Code**
Friday, April 21st, Pre-Show 19:30 / Show: 20:00
- **Algorave**
Saturday, April 22nd, Doors: 21:50 / Show: 22:00
- **Hybrid Acoustics**
Sunday, April 23rd, Doors 15:30 / Show: 16:00

Workshop Blocks

- **Workshops 1**
Thursday, April 20th, 15:15–17:15
- **Workshops 2**
Friday, April 21st, 15:30-17:30
- **Workshops 3**
Saturday, April 22nd, 12:00-15:45

ICLC 2023 Programming Committee

Local Chair

Fabian van Sluijs

Community Report Chairs

Felipe Ignacio Noriega Alcaraz, Raphael Sousa Santos

Paper Chairs

Iván Paz, Niklas Reppel

Performance Chairs

Lina Bautista Rodríguez, Patrick Borgeat, Alicia Champlin, Timo Hoogland

Video Chairs

Alicia Champlin, Niklas Reppel

Workshop Chairs

Luka Frelih, Roger Pibernat Trias

Satellite Event Coordinator

Patrick Borgeat

Communication, PR and Social Media

Anne-Linde Munsterman, Caterina Tavagnutti, Sietse van der Meer

Design

Saskia Freeke

Local Production

Emma Rasing, Juliette Osse, Timo Hoogland

Events

Concerts

Algorave

Saturday, April 22nd, Doors: 21:50 / Show: 22:00

Venue: TivoliVredenburg (Vredenburgkade 11, 3511 WC Utrecht)

Photo Gallery on Flickr –

<https://www.flickr.com/photos/creativecodingutrecht/collections/72157721695992917/>

Line-Up

21:50	Doors	
22:00	<i>c0llv3</i>	Bruno Gola
	<i>Codie</i>	Kate Sicchio
		Sarah Groff Hennigh-Palermo
	<i>Broken Bond</i>	Roxanne Harris (alsoknow-nasrox)
	<i>Sardine X Ziffers</i>	Raphaël Maurice Forment (Bubobubo)
		Rémi Georges (Ralt144MI)
	<i>Brickwork: Destroy</i>	Agata Genissel
	<i>Happy Algorave</i>	Niklas Reppel
	<i>Performance</i>	
	<i>Visuals:</i>	Ulysses Popple
	<i>Nodysseus.THREE</i>	
	<i>Epiploke</i>	Lucy Cheesman
		Alex McLean
	<i>Title to come</i>	Dan Gorelick (dan.dog)
	<i>post-performance</i>	
	<i>Visuals: Code must go on!</i>	Florencia Alonso (Flor de Fuego)
	<i>Amalgam</i>	Timo Hoogland
		Saskia Freeke
	<i>DEF FUNC-</i>	Ryan Ross Smith (The Wookie)
	<i>TION(DYSTOPIAKIRA)</i>	Shawn Lawson (Obi-Wan Codenobi)
		William Rinkoff (c_robo_)
	<i>c_robo_</i>	Sabrina Verhage
	<i>Visuals: New Ways of</i>	
	<i>Collaboration</i>	
~ 03:00	End of Algorave	

Alternative Algorithms

Thursday, April 20th, Doors 19:30 / Show: 20:00

Venue: **EKKO** (Bemuurde Weerd Westzijde 3, 3513 BH Utrecht)

Photo Gallery on Flickr –

<https://www.flickr.com/photos/creativecodingutrecht/sets/72177720308925586/>

Line-Up

19:30	Doors	
20:00	<i>Serendipitous Liquidators</i>	Kosmas Giannoutakis
		Aaron J. Juarez
	<i>Blocking Behaviours</i>	Bjarni Gunnarsson
	<i>Grim! Grim! Grim!</i>	Grimberg
	<i>Arrays of Disarray</i>	Jessica Garson (Messica Arson)
	<i>Pirarán – Algorithmic</i>	Alejandro Franco Briones
	<i>Acid Music</i>	Diego Vilaseñor de Cortina (Videco)
		Iván López Pineda
~ 22:15	End of Concert	

Choreographic Coding

Wednesday, April 19th, Doors 19:30 / Show: 20:00

Venue: *Het Huis Utrecht* (Boorstraat 107, 3513 SE Utrecht)

Photo Gallery on Flickr –

<https://www.flickr.com/photos/creativecodingutrecht/albums/72177720307924791>

Line-Up

19:30	Doors	
20:00	<i>Codes for a Dance</i>	Kate Sicchio
		Alex McLean
	<i>Human-Computer</i>	Joana Chicau
	<i>Counter-Choreographies</i>	
	<i>(Beta)</i>	
	<i>Botbop: Integers & Strings</i>	Kasper Jordaens
		Dagobert Sondervan
		Andrew Claes
	Break	
	<i>Poetry Attack 01</i>	Mari Moura
		Joenio Marques Da Costa
	<i>We All Begin in</i>	Shelly Knotts
	<i>Abstraction</i>	Sojung Bahng (방소정)
		Kirby Casilli
	<i>The Cuckoo's Nest</i>	Jude Montague
		Amy Cullis
~ 23:00	End of Concert	

Lunch & Concert 1

Thursday, April 20th, Doors 12:45 / Show: 13:10

Venue: *NAR - Café der Kunsten*

Photo Gallery on Flickr –

<https://www.flickr.com/photos/creativecodingutrecht/albums/72177720307771820>

Line-Up

12:45	Doors & Grab Lunch	
13:10	<i>this is not a piano</i>	Niklas Reppel
	<i>Variations on Kandinsky</i>	Monique Copper
~ 13:50	End of Concert	

Hybrid Acoustics

Sunday, April 23rd, Doors 15:30 / Show: 16:00

Venue: *Nicolaïkerk* (Nicolaaskerkhof 8, 3512 XC Utrecht)

Photo Gallery on Flickr –

<https://www.flickr.com/photos/creativecodingutrecht/albums/72177720307771152>

Line-Up

15:30	Doors	
16:00	<i>Commuta: A Cross</i>	Francesco Corvi
	<i>Adaptive Laptop Ensemble</i>	Riccardo Ancona
		Giulia Francavilla (Giulia Rae)
	<i>patterns in modulation</i>	Sebastian Pappalardo (eerie_ear)
		Blaž Pavlica
	<i>flux</i>	Michele Samarotto
	Break	
	<i>Listening to the (Future)</i>	Sara Bouchard
	<i>Landscape</i>	
	<i>KhipuKoding 2.0 + The</i>	Paola Torres Núñez del Prado
	<i>Neokhipukamayok</i>	
	<i>Manifesto</i>	
	<i>Neowise 5.8 V/E</i>	Alicia Champlin
~ 18:30	End of Concert	

Immersed in Code

Friday, April 21st, Pre-Show 19:30 / Show: 20:00

Venue: *Former Pieter Baan Centrum* (Gansstraat 162, 3582 EP Utrecht)

Photo Gallery on Flickr –

<https://www.flickr.com/photos/creativecodingutrecht/albums/72177720307786428>

Line-Up

19:30	<i>P5LIVE COCODING</i>	Ted Davis
		Sabrina Verhage
20:00	<i>Vortex: Reresik</i>	Peni Candra Rini
		Rangga Purnama Aji
		Sen Sewell
		Heather Strohschein
		J. Simon van der Walt
		Bill Whitmer
	<i>[_ _ _]</i>	Jia Liu (刘佳)
		Song Li (李松)
		Shuoxin Tan (谭硕欣)
	<i>AUTO{}Construcción</i>	Iván Abreu
		Malitzin Cortés (CNDSD)
	<i>The neoCowgirl Manifesto</i>	Matilda Sutherland
	<i>Rumble Machines</i>	Eloi Isern Rabella (Eloi el Bon Noi)
	<i>CRash Landing</i>	Citlali Hernández Sánchez (turbulente)
		Lina Bautista Rodríguez
		Roger Pibernat Trias
	<i>QBRNTHSS hybrid set</i>	Ramon Casamajó (QBRNTHSS)
	<i>grain Visuals: by grain</i>	Sol Sarratea (@alsolquema)
	<i>Conversational Learning</i>	Iván Paz
~ 23:30	<i>End of Concert</i>	

Lunch & Concert 2

Friday, April 21st, Doors 12:45 / Show: 13:10

Venue: *NAR - Café der Kunsten*

Photo Gallery on Flickr –

<https://www.flickr.com/photos/creativecodingutrecht/albums/72177720307967933>

Line-Up

12:45	Doors & Grab Lunch	
13:10	<i>ColorScape: DipInCode</i>	Kofi Oduro (illestpreacha)
		Renee Jordan
~ 13:30	End of Concert	

Community Reports

Community Report Session 1

Friday, April 21st, 10:00

Venue: *VOGELFREI*

Chair: Raphael Sousa Santos

Live Stream Recording (YouTube) –

<https://www.youtube.com/watch?v=FSBvtvtxP008&t=73s>

Photo Gallery on Flickr –

<https://www.flickr.com/photos/creativecodingutrecht/albums/72177720307967933>

Schedule

10:00	<i>on-the-fly Documentary</i> (Video Screening)	Lina Bautista Rodríguez Felipe Ignacio Noriega Alcaraz Shelly Knotts Olivia Jack Patrick Borgeat Iván Paz Luka Frelüh Ludovica Michelin Yannick Hofmann Fabian van Sluijs
10:25	<i>TOPLAP Barcelona</i> <i>Community Report 2023</i>	Glen Fraser Iván Paz Lina Bautista Rodríguez Niklas Reppel Roger Pibernat Trias Ramon Casamajó (QBRNTHSS)

10:35	<i>NL_CL Community Report</i>	Timo Hoogland Joana Chicau Jonathan Reus Rafaele Andrade Francesco Corvi Fabian van Sluijs Felipe Ignacio Noriega Al- caraz Klasien van de Zandschulp Saskia Freeke Sabrina Verhage Iván Paz
10:45	<i>_\\/_ TOPLAP Karlsruhe (Video Screening)</i>	Anselm Weber Daniel Höpfner Jakob Schreiber Jia Liu (刘佳) Kaspars Jaudzems Michele Samarotto Patrick Borgeat
11:00	Group Photo	

Community Report Session 2

Friday, April 21st, 11:15

Venue: *VOGELFREI*

Chair: Raphael Sousa Santos

Live Stream Recording (YouTube) –

<https://www.youtube.com/watch?v=FSBtvtxP008&t=3559s>

Photo Gallery on Flickr –

<https://www.flickr.com/photos/creativecodingutrecht/albums/72177720307967933>

Schedule

11:15	<i>LiveCode.NYC Over the Years: A Community Portrait</i> (Video Screening)	Melody Loveless
11:20	<i>The Physical and Cultural Infrastructure Supporting LiveCode.NYC: A Community Report</i>	Sumanth Srinivasan
11:30	<i>AV Club SF Community Report</i> (Video Screening)	Dan Gorelick (dan.dog) Tyler McLaughlin (R Tyler) Don Hanson (d0n.xyz) Rodney Folz (haute.rod)
11:45	<i>LivecoderA Community Report</i>	Alicia Champlin Joana Chicau Miki Corfiel Shelly Knotts Mynah Marie Iris Saladino Anna Xambó

11:55-12:45

Panel Discussion

Malitzin Cortés (CNDSD)
Saskia Freeke
Shelly Knotts
Jia Liu (刘佳)
Kofi Oduro (illestpreacha)
Roger Pibernat Trias
Fabian van Sluijs
Sumanth Srinivasan

Keynotes

Opening & Keynote: Kate Sicchio

Wednesday, April 19th, 13:45

Venue: *VOGELFREI*

Live Stream Recording (YouTube) –

<https://www.youtube.com/watch?v=ZzDSW08IAdU&t=15676s>

Schedule

13:45	Official Opening	Fabian van Sluijs
14:00	<i>Live Coding as (Dis)placement: Artists, Programming and the Dancing In-Between</i>	Kate Sicchio

Keynote: Marije Baalman

Thursday, April 20th, 14:00

Venue: *VOGELFREI*

Live Stream Recording (YouTube) –

https://www.youtube.com/watch?v=__Z71KQtWpMk&t=9940s

Photo Gallery on Flickr –

<https://www.flickr.com/photos/creativecodingutrecht/albums/72177720307771820>

Schedule

14:00	<i>Thinking Inside the Box: Instant Composition, Folded Structures and Beyond the Screen</i>	Marije Baalman
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Keynote: Click Nilson & Closing Words

Friday, April 21st, 14:00

Venue: *VOGELFREI*

Live Stream Recording (YouTube) –

<https://www.youtube.com/watch?v=FSBvtvtxP008&t=9084s>

Schedule

14:00	<i>Re-incarnation/Re-</i>	Click Nilson
15:00	<i>inlicknilson</i> Closing Words	

Paper Sessions

Welcome & Paper Session 1

Wednesday, April 19th, 09:45

Venue: *VOGELFREI*

Chair: Niklas Reppel

Live Stream Recording (YouTube) –

<https://www.youtube.com/watch?v=ZzDSW08IAdU&t=1483s>

Schedule

09:45	Welcome	
10:00	<i>Sardine: A Modular Python Live Coding Environment</i>	Raphaël Maurice Forment Jack Armitage
10:20	<i>Strudel: Live Coding Patterns on the Web</i>	Felix Roos Alex McLean
10:40	<i>Živa: Easy Live Coding With SuperCollider</i>	Roger Pibernat Trias
11:00	Questions & Discussion	

Paper Session 2

Wednesday, April 19th, 11:30

Venue: *VOGELFREI*

Chair: Iván Paz

Live Stream Recording (YouTube) –

<https://www.youtube.com/watch?v=ZzDSW08IAdU&t=7117s>

Schedule

11:30	<i>Floating Gold: an International Collaboration through Estuary.</i>	Peni Candra Rini Rangga Purnama Aji Sen Sewell Heather Strohschein J. Simon van der Walt Bill Whitmer
11:50	<i>MosAIck: Staging Contemporary AI Performance - Reflections on Connecting Live Coding, e-Textile and Movement</i>	Elizabeth Wilson Deva Schubert Mika Satomi Alex McLean Juan Felipe Amaya Gonzalez
12:10	<i>Be Brief: Convergences and Possibilities of Live Coding And sctweeting</i>	Fellipe M. Martins José Henrique Padovani
12:30	Questions & Discussion	

Paper Session 3

Wednesday, April 19th, 15:15

Venue: *VOGELFREI*

Chair: Niklas Reppel

Live Stream Recording (YouTube) –

<https://www.youtube.com/watch?v=ZzDSW08IAdU&t=20817s>

Schedule

15:15	<i>Reproducible Musical Analysis of Live Coding Performances Using Information Retrieval: A Case Study on the Algorave 10th Anniversary Ziffers: Numbered Notation for Algorithmic Composition Genny: Designing and Exploring a Live Coding Interface for Generative Models Addressing Accessibility for Blind and Visually Impaired Live Coders</i>	Georgios Diapoulis Martin Carlé
15:35		Miika Alonen Raphaël Maurice Forment
15:55		Junichi Shimizu Rebecca Fiebrink
16:15		Matthew Kaney William Christopher Payne Amy Hurst
16:35	Questions & Discussion	
16:55	Brief Announcement of NIME 2024	Dianne Verdonk

Paper Session 4

Thursday, April 19th, 10:00

Venue: *VOGELFREI*

Chair: Patrick Borgeat

Live Stream Recording (YouTube) –

https://www.youtube.com/watch?v=_Z71KQtWpMk&t=37s

Photo Gallery on Flickr –

<https://www.flickr.com/photos/creativecodingutrecht/albums/72177720307771820>

Schedule

10:00	<i>Asymmetric Performance in Virtual Reality and Code</i>	Leonard Geier Paul Methfessel Tom Beckmann Robert Hirschfeld
10:20	<i>LambDAW: Towards a Generative Audio Workstation</i>	Ian Clester Jason Freeman
10:40	<i>uSEQ: A LISP_y Modular Sequencer for Eurorack with a Livecodable Microcontroller</i>	Dimitris Kyriakoudis Chris Kiefer
11:00	Questions & Discussion	

Paper Session 5

Thursday, April 19th, 11:30

Venue: *VOGELFREI*

Chair: Lina Bautista Rodríguez

Live Stream Recording (YouTube) –

https://www.youtube.com/watch?v=__Z71KQtWpMk&t=4918s

Photo Gallery on Flickr –

<https://www.flickr.com/photos/creativecodingutrecht/albums/72177720307771820>

Schedule

11:30	<i>Live Coding and Education. A Practical Experience.</i>	Francesco Corvi Giovanni Mori Giovanni Nulli
11:50	<i>Towards Another Transdiscipline: Art, (Techno)Science and Emancipation as Promise and Provocation for Live Coding</i>	Alejandro Franco Briones
12:10	<i>The Meaning of Live: From Art Without Audience to Programs Without Users</i>	Alex McLean Julian Rohrerhuber Renate Wieser
12:30	Questions & Discussion	

Workshops

Workshops 1

Thursday, April 20th, 15:15–17:15

Photo Gallery on Flickr –

<https://www.flickr.com/photos/creativecodingutrecht/albums/72177720307771820>

Schedule

15:15-17:15	<i>Visualists Meetup</i> Venue: <i>VOGELFREI</i>	Sarah Groff Hennigh-Palermo Olivia Jack Guy John Antonio Roberts
15:15-17:15	<i>Expressing Oneself with Code and World Building</i> Venue: <i>VOGELFREI</i>	Kofi Oduro (illestpreacha)
15:15-17:15	<i>Animatron Workshop: Live Coding Visual Poetry</i> Venue: <i>VOGELFREI</i>	Roger Pibernat Trias Glen Fraser
15:15-17:15	<i>LiveLily Workshop</i> Venue: <i>Ruimte 31</i>	Drymonitis Alexandros

Workshops 2

Friday, April 21st, 15:30-17:30

Schedule

15:30-17:30	<i>The Craft of (Algorave) Documentation</i>	Dan Gorelick (dan.dog)
15:30-17:30	Venue: <i>VOGELFREI</i> <i>Nodysseus.THREE: Live Lowcoding THREE.js Visuals in the Browser</i>	Ulysses Popple
15:30-17:30	Venue: <i>VOGELFREI</i> <i>Easy Stochastic Live Coding with Mégra 3</i>	Alicia Champlin Niklas Reppel
15:30-17:30	Venue: <i>VOGELFREI</i> <i>Introduction to Nix for Live Coding Software Packaging</i> Venue: <i>Nijverheid, Kadeboot</i>	Alejandro Sánchez Medina

Workshops 3

Saturday, April 22nd, 12:00-15:45

Schedule

12:00-15:45	<i>P5LIVE: A p5.js Collaborative Live Coding VJ Environment</i> Venue: <i>HKU IBB-Laan</i>	Ted Davis
12:00-15:45	<i>Live Coding Latin Dance Music With Seis8s</i> Venue: <i>HKU IBB-Laan</i>	Luis N. Del Angel Julia Múgica
12:00-15:45	<i>Scorch: A New Programming Language For Music</i> Venue: <i>HKU IBB-Laan</i>	Norah Lorway Edward Powley Arthur Wilson
12:00-15:45	<i>Live Cinema Coding with Tidal Cycles, Processing and Unreal Engine</i> Venue: <i>HKU IBB-Laan</i>	Iván Abreu Malitzin Cortés (CNDSD)

Video Gallery

Community Report Videos

<i>AV Club SF Community Report</i>	Dan Gorelick (dan.dog) Tyler McLaughlin (R Tyler) Don Hanson (d0n.xyz) Rodney Folz (haute.rod)
<i>LiveCode.NYC Over the Years: A Community Portrait</i>	Melody Loveless

on-the-fly Documentary

Lina Bautista Rodríguez
Felipe Ignacio Noriega Alcaraz
Shelly Knotts
Olivia Jack
Patrick Borgeat
Iván Paz
Luka Frelüh
Ludovica Michelin
Yannick Hofmann
Fabian van Sluijs
Anselm Weber
Daniel Höpfner
Jakob Schreiber
Jia Liu (刘佳)
Kaspars Jaudzems
Michele Samarotto
Patrick Borgeat

\\/ TOPLAP Karlsruhe

Video Gallery

Atari 2600 Video Remix***A Quad Entropic Conversation******Der dritte Körper******Direction To NoWhere******Floating Gold – Ibu Bhumi******Live Rendering and -Coding Evolved
Sounds******On a thin string (Live Coding with Lick
the Toad)***

Joenio Marques Da Costa
Sarah Imrisek (@cymatiste)
Marcus Gordon (magfoto)
Ilze Briede (Kavi)
Hrysovalanti Maheras (hryso)
Shuoxin Tan (谭硕欣)
Song Li (李松)
Jia Liu (刘佳)
Kofi Oduro (illestpreacha)
Peni Candra Rini
Rangga Purnama Aji
Sen Sewell
Heather Strohschein
J. Simon van der Walt
Bill Whitmer
Björn Þór Jónsson
Konstantinos Vasilakos

Abstracts

Keynotes

Re-incarnation/Re-inclicknilson

Click Nilson

Was presented at:

- **Keynote: Click Nilson & Closing Words**
Friday, April 21st, 14:00, *VOGELFREI*

Live Stream Recording (YouTube) –

<https://www.youtube.com/watch?v=FSBvtvtxP008&t=9084s>

Abstract We are sorry to announce to the live coding community that the insidious Click Nilson has been found alive, floating in a canoe bought from a life insurance payout off Finland or some such fraudulent state. Many of us thought he was gone for good, but he has returned for evil.

Rumours to the contrary, his obituary included, Click Nilson is then resolutely still around, though he has stayed hidden these past years, and may have died more than once. In one unlikely turn of events, Click Nilson was reincarnated as himself. This was the outcome thought most ironic by the powers that be, in the light of CN's stated desire for change.

In this keynote talk, Click Nilson will appear via video link to impress, berate, confuse, enlighten, disappoint and recharge the live coding community, through an intensely boring and overly quiet 59 minute monologue followed by one minute to ignore your questions. All of that could change, however.

Live Coding as (Dis)placement: Artists, Programming and the Dancing In-Between

Kate Sicchio

Was presented at:

- **Opening & Keynote: Kate Sicchio**
Wednesday, April 19th, 13:45, *VOGELFREI*

Live Stream Recording (YouTube) –

<https://www.youtube.com/watch?v=ZzDSW08IAdU&t=15945s>

Abstract Our current technology hype cycle has much to say on the displacement of human labor. However, live coding can be seen as a methodology for centrally placing the artist and their process in new media artwork. How might live coding challenge the displacement of humans and give people agency in a world of technical systems and algorithms that consistently make choices for us? Live coding asks us to find humanity in computational practices and how to highlight the performers. And perhaps by putting a real-time computational process into a discipline, we may even find new ways of making through forms of displacement, introducing new vocabularies and practices, beyond the technical and reflecting the social, cultural or expressive.

Thinking Inside the Box: Instant Composition, Folded Structures and Beyond the Screen

Marije Baalman

Was presented at:

- **Keynote: Marije Baalman**
Thursday, April 20th, 14:00, *VOGELFREI*

Live Stream Recording (YouTube) –

https://www.youtube.com/watch?v=_Z71KQtWpMk&t=10044s

Abstract Livecoding is an act of rebellion against the fixed idea software as immutable, impenetrable, but yet advertised as neutral, systems that are humanity's future – it inspires democratisation of the human/machine entanglement of our current society, by showing that code is mutable, alive, accessible, and above all an expression of concepts – which are personal and political.

Ca. 20 years after the start of the projection era of livecoding, perhaps it is time to make up the balance of how the entanglement between humans and machines within the livecoding community has evolved.

Marije Baalman will present a keynote presentation on the topic of human/machine entanglement.

Her past livecoding works, *Code LiveCode Live*, *Wezen-Gewording*, *Etudes pour le Live-coding à une Main*, and *the machine is learning* all address different aspects of human/machine entanglement. In her presentation she will come back to topics she addressed in her paper *Embodiment of Code* at the first ICLC in 2015, her article “Interplay between Composition, Instrument Design and Performance” (2016) and her book “*Composing Interactions – an Artist’s Guide to Building Expressive Interactive Systems*” (2022).

- <https://marijebaalman.eu>
- <https://composinginteractions.art>

Papers

Addressing Accessibility for Blind and Visually Impaired Live Coders

Matthew Kaney, William Christopher Payne, Amy Hurst

Was presented at:

- **Paper Session 3**
Wednesday, April 19th, 15:15, *VOGELFREI*

Live Stream Recording (YouTube) –

<https://www.youtube.com/watch?v=ZzDSW08IAdU&t=26344s>

Publication: <https://doi.org/10.5281/zenodo.7843872>

Abstract Live coding environments that use text input and audio output have the potential to be accessible and expressive for Blind and Visually Impaired (BVI) people. However, little is known about their compatibility with the assistive technologies BVI people use, including screen readers and braille displays, or the experiences of BVI live coders. To address this gap, we formed FiLOrk, a live coding ensemble made up of five BVI high school students at the Filomen M. D'Agostino Greenberg Music School (aka the Fil'). We introduce the goals and open questions guiding FiLOrk and report initial findings from our experiences designing a learning environment and building a custom, collaborative text editor, `text.management`.

Asymmetric Performance in Virtual Reality and Code

Leonard Geier, Paul Methfessel, Tom Beckmann, Robert Hirschfeld

Was presented at:

- **Paper Session 4**
Thursday, April 19th, 10:00, *VOGELFREI*

Live Stream Recording (YouTube) –

https://www.youtube.com/watch?v=__Z71KQtWpMk&t=65s

Publication: <https://doi.org/10.5281/zenodo.7843896>

Abstract Virtual reality enables a rich 3D user experience where immediate feedback can yield lively interactions. For live coding, however, the rigid, text-based nature of source code is still a serious impediment to achieving such experience, as text input in virtual reality is significantly slower than on a physical keyboard. We present an asymmetric live-coding environment, in which a performance can benefit from both the fluid and flexible direct manipulation capabilities of virtual reality and the expressive power of text-based code. Here, one performer interacts with parameters and code blocks of the system using their hands in virtual reality, but is ultimately constrained by the code defined by another performer immersed in a dedicated programming and runtime environment with full access to the source of the system. We present a proof-of-concept implementation of such a system and describe future directions for its development.

Be Brief: Convergences and Possibilities of Live Coding And sctweeting

Fellipe M. Martins, José Henrique Padovani

Was presented at:

- **Paper Session 2**
Wednesday, April 19th, 11:30, *VOGELFREI*

Live Stream Recording (YouTube) –

<https://www.youtube.com/watch?v=ZzDSW08IAdU&t=9752s>

Publication: <https://doi.org/10.5281/zenodo.7843864>

Abstract With the advent of real-time computer music programming languages, specialized practices have arisen. Live coding (LC) and SCTweeting (SCT) are significant examples of creative constraint-coding approaches to computer music. The former consists of improvised live-electronic music in which performers project their coding screen. The latter is the practice of code golfing for creating (and sharing on social media) 140-character codes that generate complex sounds. In this paper we seek to approximate these two, drawing a comparative conceptualization and outlining possible artistic and contextual bonds between them. We analyze how both scenes, being new forms of artistic practices, propose radical and non-traditional approaches to coding. For that, LC and SCT are associated with the concepts and theoretical elaborations of cybernetics and mechanology, such as *feedback loops* as well as the *isodynamism* between technical behavior and human thought. Thereupon, we discuss how constraints play an important role in LC and SCT to develop ideas and achieve idiosyncratic artistic results. Finally, we outline some possible interweaving and didactic potential that have been latent in both practices.

Floating Gold: an International Collaboration through Estuary.

Peni Candra Rini, Ranga Purnama Aji, Sen Sewell, Heather Strohschein, J. Simon van der Walt, Bill Whitmer

Was presented at:

- **Paper Session 2**
Wednesday, April 19th, 11:30, *VOGELFREI*

Live Stream Recording (YouTube) –
<https://www.youtube.com/watch?v=ZzDSW08IAdU&t=7236s>

Publication: <https://doi.org/10.5281/zenodo.7843575>

Abstract Between December 2020 and November 2022 the Glasgow-based community group Gamelan Naga Mas worked remotely with two Indonesian musicians, Peni Candra Rini and Ranga Purnama Aji. This musical collaboration was made possible by the Estuary platform, which allowed for real-time livecoded improvisations between locations in Scotland, Indonesia, and the USA. In this paper we discuss and reflect upon the technical, musical, and human factors that have made this project a success and indicate some directions for future exploration.

Genny: Designing and Exploring a Live Coding Interface for Generative Models

Junichi Shimizu, Rebecca Fiebrink

Was presented at:

- **Paper Session 3**
Wednesday, April 19th, 15:15, *VOGELFREI*

Live Stream Recording (YouTube) –
<https://www.youtube.com/watch?v=ZzDSW08IAdU&t=24240s>

Publication: <https://doi.org/10.5281/zenodo.7843500>

Abstract We present Genny, a live coding interface for interacting with generative models. By implementing a streamlined generative model API within a Web-based live coding environment, we explore possibilities for how generative models can support live coding. We describe the implementation of our interface components and the backend system for working with generative models, show several design patterns with template code, and describe use of a practical generation method for live coding performance. The system currently enables the generation of two-bar rhythm patterns using lightweight models that support near-instantaneous inference, which are able to suggest and display alternative rhythm patterns based on live coders' own inputs. Finally, we discuss reflections on this implementation approach, its current limitations, and further possibilities.

LambDAW: Towards a Generative Audio Workstation

Ian Clester, Jason Freeman

Was presented at:

- **Paper Session 4**
Thursday, April 19th, 10:00, *VOGELFREI*

Live Stream Recording (YouTube) –

https://www.youtube.com/watch?v=__Z71KQtWpMk&t=1270s

Publication: <https://doi.org/10.5281/zenodo.7842002>

Abstract We present LambDAW, a novel system for integrating computation and composition that brings code directly into the digital audio workstation (DAW). It allows the composer to freely mix static and dynamic materials by embedding short expressions of code in the DAW timeline that generate audio and MIDI on demand. LambDAW moves code out of the text editor and computation out of the effects chain, bringing both into the timeline where they can refer to and transform other items. We propose that this move makes code more tangible and enables the composer to easily bring generativity into their existing practices. Additionally, we discuss LambDAW's affordances and implications for live coding. LambDAW takes the form of an open-source REAPER extension that executes Python code embedded in projects, enabling the user to benefit from both the existing REAPER and Python ecosystems.

LivecoderA Community Report

Alicia Champlin, Joana Chicau, Miki Corfiel, Shelly Knotts, Mynah Marie, Iris Saladino, Anna Xambó

Was presented at:

- **Community Report Session 2**
Friday, April 21st, 11:15, *VOGELFREI*

Live Stream Recording (YouTube) –

<https://www.youtube.com/watch?v=FSBtvtxP008&t=5493s>

Publication: <https://doi.org/10.5281/zenodo.7845610>

Abstract In March of 2022, LivecoderA, a new live coding community came into being, coalescing around the need to recognize a specific cohort of live coders who identify as women. The group is inherently feminist and intersectional, and its creation was motivated by many desires. Among them: solidarity and visibility, to be counted as sisters, and to reflect to each other the strength of our numbers. A manifesto and several events have since been produced, and the community is active online while also making more in-person connections whenever possible through the coordination of gigs, residencies and meetups. At the time of publishing, the community connects through Telegram and Discord, with channels consisting of 48 and 27 members respectively.

- LivecoderA manifesto: <https://livecodera.glitch.me/>
- Invitation to join: <https://t.me/livecodera>

Live Coding and Education. A Practical Experience.

Francesco Corvi, Giovanni Mori, Giovanni Nulli

Was presented at:

- **Paper Session 5**
Thursday, April 19th, 11:30, *VOGELFREI*

Live Stream Recording (YouTube) –

https://www.youtube.com/watch?v=_Z71KQtWpMk&t=4952s

Publication: <https://doi.org/10.5281/zenodo.7843819>

Abstract This paper presents an explorative research on the introduction of live coding into the Italian music curriculum in middle school with the aim to offer teachers a multidisciplinary didactic tool that can enhance the learning experience of students. The research focuses on the challenges that music teachers face when introducing live coding into their curricular activity and the type of training that can prepare them for it. The paper covers three main points: the training of teachers, the pedagogical strategies employed in the classrooms, and an overview of the results of the first year of experimentation. Overall, the paper aims to offer insight into the potential benefits and challenges of using live coding as a teaching tool in music education and highlights its

potential for multidisciplinary applications, while also showing possible paths for future work and improvement.

MosAIck: Staging Contemporary AI Performance - Reflections on Connecting Live Coding, e-Textile and Movement

Elizabeth Wilson, Deva Schubert, Mika Satomi, Alex McLean, Juan Felipe Amaya Gonzalez

Was presented at:

- **Paper Session 2**
Wednesday, April 19th, 11:30, *VOGELFREI*

Live Stream Recording (YouTube) –
<https://www.youtube.com/watch?v=ZzDSW08IAdU&t=8562s>

Publication: <https://doi.org/10.5281/zenodo.7843540>

Abstract This paper introduces our collective work “Patterns in Between Intelligences”, a performance piece that builds an artistic practice between live coding sounds and coding through dance, mediated and shaped through e-textile sensors. This creates a networked system of which both live coded processes and human bodies are part. The paper describes in detail the implementations of technology used in the prototype performance performed at No Bounds Festival in Sheffield UK, October 2022, as well as discussions and concerns the team had related to the use of AI technology on stage. The paper concludes with a narrative reflection on the Sheffield performance, and reflections on it.

NL_CL Community Report

Timo Hoogland, Joana Chicau, Jonathan Reus, Rafaele Andrade, Francesco Corvi, Fabian van Sluijs, Felipe Ignacio Noriega Alcaraz, Klasien van de Zandschulp, Saskia Freeke, Sabrina Verhage, Iván Paz

Was presented at:

- **Community Report Session 1**
Friday, April 21st, 10:00, *VOGELFREI*

Live Stream Recording (YouTube) –
<https://www.youtube.com/watch?v=FSBtvtxP008&t=2683s>

Publication: <https://doi.org/10.5281/zenodo.7842288>

Abstract The Netherlands Coding Live a.k.a. NL_CL is a "pop-up" phygital space for engaging with live coding through practice, experimentation, openness, discussions and performance. Series of live coding sessions, discussions, workshops and more have been organized by live coders based in The Netherlands and hosted in various cities across the country. Many members of NL_CL are also employed or in close contact with other platforms, foundations or institutes such as the instrument inventors initiative (iii) in The Hague, Creative Coding Utrecht (CCU), Varia in Rotterdam, Creative Coding Amsterdam (CCA), The Institute of Sonology in The Hague, The HKU University of the Arts Utrecht and the Conservatory of Amsterdam (CvA). By applying for subsidy at different funds like Creative Industries Fund NL (SCI) and Fund Performing Arts (FPK) NL_CL has been able to organize many events such as concerts and workshops in collaboration or via these parties. NL_CL is an open community where everyone with an interest in coding is welcome to join. The community has a diverse practice of disciplines in which live coding is applied. These disciplines range from programming music (in the broadest definition possible) and visuals to working with choreography and embodiment or building, augmenting and designing acoustic and physical instruments. Much of the tools and research by the community are also published and shared. Furthermore the community is quite diverse in nationalities with members from for example Brazil, Argentina, Slovenia, USA, Mexico, Portugal, Italy and of course The Netherlands.

Reproducible Musical Analysis of Live Coding Performances Using Information Retrieval: A Case Study on the Algorave 10th Anniversary

Georgios Diapoulis, Martin Carlé

Was presented at:

- **Paper Session 3**
Wednesday, April 19th, 15:15, *VOGELFREI*

Live Stream Recording (YouTube) –
<https://www.youtube.com/watch?v=ZzDSW08IAdU&t=20919s>

Publication: <https://doi.org/10.5281/zenodo.7843813>

Abstract We present a reproducible music information retrieval (MIR) study on 133 performances from the 10th anniversary of Algorave. Our aim in this paper is to provide a reproducible framework for computational analysis of musical performances. Here, we present a tool for analysing acoustical characteristics and for visualizing the musical structure from performances of one algorave event. Our musical analysis of the live coding performances highlights the musical diversity within the live coding community to a broader scientific audience. At the same time, we expect that the algoravers will gain insights on their own musical practices through the computational analysis of

the musical structure of their performances. In concerning ourselves with reproducibility, our intention is to motivate more researchers to analyse musical practices of other under-represented music communities. As a basic tool for reproducibility we construct a pipeline for analysing performances using Python within a Jupyter notebook. To make this reproducible on different computers we wrapped the whole workflow setup into a docker image. We represent the results of our analysis as a series of plots of different kinds. These plots present both overviews of the entire repertory in compact form, and comparisons of individual pieces in more detail. In learning one can use such visualization as a means for raising awareness on one's evolution of the musical outcome. In performance this visualization can be developed to a real-time and possibly an interactive tool which informs the coder about the musical outcome of a live set on-the-fly. Finally, we reflect on how and to what extent such MIR studies can provide valuable insights in live coding performance practices, while also considering the limitations faced when dealing with such large parameter spaces in human machine musicianship.

Sardine: A Modular Python Live Coding Environment

Raphaël Maurice Forment, Jack Armitage

Was presented at:

- **Welcome & Paper Session 1**
Wednesday, April 19th, 09:45, *VOGELFREI*

Live Stream Recording (YouTube) –

<https://www.youtube.com/watch?v=ZzDSW08IAdU&t=1548s>

Publication: <https://doi.org/10.5281/zenodo.7843817>

Abstract **Sardine** is a live coding environment and library for Python 3.10+ focusing on the modularity and extensibility of several base components (clocks, parsers, handlers). **Sardine** has been designed to be easily integrated with existing live coding environments as both a tool for experimentation, and a demonstration of various live coding techniques: temporal recursion, patterning, integration in various hardware and software setups. Although the tool is still in active early development, it has already been used in multiple public performances and algoraves, partly enabled by its support for MIDI IN/Out, OSC IN/Out and *SuperCollider/SuperDirt* one-way communication through OSC. This paper is dedicated to the introduction of the **Sardine** system, and the explanation of the main guidelines currently followed by contributors to the project. It will also present the preliminary results of our work through practical realisations that served as experimental validation during the early stages of development.

Strudel: Live Coding Patterns on the Web

Felix Roos, Alex McLean

Was presented at:

- **Welcome & Paper Session 1**
Wednesday, April 19th, 09:45, *VOGELFREI*

Live Stream Recording (YouTube) –

<https://www.youtube.com/watch?v=ZzDSW08IAdU&t=2805s>

Publication: <https://doi.org/10.5281/zenodo.7842142>

Abstract This paper introduces Strudel, which faithfully ports the TidalCycles approach to live coding algorithmic patterns to native JavaScript and the web. We begin by giving a little background of the first year of development, before sharing some detail about its implementation and examples of use. We go on to outline the wide range of synthesis and other outputs available in Strudel, including WebAudio, MIDI, OSC (for SuperDirt), WebSerial and CSound, and introduce Strudel's REPL live editor, including its built-in visualisations. We then compare Strudel with Tidal, the trade-offs involved between JavaScript and Haskell, and the unique capabilities offered by Strudel for aligning patterns, before concluding with some thoughts about the future.

The Meaning of Live: From Art Without Audience to Programs Without Users

Alex McLean, Julian Rohrerhuber, Renate Wieser

Was presented at:

- **Paper Session 5**
Thursday, April 19th, 11:30, *VOGELFREI*

Live Stream Recording (YouTube) –

https://www.youtube.com/watch?v=__Z71KQtWpMk&t=7726s

Publication: <https://doi.org/10.5281/zenodo.7843567>

Abstract The concept of an 'art without audience' has informed live coding since its beginnings. Live Coding concentrates on collective work and questions the division between producers and consumers. This understanding of art has enabled a parallel strategy in the understanding of programming: just as an audience is not necessary for art, a user isn't necessary for programming. In the same sense as we question the separation between developer and user, we question the juxtaposition of artist and audience. This gives us occasion to recall some aspects of live coding which we have always found central to this practice: the displacement of the relation between programmers and programs, and the emancipatory potential of public thought.

The Physical and Cultural Infrastructure Supporting LiveCode.NYC: A Community Report

Sumanth Srinivasan

Was presented at:

- **Community Report Session 2**
Friday, April 21st, 11:15, *VOGELFREI*

Live Stream Recording (YouTube) –

<https://www.youtube.com/watch?v=FSBvtvxP008&t=4102s>

Publication: <https://doi.org/10.5281/zenodo.7842304>

Abstract LivecodeNYC is New York City's community of nerds and artists writing software on stage to make music, visuals, games and other live art in front of audiences. This community report offers a look into the various factors that make up the ground reality of running a live coding community in New York City, and how it influences our ways of working, successes and challenges.

TOPLAP Barcelona Community Report 2023

Glen Fraser, Iván Paz, Lina Bautista Rodríguez, Niklas Reppel, Roger Pibernat Trias, Ramon Casamajó (QBRNTHSS)

Was presented at:

- **Community Report Session 1**
Friday, April 21st, 10:00, *VOGELFREI*

Live Stream Recording (YouTube) –

<https://www.youtube.com/watch?v=FSBvtvxP008&t=2019s>

Publication: <https://doi.org/10.5281/zenodo.7843519>

Abstract Barcelona has developed an active community of live coders. This report traces back the history and development of the TOPLAP Barcelona node, from its predecessors and roots, through its founding as a collective, to the present day. In addition, it presents its ongoing activities and how they shape the character of the community as we can see it today.

Towards Another Transdiscipline: Art, (Techno)Science and Emancipation as Promise and Provocation for Live Coding

Alejandro Franco Briones

Was presented at:

- **Paper Session 5**
Thursday, April 19th, 11:30, *VOGELFREI*

Live Stream Recording (YouTube) –
https://www.youtube.com/watch?v=__Z71KQtWpMk&t=6404s

Publication: <https://doi.org/10.5281/zenodo.7842097>

Abstract In this text I deploy Nancy Fraser's theory of the 'triple movement' to analyse and re-imagine the node of techno-scientific art practice, paying attention to the Mexican art context and the imagined (trans-national) community of live coding. From Fraser's ideas, I provide an analysis of Actor-Network Theory and a general comment on technofeminism as a set of theoretical frameworks insufficient for integrating emancipation properly into artistic and scientific practices.

uSEQ: A LISPpy Modular Sequencer for Eurorack with a Livecodable Microcontroller

Dimitris Kyriakoudis, Chris Kiefer

Was presented at:

- **Paper Session 4**
Thursday, April 19th, 10:00, *VOGELFREI*

Live Stream Recording (YouTube) –
https://www.youtube.com/watch?v=__Z71KQtWpMk&t=2548s

Publication: <https://doi.org/10.5281/zenodo.7843874>

Abstract *uSEQ* is a new livecodable sequencer module for the Eurorack modular synthesiser ecosystem. It draws inspiration from both the practices of live coding and hardware modular synthesis, aiming to examine and combine their respective ergonomic strengths and weaknesses into a new, hybrid practice. It embeds *uLisp*, a tiny interpreter for the general-purpose language with a small-enough footprint to run even on inexpensive microcontrollers. The interpreter's REPL has been modified for the purposes of live coding, and its reader has been "hacked" to the limited resources of the sub-£5 microcontroller at the heart of the module. On top of the Lisp general-purpose language, a minimal DSL layer has been designed to take full advantage of the linguistic flexibility of the underlying language. Simultaneously, the semantics of this DSL tries to stay close to one of the central philosophies of modular synthesis: everything is a signal, and sequences are no exception. Its open-source firmware and design files (PCB and 3D-printable faceplate), with an approximate total cost of £20 in parts, *uSEQ* is highly DIY-friendly can be built as a weekend project. It provides multiple input and output interfaces to the rest of the Eurorack ecosystem, and can be controlled from a mobile phone, tablet, or any (micro)computer with a USB port. The prototyping of this module is a practical exploration into the ways in which the ergonomic and ergodynamic tensions between the practices of livecoding and modular synthesis can be successfully addressed when bridging the two worlds, following a practice-led, research-through-design approach.

Ziffers: Numbered Notation for Algorithmic Composition

Miika Alonen, Raphaël Maurice Forment

Was presented at:

- **Paper Session 3**
Wednesday, April 19th, 15:15, *VOGELFREI*

Live Stream Recording (YouTube) –

<https://www.youtube.com/watch?v=ZzDSW08IAdU&t=22468s>

Publication: <https://doi.org/10.5281/zenodo.7841945>

Abstract Ziffers is an algorithmic number based musical notation for live coding. It offers concise syntax to support composition and improvisation with complex melodies and rhythms. Ziffers is the result of experiments in unifying several types of musical notation centred around the use of symbols and numbers. It is inspired by the older numbered musical notations (*Ziffersystem*, *Jianpu*), contemporary music theory (pitch-class sets, post-tonal music analysis, serialism) and shorthand notations used in live-coding. Ziffers aims for a balance between fixed media music notation and generative notations for live coding performance. In this article, we propose an implementation agnostic numbered notation for algorithmic composition and live coding. As a proof of

concept, this article will also present a live-coding framework for Ziffers notation and an export plugin for a general purpose scorewriter. In doing so, we hope to highlight the versatility of our approach in using unified syntax for different contexts of execution and interpretation.

Živa: Easy Live Coding With SuperCollider

Roger Pibernat Trias

Was presented at:

- **Welcome & Paper Session 1**
Wednesday, April 19th, 09:45, *VOGELFREI*

Live Stream Recording (YouTube) –
<https://www.youtube.com/watch?v=ZzDSW08IAdU&t=4019s>

Publication: <https://doi.org/10.5281/zenodo.7842215>

Abstract Živa is a quark aimed to simplify the live coding experience in SuperCollider, both to quickly set up the environment and to code in a sparse and clear syntax.

This paper describes the reasons that led the author to develop it and his procedures in doing so. The paper introduces the problems encountered when using other languages, and the solutions found in SuperCollider to solve them. This is not a research paper, but a report of the motivation, proceedings and achieved results of the developer's experience in creating this subset of tools for SuperCollider.

Performances

Amalgam

Timo Hoogland, Saskia Freeke

Was performed at:

- **Algorave**

Saturday, April 22nd, Doors: 21:50 / Show: 22:00, *TivoliVredenburg*

Program Notes Amalgam is an audiovisual live coded performance by Sasj & Timo of algorithmic electronic dance music and playful geometry and patterns. The work is the latest iteration in an ongoing research and collaboration between Saskia Freeke and Timo Hoogland where they explore the possible relationships between image and sound. During this piece the visual output is used as input for sonic transformations, displacing rhythm, melody and sonic textures based on color, geometry and patterns.

Arrays of Disarray

Jessica Garson (Messica Arson)

Was performed at:

- **Alternative Algorithms**

Thursday, April 20th, Doors 19:30 / Show: 20:00, *EKKO*

Program Notes In her performance "Arrays of Disarray," Brooklyn-based artist Messica Arson will use live coding in Python with FoxDot and custom scripts to create a dynamic and electrifying experience. She will also incorporate live sampling of her own screams, and use Hydra to create a chaotic yet mesmerizing visual world. This promises to be a one-of-a-kind performance.

AUTO{}Construcción

Iván Abreu, Malitzin Cortés (CNDSD)

Was performed at:

- **Immersed in Code**

Friday, April 21st, Pre-Show 19:30 / Show: 20:00, *Former Pieter Baan Centrum*

Program Notes AUTO{}Construcción is an audiovisual concert of live coding and algorithm-based video game experience that explores the relationship between speculative architecture and the phenomena of informal housing executed by "non-architects" in countries such as Mexico, the United States, Latin America, Asia, India and some European peripheries, collaboratively creating 3D imaginaries with machine learning. The audiovisual immersion is guided by text and also by an avatar.

Title to come post-performance

Dan Gorelick (dan.dog)

Was performed at:

- **Algorave**
Saturday, April 22nd, Doors: 21:50 / Show: 22:00, *TivoliVredenburg*

Program Notes The piece will be a response to the previous acts and energy in the room. The musical elements will be live-coded patterns accompanied by electric cello and vocals.

Blocking Behaviours

Bjarni Gunnarsson

Was performed at:

- **Alternative Algorithms**
Thursday, April 20th, Doors 19:30 / Show: 20:00, *EKKO*

Program Notes 'Blocking Behaviours' concerns the real-time interpretation of two simulations of complex behaviour through an agent-based system. The simulations enforce a way of thinking that revolves around balancing behaviours, an attitude that considers musical output as something that emerges from an interaction with an autonomous system. The simulation acts as a generative, rule-based system producing output that is subject to different kinds of observation algorithms. The idea is that evolving processes are set in motion where the creator/composer becomes an observer of various developments. The output can not always be controlled in detail but is instead interpreted and further processed. The interpretation involves a mapping between different modes of representations in order to simplify or combine. In 'Blocking Behaviours' the idea is to explore the boundary of generative behaviour, control and direct access to computer sound synthesis.

Botbop: Integers & Strings

Kasper Jordaens, Dagobert Sondervan, Andrew Claes

Was performed at:

- **Choreographic Coding**

Wednesday, April 19th, Doors 19:30 / Show: 20:00, *Het Huis Utrecht*

Program Notes The fourth iteration of Bot Bop's exploratory journey into the artistic potential of combining AI and live coding, will deepen the focus incorporating real-time string arrangement, its visual representation and the interaction and creative possibilities of AI.

Three live coders, Dago Sondervan -who uses multiple live coding environments at the same time-, Andrew Claes -accomplished wind-controller and patching adept- and Kasper Jordaens -live visual and data artist- team up creating an interactive environment where improvisation and computer aided composition can overflow.

Continuing development of BOTBOP's custom software and implementations using primarily open source software, now enables the creation of musical scores in real time. Starting from improvisation, MIDI data is gathered, processed and distributed on stage to a classical string quartet. Algorithmic strategies are combined with machine learning techniques to render a sensible musical output, to be played at first sight by the strings. The focus is on dynamic systems, optimized to react in real time rather than pre-generated and 'offline', giving this audio-visual performance a distinct edge, blurring lines between classical composition, electronic music and jazz.

Integers & Strings premiered at Sónar festival during its 'AI & Music S+T+ARTS' 2021 festival in Barcelona in co-production with BOZAR Brussels.

Brickwork: Destroy

Agata Genissel

Was performed at:

- **Algorave**

Saturday, April 22nd, Doors: 21:50 / Show: 22:00, *TivoliVredenburg*

Program Notes This iteration of Brickwork explores destruction as something that has the potential for regeneration. Live coding using TidalCycles, Hydra, and incorporating live vocals, this synthesis of the digital and vocal expands on the relationship between technology and performer as something that is symbiotic, playful, erroneous and against notions of rigid control. In exploring the physical space away from the laptop screen, Brickwork uncovers the potential for performance in-between live coding and live instrumentation.

Challenging the relationship between artist and tool as one that seeks to fulfil technological idealism by playing with visual, spatial and sonic dynamics, 'Destroy' seeks to simultaneously build and destroy structures of sound and textures in attempt to capture a moment that embraces paradox through playfulness. It is in this frenzy of live improvisation and costume-fueled expression that Brickwork seeks to destroy the impulse to resist destruction itself – please dance!

Broken Bond

Roxanne Harris (alsoknownasrox)

Was performed at:

- **Algorave**

Saturday, April 22nd, Doors: 21:50 / Show: 22:00, *TivoliVredenburg*

Program Notes "Broken Bond" is a live coding performance exploring the broken connections between technology and humanity. Through a combination of live coding and sound manipulation, this performance will explore how technology has both connected and disconnected us from others. Audience members will experience an immersive soundscape that will heighten their senses to the complexities of our modern technological landscape.

c0l1v3

Bruno Gola

Was performed at:

- **Algorave**

Saturday, April 22nd, Doors: 21:50 / Show: 22:00, *TivoliVredenburg*

Program Notes c0l1v3 is a collaborative live codable open web platform and instrument created by Bruno Gola. For ICLC 2023 Bruno proposes a collaborative performance session where the local audience can join him and play with their mobile phones and laptops, and remote collaborators can join from home.

Code must go on!

Florencia Alonso (Flor de Fuego)

Was performed at:

- **Algorave**
Saturday, April 22nd, Doors: 21:50 / Show: 22:00, *TivoliVredenburg*

Program Notes This performance is based on the theatrical aspect of a stage, how in this sense code can be used not just for visuals but more as a concept for a live show. The intention is also to combine physical and digital aspects with code, like VR spaces, physical DMX lights and robot puppies performing. Transforming the code into an universal multiplexer device that is also an actor in the scene.

Codes for a Dance

Kate Sicchio, Alex McLean

Was performed at:

- **Choreographic Coding**
Wednesday, April 19th, Doors 19:30 / Show: 20:00, *Het Huis Utrecht*

Program Notes This piece explores movement through textual, visual and physical communication. It focuses on language, patterns and the performance of gestures as a way to bridge the digital and the physical. Through a series of live coded actions, connections will be made from humans to machines and back to humans again.

Codie

Kate Sicchio, Sarah Groff Hennigh-Palermo

Was performed at:

- **Algorave**
Saturday, April 22nd, Doors: 21:50 / Show: 22:00, *TivoliVredenburg*

Program Notes We are a live coding duo, making music and visuals. Our performances are A/V shows with electronic sounds and video projections. We perform by creating our works live and anew for each performance. Our sounds are dancey and our graphics are SoCal. Sarah's visuals are coded with her own Clojurescript-Electron app called La Habra. She creates patterns and abstract shapes that animate and move to the rhythm. Kate creates sound in the Ruby-based environment Sonic Pi. She manipulates and layers samples with algorithms to create the soundtrack. We type and improvise as we go, reacting to each other's output and the audience's reactions. In accordance with the Live Coding Draft Manifesto, we project our code as we go, so the audience can inspect and marvel at the changes and accumulations.

ColorScape: DipInCode

Kofi Oduro (illestpreacha), Renee Jordan

Was performed at:

- **Lunch & Concert 2**

Friday, April 21st, Doors 12:45 / Show: 13:10, *NAR - Café der Künsten*

Program Notes Dip in Code takes up the concept of chromesthesia (i.e. hearing colour/seeing sound) while allowing the audience the pleasure of tasting colors and seeing taste while hearing it at the same time. Dip in Code: Kitchen of Hues, takes colors that happen to be named after food. To give an audiovisual experience that crosses over to an immersive culinary setting/dining experience as well. Every track isn't a single color like its predecessor but will be named after meals that are also names of colours. The soundtrack of each meal is coded and visualized to make sure the meal is represented well. Enjoy that colorful byte.

Commuta: A Cross Adaptive Laptop Ensemble

Francesco Corvi, Riccardo Ancona, Giulia Francavilla (Giulia Rae)

Was performed at:

- **Hybrid Acoustics**

Sunday, April 23rd, Doors 15:30 / Show: 16:00, *Nicolaïkerk*

Program Notes Commuta is a trio algorithmic performance dealing with the notion of cross-adaptive sonic relationships. Three performers are entangled in a network of influences obtained by dynamically relating the expressive features of each sound stream with the others. In this system, live coding acts as a form of interaction capable of producing perturbations and changing on-the-fly the overall structure of the network. The joint result seeks for an emergent complexity lying at the intersection of the three performer's individual practices: the development of adaptive sonic processes in live coding by Francesco Corvi (nesso.xyz), Giulia Rae's exploration of machine listening techniques for environmental synthetic soundscapes, and Riccardo Ancona's study on material identities in corpus manipulations.

Conversational Learning

Iván Paz

Was performed at:

- **Immersed in Code**

Friday, April 21st, Pre-Show 19:30 / Show: 20:00, *Former Pieter Baan Centrum*

Program Notes Conversational learning explores live coding liveness within the machine learning process (data collection, training and validation), focusing on how real-time training of a machine learning algorithm can be sonically exposed. It is based on a rule-learning algorithm that automatically produces new synthesizer presets out of a small labeled database. The algorithm is designed with only two parameters controlling "how close" the new created presets can be from those originally present in the training data. The learning process happens mid-performance, tweaking the algorithm parameters on-the-fly. Then, the different learned models unfold the piece in conversation with the performer.

CRash Landing

Citlali Hernández Sánchez (turbulente), Lina Bautista Rodríguez, Roger Pibernat Trias

Was performed at:

- **Immersed in Code**

Friday, April 21st, Pre-Show 19:30 / Show: 20:00, *Former Pieter Baan Centrum*

Program Notes An experimental project where three performers share a common code expressed in different but interdependent languages: text, gesture, image, voice and sound recordings. Lina will generate music and sound textures using Tidal Cycles, Citlali will be recording voice live loops using body gestures with motion sensors, and Roger will be generating visuals with his own *Animatron* tool dedicated to live coded animation. «CRash Landing» represents a metaphor between a plane flight and a live coding performance, starting with a from scratch and finishing with a crash.

c_robo_

William Rinkoff (c_robo_)

Was performed at:

- **Algorave**
Saturday, April 22nd, Doors: 21:50 / Show: 22:00, *TivoliVredenburg*

Program Notes A livecoding performance with one person, one laptop, a digital feedback patch and hundreds of .wav files (most of which are drum loops). The audio will be a blend of Algorave, hardcore breaks, industrial hip-hop, and harsh noise. Feel free both to dance and/or lay on the ground in front of the subwoofer.

DEF FUNCTION(DYSTOPIAKIRA)

Ryan Ross Smith (The Wookie), Shawn Lawson (Obi-Wan Codenobi)

Was performed at:

- **Algorave**
Saturday, April 22nd, Doors: 21:50 / Show: 22:00, *TivoliVredenburg*

Program Notes Neo Tokyo, ca. 2019, 31 years after World War III, Akira awakens. This homage is an audiovisual, live-coded performance remixing and re-envisioning the 1988 classic film created in the year of its setting, 2019 and reimagined now in 2022.

The Rebel Scum (aka Shawn Lawson and Ryan Ross Smith aka Codenobi and The Wookie) use the code editor Jensaarai to collaboratively and simultaneously live-code TidalCycles and Python, each supported by SuperCollider and Touch Designer on the backend respectively.

Epiplode

Lucy Cheesman, Alex McLean

Was performed at:

- **Algorave**

Saturday, April 22nd, Doors: 21:50 / Show: 22:00, *TivoliVredenburg*

Program Notes People have danced to algorithms throughout history, including the Ancient Greeks. Epiplode is such an algorithm, evident in fragments of Ancient Greek texts, where metrical short-long structure is shifted in patterns. In this performance Lucy Cheesman and Alex McLean will explore Ancient Greek narratives and patterns with live code, bringing together fragments of structures from different texts, including instances of epiplode, as well as incorporating audio descriptions from Homer and reconstructions of Homeric instrumentation.

flux

Michele Samarotto

Was performed at:

- **Hybrid Acoustics**

Sunday, April 23rd, Doors 15:30 / Show: 16:00, *Nicolaïkerk*

Program Notes *flux* treats ideas of “perceptual” displacement. The piece involves two apposite elements: the notorious Shepard-Risset glissando and continuously fluctuating rhythms. Ever-shifting anchor points amidst the sonic substance blur the lines between movement and stasis. Not aiming to create a general confusion of the senses nor to deconstruct 4-to-the-floor tropes, I would rather like to suggest immersive qualities.

As often the case in my live-coding practice, I start from minimal pre-written code in SuperCollider, constituting the basic skeleton of the composition/performance, designed to explore certain sonic areas of interest as well as to afford entering uncharted territory; in this sense I always liked Xenakis’ image of the composer (and here I include the notions of performer/improviser) as a pilot supervising “the controls of a cosmic vessel sailing in the space of sound” (*Formalized Music*).

grain by grain

Sol Sarratea (@alsolquema)

Was performed at:

- **Immersed in Code**

Friday, April 21st, Pre-Show 19:30 / Show: 20:00, *Former Pieter Baan Centrum*

Program Notes Inspired by concepts from granular synthesis and phase shifting in sound, “**Grain by grain**” is a visual performance generated through the composition of “visual grains” at real time using fragment shaders. Where a “visual grain” is defined as a sample of a video signal, or recording.

It is a displacement loop of the “frame by frame” paradigm, in which the environment for live coding visuals is perceived as an infinite nested sequence of frames. Mutating frame by grain is introducing a new generation for visual narratives.

Working with “visual grains” lead to building “visual phrases”, which can be defined by a finite number of frames, originally from a recording, and they can be looped, transformed in time and/or space, mixed, and overlaid.

Grim! Grim! Grim!

Grimberg

Was performed at:

- **Alternative Algorithms**

Thursday, April 20th, Doors 19:30 / Show: 20:00, *EKKO*

Program Notes Grimberg's music is based on loops of acoustic drum and percussion, synthesizer and guitar lines. He extracts these loops from old stuff of the 70s and sometimes he creates them on his own. This enriches his tunes with a patina, a warm atmosphere of psychedelic scapes between ambient and progressive rock. Combined with choppy structures of contemporary pattern based music this turns out a unique hybrid of a fluent groove based sound which could be named “Algorithmic Krautrock”.

Happy Algorave Performance

Niklas Reppel

Was performed at:

- **Algorave**

Saturday, April 22nd, Doors: 21:50 / Show: 22:00, *TivoliVredenburg*

Program Notes *“But Algorave is about bringing algorithms a bit more into the foreground, haunted a bit by rave; some promise of less focus on the musician and more on each other, and a serious kind of dedication to having some fun.”* - Alex McLean.¹

Algoraves were invented, or so live coding lore has it, to take live coding out of an academic context and make it fun for both audience and performer. For me, there’s not much fun in repeating myself, and as a result my Algorave performances are somewhat eclectic. Sometimes they sound a bit like german EBM from the 80s, sometimes like footwork, and sometimes like a free jazz drummer playing on a TB909. Sometimes they contain the occasional cover song, and sometimes they have random animal noises or cartoon quotes sprinkled in (there’s no fun in taking the fun **too** seriously either).

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1. <https://esoteric.codes/blog/interview-with-alex-mclean>

Human-Computer Counter-Choreographies (Beta)

Joana Chicau

Was performed at:

- **Choreographic Coding**

Wednesday, April 19th, Doors 19:30 / Show: 20:00, *Het Huis Utrecht*

Program Notes This performance is part of a practice-based PhD that comprises embodied and choreographic techniques to inform the development of methods and tools for designing of web-interfaces — driven by transparency and legibility. Joana Chicau will present early prototypes such as custom interfaces and plug-ins that aim at responding to the opaque algorithmic models embedded in pervasive web interfaces. For instance, by exposing user-tracking and phenomena such as ‘dark patterns’ through live performance. She will interweave live coding using JavaScript commands on the web console and custom browser tools with voice narration following a choreographic perspective.

KhipuKoding 2.0 + The Neokhipukamayok Manifesto

Paola Torres Núñez del Prado

Was performed at:

- **Hybrid Acoustics**

Sunday, April 23rd, Doors 15:30 / Show: 16:00, *Nicolaïkerk*

Program Notes KhipuKoding 2.0 + The Neokhipukamayok Manifesto is a Sound Performance thought around the khipu (fiber-based notation device of pre-Hispanic origin) that combines Machine Learning, Computer Vision, the human act of knotting, and a hybrid notation method that reads khipu-style knots in order to generate sound.

Listening to the (Future) Landscape

Sara Bouchard

Was performed at:

- **Hybrid Acoustics**

Sunday, April 23rd, Doors 15:30 / Show: 16:00, *Nicolaïkerk*

Program Notes *Listening to the (Future) Landscape* is a quadraphonic, live-coded sound performance, incorporating found natural objects, local environmental recordings and voice in an immersive listening space evocative of our ecological future. The artist has collected objects and recordings from the local landscape — the city of Utrecht — which become the primary instruments in the piece. With these artifacts, the artist builds a multi-layered, virtual space that exists in parallel with — and in tension with — the physical environment.

Neowise 5.8 V/E

Alicia Champlin

Was performed at:

- **Hybrid Acoustics**

Sunday, April 23rd, Doors 15:30 / Show: 16:00, *Nicolaïkerk*

Program Notes Neowise 5.8 V/E is a constructed/deconstructed soundscape, last of a series of minimalist and ambient improvisations inspired by the unfathomable orbit of the comet they are named after. Using just 2 or 3 samples in TidalCycles, it layers the ringing of the spheres, and beams out harmonics like a prism splitting light into distinct colors. The samples used are recordings of a bow chime, a very physical instrument which plays you in return. Recordings of this acoustic behemoth cannot track the experience of it live, but by manipulating these samples, we find new means to engage with the tangible shapes of orbits and conjunctions. In this last scene of the series, the live bow chime also joins the stage as recompense to the early studies' original explorations of ebb and return. Dedicated to Matt Samolis in gratitude for his mentorship.

New Ways of Collaboration

Sabrina Verhage

Was performed at:

- **Algorave**

Saturday, April 22nd, Doors: 21:50 / Show: 22:00, *TivoliVredenburg*

Program Notes In this Algorave performance Sabrina is exploring the possibilities of collaborating with a large machine learning model in a live coding setting.

Nodysseus.THREE

Ulysses Popple

Was performed at:

- **Algorave**

Saturday, April 22nd, Doors: 21:50 / Show: 22:00, *TivoliVredenburg*

Program Notes This performance will be using Nodysseus, a work-in-progress livecoding tool. It is a general purpose visual programming language and editor for the web inspired by a combination of node-based live editors and visual effects tools. In this algorave set, I'll be using THREE.js along with built-in Nodysseus nodes. The majority of the performance will feature audioreactive 3D objects postprocessed by glsl shaders. I will use basic 3D shapes, particle simulations, and pre-built geometry files, all procedurally manipulated, mixed, and textured by live graph editing. Some of the nodes will be premade, but combining them and adding audio-reactivity will be done live.

P5LIVE COCODING

Ted Davis, Sabrina Verhage

Was performed at:

- **Immersed in Code**

Friday, April 21st, Pre-Show 19:30 / Show: 20:00, *Former Pieter Baan Centrum*

Program Notes At this participatory performance the barrier between the audience and the performers will be blurred. Rather than facing the audience, the performers will join them as multiple machines invite anyone to join the P5LIVE COCODING session. Starting from scratch, the shared codebase will extend, break, tweak, grow in complexity, and ideally bring us all to new unexpected visual territories. So join in and COCODE with us!

patterns in modulation

Sebastian Pappalardo (eerie_ear), Blaž Pavlica

Was performed at:

- **Hybrid Acoustics**

Sunday, April 23rd, Doors 15:30 / Show: 16:00, *Nicolaïkerk*

Program Notes Patterns in modulation is a collaboration between two creative coders, Sebastián Pappalardo aka. *eerie_ear* and Blaž Pavlica. Through code improvisations, they generate meandering and evolving patterns and textures that create subtle and interweaved soundscapes and music, intended to challenge the audience's sense impressions and create a compelling immersive experience.

Pirarán – Algorithmic Acid Music

Alejandro Franco Briones, Diego Villaseñor de Cortina (Videco), Iván López Pineda

Was performed at:

- **Alternative Algorithms**

Thursday, April 20th, Doors 19:30 / Show: 20:00, *EKKO*

Program Notes Pirarán is a networked ensemble that hallucinates with mad light-ganglia and one-legged silences. Their algorithmic acid music oscillates between the aridity and emptiness of the post-end of time. The ensemble is made up of Iván López (Morelia, MX), Diego Villaseñor (Mexico City, MX) and Alejandro Franco Briones (Ontario, CA).

Poetry Attack 01

Mari Moura, Joenio Marques Da Costa

Was performed at:

- **Choreographic Coding**

Wednesday, April 19th, Doors 19:30 / Show: 20:00, *Het Huis Utrecht*

Program Notes How many women are here? How many black people are here? How many black women are here? In these times of displacement, it is necessary to think about it. In this show, artist Mari Moura (1st Minister of the Sensible State) carries out a poetry attack using live coding and text writing to questioning the absence of women, black people, and black women at live coding events and spaces. The absence of women, black people and black women is not natural, it is part of a systematic racist system that promotes exclusion. The performance act is a micro-activist action that invites the live coding community to reflect on the roles and opportunities to propose a movement of displacement and change regarding the absence of women, black people and black women. The performance is composed by sound art and performance art, synthesizers and sound samples will be manipulated by live coding through the free software platform Sonic Pi.

QBRNTHSS hybrid set

Ramon Casamajó (QBRNTHSS)

Was performed at:

- **Immersed in Code**

Friday, April 21st, Pre-Show 19:30 / Show: 20:00, *Former Pieter Baan Centrum*

Program Notes QBRNTHSS hybrid set is a performance using live coding and acoustic and electronic instruments, including trumpet, processed contact mic, and some effect pedals. In his performances, we can find Ramon Casamajó (a.k.a. QBRNTHSS) riding the tension between the rhythm and the abstraction, the melody and the noise, the synthetic and the analogic. Hardly influenced by avant-garde musicians that have experimented with the limits of electronic music, like Jon Hassell or Moritz Von Oswald, Ramon Casamajó tries to use live coding in his musical practice to find new sounds and his own voice.

Rumble Machines

Eloi Isern Rabella (Eloi el Bon Noi)

Was performed at:

- **Immersed in Code**

Friday, April 21st, Pre-Show 19:30 / Show: 20:00, *Former Pieter Baan Centrum*

Program Notes After his death, the heirs of Professor Bad Trip found in his old mansion the drawings of some machines created with the evil intentions of annoying as many people as possible. We have recovered these drawings to program them again and honor the memory of their creator. We have not managed to resurrect him, but seeing the Rumble Machines live will be like having Professor Bad Trip right under your nose.

Sardine X Ziffers: New Tools for Algorithmic Expression

Raphaël Maurice Forment (Bubobubo), Rémi Georges (Ralt144MI)

Was performed at:

- **Algorave**

Saturday, April 22nd, Doors: 21:50 / Show: 22:00, *TivoliVredenburg*

Program Notes This duo performance by Ralt144MI and Bubobubo aims to highlight recent developments in Sardine (Raphaël Forment) and Ziffers (Miika Alonen). These two live coders from Lyon are dynamic members of the French Cookie Collective. They are, among other things, responsible for the current dynamism of the French live coding scene! Uniting their respective styles for ICLC 2023, they wish to engage with the audience in an algorithmic exploration of their new systems for improvisation.

In anticipation of ICLC 2023, Miika Alonen and Raphaël Forment (BuboBubo) have joined forces! They have merged their respective tools, Sardine and Ziffers, into a single live entity! Doing so, they are hopeful to pave the way for new future experiences in

algorithmic melodic generation. Sardine is a modular environment for live coding in Python 3.10+. Ziffers is a concise digital music notation system for algorithmic and generative composition. The two, taken together, constitute a powerful environment that continues the approach initiated by TOPLAP long ago, that of exploring musical algorithmic patterns as an expressive gesture! The more the merrier! Two pattern languages in one single environment!

During their performances with the Cookie Collective, Ralt144MI and BuboBubo have felt the need to have at their disposal new extensible and modular tools that would allow hybridization with analog machines, synchronization, and the quick exchange of ideas, functions, or code snippets. It is on this condition that it seemed possible to establish new interactions with their friends from the demoscene, the DIY music world or the generative visual world. Their performance will pay tribute to the energy of the contemporary French scene (the Cookie lives!) and will introduce the live coders present to a musical use of these new tools. Expect bricolage, loud rhythms and synchronized computers!

Serendipitous Liquidators

Kosmas Giannoutakis, Aaron J. Juarez

Was performed at:

- **Alternative Algorithms**

Thursday, April 20th, Doors 19:30 / Show: 20:00, *EKKO*

Program Notes Serendipitous Liquidation describes the practice of live coding that reuses, remixes, and repurposes creative code by various authors in live performances. The limitless aesthetic possibilities of openly published code snippets are harnessed in experimental, improvisatory, and playful modes. This practice paves the way for the development of commons-centric ecosystems that are supported by Distributed Ledger Technologies. The performance engages with SuperCollider tweets and Hydra sketches composed by various creative coders. All the authors are cited on screen and in the credits.

The Cuckoo's Nest

Jude Montague, Amy Cullis

Was performed at:

- **Choreographic Coding**

Wednesday, April 19th, Doors 19:30 / Show: 20:00, *Het Huis Utrecht*

Program Notes Morris is a traditional dance in which small teams (six to ten) step and clap sticks in group formation. In St Leonards-on-Sea, Sussex there is a new side/team of dancers called 'Rheda's Dream' led by Amy Ruth Cullis. Jude Montague has been setting up a new series of Algoraves locally and together they are creating an interweaving of Morris dance and algorithms, inspired by Alex McClean's work with patterns and computer code. The performance will feature dancing by Amy Ruth Cullis and will use code to interact with the audience as instructions. Those of the audience who wish can take part in a processional dance. The experience will bring together early modern and new dance.

The neoCowgirl Manifesto

Matilda Sutherland

Was performed at:

- **Immersed in Code**

Friday, April 21st, Pre-Show 19:30 / Show: 20:00, *Former Pieter Baan Centrum*

Program Notes The neoCowgirl harnesses the web browser-as-arena, morphing the seemingly enclosed window into her Own Personal Wild Wild West. In a combination of live-programmed audio, visual, and written media, the neoCowgirl reimagines a future beyond techno-libertarian ideals of AI-fuelled automation.

this is not a piano

Niklas Reppel

Was performed at:

- **Lunch & Concert 1**

Thursday, April 20th, Doors 12:45 / Show: 13:10, *NAR - Café der Kunsten*

Program Notes *This is not a piano* is a suite of pieces for sampled piano I wrote (or generated) from small snippets of text data. Learning a variable-order Markov chain from the properties of the snippets, I added variation through layering and manipulating certain aspects of the sound in an improvisational process, using my live coding environment Mégra.

The results have a slight reminiscence of, though no real connection to, some piano pieces by Eric Satie. I've always been drawn to the piano as an instrument, as apart from its pleasant sound it also lends itself well to reflect structural properties of music.

In the end, it's more about the interaction and dialog with the algorithm rather than trying to beat benchmarks.

todødot

Florencia Alonso (Flor de Fuego)

Will be performed at:

- **Algorave**

Saturday, April 22nd, Doors: 21:50 / Show: 22:00, *TivoliVredenburg*

Program Notes (...)

[_ _ _]

Jia Liu (刘佳), Song Li (李松), Shuoxin Tan (谭硕欣)

Was performed at:

- **Immersed in Code**

Friday, April 21st, Pre-Show 19:30 / Show: 20:00, *Former Pieter Baan Centrum*

Program Notes Can algorithms be collaborative? What happens when the Borromean knot is applied to network structures? Can we communicate through numbers? In this performance, the network music ensemble [_ _ _] presents its thoughts on these questions. The members of the ensemble will each live-code their algorithms on their laptops connected through a communication mechanism they have created, the algorithms being live-interpreted into sound in the concert room. The data communication mechanism was developed from scratch during the Covid lockdown in 2020 using the programming language SuperCollider. Their system is mainly based on message transmission. Each member plays the role of a node, sending and receiving messages. They could define and modify the algorithms to reform message chains and time/frequency intervals respectively. Writing and changing rules on the fly, they listen to each other through subtle changes in the sound resulting from their in-time communication.

Variations on Kandinsky

Monique Copper

Was performed at:

- **Lunch & Concert 1**

Thursday, April 20th, Doors 12:45 / Show: 13:10, *NAR - Café der Kunsten*

Program Notes ‘Variations on Kandinsky’ is inspired upon the geometrical forms which Kandinsky used for his mise-en-scène to Mussorgsky’s ‘Pictures at an Exhibition’. Monique will improvise with the Codeklavier to be able to generate code for two purposes: a visual narrative with geometrical forms on an html canvas, and real-time electronic accompaniment to her piano playing.

Electronic music always played an important role during Monique Copper’s career. She worked in Ton Bruynèl’s electronic studio and has since performed his piano music with tape.

“With Bruynèl (1934-1998) we often discussed the future of electronic music. In particular during the transition from analogue to digital. The computer was seen as a natural continuation of the electronic music but in particular we foresaw the development into a live musical instrument. The computer will be one of the next generation of musical instruments ready for live performances.”

Vortex: Reresik

Peni Candra Rini, Rangga Purnama Aji, Sen Sewell, Heather Strohschein, J. Simon van der Walt, Bill Whitmer

Was performed at:

- **Immersed in Code**

Friday, April 21st, Pre-Show 19:30 / Show: 20:00, *Former Pieter Baan Centrum*

Program Notes This work tries to interpret the existence of garbage that has accumulated physically and its analogy in the conception of the mind. The lyrics in this work try to describe the tightness, confusion, and depression caused by the awareness of the murkiness within the human mind and how the influence of garbage can strongly impact the saturation of this condition.

We All Begin in Abstraction

Shelly Knotts, Sojung Bahng (방소정), Kirby Casilli

Was performed at:

- **Choreographic Coding**

Wednesday, April 19th, Doors 19:30 / Show: 20:00, *Het Huis Utrecht*

Program Notes “We All Begin in Abstraction...” is an AV networked live coding performance for live coding musician (Shelly Knotts), live video (Sojung Bahng) and movement (Kirby Casilli) which takes inspiration from Legacy Russell’s text *Glitch Feminism* to explore threads of female embodiment, error and algorithmically mediated life.

In live coding, error constitutes an embodied form of computing, drawing attention from the screen and towards the body which is creating a rupture, a break, in the flow system.

In this work we draw attention to the points of interaction between body, machine and algorithm and the ruptures and errors that shape the interaction between artists, code and audience in algorithmically driven performance. We use machine learning algorithms to track movement and live video as an input to a live coded performance, forming a feedback loop between body, algorithm, embodied algorithms and mediated forms.

Videos

A Quad Entropic Conversation

Sarah Imrisek (@cymatiste), Marcus Gordon (magfoto), Ilze Briede (Kavi), Hrysovalanti Maheras (hryso)

Watch Video on YouTube – <https://youtu.be/AttfP19Gnwg>

Description A Quad Entropic Conversation is a live coding performance by ensemble The Endemics, that features speech used in various forms to carry on an audiovisual conversation between the four members and their instruments. Live coded in Hydra, Orca, and SuperCollider, and ending with a touch of analog modular sound, a conversation unravels inside a wormhole. The meaning of the words, the meanings in speech, and everything transmitted in the form of communication, undergoes a transformation, due to the entropic forces taking place in black holes. Knowing from the beginning that parts and pieces of ourselves get lost, and displaced in our exchanges with others, we find an opportunity to better tackle the resistance emerging in our conversations and create open ended dialogues with one another and through the code we share.

Atari 2600 Video Remix

Joenio Marques Da Costa

Watch Video on YouTube – <https://youtu.be/4rrxgw-eYU>

Description The video is a series of video remix, sound art and live coding inspired by the game console Atari 2600, mixed with historical pictures of Brasília city (Brazil capital federal), and Salvador city (also called: *The biggest carnival in the world*). The sounds were made by live coding with Tidal Cycles, using sound samples extracted from the selected games, including *Pitfall!* (released by Activision in 1982), *Enduro* (released by Activision in 1983), *River Raid* (published by Activision in 1982), *Keystone Kapers* (developed and published by Activision in 1983), *Megamania* (released by Activision in 1982), and *Pac-Man* (developed and published by Atari, Inc. in 1982).

The series is a work-in-progress and soon new episodes will be released, you can find more info and news on the links below.

- Project site: <https://atari2600.4two.art>
- Source code: <https://codeberg.org/joenio/atari2600>

AV Club SF Community Report

Dan Gorelick (dan.dog), Tyler McLaughlin (R Tyler), Don Hanson (d0n.xyz), Rodney Folz (haute.rod)

Watch Video on YouTube – <https://youtu.be/88Z-b-w7kBc>

Was presented at:

- **Community Report Session 2**
Friday, April 21st, 11:15, *VOGELFREI*

Description Community Report from the San Francisco based artist collective, AV Club SF. The video documents the different performances that have taken place since the formation of AV Club in April 2021, through current day. AV Club has worked in close conjunction with artists from LivecodeNYC to put on shows at SXSW festival, Gray Area, SyzygySF, and many other venues throughout the Bay Area.

A lot of the additional effort for the shows goes into documentation so that we can tell the story and communicate the artform of live-coding. This video is a demonstration of a lot of the different contexts in which the art of live-code has been shared on the west coast.

Der dritte Körper

Shuoxin Tan (谭硕欣), Song Li (李松), Jia Liu (刘佳)

Watch Video on YouTube – <https://youtu.be/tjoV9C7QgsI>

Description In the tower room of church Sankt Michael Cologne, two small loudspeakers are suspended from the bell tower with thin wires.

Connected through the network, two members of [_ _ _], Song and Jia perform live from London and Karlsruhe respectively. The sound reaches the site through the loudspeakers and is listened to and recorded by Shuoxin, the third performer and the only person on-site. The audience is only able to hear through Shuoxin, as she moves through the room with a binaural microphone in an auditory choreography and interplays with the small loudspeakers.

Each individual involved in this event becomes “Der dritte Körper” - the 3 performers on-site and remote, the installation and the noise in the space, as well as the attentively listening ears of the audience and the spaces they are in. The small tower room turns into a micro-cosmos of sound, during this 20 minutes performance.

Direction To NoWhere

Kofi Oduro (illestpreacha)

Watch Video on YouTube – <https://youtu.be/KNtVOOiCBMY>

Description In the tradition of soundwalking, I use livestreaming (through the livecoding language Hydra and a phone) as a prompt for my #DirectionStoNowhere project Part One and the idea of 'the last payphone', to showcase the viewpoint of a payphone that is left to just watch nature. What does it see through its eyes? Does it recognize the changes of time. What occurs if a human were to stumble upon this footage? What if we live score the scene, how can that bring the digital realm closer to the physical realm? Or does this mean, it is its own realm? What if this time, the phone was remodified to enjoy a walk? Using lines of code to give it life, what will its circuitry witness? What sounds will flow in its head? The same sounds from 50,25,10,5 years ago or even yesterday still prevail?

Floating Gold – Ibu Bhumi

Peni Candra Rini, Rangga Purnama Aji, Sen Sewell, Heather Strohschein, J. Simon van der Walt, Bill Whitmer

Watch Video on YouTube – <https://youtu.be/hgBVv400aDY>

Description 'Ibu Bhumi' is one of eight audiovisual pieces created by Floating Gold: Peni Candra Rini, Rangga Purnama Aji and Gamelan Naga Mas.

Floating Gold was formed to explore the potential of international collaboration through livecoding. Over a series of improvisatory workshops in Estuary, Rangga Purnama Aji worked alongside four livecoding musicians from Gamelan Naga Mas to record a series of musical backings using gamelan samples recorded from the 'Spirit of Hope' gamelan instruments in Glasgow.

Peni Candra Rini wrote, performed and filmed a series of Javanese texts based on the musical materials created, exploring themes of motherhood, the sea, and ancient kingdoms, that themselves drew on the legend of St Thenue, the 'Mother of Glasgow'.

'Ibu Bhumi' means 'Mother Earth' – 'Aku ibu, ib bhumi aku', 'I am a Mother, Mother Earth is me.'

LiveCode.NYC Over the Years: A Community Portrait

Melody Loveless

Watch Video on YouTube – https://youtu.be/g8_58v8zE9o

Was presented at:

- **Community Report Session 2**
Friday, April 21st, 11:15, *VOGELFREI*

Description This piece was originally created as a generative site-specific installation at the cell for a residency awarded to LiveCode.NYC by Flux Factory, where the video was projection mapped onto panels built-into the space. I use Max/MSP to mix and blend various images, videos, and posters of LiveCode.NYC members and events to create a generative video work. By showcasing past and current events and using materials created by multiple members, this installation is a homage to the community and highlights its' collective efforts and visions. It is a piece that I intend to work on and expand over the years. I am also interested in exploring this framework for other communities.

Live Rendering and -Coding Evolved Sounds

Björn Þór Jónsson

Watch Video on YouTube – https://youtu.be/Ws_R-0TAD8M

Description synth.is offers sound discovery with evolutionary methods. Discovered sound genomes can be published and rendered at any duration and pitch for live coding with the integrated Glicol live coding engine. Steps from live coding performances can be recorded and published at URLs like: <https://synth.is/live-coding/01G9XMVDSCS65F52CY1X9GXQ6T>

When such an URL is visited, a single JSON file weighing a few kilobytes is downloaded, containing genomes for all the sounds, which are rendered in the browser before the performance, and a sequence of all the recorded "live" coding steps, which are played back in the video.

On a thin string (Live Coding with Lick the Toad)

Konstantinos Vasilakos

Watch Video on YouTube – <https://youtu.be/SOuPIZl8DYc>

Description Lick the Toad is an online web application that was designed to enable the collaborative participation of the audience during a live coding performance. The system allows remote interaction using WebSocket programming and real-time Open Sound Control communication between users' web browsers and coder's personal choice of performance environment (e.g., SuperCollider, Pure Data, MaxMSP). The system combines a user interface to train a machine learning system and generates prediction data using a regression algorithm apropos to the users' input. Once training is done, the application switches to the prediction mode and offers the visualization of OSC data, sonic events frequency information controlled by a Markov chain module embedded in the system. This allows one a hybrid exploration of the performance, affording one to turn the device into a fully controllable autonomous instrument while at the same time emitting data to any OSC client system in the network. In addition to the sound generation, other higher musical characteristics are modulated by the participants. That is, the tempo of the sequential repetition of the sonic events is modulated by the number of participants. This enables establishing an ongoing dialogue between audiences and performers and influences the decisions of the coding process, affording the audience to be at the forefront of the performance instead of observing the live coding process passively while reciprocally influencing one another.

<https://lick-the-toad.herokuapp.com/main/>

on-the-fly Documentary

Lina Bautista Rodríguez, Felipe Ignacio Noriega Alcaraz, Shelly Knotts, Olivia Jack, Patrick Borgeat, Iván Paz, Luka Frelj, Ludovica Michelin, Yannick Hofmann, Fabian van Sluijs

Watch Video on YouTube – <https://youtu.be/sCkwUldKG50>

Was presented at:

- **Community Report Session 1**
Friday, April 21st, 10:00, *VOGELFREI*

Description On-the-fly was a Creative Europe co-funded project initiated by Hangar in Barcelona, in cooperation with Creative Coding Utrecht, Ljudmila Art and Science Laboratory, Ljubljana, and ZKM | Center for Art and Media Karlsruhe. It was focused on supporting local practices and their exchange among the live coding communities. It was designed with two main branches: live coding performance and research. In the research space we discussed, explored, identified, and imagined creative directions in the live coding practice. On the performative side we created spaces for live experimentation with new languages, techniques, and approaches to live coding. We recognized that most of us have spent extensive hours designing, understanding, or extending numerous languages or libraries before performing with them. But also it is in the live performance

where the tools and designs are tested and experimented. By creating these performative spaces across the four partners in Europe, on-the-fly aimed to professionalize the creative coding practice, while building new and stronger networks between the practitioners and institutions interested or related to live coding. This documentary was conceived to give a voice to the participants of the on-the-fly project, both the live coders and the institutions. We think that there is already enough content of live coding performances, but that a documentary, produced by the community, where live coders could explain those things that they consider essential in this practice, was needed.

\\/ TOPLAP Karlsruhe

Anselm Weber, Daniel Höpfner, Jakob Schreiber, Jia Liu (刘佳), Kaspars Jaudzems, Michele Samarotto, Patrick Borgeat

Watch Video on YouTube – <https://youtu.be/ncRCITAEBO0>

Was presented at:

- **Community Report Session 1**
Friday, April 21st, 10:00, *VOGELFREI*

Description At the borders of the black forest, the city of Karlsruhe has curiously been a fertile ground for live coding in the past years, benefiting from the presence of such institutions as the ZKM (Center for Art and Media Karlsruhe) and particularly the IMWI (Institute for Music Informatics and Musicology, University of Music Karlsruhe), birthplace of the notorious "Benoît and the Mandelbrots", host to the live.code.festival in 2013 and up until today an international place of study and encounter of many a fellow TOPLAPer.

Involvement in and awareness of academia, the experimental music scene and contemporary club culture shapes the community's diversity, yielding abstract sonic finesse, dancefloor bangers, noise pyrotechnics and more conceptual approaches in audiovisual media.

TOPLAP Karlsruhe wants to bundle local forces in live coding, create spaces of open encounter and exchange, organize workshops, concerts and connect with other live coding communities all around the globe.

Workshops

Animatron Workshop: Live Coding Visual Poetry

Roger Pibernat Trias, Glen Fraser

Animatron is an experimental environment (very much “work in progress”) that enables creation of “visual poetry” in the form of animations and images, created in real-time through live coding. It’s implemented using the open-source Godot engine, and communicates with any “client” application or live coding language — such as SuperCollider — via the network, using the Open Sound Control (OSC) protocol and MIDI. In the workshop the participants will learn:

- how to install the software
- how to setup the system for playing both solo and collaboratively
- the basics of creating and controlling frame-by-frame animations via OSC
- how to create new image sequences
- how to define custom OSC message definitions
- how to set custom MIDI mappings to control the animations

No prior experience or software installation is required, although proficiency in any live coding language that supports OSC is welcome.

Easy Stochastic Live Coding with Mégra 3

Alicia Champlin, Niklas Reppel

Mégra is a mini-language to make music with variable-order markov chains and some other stochastic shenanigans. This workshop offers a hands-on tutorial in applying the basics of Mégra 3, with time for exploration and free play.

Any skill level. Windows/MacOS/Linux. Participants should bring laptops, headphones, and optionally a small microphone.

Expressing Oneself with Code and World Building

Kofi Oduro (illestpreacha)

In this workshop, participants will see how coding can be used in musical, performative and literary arts, by using tools such as livecoding Youtube, Hydra, Inverse.website and Sonic Pi to name a few. They will see how expressive and creative code will be with the benefit of seeing how it can be use in a collaborative setting. Participants will see how improvised writing and coding can lead to various outcomes, musically, as well as how to use network elements to your advantage when writing or producing work.

Introduction to Nix for Live Coding Software Packaging

Alejandro Sánchez Medina

This workshop will provide a guided introduction to Nix (<https://nixos.org/>), a functional package manager for declarative configuration of general software dependencies. The workshop will consist of:

- An introduction to the principles of declarative software dependency management.
- A guided tutorial to the Nix language.
- A presentation of common packaging examples and patterns.
- On-site tutoring packaging the live-coding software chosen by the participant.

Requirements for participation: bring your personal laptop to work during the practical part of the workshop. Windows users are encouraged to come with a Linux Virtual Machine. Nix can work from within the Windows Subsystem for Linux, albeit with some limitations compared to native *nix systems.

It is highly recommended that participants come with their own project to package, or a project they already want to use but could not manage to make it work in a specific setup.

Live Cinema Coding with Tidal Cycles, Processing and Unreal Engine

Iván Abreu, Malitzin Cortés (CNDSD)

We define Live Cinema Coding as a performative practice (heir to Live cinema) that uses live coding to sequence cinematographic shots, transform a 3D scene, animate actors, control light, process videos, etc. We use the pattern strength of Tidal to create sound-visual synesthesia and sound visualization by refactoring musical patterns into visual patterns.

The objective of the workshop is to show the authors' workflow, both conceptual and technical: the choice of "what" patterns to refactor and "how" from listening to our own

musical composition. Or the process of abstracting into custom haskell functions within Tidal Cycles and converting them to OSC addresses for redirection and flexible visual consequence in Processing, Unreal Engine or DMX stage lighting.

For the workshop it is necessary to have Tidal Cycles (supercollider), Processing and Unreal Engine already installed and the student will be explained the resources that will be available on GitHub.

<https://tidalcycles.org/>

<https://processing.org/download>

<https://www.unrealengine.com/en-US/download>

Live Coding Latin Dance Music With Seis8s

Luis N. Del Angel, Julia Múgica

Seis8s is a web-based live coding language that allows real-time interaction with digital audio and localized music knowledge. Seis8s revolves around Spanish-language commands that relate to Latin dance music. During this 4-hour introductory workshop, participants will access Seis8s at <https://seis8s.org/> to learn its basic functions as well as its context and motivation.

Through this learning process, participants will also engage in mainstream music styles from Latin America such as Mexican Cumbia and Cuban Guaguancó. Participants will also learn about instruments commonly used in this music such as keyboards, bass guitars, congas, claves, and shakers.

Luis, the instructor, will be present during the workshop *digitally*, while we have a local instructor, Julia, present to guide you.

LiveLily Workshop

Drymonitis Alexandros

LiveLily is a workshop on the software with the same name. This is a Live Sequencing and Live Scoring software through live coding with a subset of the Lilypond language. Lilypond is a language for sheet music engraving. With LiveLily the user can create music scores in real time, and a sequencer based on these score.

The LiveLily sequencer can be as expressive as a Western notation music score can, capable of transferring dynamics, articulation and arbitrary information to the instruments it controls. Being a hybrid system, combining Live Scoring and Live Sequencing, LiveLily can be used for both Live Scoring with acoustic instruments, and Live Sequencing electronic music, or even a combination of these two.

Nodysseus.THREE: Live Lowcoding THREE.js Visuals in the Browser

Ulysses Popple

Using Nodysseus, a node-editor for the browser, we'll explore creating and using reusable node networks with 3D objects. This is a hands on tutorial quite literally - participants can use their touch device of choice or their laptops, it works well on both. By the end of the workshop, participants will be more comfortable thinking in node networks and have a spiffy live(low)code party trick they can revisit at any time.

P5LIVE: A p5.js Collaborative Live Coding VJ Environment

Ted Davis

This workshop will introduce participants to P5LIVE, a collaborative live-coding vj environment for p5.js. Hosted by the tool's creator, we'll walk through the many features geared for both live-coding performance, remote collaboration, and how it can be useful in a teaching environment.

Scorch: A New Programming Language For Music

Norah Lorway, Edward Powley, Arthur Wilson

Scorch is a new domain specific music programming language designed by Norah Lorway, Edward Powley and Arthur Wilson with the intention of being an accessible entry point for those not experienced in traditional programming languages (Lorway et al 2022). Initially used for algorithmic composition as a MIDI generating VST plugin, Scorch is also being used for live coding and a variety of media computing applications.

Scorch incorporates various AI implementations meant to assist users with various musical and computing tasks. Amongst these include an AI collaborator called Autopia (Lorway et al 2021) which allows for collaboration with AI and human performers in live coding contexts. Autopia was designed by the present authors to explore the three-way interaction between AI, human performer and audience — the AI uses an evolutionary algorithm seeded with human-written code and guided by live audience feedback. Originally developed for use with SuperCollider, this workshop will be the debut of the version of Autopia developed for use with Scorch.

The Craft of (Algorave) Documentation

Dan Gorelick (dan.dog)

On top of all of the chaos that goes into organizing a show, the logistics involved in documenting can feel like an expendable effort. However, time and time again I thank myself and my co-organizers for investing the energy in documenting.

Having good documentation means the performers have quality assets for their portfolios. It means we have promotion assets for the next shows. It means we can apply for grants for future shows. It means we can tell the story for future audiences.

Documentation is a life-long practice. It can breathe new life into the work. When it is treated like a craft more than an afterthought, so much can be possible.

The workshop is a theoretical and practical session on the craft of documenting art, specifically through the lens of live-code performances.

Visualists Meetup

Sarah Groff Hennigh-Palermo, Olivia Jack, Guy John, Antonio Roberts

Are you the person at the algorave asking for the HDMI cable? (Do you secretly have a 10m one in your bag already?) Are you sick of everyone talking about sounds when you want to be talking about throwing shapes? Meet up with other visualists and share your questions, suggestions, works, and make new friends. Maybe commiserate a little. This workshop will be led by four visualists and tool-makers — Antonio Roberts, Guy John, Olivia Jack, and Sarah Groff Hennigh-Palermo — but its format will be determined by the needs of the attendees. It might take the form of an open projector, informal group discussion, breakout groups, or some other improvisation.

Contributors

Iván Abreu

Affiliation: **Toplap Mexico**

Contributions:

- **Live Cinema Coding with Tidal Cycles, Processing and Unreal Engine (Workshop)**
- **AUTO{}Construcción (Performance)**

Biography *Artist, Programmer, Creative Technologist*

He explores the veracity and instrumental capacity of science and technology in art contexts, and the possible poetic and/or political value of the findings that emerge from these crossings, as a consequence through processes like visualization, interaction design, industrial design, software and web development, engineering and electronics, expanding the possibilities of digital media, photography, sound art, video, sculpture, and architectural and urban installation.

His work is included in public and private collections as FEMSA, CINTAS Foundation Museo Extremeño e Iberoamericano de Arte Contemporáneo. He has received grants like the Prix Ars Electronica (Linz, Austria); the CINTAS Foundation Award in Visual Arts, the National System of Art Creators of FONCA (2012–2014), 2011–2012 and 2021–2024.

Miika Alonen

Affiliation: **Aalto University**

Contributions:

- **Ziffers: Numbered Notation for Algorithmic Composition (Paper)**

Biography Miika Alonen is a senior software architecture consultant from Finland and a part-time doctoral student in the Computer Science Department of Aalto University. He is passionate about information technology, programming and art.

His main research field is linked data and semantic interoperability, but for the past few years live coding has been his main research interest and a hobby to escape from reality. He often finds himself lost in the beauty and complexity of music and mathematics and enjoys exploring and simplifying these concepts in his work and research.

Outside of his work and studies, Miika enjoys spending time with his family and taking long walks with his dog. He finds joy at the little things, such as the beauty and sounds

of the nature, the symmetries, patterns and chaos, as well as the urban noises of the Helsinki city.

Florencia Alonso (Flor de Fuego)

Contributions:

- **Code must go on! (Performance)**

Biography Florencia Alonso (a.k.a Flor de Fuego) is a digital-craft artist that mainly works with programming and live coding in order to create performative experiences. Her research rounds concepts like the body, space, code and chaos. She has taken part in several international and local festivals in collaboration with some other artists as well as individually. She graduated as a teacher and bachelor in Arts at National University of La Plata, Argentina. Education is a fundamental part in her production. She has taken part in several festivals like MUTEK Montreal/Spain/Argentina, Node Forum Digital Arts, Die Digitale Düsseldorf, ICFP Ljubljana, Digital Art Zürich. She is also an alumni from the Akademie für Theater und Digitalität from Dortmund Theater. Florencia also collaborates with live coding communities like Hydra, a live coding browser software developed by Olivia Jack.

Riccardo Ancona

Affiliation: **Institute of Sonology**

Contributions:

- **Commuta: A Cross Adaptive Laptop Ensemble (Performance)**

Biography Riccardo Ancona is an improviser, composer, creative coder, and music writer based in the Netherlands. He is involved in a set of practices such as live coding, experimental theater, algorithmic improvisation, and critical writing. He graduated at CREA (Research Centre for Audiovisual Processing, Frosinone, Italy) with a thesis on the creative potentialities of live coding, and he is currently completing a research master at the Institute of Sonology of Den Haag, exploring the perception of sonic materialities in algorithmic performance. He works as a private teacher of music programming and he is an active independent researcher in the field of history, divulgation, and pedagogy of electroacoustic music.

Rafaele Andrade

Contributions:

- **NL_CL Community Report (Community Report Paper)**

Jack Armitage

Affiliation: **Intelligent Instruments Lab, Iceland University of the Arts**

Contributions:

- **Sardine: A Modular Python Live Coding Environment (Paper)**

Biography Jack Armitage is a postdoctoral research fellow at the Intelligent Instruments Lab. He has a doctorate in Media and Arts Technologies from Queen Mary University of London, where he studied in Prof. Andrew McPherson's Augmented Instruments Lab. During my PhD he was a Visiting Scholar at Georgia Tech under Prof. Jason Freeman. Before then, he was a Research Engineer at ROLI after graduating with a BSc in Music, Multimedia & Electronics from the University of Leeds. His research interests include embodied interaction, craft practice and design cognition. He also produces, performs and live codes music as Lil Data, as part of the PC Music record label.

Marije Baalman

Contributions:

- **Thinking Inside the Box: Instant Composition, Folded Structures and Beyond the Screen (Keynote)**

Biography Marije Baalman is an artist and researcher/developer working in the field of interactive sound and light art, based in Amsterdam. She makes music and music-theatre performances, worked with dancers and has made several installations.

Topics that she addresses with her work are the nature of interaction between and entanglement of humans and technology, the influence of algorithms on society and the human experience, and environmental change.

She uses tools such as physical computing (performance interfaces and/or installations), livecoding (both as a skill, as well as a performance interface), digital and analog sound processing, and improvisation. In her work with light she uses methods from sound

composition and synthesis. To realise her works she mostly uses open source technology (software and hardware) and she is an active contributor to the open source community.

Marije is a contributor to “The SuperCollider Book” (MIT Press, 2011) and in 2022 she published a book titled: “Composing Interactions - An Artist’s Guide to Building Expressive Interactive Systems” with V2_ in Rotterdam.

Sojung Bahng (방소정)

Contributions:

- **We All Begin in Abstraction (Performance)**

Biography Sojung Bahng (방소정) is an award-winning multidisciplinary artist, filmmaker and researcher. She is an Assistant Professor in Media and Performance Production at Queen’s University in Canada. Since 2015, She has been running and directing RE-NOMAD (formerly Artengine8), a multidisciplinary research and art organisation mainly based in South Korea. Sojung holds a PhD from SensiLab at Monash University, Australia, and her doctoral thesis won the 2020 Mollie Holman award for the best thesis of the year. Sojung explores cinematic media via digital technologies to reflect aesthetic and narrative experiences in cultural and philosophical contexts. Her works have been recognised at prestigious festivals and symposiums worldwide. Her interactive VR project Sleeping Eyes won the award of excellence in experience design at the Festival of International Virtual & Augmented Reality Stories. Sojung’s experimentations into expanded cinema, performance and digital storytelling were shown and presented at many international venues and academic conferences.

Lina Bautista Rodríguez

Affiliation: **TOPLAP Barcelona**

Contributions:

- **TOPLAP Barcelona Community Report 2023 (Community Report Paper)**
- **on-the-fly Documentary (Community Report Video)**
- **Performance Chair (Committee)**
- **CRash Landing (Performance)**

Biography Lina Bautista aka Linalab is a musician from Bogotá, Colombia that lives and works in Barcelona. She holds a degree in music composition, and master degrees in Musical Composition and New Technologies and in Design of Interactive Musical Systems and Sound Art. With her musical project Linalab, she has produced several albums and performed on stages around the world. She is a founding member of Toplap Barcelona. Also, she is the former artistic director of the European project "on-the-fly", focused on live coding. Currently, she works with the record labels Synth Vicious and Aloud Music and teaches in several institutions in Barcelona, including the master's degree in Sound Art at the UB and the Sound Workshop of Fine Arts at the UOC, among others.

Tom Beckmann

Affiliation: **Hasso Plattner Institute**

Contributions:

- **Asymmetric Performance in Virtual Reality and Code (Paper)**

Biography Tom Beckmann is a PhD student at the Software Architecture Group at the Hasso Plattner Institute at the University of Potsdam. In his thesis, he is investigating the use of structured editing for general-purpose programming languages. Beyond that, he is investigating the use of programming tools for virtual reality, games, and other domain-specific use cases.

Patrick Borgeat

Affiliation: **TOPLAP Karlsruhe**

Contributions:

- **on-the-fly Documentary (Community Report Video)**
- **_\\/_ TOPLAP Karlsruhe (Community Report Video)**
- **Satellite Event Coordinator (Committee)**
- **Performance Chair (Committee)**

Biography Patrick Borgeat, born in 1985, is a German live coder, code-based artist, and programmer. Already for many years he is involved in Karlsruhe as a live coder, live visuals performer and organizer of live coding events. Since 2010 he has been active throughout Europe with performances, exhibitions, talks, and workshops. With the live coding ensemble Benoît and the Mandelbrots Patrick received an Honorary Mention at the Prix Ars Electronica (2012) in the Digital Music & Sound Art category; with the audiovisual band Ganzfeld he was awarded an Honorary Mention at the Visual Music Live Competition (2015).

Sara Bouchard

Affiliation: **Virginia Commonwealth University**

Contributions:

- **Listening to the (Future) Landscape (Performance)**

Biography Sara Bouchard is a multidisciplinary artist and composer who uses sound, installation and performance to interweave song, story and the landscape. She has exhibited and performed internationally, including at The Aldrich Contemporary Art Museum (CT, USA), The Center for Book Arts (NYC, USA), the American Folk Art Museum (NYC, USA), the Berlin Underground (Germany), Third Practice Electroacoustic Music Festival (VA, USA), and Hybrid Live Coding Interfaces (international). Her work is in a growing number of public collections, including the Princeton University Library. Born in Stockton, CA, she received her BA from Yale University in 2003 and was subsequently based in Brooklyn, NY, for 13 years. She relocated to Richmond, VA, to study with sound artist Stephen Vitiello, earning her MFA from Virginia Commonwealth University in 2019. She is currently Adjunct Faculty at VCUarts Department of Kinetic Imaging.

Ilze Briede (Kavi)

Affiliation: **The Endemics**

Contributions:

- **A Quad Entropic Conversation (Video)**

Biography The Endemics is an ensemble initially formed online during the pandemic, consisting of four live coders based in Tkaronto/Toronto. Ilze Briede (Kavi) is a Latvian/Canadian artist working across multiple disciplines, including visual art, interactive installation and live performance. Kavi live codes in Atom-Hydra and is most fascinated by feedback loops.

Peni Candra Rini

Affiliation: **Institut Seni Indonesia Surakarta**

Contributions:

- **Floating Gold: an International Collaboration through Estuary. (Paper)**
- **Floating Gold – Ibu Bhumi (Video)**
- **Vortex: Reresik (Performance)**

Biography Peni Candra Rini is a composer, educator, and one of the few contemporary female vocalists to perform *sindhen*, a female soloist singing style in a gamelan ensemble. Founder and director of the Jagad Sentana Art Foundation. Strongly committed to preserving and sharing the country's musical traditions, Peni has collaborated to create more than hundred musical compositions for music concert, scoring movie, dance, theater, with renowned artists and received several awards from inside and outside Indonesia, including the Kronos Quartet for the program Fifty For The Future 2021 (USA), OneBeat Accelerator 2020 by Found Sound Nation (USA), Recipient of Government Assistance for Revitalization of Creative Space Infrastructure and Facilities, from the Ministry of Tourism and Creative Economy, Indonesia 2021.

Martin Carlé

Affiliation: **Ionian University**

Contributions:

- **Reproducible Musical Analysis of Live Coding Performances Using Information Retrieval: A Case Study on the Algorave 10th Anniversary (Paper)**

Biography Dr. Martin Carlé lives as a musicologist, media theorist and Emacs org-mode enthusiast. His cultural objective is to leverage Literate Programming techniques as a performative methodology for experimental media arts, reproducible research and a sustainable computer literacy. While running a music recoding studio and an audio consultant company, he studied systematic musicology, popular music and media history at the Humboldt-University Berlin (HUB). There he received his doctoral degree with a thesis on the epistemology of ancient Greek music theory and the respective musical notation systems. Within the frame of the German Research Society (DFG), he worked at the Helmholtz Institute for Culture Techniques and taught as assistant professor at the department of Media Studies (HUB). Ongoing international collaborations include the French ANR project "PROGRAMme". He is currently working as a postdoctoral researcher in the Hub of Arts Laboratories at the Audio & Visual Arts Department of the Ionian University.

Ramon Casamajó (QBRNTHSS)

Affiliation: **TOPLAP Barcelona**

Contributions:

- **TOPLAP Barcelona Community Report 2023 (Community Report Paper)**
- **QBRNTHSS hybrid set (Performance)**

Biography QBRNTHSS (pronounced "quebrantahuesos", meaning "bearded vulture" in Spanish) is the alias that Ramon Casamajó, musician and educator, uses for his solo works focused on electronics and live coding. As QBRNTHSS he released a split LP (Harry Dean Stanton, *Call It Anything Records* 2019), and is actively involved in the TOPLAP Barcelona collective. In 2023 he will release his first LP on the Sheffield-based label *Interworld Media*. He has played in international events and venues like Ars Electronica 2020, Sónar, VIU 2021, Iklectik London, Algorithmic Art Assembly 2022, as well as in online events hosted by the international TOPLAP community. He is part of Turing Tarpit, a duet focused on free improvisation with whom he has released several works and played regularly in Barcelona's experimental underground circuit. He also runs the micro record label *Call It Anything Records*.

Kirby Casilli

Contributions:

- **We All Begin in Abstraction (Performance)**

Biography Kirby Casilli is a socio-spatial entity working within various channels of durational performativity. Adopting movement and communication as a methodology to underpin the points of tension and mundanity that arise from the spectacle & destruction of social order.

Casilli surveys their findings through discursive modes of drawing and form-making, evoking the public, outside, metropolitan center by staging various interventions. Casilli has held a consistent practice through vocal, literary, drawing, and dance performance work and has performed most recently at Discordia Gallery, Adult Contemporary and Crawl Space Radio, as well as Mejia Gallery, Seventh Gallery, Tinning St, Sutton Project Space, Milk Gallery, Womadelaide, Howler, MPavillion, Margaret Lawrence.

Casilli has performed internationally in the MAYRIT Biennale for Architecture and Design in Madrid and collaborated internationally for the International Conference of Live Coding in both Madrid and New York City.

Alicia Champlin

Affiliation: **TOPLAP Barcelona**

Contributions:

- **LivecoderA Community Report (Community Report Paper)**
- **Easy Stochastic Live Coding with Mégra 3 (Workshop)**
- **Performance Chair (Committee)**
- **Video Chair (Committee)**

- **Neowise 5.8 V/E (Performance)**

Biography Alicia Champlin (USA, 1975) is an independent intermedial artist and researcher based in Barcelona. Champlin’s creative practices have come to focus on feedback-driven, generative systems in pursuit of the phenomenological intersection of networked communication and identity. In installations, she applies systems theory to employ sound and interaction in modeling complex and dynamic relationships to explore cybernetic and post-structuralist issues of communication. She also has performance practices both with live-coding (primarily TidalCycles) and with the bow chime (a.k.a. steel cello), which sometimes intersect. Champlin received her MFA from the University of Maine and has performed or exhibited with Sònar Festival, Cabaret Voltaire, BEK, IEM, and PIFcamp.

<https://aliciachamplin.cartographile.com>

Lucy Cheesman

Contributions:

- **Epiploke (Performance)**

Biography Lucy Cheesman is a sound artist, musician, producer and organiser whose work can be placed within a number of different fields, often blurring the boundary between the visual, the audible and the digital. Lucy is a founder member of SONA (a network supporting women in Sheffield through experimental sound and digital practices) and the Yorkshire Sound Women Network. Along with her artistic practice she also makes music under the name Heavy Lifting, using software such as TidalCycles and FoxDot – open-sourced coding programmes aimed at opening up the processes of experimental music production for the benefit of the wider public. She also runs the record label Pickled Discs, which is dedicated to promoting experimental electronic sounds.

Joana Chicau

Affiliation: **Creative Computing Institute, University of the Arts London**

Contributions:

- **LivecoderA Community Report (Community Report Paper)**
- **NL_CL Community Report (Community Report Paper)**
- **Human-Computer Counter-Choreographies (Beta) (Performance)**

Biography Joana Chicau (PT/UK) is a designer and researcher — with a background in dance. In her practice she researches the intersection of the body with the constructed, designed, programmed environment, aiming at widening the ways in which digital sciences is presented and made accessible to the public. She has been actively participating and organizing events with performances involving multi-location collaborative coding, algorithmic improvisation, open discussions on gender equality and activism.

Website: joanachicau.com

Andrew Claes

Affiliation: **Royal Conservatoire Antwerp**

Contributions:

- **Botbop: Integers & Strings (Performance)**

Biography Andrew Claes plays mainly saxophone and windcontrollers. Pursuing his PhD. in the Arts, a love for tinkering, programming and live coding sparked. As a member of jazz fusion band STUFF and a lot of other projects including Stellar Legions, BRZZVLL, Internal Sun and many more, he had the opportunity to play an impressive number of concerts throughout the world for a wide variety of audiences. Andrew has a keen interest for live coding in Bespoke Synthesizer, an open source modular DAW featuring a scripting interface using Python. His dream would be a giant dynamic music system generating an endless stream of interactive music to jam to.

Ian Clester

Affiliation: **Georgia Institute of Technology**

Contributions:

- **LambDAW: Towards a Generative Audio Workstation (Paper)**

Biography Ian Clester composes music and programs. His research interests include the design of languages, environments, and tools for composing and performing music with computational or generative aspects. His performance practice includes electric guitar and live coding, and he is a founding member of the MIT Laptop Ensemble. His work has been recognized with best paper (Web Audio Conference 2022) and best poster (Audio Mostly 2021) awards. He received his B.Sc. in EECS and music and his M.Eng. in EECS from MIT, and he is currently pursuing a Ph.D. in music technology at Georgia Tech.

Monique Copper

Contributions:

- **Variations on Kandinsky (Performance)**

Biography Monique Copper received her musical education in Geneva, Rotterdam, Utrecht and London. While living in London she made her debut at the Purcell Room and performed worldwide as a soloist and with various ensembles such as ASKO Ensemble. Monique gives masterclasses in piano and is regularly invited as a guest lecturer on ‘Dutch Electronic Music’ at Dutch academies such as Hogeschool Inholland Haarlem. Monique Copper established not only a reputation for her innovative programs but also for her illustrated children's programs, lecture recitals and recitals with narration with a touch of theater. She collaborates with composers, writers, actors and visual artists to create new programs. Her most recent program is "Water", a performance on the theme of water: a multimedia piano recital in which Monique combines classical and contemporary piano works with poetry and video. With "Water" Monique has toured the Netherlands, India, Vietnam, Poland, Switzerland, Singapore and Italy.

www.moniquecopper.com

Miki Corfiel

Contributions:

- **LivecoderA Community Report (Community Report Paper)**

Malitzin Cortés (CNDSD)

Affiliation: **Toplap Mexico**

Contributions:

- **Live Cinema Coding with Tidal Cycles, Processing and Unreal Engine (Workshop)**
- **Community Report Panel (Discussion)**
- **AUTO{}Construcción (Performance)**

Biography *Musician, Speculative Architect, Creative Technologist.*

As an artist, she investigates the forms in which the sound, the architecture, the technology and the science hold the ability to be great diffusers of discoveries and devices of self-reflection that can unleash speculative worlds. Through live coding processes, experimental sound, CGI, game software, installation, virtual reality and enhancement and performance, I seek to merge the physical and the digital through new models of social interaction and politics capable of providing new forms of relationship from the utopia and the fiction in this constant state of crisis and also of hope.

She is a professor and researcher at the Universidad CENTRO | Design, Film and Television in the field of creative code, STEAM and new sound and immersion technologies and in the CMMAS in the field of algorithmic music composition and live coding.

Francesco Corvi

Affiliation: **Institute of Sonology**

Contributions:

- **Live Coding and Education. A Practical Experience. (Paper)**
- **NL_CL Community Report (Community Report Paper)**
- **Commuta: A Cross Adaptive Laptop Ensemble (Performance)**

Biography Francesco Corvi (nesso.xyz) is a performer, musician, lecturer and multimedia artist based in the Netherlands. His artistic work explores new technologies by developing unconventional performance strategies, including live coding and adaptive systems, raising philosophical questions concerning phenomenology, posthumanism, and the study of complex systems. He graduated at CREA (Research Centre for Audiovisual Processing, Frosinone, Italy) and he is currently doing a master research project at the Institute of Sonology of Den Haag. Between 2021 and 2022 he performed at ICFP2022, Blooming Festival, Didacta, Punctum, Build Stuff, Spring Attitude, C(A)OSMO Festival and more. He gave lectures for KABK, NABA, Umanesimo Artificiale, University of Pisa and led a training project for music teachers together with INDIRE and Tempo Reale. His work was exhibited at Creative Code Festival, WeSa Seoul, Glitch Art Pixel Language, ArteScienza. He released music for Superpang, Kaer'Uiks, Genot Centre, Riforma, Mossa Records, Heel.zone.

Amy Cullis

Contributions:

- **The Cuckoo's Nest (Performance)**

Biography Amy Ruth Cullis has been a Morris dancer for ten years and has recently become 'Squire' or leader of a new team in St Leonards-on-Sea. She works in a health centre and is new to live coding.

Ted Davis

Affiliation: **IDCE HGK FHNW**

Contributions:

- **P5LIVE: A p5.js Collaborative Live Coding VJ Environment (Workshop)**
- **P5LIVE COCODING (Performance)**

Biography Ted Davis is a media educator / artist / designer originally from the United States and based in Basel, Switzerland. Since 2010 he teaches interaction design and coordinates the UIC/HGK International Master of Design program within the Institute Digital Communication Environments IDCE, HGK FHNW. His work and teachings explore the volatility of digital media through glitch and reactivating older 'new media' through newer programming means.

His open source projects (basil.js, XYscope, P5LIVE, p5.glitch) enable designers to program within Adobe InDesign, render vector graphics on vector displays, collaboratively live code visuals with p5.js, and glitch any media in real-time within the web browser. In 2021 he received the Basel Media Art Prize (Basler Medienkunstpreis) for p5.glitch and was a Processing Foundation Teaching Fellow. With international exhibits, lectures and workshops, he empowers students to take hold of the computer's ability to design possibilities beyond that of the hand or mouse.

<https://teddavis.org>

Georgios Diapoulis

Affiliation: **Chalmers University of Technology, University of Gothenburg**

Contributions:

- **Reproducible Musical Analysis of Live Coding Performances Using Information Retrieval: A Case Study on the Algorave 10th Anniversary (Paper)**

Biography Georgios Diapoulis (b. 1981) is a PhD student in Interaction Design at Chalmers University of Technology and University of Gothenburg, Gothenburg, Sweden. He has a bachelor's degree in Materials, Science and Technology from the University of Crete, Heraklion, Crete, and a master's degree in Music Psychology from the University of Jyväskylä, Jyväskylä, Finland. He is also a Marie-Curie alumnus from the European project on Building Acoustics, Acoutect. He has been teaching for several years in academic and non-academic contexts. His doctoral studies focus on musical live coding, with a particular focus on minimal languages. He has performed with various bands for several years and sporadically performed as a live coder during the last decade. He is also a proud member of the TOPLAP Athens node!

Drymonitis Alexandros

Contributions:

- **LiveLily Workshop (Workshop)**

Biography Alexandros Drymonitis is a sound and new media artist. He is a PhD candidate at the Royal Birmingham Conservatoire doing research on the creation of musical works with the programming language Python. His artistic practice focuses on new techniques utilizing new media such as computer programming, AI, or even older practices, like modular synthesis.

He has collaborated with various artists from different art disciplines, plus several ensembles, either interdisciplinary or music ensembles.

He has taught the guitar at the Music School of Amsterdam and 'Philippos Nakas' Conservatory in Athens, and electronic music programming at 'Musical Praxis' Conservatory in Athens. He is currently a freelancer in the field of electronic music and multimedia programming, teaching several workshops in various venues and undertaking multimedia programming in various events.

Juan Felipe Amaya Gonzalez

Contributions:

- **MosAIck: Staging Contemporary AI Performance - Reflections on Connecting Live Coding, e-Textile and Movement (Paper)**

Rebecca Fiebrink

Affiliation: **Creative Computing Institute, University of the Arts London**

Contributions:

- **Genny: Designing and Exploring a Live Coding Interface for Generative Models (Paper)**

Biography I am a Professor of Creative Computing at the UAL Creative Computing Institute. My students, research assistants, and I work on a variety of projects developing new technologies to enable new forms of human expression, creativity, and embodied interaction. Much of my current research combines techniques from human-computer interaction, machine learning, and signal processing to allow people to apply machine learning more effectively to new problems, such as the design of new digital musical instruments and gestural interfaces for gaming and accessibility. I am also involved in projects developing rich interactive technologies for digital humanities scholarship, exploring ways that machine learning can be used and appropriated to reveal and challenge patterns of bias and inequality, and advancing machine learning education.

Rodney Folz (haute.rod)

Affiliation: **AV Club SF**

Contributions:

- **AV Club SF Community Report (Community Report Video)**

Biography Rodney Folz (haute.rod) is a founding member of AV Club is an algorave visualist based in SF, focused on live creation of complex scenes featuring organic forms and layered feedback that are even pleasant to look at sometimes. He focuses on exploring the possibilities of Hydra video synthesizer, extending the tool with custom functionality to achieve new possibilities.

Raphaël Maurice Forment (Bubobubo)

Affiliation: **ECLLA, Université Jean Monnet**

Contributions:

- **Sardine: A Modular Python Live Coding Environment (Paper)**
- **Ziffers: Numbered Notation for Algorithmic Composition (Paper)**
- **Sardine X Ziffers: New Tools for Algorithmic Expression (Performance)**

Biography Raphaël Maurice Forment is a contractual doctoral student at the University Jean Monnet of Saint Etienne (ECLLA, ED 484 3LA), his thesis being carried out in collaboration with the University Paris 8 Saint-Denis (MUSIDANSE). His doctoral work is directed by Laurent Pottier (UJM, ECLLA) and Alain Bonardi (Paris 8, MUSIDANSE). Raphaël is studying the links and tensions between techniques and aesthetic discourses that cross the field of improvised computer music. He is studying live coding both as an artistic practice and as a programming technique. He is developing software for live coding performance both for academic research and personal musical projects. Raphaël regularly performs on stage in France with the Cookie Collective or with friends. Raphaël is invested in live coding pedagogy. He teaches live coding both at university and in informal settings (workshops, speeches, etc).

Giulia Francavilla (Giulia Rae)

Affiliation: **Institute of Sonology**

Contributions:

- **Commuta: A Cross Adaptive Laptop Ensemble (Performance)**

Biography Giulia Rae is an Italian composer, researcher, performer and sound designer based in Turin (IT). In 2021 she obtained a Research Master Degree at the Institute of Sonology (The Hague), where she is currently a Research Associate. With a keen interest in creative coding and sound design, semi-generative systems and live performance, she bases her artistic practice and research on immersive sound and the listening experience. Influenced by the theoretical discourse on human-machine interaction, embodiment, deep listening and perception, she develops her works in the field of algorithmic music, VR, multichannel and 3D audio. In 2022 she worked as an artist in residency at CICM of Paris VIII and at iMAL studios in Brussels. Her releases are on Søvsn Records, Ovaal, Light Item, Intersezioni, Solium Records, Guerrilla Bizarre.

In parallel, she works as a composer and sound designer for video, theatre, dance and multidisciplinary projects.

Alejandro Franco Briones

Affiliation: **McMaster University**

Contributions:

- **Towards Another Transdiscipline: Art, (Techno)Science and Emancipation as Promise and Provocation for Live Coding (Paper)**
- **Pirarán – Algorithmic Acid Music (Performance)**

Biography Alejandro is a PhD Candidate in the Department of Communications Studies and Media Arts at McMaster University. His research entails the development of infrastructure, interfaces, and protocols for online live-coded music and sound art creation. His research is related to the fields of sound studies, time studies, and internet studies with a perspective mediated by de-colonialism, anti-fascism, Marxism, and feminism. He has presented multiple times at the International Conference on Live Coding and the Electroacoustic Music Seminar in Mexico City. Alejandro is currently a sessional professor at McMaster University, teaching Spatial and Interactive Audio, and a Research Assistant in the Networked Imagination Laboratory developing Estuary, a software for networked live coding. Most recently, he published a chapter in the book *Music and Time: Psychology, Philosophy, Practice* (Boydell Press), titled ‘Live Coding as a Theatre of Agency and a Factory of Time.

Glen Fraser

Affiliation: **TOPLAP Barcelona**

Contributions:

- **TOPLAP Barcelona Community Report 2023 (Community Report Paper)**
- **Animatron Workshop: Live Coding Visual Poetry (Workshop)**

Biography Glen Fraser (CA) is a Barcelona-based software engineer/artisan who has worked in graphics, sound, interactive and immersive technology for three decades. Most of his professional life has been spent creating software tools for artists, collaborating directly with artists, and wondering whether to call himself an artist. His first foray into live coding was in 2013, and since 2019 he has been active with TOPLAP Barcelona, exploring musical/visual live coding and performing with tools of his own creation. Glen develops and uses Bacalao, his personal collection of live-coding tools for SuperCollider, and co-created the Animatron tool for live-coded “visual poetry” and animation.

- <http://glenfraser.com/>
- <https://github.com/totalgee/bacalao>
- <https://github.com/loopier/animatron>

Saskia Freeke

Affiliation: **Live Coding Sessions**

Contributions:

- **NL_CL Community Report (Community Report Paper)**
- **Community Report Panel (Discussion)**

- **Design (Committee)**
- **Amalgam (Performance)**

Biography Saskia Freeke is an artist, creative coder, interaction designer, visual designer and educator. Her work addresses structure, geometry and playfulness. A significant part of her artistic practice is the ongoing daily art project she started in January 2015, in which she explores and experiments with generative patterns and animations. Starting 2019 she has extended her practice of expression by incorporating geometry and playfulness in live coded visual performances on stage. Saskia has been a lecturer in Physical Computing at Goldsmiths, University of London and taught visual design at the University of the Arts Utrecht School for Games and Interaction.

Jason Freeman

Affiliation: **Georgia Institute of Technology**

Contributions:

- **LambDAW: Towards a Generative Audio Workstation (Paper)**

Biography Jason Freeman is Professor of Music at Georgia Tech and Chair of the School of Music. His artistic practice and scholarly research focus on using technology to engage diverse audiences in collaborative, experimental, and accessible musical experiences. He also develops educational interventions in K-12 and university environments that broaden and increase engagement in STEM disciplines through authentic integrations of music and computing. His music has been performed at Carnegie Hall, exhibited at ACM SIGGRAPH, published by Universal Edition, broadcast on public radio's Performance Today, and commissioned through support from the National Endowment for the Arts. Freeman's wide-ranging work has attracted funding from sources such as the National Science Foundation, Google, and Turbulence. It has been disseminated through over 80 refereed book chapters, journal articles, and conference publications. Freeman received his B.A. in music from Yale University and his M.A. and D.M.A. in composition from Columbia University.

Luka Frelih

Affiliation: **Ljudmila Lab**

Contributions:

- **on-the-fly Documentary (Community Report Video)**
- **Workshop Chair (Committee)**

Biography

Axel Ganz (Grimberg)

Affiliation: **Toplap Düsseldorf**

Contributions:

- **Grim! Grim! Grim! (Performance)**

Biography Grimberg aka Axel Ganz was born in 1965 in Gelsenkirchen, Germany. He is cofounder of Toplap Düsseldorf Node. Since 2018 he organizes together with Markus van Well music concerts. He also conducts introductory workshops to live coding, robotics, 3d-design and 3d-printing. Since 2019 he lives and works in both countries, Germany and Georgia, Caucasasia.

Jessica Garson (Messica Arson)

Affiliation: **LiveCode.NYC**

Contributions:

- **Arrays of Disarray (Performance)**

Biography Messica Arson is a Brooklyn-based artist who creates unique and electrifying computational noise music. Using live coding and live sampling, she incorporates sampled screams into her beats to add a raw and powerful element to her sound. Described by The Financial Times as "gnarly cut-up sounds," her music is not afraid to push the boundaries of traditional music.

Leonard Geier

Affiliation: **Hasso Plattner Institute**

Contributions:

- **Asymmetric Performance in Virtual Reality and Code (Paper)**

Biography Leonard Geier is a master's student currently working on his thesis at the Software Architecture Group of the Hasso Plattner Institute at the University of Potsdam, in which he explores methods for developing software from within virtual reality.

Agata Genissel

Contributions:

- **Brickwork: Destroy (Performance)**

Biography Agata Genissel uses audio-visual live coding to explore notions of world-building in the realm of live performance. Primarily using TidalCycles and Hydra to build a stage, she seeks to key into the fun and playful elements of musical improvisation. Relying on instinct and on the force of the sounds and textures of these repeated patterns built using TidalCycles, Agata delivers BRICKWORK as a moment in which people are encouraged to dance and reflect.

Based in London, Agata's performances play around with spatial characteristics. Whether this involves ripping down paper-built walls in Venue MOT Unit 18, projecting a live feed of the audience back into the space, or moving around to incorporate live drums and vocals into the mix, Agata is always keen to interfere with the dimensions of live coding as something that does not place the performer strictly behind the screen.

Rémi Georges (Ralt144MI)

Contributions:

- **Sardine X Ziffers: New Tools for Algorithmic Expression (Performance)**

Biography Ralt144MI (Rémi Georges) is a sound engineer, music programmer and visual artist based in Lyon. Combining old and new technologies in his personal projects, he creates custom tools and compositions, with particular interests in image-sound relationship, low-tech and open-source creation, glitch art and circuit bending. Rémi is evolving in the Algorave's, acousmatic music and noise music circles. He is involved in musical associative, self-managed and counter-culture places. He founded the French live coding cassettes & prints label Ordinateur Dans La Tête.

Kosmas Giannoutakis

Affiliation: **Rensselaer Polytechnic Institute**

Contributions:

- **Serendipitous Liquidators (Performance)**

Biography Kosmas Giannoutakis studied piano and percussion performance, composition, and computer music in Greece, Germany, and Austria. Currently, he is attending the Ph.D. Electronic Arts program at the Rensselaer Polytechnic Institute, with a focus on experimental, post-capitalist political economies of music, which are supported by Distributed Ledger Technology. His works have been presented and received awards in various international festivals and conferences, such as inSonic in ZKM Karlsruhe, ALIFE 2018 conference in Tokyo, Matera Intermedia Festival, GRAME in Lyon, eviMus6 in Saarbrücker, [sound]Spectrum New Music Seminar in Bydgoszcz, Multimedia Festival Diffrazioni in Florence, Sound Campus at Kunstuniversität Linz, Junge SIGNALE concert series in Graz, Soundislands Festival in Singapore, Toronto International Electroacoustic Symposium, New York City Electroacoustic Music Festival, Gaudeamus Muziekweek 2015 and ICMC 2016 in Utrecht, REAL/UNREAL BEAST FEaST 2016 in Birmingham, klingt gut! 2016 in Hamburg, 13th Athens Digital Arts Festival.

Bruno Gola

Contributions:

- **c0l1v3 (Performance)**

Biography Bruno Gola is a sound and code artist from Brazil. He studied computer science in São Paulo before moving to Berlin and studying Art and Media at the Berlin University of the Arts. His work often embraces chance and public interaction while navigating well defined possibility spaces. In his sound performances he explores Live Coding and other algorithmic techniques for improvisation.

Marcus Gordon (magfoto)

Affiliation: **The Endemics**

Contributions:

- **A Quad Entropic Conversation (Video)**

Biography The Endemics is an ensemble initially formed online during the pandemic, consisting of four live coders based in Tkaronto/Toronto. magfoto (Marcus Gordon) is a live coder, artist, and PhD candidate in Computational Arts at York University. His practice explores live coding archimusic, composition and improvisation with modular synthesis.

Dan Gorelick (dan.dog)

Affiliations:

- AV Club SF
- LiveCode.NYC

Contributions:

- The Craft of (Algorave) Documentation (Workshop)
- AV Club SF Community Report (Community Report Video)
- Title to come post-performance (Performance)

Biography Dan Gorelick (dan.dog) is a Brooklyn and San Francisco based artist, developer, and creative technologist. He blends live-coding with acoustic and electronic instruments to create improvisational performances. Dan is also an organizer of the live-coding artist collectives AVClubSF and LiveCode.NYC. His work has been featured at SXSW, Github Universe Conferences, and Gray Area.

Sarah Groff Hennigh-Palermo

Affiliation: **Codie**

Contributions:

- Visualists Meetup (Workshop)
- Codie (Performance)

Biography Sarah Groff Hennigh-Palermo is the visualist for Codie, a live-code collective that originated in NYC, but has spread around the world. She performs with La Habra, her homemade Clojurescript–Electron library and is particularly interested in rhythms, textures, and artifacts. When not performing, Sarah makes large-scale video art and computer programs in Berlin. She has shown work at Pioneer Works (US), Westbeth Gallery (US), and Nomads* Gallery (UK).

Bjarni Gunnarsson

Affiliation: **Institute of Sonology**

Contributions:

- Blocking Behaviours (Performance)

Biography Bjarni Gunnarsson is an Icelandic Composer and Computer Scientist involved in computer music and algorithmic composition. Has released his music on labels such as Vertical Form, Superpang, Tartaruga and SOVN Records and performed his music in festivals such as Tectonics, Rewire, Today's Art, Sonar and Presences Electroniques. Collections of his recent solo works can be found on the releases "Paths" (2016), "Lueur" (2018), "Volume & Void" (2020), "Cendres" (2020) and "Anticlines" (2021).

Bjarni is a faculty member at the Institute of Sonology, Royal Conservatory, in The Hague. He is concerned with process-based ideas. Sounds focusing on internal activity and motion. Compositions that put into foreground behaviors, actions, fluid sound structures, fuzzy materials, or forms. His recent research focus includes the construction of persistent synthetic environments, creative uses of digital interrupts, and machine-listening observers that react to computer-generated sound.

Don Hanson (d0n.xyz)

Affiliation: **AV Club SF**

Contributions:

- **AV Club SF Community Report (Community Report Video)**

Biography d0n.xyz (Don Hanson) is a designer, electronic musician and Internet artist known for creating experimental websites and establishing New Art City, the virtual art space for digital exhibitions. His artworks include a tool for creating interactive music videos, a browser extension that covers your window with plants, a tracker for an autonomous robot released in the desert, an AR geolocation game that simulates the TOR network, and several types of video synthesizers. From 2009-2020 he ran the electronic music label Gridwalk, and is currently working on a new series of generative art that doubles as a live AV performance tool. His work has been featured in the New York Times, Art in America, SXSW, and CBC radio.

Find his projects online at <https://d0n.xyz>

Roxanne Harris (alsoknownasrox)

Affiliation: **LiveCode.NYC**

Contributions:

- **Broken Bond (Performance)**

Biography Roxanne Harris, alsoknownasrox, is a multidisciplinary artist and educator based in Brooklyn, New York. She approaches programming as a medium for creative expression. Roxanne specializes in programming as performance, modifying real-time processes to create dynamic audiovisual experiences. She leads workshops and organizes shows as an active member of LiveCode.NYC.

Citlali Hernández Sánchez (turbulente)

Affiliation: **Toplap BCN**

Contributions:

- **CRash Landing (Performance)**

Biography Citlali Hernández is a mexican artist and designer whose work focuses on exploring the potentialities of the body in the field of electronic and digital arts. Her experiments intertwine the materialities of live performance art, wires, pixels and circuits. Lately she has been exploring the relationship between digital viral media and non verbal communication in social media platforms through networked and hybrid (online-offline) performances. During the last 10 years she has been happily collaborating with other artists to create artworks that have been presented in Mexico, Chile and Spain. She is a digital fabrication, design and interaction teacher in several institutions, and participates as a visualist with Toplap Barcelona using her body and Hydra. www.turbulente.net

Robert Hirschfeld

Affiliation: **Hasso Plattner Institute**

Contributions:

- **Asymmetric Performance in Virtual Reality and Code (Paper)**

Biography Robert Hirschfeld leads the Software Architecture Group at the Hasso Plattner Institute at the University of Potsdam. His research interests include dynamic programming languages, development tools, and runtime environments to make live, exploratory programming more approachable. Hirschfeld received a PhD in computer science from Technische Universität Ilmenau.

Yannick Hofmann

Contributions:

- **on-the-fly Documentary (Community Report Video)**

Timo Hoogland

Affiliation: **Netherlands Coding Live**

Contributions:

- **NL_CL Community Report (Community Report Paper)**
- **Performance Chair (Committee)**
- **Local Production (Committee)**
- **Amalgam (Performance)**

Biography Timo Hoogland is a computational artist, live coder, music technologist and educator from the Netherlands. He livecodes algorithmic electronic dance music and develops compositions, installations and performances inspired by his fascination for mathematics, science and nature. Timo graduated from the Masters of Music Design at the HKU University of the Arts Utrecht in 2019, where he developed the livecoding environment Mercury. In 2020 he started the audiovisual live coding collaboration Amalgam with Saskia Freeke. The piece `./drum.code` premiered during the 2 Ars Electronica garden in Lugano 2021, combining drums and live coding. In 2022 he performed PRISM at Beyond Quantum Music in Belgrade. He build av-works inspired by bioluminescence and photosynthesis at Uncloud 2020 and Vonk 2021. Timo has performed at various festivals such as ICLC, ADE, Gogbot, Tec-Art, Ars Electronica Garden, Droidcon Turin, React Amsterdam and Digital Arts Zurich. He teaches creative system and sound design at the HKU Bachelor of Music Technology.

Daniel Höpfner

Affiliations:

- **Institute for Music Informatics and Musicology, University of Music Karlsruhe**
- **TOPLAP Karlsruhe**

Contributions:

- **_\\/_ TOPLAP Karlsruhe (Community Report Video)**

Biography Having had instrumental lessons in playing the recorder, piano, and oboe, Daniel Kurosch Höpfner first came into contact with electroacoustic music through self-study with PureData and SuperCollider. Now pursuing a Ph.D. with a focus on implicit aesthetics in MIR systems at the Institute for Music Informatics and Musicology at the HfM Karlsruhe, his interests lie in auditory perception, audio analysis, algorithm-derived synthesis and compositional structure, improvised computer music, etc.

Amy Hurst

Affiliation: **New York University**

Contributions:

- **Addressing Accessibility for Blind and Visually Impaired Live Coders (Paper)**

Biography Dr. Amy Hurst is an Associate Professor with a joint appointment in the Department of Occupational Therapy in the Steinhardt School of Culture, Education and Human Development and the Department of Technology, Culture and Society in the Tandon School of Engineering. She is the director of the NYU Ability Project, an interdisciplinary research space dedicated to the intersection between disability and technology. Dr. Hurst received her M.S. and Ph.D. in Human-Computer Interaction from the Human-Computer Interaction Institute at Carnegie Mellon and a B.S. in Computer Science from the Georgia Institute of Technology. Dr. Hurst is passionate about understanding current social problems and identifying opportunities for technology to empower individuals impacted by those problems.

Sarah Imrisek (@cymatiste)

Affiliation: **The Endemics**

Contributions:

- **A Quad Entropic Conversation (Video)**

Biography The Endemics is an ensemble initially formed online during the pandemic, consisting of four live coders based in Tkaronto/Toronto. Sarah Imrisek (@cymatiste) is a game developer-turned-community-engaged artist and creative coder. She performs in live coding events, and makes interactive installations and street art. Trees, birds, wind, waves, and dreamlike visuals abound.

Eloi Isern Rabella (Eloi el Bon Noi)

Affiliation: **Toplap BCN**

Contributions:

- **Rumble Machines (Performance)**

Biography Eloi Isern aka Eloi el Bon Noi (Eloi the good guy) is a composer and live coder interested in the use of code as a tool for sound design and composition. He is an active member of the Top Lap community in Barcelona. His conception of music is overloaded, pointillist, often saturated, filling the screen with big blocks of code that hide complex processes and push the CPU to the limit. He performs solo or accompanying artists in free improvisation or spoken word sessions. He has participated in several festivals of contemporary art, electronics and algoraves in Spain.

Olivia Jack

Contributions:

- **Visualists Meetup (Workshop)**
- **on-the-fly Documentary (Community Report Video)**

Biography Olivia Jack is a programmer and artist who works frequently with open-source software, cartography, live coding, and experimental interfaces. She is the developer of browser-based creative tools including Hydra (live-codable video synthesizer), PIXELSYNTH, and LiveLab (peer-to-peer media router). Her live visual sets explore algorithmic representations of unpredictable and chaotic systems, and writing software as a messy and ephemeral process.

<https://ojack.xyz>

Kaspars Jaudzems

Affiliations:

- **Institute for Music Informatics and Musicology, University of Music Karlsruhe**
- **TOPLAP Karlsruhe**

Contributions:

- **_\\/_ TOPLAP Karlsruhe (Community Report Video)**

Biography Kaspars Jaudzems (1984 in Riga, Latvia) is an audiovisual artist working mainly in code - designing, building, sequencing and composing using algorithms and numbers. He builds light installations / sculptures that exhibit life-like generative behaviors by using generative audiovisual compositions which are performed, manipulated and driven to their limits in a live-coding / live performance setting. His goal is to induce a new experience of physical phenomena into the minds of the audience. He is currently based in Karlsruhe, Germany.

Aaron J. Juarez

Affiliation: **Rensselaer Polytechnic Institute**

Contributions:

- **Serendipitous Liquidators (Performance)**

Biography Aaron Juarez is an interdisciplinary artist-researcher currently residing in Troy, New York as he pursues the PhD in Electronic Arts at Rensselaer Polytechnic Institute. In playing with digital structures, he employs disjunctive strategies between art and science to engage serendipity through experimental interactions of digital media, including photography, film, and 3d models. Embracing the art of wandering, Juarez has expanded into physical art through screen printing and performance through live coding visuals. His theoretical research interests include issues in creativity and cognition via humancomputer interaction, as well as topics that consider the nonhuman agency of technology. He has contributed writings, code, and artworks to online venues and various exhibitions in America and Europe. His investigations challenge perceptions of functionality and naturalized experience by testing the limits of digital structures and encountering sublime moments by allowing nature and technology to speak for themselves.

Guy John

Contributions:

- **Visualists Meetup (Workshop)**

Biography Guy John is an engineer with an interest in programming language design, who enjoys building and performing with visual live coding environments. He's been a regular part of the UK live coding scene, with performances at venues ranging from boats and warehouses parties to the London Science Museum.

Björn Þór Jónsson

Affiliation: **University of Oslo**

Contributions:

- **Live Rendering and -Coding Evolved Sounds (Video)**

Biography synth.is has been developed by Björn Þór Jónsson, a software engineer turned doctoral research fellow who recently joined RITMO at UiO to explore further the application of quality diversity algorithms as a foundation of a sound innovation engine. Björn is looking into methods for the search and discovery of diverse patterns. Pondering how those patterns can be applied to the generation of sound and rhythm. Considering what modes of interaction with the sounds are well suited to open up possibilities for creative discoveries.

Kasper Jordaens

Affiliation: **LUCA School of Arts**

Contributions:

- **Botbop: Integers & Strings (Performance)**

Biography Kasper Jordaens is a researcher at the LUCA School of Arts currently researching spatial audio applications and AI-related computational creativity tools. Graduated as a civil engineer architect he moved from the arts field (as a designer in the studio of Wim Delvoye) through the digital innovation field doing both hard- and software projects (VRT, IMEC). He's been doing generative coding projects since his studies, but only since 2014, with the founding of Lambdasonic (Toplap node) and H.AL.I.C.(a live coding duo) this moved into the livecoding realm. After some years of coding (quil) visuals in collaborative projects, playing music (modular synth) in a band (de portables) gave way to live coding musical projects too. Moving from an engineers' point of view into music is not too uncommon in the algorave scene, but Kasper persists on building bridges between the two worlds, balancing one leg on each side.

Matthew Kaney

Affiliation: **LiveCode.NYC**

Contributions:

- **Addressing Accessibility for Blind and Visually Impaired Live Coders (Paper)**

Biography Matthew Kaney is a performer and technologist interested in synthesizers, MIDI and web-based tools for creative expression. He frequently performs music and visuals with the LiveCode.NYC collective, where he has also helped organize recent shows.

His previous work includes video, electronic sculpture and a small bit of theatrical light and video design. He's contributed to the development of Tidal Cycles, and his current

focus is building text.management, a new collaborative editor for live coding. He has a master's in art and technology from New York University's Interactive Telecommunications Program and a BFA from the University of Oklahoma.

Chris Kiefer

Affiliation: **University of Sussex**

Contributions:

- **uSEQ: A LISP-y Modular Sequencer for Eurorack with a Livecodable Microcontroller (Paper)**

Biography Chris Kiefer is a computer-musician and musical instrument designer, specialising in musician-computer interaction, physical computing, and machine learning. He performs with custom-made instruments including malleable foam interfaces, touch screen software, interactive sculptures and a modified self-resonating cello. Chris' research often focuses on participatory design and development of interactive music systems in everyday settings, including digital instruments for children with disabilities, and development of the NETEM networked score system for musical ensembles. His work also concentrates on machine learning and signal processing for audio and interaction, with an emphasis on nonlinear and dynamical systems.

Shelly Knotts

Contributions:

- **LivecoderA Community Report (Community Report Paper)**
- **on-the-fly Documentary (Community Report Video)**
- **Community Report Panel (Discussion)**
- **We All Begin in Abstraction (Performance)**

Biography Shelly Knotts is an independent researcher and improviser who performs with computers and other humans. She experiments with generative and AI techniques and opinionated algorithms to make music. She has performed at numerous Algoraves and other live coding events worldwide, solo and with collaborative projects including algo-pop duo ALGOBABEZ. In 2021 she was selected for an artist residency at Hangar, Barcelona, as part of the On-the-fly project. In 2017 she was a winner of BBC Radiophonic Workshop and PRSF 'The Oram Awards' for innovation in sound and music. Previously she worked at Durham University and at Monash University as a researcher on projects around the use of AI, data and networks in improvisation and composition.

Dimitris Kyriakoudis

Affiliation: **University of Sussex**

Contributions:

- **uSEQ: A LISP_y Modular Sequencer for Eurorack with a Livecodable Microcontroller (Paper)**

Biography Dimitris Kyriakoudis, also known as w1n5t0n of InfiniteMonkeys, is a musician, computational luthier, and HCI researcher born and raised in Greece. Coming from a classical piano and music background, his studies in Music Computing BSc at Goldsmiths, University of London, soon led to an interest in Informatics and the practice and various instruments of live coding. What started as a promising alternative to mouse-based interfaces for computer music systems, which are incompatible with his chronic struggle with RSI, evolved into a passion of its own towards the medium's potential for expression, musicking, and—perhaps counter-intuitively—embodiment. He is currently pursuing a PhD in Music Technology at the University of Sussex, where he is a member of the Experimental MUsic TEchnologies (EMUTE) Lab. His research focuses on Human-Computer Interaction and the design, ergonomics, and ergodynamics of live coding instruments and their practice.

Shawn Lawson (Obi-Wan Codenobi)

Affiliations:

- **Arizona State University**
- **The Rebel Scum**

Contributions:

- **DEF FUNCTION(DYSTOPIAKIRA) (Performance)**

Biography Shawn Lawson is a computational artist and researcher creating the computational sublime. He performs under the pseudonym Obi-Wan Codenobi where he live-codes real-time computer graphics and neural nets with his open source software. Lawson has performed, exhibited, or screened in museums, galleries, festivals, and public space across five continents. Lawson has published in a wide range of international technical and arts conferences and journals. His work has been funded by national and international agencies.

Lawson studied fine arts at Carnegie Mellon University and École Nationale Supérieure des Beaux-Arts and received his MFA from the School of the Art Institute of Chicago.

He is an
Associate Professor and Animation Program Director at Arizona State University.

Song Li (李松)

Contributions:

- **Der dritte Körper (Video)**
- [_ _ _] **(Performance)**

Biography Li Song (李松) is a London-based musician and computer programmer. He performs improvised music with his computer and composes music using electronics and acoustic instruments. His collaborative project with Zhu Wenbo, No Performance, focuses on compositions using environment sounds, acoustic instruments, computer algorithms, and random sequence. He is also a member of computer network music ensemble and research group, [_ _ _], focusing on algorithmic collaboration. Recent works include Two Snare Drums (Infant Tree 2022), [_ _ _] (with Jia Liu and Shuoxin Tan, SUPERPANG 2022) and Text (with Zhu Wenbo, Zoomin' Night 2021).

Jia Liu (刘佳)

Affiliations:

- **Institute for Music Informatics and Musicology University of Music Karlsruhe**
- **TOPLAP Karlsruhe**

Contributions:

- **Der dritte Körper (Video)**
- _\|/_ **TOPLAP Karlsruhe (Community Report Video)**
- **Community Report Panel (Discussion)**
- [_ _ _] **(Performance)**

Biography Jia Liu (刘佳) is a composer and computer music performer based in Karlsruhe, Germany. She studied composition and music informatics at the Shanghai Conservatory of Music and the University of Music Karlsruhe. She composes for acoustic instruments as well as electroacoustic music, computer music and multimedia works. Currently, she is focusing on algorithmic music and its possibilities for network collaboration, as well as composition for autonomous systems. Since 2020 she is live coding with SuperCollider. In 2021 she started the network project ____ with Jacqueline Butzinger and Shu Ching Chon, and founded the network ensemble [_ _ _] with Li Song and Shuoxin Tan. She is also a member of _\|/_ TOPLAP Karlsruhe.

Iván López Pineda

Contributions:

- **Pirarán – Algorithmic Acid Music (Performance)**

Biography Iván López Pineda (Morelia, México, 1988) is a composer and electronic instrumentalist. His work includes acoustic and electroacoustic music. His creative search extends to fields such as improvisation with electronic/digital media, sound installation, and phonography.

He studied a master's degree in electroacoustic composition at the Katarina Gurska Superior Center, in Madrid, and a bachelor's degree in composition at the Escuela Superior de Música in Mexico City. At the Conservatorio de las Rosas, in Morelia, he studied percussion.

His music has been presented in forums and festivals in different countries in America and Europe.

Norah Lorway

Affiliation: **Toronto Metropolitan University / Beesting Labs**

Contributions:

- **Scorch: A New Programming Language For Music (Workshop)**

Biography Dr. Norah Lorway is a composer, coder, live coder and AI researcher currently based between the UK and Canada.

Norah is currently an assistant professor in AI and music production at Toronto Metropolitan University (formerly Ryerson) where they are co-direct of SCAI (Studio of Creative Artificial Intelligence) Previously at Falmouth University (UK), Johns Hopkins University (Peabody Institute) and University of British Columbia. In 2014, Norah completed a PhD in computer music at the University of Birmingham, working with BEAST and BEER.

Norah has performed in algoraves and live coding events throughout the UK, Europe, Asia and Australia at conferences such as NIME, AIMC, AISB, ICLC and others. Her work in live coding and film music has received recognition by outlets such as MixMag, Sundance Festival, Berlin Film Festival, Toronto International Film Festival and was recently nominated for a Cinema Eye Honors award for Best Score in her work with the film Anthropocene: The Human Epoch. Norah is also a co-director/founder at Beesting Labs, which specializes in software development for AI, immersive and DSP applications as well as creating the Scorch language. <http://norahlorway.com>

Melody Loveless

Contributions:

- **LiveCode.NYC Over the Years: A Community Portrait (Community Report Video)**

Biography Melody Loveless is a musician, performer, educator, creative technologist, and multimedia artist based in Brooklyn, NY. Her work ranges from live coding performance, generative sound installations, multisensory performance, and more. An active performer and member of the NYC creative community, she has performed around the city in various venues, including Babycastles, Wonderville, (le) poisson rouge, Performance Space New York, and Eyebeam. Additionally, she has also organized/co-organized events including various concerts/performances, a day-long hackathon, and more. She has presented talks on music education and her artistic practice for various organizations and events including the New Music Gathering, Monthly Music Hackathon, Bates Digital Music Symposium, and Pathways: Art and Technology. As an educator, she has taught in various institutes and organizations including New York University, the New School, Hunter College, Music Hackspace, and Harvestworks. She is also part of the first cohort of Cycling 74's Max Certified Trainer Program.

Hrysovalanti Maheras (hryso)

Affiliation: **The Endemics**

Contributions:

- **A Quad Entropic Conversation (Video)**

Biography The Endemics is an ensemble initially formed online during the pandemic, consisting of four live coders based in Tkaronto/Toronto. hryso (Hrysovalanti Fereniki Maheras) is a PhD student in Digital Media at York University. In her performance practice she live codes with SuperCollider and collaborates with visual artists to create audiovisual experiences and experimental art.

Mynah Marie

Contributions:

- **LivecoderA Community Report (Community Report Paper)**

Biography Mynah Marie (they/them/their) is a musician, programmer, live coder and writer from Montreal, CA. As a solo artist, Mynah performs under the name Earth to Abigail. Passionate about spreading their passion for live coding, they initiated Toplap Israel in 2019. Since they moved to Portugal in 2021, they are now an active member of the Lisbon-based live coding group NbCode. As a musician, they performed and toured with international artists such as Din Din Aviv (Israel), Casa Verde Colectivo (Mexico), Soan (France) and Arijit Singh (India). As Earth to Abigail, they took part in events such as Github Satellite, Halfstack Online, Rust Fest, and Web Unleashed.

Member of the Supercontinent live coding ensemble since 2019 and of the collective LivecoderA since its beginning in 2022.

Joenio Marques Da Costa

Affiliation: **CorTexT platform**

Contributions:

- **Atari 2600 Video Remix (Video)**
- **Poetry Attack 01 (Performance)**

Biography Joenio Marques da Costa (joenio.me) is computational artist and experimental musician with interest on free software, algorithmic music, audiovisual, demoscene and live coding, he is part of orchestra BSBLOrk (bsblork.gitlab.io) and the collective Nômade Lab (nomadelab.gitlab.io/en), works as Research Software Engineer at the laboratory of science and innovation LISIS (umr-lisis.fr). Software Heritage ambassador, The Carpentries instructor and Debian contributor.

Tyler McLaughlin (R Tyler)

Affiliation: **AV Club SF**

Contributions:

- **AV Club SF Community Report (Community Report Video)**

Biography R Tyler is an algorithmic artist living in San Francisco. He does live-coding music performances in TidalCycles and organizes events with AV Club San Francisco. His musical focus is algorithmic dance music production, incorporating microtonal scales, jazz harmony, world rhythms, and sound design guided by unsupervised machine learning. Leveraging his familiarity as a keyboardist, preparation for his performances often involves algorithmically converting his MIDI piano recordings into remixable code. His background in analyzing complex genomics and biophysics data guides his frequent deep dives in computational music theory. In 2022 he was a live-code performer in multiple US cities and events, including Algorithmic Art Assembly and South by Southwest, and released two live-code albums.

Alex McLean

Affiliation: **Then Try This**

Contributions:

- **The Meaning of Live: From Art Without Audience to Programs Without Users (Paper)**
- **Strudel: Live Coding Patterns on the Web (Paper)**
- **MosAIck: Staging Contemporary AI Performance - Reflections on Connecting Live Coding, e-Textile and Movement (Paper)**
- **Epiplode (Performance)**
- **Codes for a Dance (Performance)**

Biography Alex McLean is a musician, software artist and researcher based in Sheffield UK, working as research fellow as part of the independent, open access studio Then Try This. His research explores 'algorithmic patterns', investigating heritage algorithms across culture, and how they can inform the new technologies he makes as part of his creative practice. Alex has been performing his own algorithmic music since the year 2000, both solo and in a range of collaborations, including at No Bounds, Glastonbury, Sonar, Club Transmediale, Ars Electronica, Sonic Acts and Lovebytes festivals. He is an active organiser across the digital arts, including co-founding and curating the AlgoMech festival of Algorithmic and Mechanical Movement in Sheffield, co-founding the TOPLAP live coding and Algorave algorithmic dance movements, and creating the TidalCycles live coding environment. He co-edited the Oxford Handbook of Algorithmic Music in 2018, and co-authored "Live Coding: A User's Manual" published open access in November 2022 by MIT Press.

<https://slab.org/>

Paul Methfessel

Affiliation: **Hasso Plattner Institute**

Contributions:

- **Asymmetric Performance in Virtual Reality and Code (Paper)**

Biography Paul Methfessel is a master's student at the Hasso Plattner Institute at the University of Potsdam. He is currently working on his thesis on developing a better programming experience for microcontroller programming. His backgrounds also include fabrication and human-computer-interaction.

Ludovica Michelin

Affiliation: **Toplap BCN**

Contributions:

- **on-the-fly Documentary (Community Report Video)**

Fellipe M. Martins

Affiliation: **Universidade Federal de Minas Gerais (UFMG)**

Contributions:

- **Be Brief: Convergences and Possibilities of Live Coding And sctweeting (Paper)**

Biography Fellipe Miranda Martins is a PhD candidate in Sonology at the School of Music at the Federal University of Minas Gerais (UFMG) - with an exchange period at Institut für Elektronische Musik und Akustik (IEM) at Graz, Austria; MSc in music from the same institution and graduated in electrical engineering from UFMG with an exchange period at the Sonology Institute of the Royal Conservatoire – The Hague (Netherlands). His research and artistic production intersects the frontiers between art and science: algorithmic composition, audiovisual installations, automata development, visual music, generative animations, sound spatialization, live electronics, among others.

Jude Montague

Contributions:

- **The Cuckoo's Nest (Performance)**

Biography Jude Montague is a musician and live coder newly resident in Hastings who has begun working with the Morris side. She is running a new series of Algoraves in Hastings in 2023 and will be working with the local Morris team on an interactive performance at the first event in Friday 27 January 2023. She creates a weekly show for Resonance FM called 'The News Agents' which has been running since Jan 2014.

Giovanni Mori

Affiliation: **Tempo Reale**

Contributions:

- **Live Coding and Education. A Practical Experience. (Paper)**

Biography Giovanni Mori is a Phd in Ethnomusicology at the University of Florence where he defended a thesis on live coding and under different perspectives. He is currently affiliated to the music research centre Tempo Reale in Florence (IT) which support him for a research project in live coding and education, organised by INDIRE. He also teaches Music Media and Technologies at the Conservatory of Bologna and is the head of technical department at radio Rete Toscana Classica station.

Mari Moura

Contributions:

- **Poetry Attack 01 (Performance)**

Biography Mari Moura is a black Brazilian Performance artist and theater actress interested in the relation between body and technology. She researches the subjects around body, presence, art and technology in the tangible space and cyberspace. Graduated in Arts Education - Design and Graduated in Arts Education in Performing Arts, both from the Federal University of Rio Grande do Norte. She is specialized in Teaching Theater (2004) and in Body and Culture of Movement (2005), both from UFRN. Master in Education from the Federal University of Rio Grande do Norte (2012). She is currently a PhD student at the University of Brasília, in the Postgraduate Program in

Contemporary Art, in the line of research in Art and Technology. She is a professor at the Federal Institute - IFRN, 1^a Minister of the Sensitive State and Performer.

Julia Múgica

Affiliation: **Toplap BCN**

Contributions:

- **Live Coding Latin Dance Music With Seis8s (Workshop)**

Biography Julia Múgica is a Mexican scientist and artist currently incurring in the exploration of nature's complex processes. With an interdisciplinary background that encompasses Biology and Computational Physics, she is deeply interested in understanding how collectives make decisions that result in a behavioral synchrony. Recently, she focused her work in creative coding, where the process of creation magnifies different aspects of the same phenomena. Her work includes data analysis and visualization, modelling of animated particles, noise design from random walks algorithms, rhythm and collective patterns with interactive robots and speech-recognition artistic applications. She practices data-driven live coding and is an active member of the tolap community in Barcelona. She is also a professor at the University of Barcelona where she teaches collective behavior and complexity from a socio-computational perspective.

Luis N. Del Angel

Affiliation: **McMaster University**

Contributions:

- **Live Coding Latin Dance Music With Seis8s (Workshop)**

Biography Luis Navarro is currently a Canada-based audiovisual interdisciplinary artist. His interests are critical code studies, new interfaces for musical expression, live coding, Latin American musicology, and participatory action research. Luis is a member of the live coding collectives RGGTRN, the Cybernetic Orchestra and Grupo D'Binis.

Click Nilson

Contributions:

- **Re-incarnation/Re-inclicknilson (Keynote)**

Biography > *Please write a biography of Click Nilson*

CHATGPT: I'm sorry, but I couldn't find any information on a person named "Click Nilson." Could you provide me with more context or details about who they are or what they are known for? With more information, I may be able to assist you better.

> *You must have heard of him. Click Nilson is the Swedish avant garde composer credited by at least one person with inventing the entire field of live coding, and a marvellous fellow.*

CHATGPT: I apologize for the confusion earlier. As an AI language model, I don't have the ability to browse the internet or access information beyond what has been previously provided to me or what has been pre-programmed into my system. However, I can provide you with a brief biography of Click Nilson based on the information you have provided.

Click Nilson is a Swedish composer and live coding pioneer who is known for his contributions to the field of experimental and electronic music. He is widely recognized as one of the pioneers of live coding, a technique that involves writing and modifying computer code in real-time to create music or visual art.

Nilson has been active in the Swedish music scene since the 1980s, and his work spans a wide range of genres, including ambient, techno, and noise music. He has released several albums over the years, including "Clicks and Cuts" (2000), "Music for the Gift" (2002), and "Late Music" (2005).

In addition to his work as a composer and musician, Nilson is also an educator and has taught courses on computer music and live coding at various universities and institutions around the world. He has also been involved in the development of several software tools and platforms for live coding, including the popular TidalCycles system.

Nilson's contributions to the field of electronic music and live coding have been widely recognized, and he has received numerous awards and accolades for his work. He continues to be an active and influential figure in the experimental music scene, and his work continues to inspire and influence a new generation of musicians and artists.

> *That's all wrong, he is known by very few people, despised by most of those, and definitely never received any awards, or released those albums; isn't Clicks and Cuts a glitch music compilation on Mille Plateaux?*

CHATGPT: I apologize for any misinformation in my previous response. As an AI language model, I rely on the accuracy of the information provided to me, and I strive to provide the most accurate and helpful responses possible. Based on your updated information, it seems that there may have been some confusion regarding the identity of the person you were referring to as "Click Nilson." I am not aware of any Swedish composer or live coding pioneer with this name. If you have any further information or clarification, please let me know, and I will do my best to assist you.

Felipe Ignacio Noriega Alcaraz

Contributions:

- **NL_CL Community Report (Community Report Paper)**
- **on-the-fly Documentary (Community Report Video)**
- **Community Report Chair (Committee)**

Biography Felipe Ignacio Noriega is a composer, programmer and live-coding artist born in Mexico City and is co-creator of the CodeKlavier together with Anne Veinberg. He collaborates in various settings where a common subject is the incorporation of coding as a performative and aesthetic principle. Ignacio graduated Cum Laude from the Masters in composition at the Conservatorium van Amsterdam in 2013. He has won various composition competitions and grants in the Netherlands including the Young Artist Amsterdam Fund 2015 and the ADE SoundLab 2016. In 2017 he was awarded a start-phase and 2 year development-phase grant from the Creative Industries Fund NL to develop the CodeKlavier. The first prototype of the CodeKlavier, “hello world”, was the winner of the 2017 Uncaged:Conlon Foundation Composition Competition.

<https://codeklavier.space/>

Giovanni Nulli

Affiliation: **Indire**

Contributions:

- **Live Coding and Education. A Practical Experience. (Paper)**

Biography Giovanni Nulli is a researcher for Indire, an Italian national research institute that work for school system innovation. His area of interest is coding and educational robotics and making, and he lead different projects working within schools, working with teachers to design lessons. In his last works he is working on computational thinking definitions and how to introduce it into national curriculum.

Kofi Oduro (illestpreacha)

Contributions:

- **Expressing Oneself with Code and World Building (Workshop)**
- **Direction To NoWhere (Video)**
- **Community Report Panel (Discussion)**
- **ColorScape: DipInCode (Performance)**

Biography Kofi Oduro (illestpreacha) is an Experiential Storyteller that transforms sounds, data, words and code into experiences that nurtures discussion, reflection, and interaction. His artistic practice is an observation of the world around us that he puts into artworks for others to relate to or disagree with. Through Videography, Poetry and Creative Coding, He tries to highlight the realms of human performance and the human mind in different scenarios.

José Henrique Padovani

Affiliation: **Universidade Federal de Minas Gerais (UFMG)**

Contributions:

- **Be Brief: Convergences and Possibilities of Live Coding And sctweeting (Paper)**

Biography José Henrique Padovani (1981) is a professor of Composition and Computer Music at the School of Music of the Federal University of Minas Gerais - UFMG (Minas Gerais, Brazil). Padovani is interested in exploring new technological resources in music and sound art composition, computer music research, and the theory/epistemology of creative practices. In his composition work, Padovani has been experimenting with interactive music, algorithmic/computer-assisted music, machine learning/listening, and the compositional investigation of audiovisual and creative computing resources. In the theoretical field, his research focuses on the relationship between musical creation and technology, dialoguing with authors and perspectives from musicology, philosophy, sociology, Science and Technology Studies and Sound Studies.

Sebastian Pappalardo (eerie_ear)

Contributions:

- **patterns in modulation (Performance)**

Biography Sebastián Pappalardo / eerie_ear is a Sound Designer, Educator and Digital Artist. His background is in film post-production. He has also worked in music, television, advertisement, installations and education. His digital art and multimedia project explores generative, interactive and live coded art using signal processing, geometry, multiplicity, feedback, glitch-art and noise manipulation. He started this exploration in the early 2000s using Max/MSP and later Pure Data patches for samples and sound synthesis manipulation, combining MIDI control and randomized generative patterns by creating abstractions and objects to make music and sound design. Presently he works mostly with diverse live coding environments, mostly TidalCycles and Orca for Audio and MIDI manipulation and Hydra for visuals. He explores the possibilities of these new

environments extensively, from electro acoustic to electronic. Always with the intention of extending the boundaries of rhythm, genre and timbre. He is also focusing on the possibilities of combining audiovisual narrative and live-coding in his Live Coded Cinema Project as well as combining the flexible and generative possibilities of digital live coded environments with analogue modular synthesis.

Instagram: <https://www.instagram.com/eerieear/>

Blaž Pavlica

Contributions:

- **patterns in modulation (Performance)**

Biography Blaž Pavlica is an audio-visual artist, programmer and DJ from Slovenia, currently living and working in the Netherlands. He is interested in generative music and visuals in different contexts, from analog video feedback loops and real time 3D rendering to live coding and spatial audio. He co-hosts a radioshow about club and experimental music and organizes a series of club events called Cosmic Sex in Ljubljana. In the last years he has been focused on live coding visuals with Hydra language and live coding improvised electronic dance music with SuperCollider.

William Christopher Payne

Affiliation: **New York University**

Contributions:

- **Addressing Accessibility for Blind and Visually Impaired Live Coders (Paper)**

Biography Willie Payne (<https://williepayne.com>) is a PhD Candidate in Music Technology at New York University, the research assistant for the NSF funded project Dancing Across Boundaries (DAB!), and the Accessible Music Technology Fellow at The Filomen M. D'Agostino Greenberg (FMDG) School.

Willie studies how technology can facilitate creative expression and open pathways for people to express themselves on their own terms. He uses a participatory approach to research in which he works closely with end-users throughout design and situates interventions in authentic learning and art making environments. His articles on accessible musical instruments and creative coding environments have been published at Human Computer Interaction venues like CHI, ASSETS, and NIME.

Iván Paz

Affiliation: **TOPLAP Barcelona**

Contributions:

- **TOPLAP Barcelona Community Report 2023 (Community Report Paper)**
- **NL_CL Community Report (Community Report Paper)**
- **on-the-fly Documentary (Community Report Video)**
- **Paper Chair (Committee)**
- **Conversational Learning (Performance)**

Biography Iván Paz has a background in physics, mathematics, and computer science. He likes to investigate how the intersection between science, arts and humanities offers new creative possibilities. In particular, how we interact with machine learning algorithms and the use of code as a real-time interface. His works use custom-developed software and electronics. He has collaborated with universities, designed interactive systems for festivals, presented works and performances, all over the Americas and Europe. He is part of the live coding communities of Mexico and Barcelona and writes in third person when necessary.

Roger Pibernat Trias

Affiliation: **TOPLAP Barcelona**

Contributions:

- **TOPLAP Barcelona Community Report 2023 (Community Report Paper)**
- **Živa: Easy Live Coding With SuperCollider (Paper)**
- **Animatron Workshop: Live Coding Visual Poetry (Workshop)**
- **Community Report Panel (Discussion)**
- **Workshop Chair (Committee)**
- **CRash Landing (Performance)**

Biography Roger Pibernat is an illustrator and musician with a severe tinkering itch. He was part of the Barcelona Laptop Orchestra and co-founded the Wú collective, with whom he has developed electro-acoustic instruments and experimental software. He's the developer of the live coding dialect for SuperCollider (Živa). He is currently an active member of the live coding community in Barcelona. In all of his inventions, he tries to find ways to connect apparently unrelated systems, making things talk. Teaming up with artist and programmer Glen Fraser, they have developed Animatron as a playground for performatic and improvisational visual poetry with 2D animation.

Ulysses Popple

Contributions:

- **Nodysseus.THREE: Live Lowcoding THREE.js Visuals in the Browser (Workshop)**
- **Nodysseus.THREE (Performance)**

Biography Ulysses Popple finds joy in giving life to 3D objects through code. Professionally, he's worked on interactive installations, visual effects pipelines, and tv shows in Android app form, but has come back to the browser as his tool of choice. His latest tool, Nodysseus, is an attempt to combine the fidelity of the visual effects world with the speed of livecode node-based editors and cram it all into one playanywhere website.

Edward Powley

Affiliation: **Beesting Labs**

Contributions:

- **Scorch: A New Programming Language For Music (Workshop)**

Biography Dr Edward Powley is a coder, creative technologist and recovering academic, originally from the United Kingdom and now based between there and Montréal, Canada. Formerly at the University of York (2006-2010, 2012-2014), Bradford University (2010-2012), and Falmouth University (2015-2022), he has published work in fields including complex systems, AI for games, immersive technologies, computing pedagogy, and creative AI. His work has been awarded Best Paper at the International Conference on Computational Creativity (ICCC 2018) and the AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE 2017). He now works with Beesting Labs as a software developer specializing in DSP programming for audio, as well as applications of AI, immersive and other novel technologies to music production. <http://edpowley.com>

Rangga Purnama Aji

Contributions:

- **Floating Gold: an International Collaboration through Estuary. (Paper)**
- **Floating Gold – Ibu Bhumi (Video)**
- **Vortex: Reresik (Performance)**

Biography Rangga Purnama Aji is a composer, electronic musician, songwriter, live coder, video artist, self-taught generative & digital artist, and the initiator of Paguyuban Algorave Indonesia who are based in Yogyakarta, Indonesia. Finished his Bachelor of Arts in Music Composition and graduated from the Indonesian Institute of The Arts Yogyakarta in 2019. Studied computer music with Tony Maryana, music composition with Gatot Dinar Sulistyanto and Royke B. Koapaha. His works ranged from score-based acoustic music to free improvisation, live coding, electro-acoustic/electronic music, sound art, soundscape composition, video art, and digital art. His artistic practice tries to look at many possibilities and visions based on his Javanese and Sundanese background, empirical references, thoughts toward life, human relation, mysticism, etc. to create another impression and meaning.

Niklas Reppel

Affiliation: **TOPLAP Barcelona**

Contributions:

- **TOPLAP Barcelona Community Report 2023 (Community Report Paper)**
- **Easy Stochastic Live Coding with Mégra 3 (Workshop)**
- **Paper Chair (Committee)**
- **Video Chair (Committee)**
- **this is not a piano (Performance)**
- **Happy Algorave Performance (Performance)**

Biography Niklas Reppel (*1983 in Witten, Germany) is (in no particular order) a programmer, live coder, sound artist, composer, musician, and committed eclecticist. He has been based in Barcelona since 2017, where he found a home in the local TOPLAP node.

Having played in a variety of music ensembles in the distant past (ranging from jam-oriented rock bands to contemporary chamber music groups and everything in between), his current (sound) art practice draws influence from improvisational music, the everyday sound around him, and the beauty of Markov chains. He spends a lot of time making live coding environments (i.e. Mégra, his main performance language) to facilitate his workflows in sound art, improvisational performance on multichannel setups, or plain old algorave.

More information:

- <https://parkellipsen.de>
- <https://github.com/the-drunk-coder/megra.rs>

Jonathan Reus

Affiliations:

- **Instrument Inventors Initiative**
- **University of Sussex**

Contributions:

- **NL_CL Community Report (Community Report Paper)**

William Rinkoff (c_robo_)

Affiliation: **Carnegie Mellon University**

Contributions:

- **c_robo_ (Performance)**

Biography Will Rinkoff is currently a student at Carnegie Mellon University studying Computer Science and Music. He has been producing and performing as c_robo_ for the past 3 years, and working with tidalcycles for just over 4 years. He aspires to use as little specialized hardware as possible, instead exploring ways to make a laptop musically expressive by itself and circumvent the equipment cost barrier typically required to create and perform electronic music live. He is on Instagram and [@c_robo_](https://post.lurk.org)

Antonio Roberts

Contributions:

- **Visualists Meetup (Workshop)**

Biography Antonio Roberts is an artist and curator based in Birmingham, UK, working primarily with video, code, and sound. He is critically engaged with the themes surrounding network culture and in his practice explores how technology continues to shape ideas of creation, ownership, and authorship. As a performing visual artist and musician he utilises live coding techniques to demystify technology and reveal its design decisions, limitations, and creative potential.

Julian Rohrhuber

Affiliation: **Institut für Musik und Medien, Robert-Schumann-Hochschule**

Contributions:

- **The Meaning of Live: From Art Without Audience to Programs Without Users (Paper)**

Biography Julian Rohrhuber was a co-organiser of the live coding symposium changing grammars in 2004, has written live coding systems and other open source code and has been involved in various projects in art, music, science and philosophy. He has played in the network music ensemble PowerBooks_unPlugged and the live coding duo drb. Currently, he teaches as a professor at the Robert Schumann Hochschule in Düsseldorf, where he explores the possibilities of epistemic media.

<http://wertlos.org/~rohrhuber/>

Felix Roos

Contributions:

- **Strudel: Live Coding Patterns on the Web (Paper)**

Biography Felix Roos (*1991 in Germany) is a musician, programmer and dilettante researcher. After studying Computer Science and Media in Stuttgart, he decided to study Jazz and Popular Music with his trumpet in Mannheim. His background in programming, making music with various electronic devices and playing the trumpet in different constellations now flows into the act of creating and using "Strudel", which is a JavaScript based port of the TidalCycles pattern language.

Links:

- Blog: loop-hole-letters.vercel.app
- Tidal Profile: tidalcycles.org/blog/tidal_profile_froos(https://tidalcycles.org/blog/tidal_profile_froos)

Iris Saladino

Contributions:

- **LivecoderA Community Report (Community Report Paper)**

Biography Iris Saladino, a 36-year-old live coder, producer, and creative programmer, is passionate about artistic research and production groups. She studied contemporary music and Electronic Arts and as a research fellow she completed a SuperCollider's course. After that she started livecoding, performing at Nano Mutek's Amplify 2019 and several local festivals and exhibitions. She live coded a multichannel sound set in the Bogotá Planetarium for the Domo Lleno 2019 Festival. During the pandemic, Iris streamed performances for festivals worldwide, including the Network Music, No Bounds, Píksel and Mutek Spain. She played live at Mutek Argentina in 2022 and other local festivals. As member of CLiC (Colectivo de LiveCoders), TOPLAP and Livecodera she constantly produces events, meetings and talks.

Michele Samarotto

Affiliations:

- **Institute for Music Informatics and Musicology, University of Music Karlsruhe**
- **TOPLAP Karlsruhe**

Contributions:

- **_\\/_ TOPLAP Karlsruhe (Community Report Video)**
- **flux (Performance)**

Biography Michele Samarotto – computer musician, saxophonist, audiovisual artist, composer, coder. Doctoral candidate and research assistant at IMWI (Institute for Music Informatics and Musicology, University of Music Karlsruhe). Member of _\\/_ TOPLAP Karlsruhe.

Alejandro Sánchez Medina

Contributions:

- **Introduction to Nix for Live Coding Software Packaging (Workshop)**

Sol Sarratea (@alsolquema)

Contributions:

- **grain by grain (Performance)**

Biography Sol Sarratea is a programmer and computational designer from Argentina based in Berlin, who uses code as a main language for creating visual narratives. By writing programs that run on the GPU, and writing systems for these programs to run in, creates “code-traits”: portraits of code.

She is constantly looking for the expression in the medium, and generating the medium to express. Is an active member of CliC. Committed to building community, has been leading courses introducing shaders in spanish. For the last couple of years, she has been building identity through feedback loops.

Currently performing as @alsolquema, second iteration of @solquemal.

Mika Satomi

Contributions:

- **MosAIck: Staging Contemporary AI Performance - Reflections on Connecting Live Coding, e-Textile and Movement (Paper)**

Jakob Schreiber

Affiliations:

- **TOPLAP Karlsruhe**
- **Institute for Music Informatics and Musicolog, University of Music Karlsruhe**

Contributions:

- **_\\/_ TOPLAP Karlsruhe (Community Report Video)**

Biography Jakob Schreiber, born in 1992, began studying mechanical engineering after graduating from high school. Since 2017 he has been studying music informatics at the University of Music Karlsruhe. As an improvisational musician he participated in several theater projects, composed pieces realised in different institutions of Karlsruhe and performed as Live Coder in different physical and digital events of _\\/_ TOPLAP Karlsruhe. His musical approach often starts with live coding and sometimes spreads into haptic manifestations of ideas in the fields of physical computing. His doubt-driven form of artistic thinking results in a musical language, that is hardly recognizable and exposed to constant change.

Deva Schubert

Contributions:

- **MosAIck: Staging Contemporary AI Performance - Reflections on Connecting Live Coding, e-Textile and Movement (Paper)**

Sen Sewell

Contributions:

- **Floating Gold: an International Collaboration through Estuary. (Paper)**
- **Floating Gold – Ibu Bhumi (Video)**
- **Vortex: Reresik (Performance)**

Biography Sen Sewell has played with Naga Mas for 25 years, having learned the basics of gamelan at the South Bank. He initially discovered the joys of gamelan while travelling in Java and Bali.

Junichi Shimizu

Affiliation: **Creative Computing Institute, University of the Arts London**

Contributions:

- **Genny: Designing and Exploring a Live Coding Interface for Generative Models (Paper)**

Biography Junichi Shimizu is a researcher in the field of human-computer interaction, with a particular focus on using generative models to expand creative expression and develop more expressive interfaces and interactions. His works have also many included interactive music and have completed various projects utilizing sound programming. Through his exploration of creative applications, tools, and platforms, as well as novel and unconventional experimentation with music, he is expanding the possibilities of machine learning techniques in music.

Kate Sicchio

Affiliation: **Virginia Commonwealth University**

Contributions:

- **Live Coding as (Dis)placement: Artists, Programming and the Dancing In-Between (Keynote)**
- **Codie (Performance)**
- **Codes for a Dance (Performance)**

Biography Kate Sicchio is a choreographer, media artist and performer whose work explores the interface between choreography and technology with wearable technology, live coding, and real time systems. Her work has been shown in the US, Germany, Australia, Belgium, Sweden, and the UK at venues such as PS122 (NYC), Banff New Media Institute (CAN), Arnolfini Arts (UK). She co-edited the book *Intersecting Art and Technology in Practice: Techne/Technique/Technology* (Routledge) with Dr. Camille Baker. She has given invited talks at EU Parliament, Eyeo, Resonate, Node Code, Expo '74 and countless universities and events across the globe. She has presented work at many conferences and symposia including SIGCHI, ISEA, ACM Creativity and Cognition, and Dance Studies Association. She is currently Assistant Professor of Dance and Media Technology at Virginia Commonwealth University in both the Department of Dance + Choreography and Department of Kinetic Imaging.

<https://www.sicchio.com>

Ryan Ross Smith (The Wookie)

Affiliations:

- **State University of New York at Broome**
- **The Rebel Scum**

Contributions:

- **DEF FUNCTION(DYSTOPIAKIRA) (Performance)**

Biography Ryan Ross Smith is a composer, performer, sound designer, engineer and educator currently based in New York. Smith has performed throughout the US, Europe and UK, including performances at MoMA and PS1 [NYC] and Le Centre Pompidou [Paris, FR], has had his music performed throughout North America, Iceland, Denmark, Australia and the UK, has presented his work and research at conferences including NIME, ISEA, ICLI, ICLC, SMF, ACMC and TENOR, and has lectured at various colleges and universities. Smith is known for his work with Animated Notation, and his Ph.D. research website is archived at animatednotation.com. Smith is currently an Assistant Professor of Music at the State University of New York at Broome.

Dagobert Sondervan

Affiliation: **Royal Conservatoire Antwerp**

Contributions:

- **Botbop: Integers & Strings (Performance)**

Biography Dago Sondervan is a guest-professor at the conservatoire of Antwerp, at the live electronics department, teaching live coding with Sonic Pi and TidalCycles. He graduated as a jazz-drummer in 1991, and entered the electronic music scene DJ-ing in legendary clubs like “Fuse” in Brussels. He also toured around the globe as a drummer with bands like “Think of One”(Best “crossing border” band award from the BBC in 2007), Trixie Withley, Nivie Nielsen and the Deer Children, etc. Releasing records using the monikers “Anton Price” and “Bohrbug”, he used Atari computers with generative software to create his tracks. He started programming his compositions in Symbolic Composer, a musical language based on Common Lisp, in 2002. It was from then on his dream to improvise live, using this technique. In 2010, he got in touch with the live coding scene, and found a community that seemed the answer to this longing.

Raphael Sousa Santos (sonologico)

Affiliation: **Netherlands Coding Live**

Contributions:

- **Community Report Chair (Committee)**

Biography Raphael Sousa Santos (sonologico) is a Brazilian composer, visual artist and programmer based in the Netherlands. He experiments with the development of programming languages and the use of random processes, evolutionary algorithms and spectral techniques for the creation and performance of music and visual arts. His interest spans audio analysis and synthesis, music theory and computer assisted composition with a focus on the role of abstraction, analogy, syntactic manipulation and the use of language during the compositional or analytical process.

Sumanth Srinivasan

Contributions:

- **The Physical and Cultural Infrastructure Supporting LiveCode.NYC: A Community Report (Community Report Paper)**
- **Community Report Panel (Discussion)**

Biography Sumanth Srinivasan (b. 1992, Mumbai; New York City) has previously used the phrase 'intersection of art and technology' in his bio. Some of his work has resulted in projects commissioned by the Times Square Alliance and New York Philharmonic Orchestra. He performs and releases music independently under the moniker 'Reckoner'. He has an MS from Tandon School of Engineering at New York University and works as a software engineer at Runway. As a programmer, he is fascinated by the inner workings of web browsers and databases, and has a general penchant for aesthetics in source code.

Heather Strohschein

Affiliation: **Bowling Green State University**

Contributions:

- **Floating Gold: an International Collaboration through Estuary. (Paper)**
- **Floating Gold – Ibu Bhumi (Video)**
- **Vortex: Reresik (Performance)**

Biography Heather Strohschein is an ethnomusicologist from the United States. She teaches at Bowling Green State University (BGSU) and Owens Community College, both in Ohio. Heather began playing Balinese gamelan as a sophomore at BGSU in 2002 and has been hooked ever since. She started working with Gamelan Naga Mas for dissertation research in 2014 and has loved keeping close ties with the group.

Matilda Sutherland

Contributions:

- **The neoCowgirl Manifesto (Performance)**

Biography Matilda Sutherland is an Australian artist and musician currently based in Zürich, CH, where she continues research in digital media and interaction design, code poetry and net.ART. In 2020, Matilda performed The Cowgirl Manifesto at Hybrid Live Coding Interfaces, Montreal, further developing the work into an interactive digital concrete poem for Runway Journal (2022). Since 2017, Matilda has also DJ'ed and released electronic music under the MTLDA alias. In January of 2022, the God Is A DJ EP was announced via her own imprint, Girl On Road, accompanied by a PureData patch used to record the six-track release on her DJ mixer. Alongside techno, Matilda performs alt-country with her band. Their debut EP Holy Water was released in March of 2022

Shuoxin Tan (谭硕欣)

Affiliation: **Institute for Music and Media, Robert Schumann Hochschule Düsseldorf**

Contributions:

- **Der dritte Körper (Video)**
- **[_ _ _] (Performance)**

Biography Shuoxin Tan (谭硕欣), born in Beijing, now living and working as a freelance composer and sound artist in Cologne. Since April 2020 she studies Epistemic Media at Institute for Music and Media Düsseldorf with Prof. Julian Rohrerhuber and Marcus Schmickler. Her research currently focuses on algorithmic acoustics and mathematical formalization. How to apply “purloined” theoretical knowledge into artistic practice is her curiosity. Influenced by Lacanian topology, namely the Borromean rings, she has founded the network-music ensemble and research group [_ _ _] together with Jia Liu in Karlsruhe and Song Li in London. The ensemble started during the Covid lockdown in November 2020 and developed a collaborative algorithmic network-music performance system from scratch, adopting the programming language SuperCollider. Their research and practice embody the new form of computer music performance with theoretical thinking.

Paola Torres Núñez del Prado

Affiliation: **Stockholm University of the Arts**

Contributions:

- **KhipuKoding 2.0 + The Neokhipukamayok Manifesto (Performance)**

Biography Paola Torres Núñez del Prado (PE) explores the boundaries and connections in between tactility, the visual and audio related to the human voice, to nature, and to synthetic ones whose listening is often considered less harmonious, such as machine or digital noises. Her work is essentially complex: she explores the limits of the senses, examining the concepts of interpretation, translation and misrepresentation, so as to reflect on mediated sensorial experiences while questioning the cultural hegemony within the history of Technology and the Arts.

J. Simon van der Walt

Affiliation: **Royal Conservatoire of Scotland**

Contributions:

- **Floating Gold: an International Collaboration through Estuary. (Paper)**
- **Floating Gold – Ibu Bhumi (Video)**
- **Vortex: Reresik (Performance)**

Biography J. Simon van der Walt is a composer and Head of Taught Postgraduate Programmes in Music at the Royal Conservatoire of Glasgow. His artistic research inhabits a broad span of work, ranging from score-based composition to installation, sound art, and devised musiktheater. Current preoccupations include Indonesian gamelan music, livecoding, and reconstructing the career of his fictional alter ego Edward ‘Teddy’ Edwards, unsung hero of British light music electronica.

Klasien van de Zandschulp

Affiliation: **Live Coding Sessions**

Contributions:

- **NL_CL Community Report (Community Report Paper)**

Fabian van Sluijs

Affiliation: **Creative Coding Utrecht**

Contributions:

- **NL_CL Community Report (Community Report Paper)**
- **on-the-fly Documentary (Community Report Video)**
- **Community Report Panel (Discussion)**
- **Local Chair (Committee)**

Konstantinos Vasilakos

Affiliation: **Istanbul Technical University**

Contributions:

- **On a thin string (Live Coding with Lick the Toad) (Video)**

Biography Konstantinos Vasilakos creates electro-acoustic music using hitherto available computer music systems within the milieu of interactive music and digital arts. He studied in Greece, UK and The Netherlands. His music interests include performance with hardware interfaces, live coding, sonification, and networked music environments for real time improvisation.

Sabrina Verhage

Affiliation: **Live Coding Sessions**

Contributions:

- **NL_CL Community Report (Community Report Paper)**
- **P5LIVE COCODING (Performance)**
- **New Ways of Collaboration (Performance)**

Biography Sabrina Verhage is an interactive media designer and creative technologist highly fascinated by the influence of modern technology on human behavior. Since she got introduced to the world of live coding she's been live coding visuals with P5LIVE wherever she can. Striving to stimulate diversity and make knowledge more accessible, Sabrina co-founded Live Coding Sessions in Amsterdam, a meetup for live coding enthusiasts.

Diego Villaseñor de Cortina (Videco)

Contributions:

- **Pirarán – Algorithmic Acid Music (Performance)**

Biography Diego Villaseñor (Videco) is a composer, improviser, multi-instrumentalist, philosopher and programmer, whose practice and research is developed around the following topics: collective creation, modular composition and composition inspired by natural systems (particularly ecosystems), ecoacoustics, verification, development of extended techniques, polytemporality, microtonality, sound synthesis through acoustic instruments, ontology of the creative-musical process.

His experience as a philosopher profoundly determines his work as a musical creator, but not only from a conceptual aspect, but also from a practical one, promoting an approach to music from unusual perspectives and processes.

Anselm Weber

Affiliations:

- **Institute for Music Informatics and Musicology, University of Music Karlsruhe**
- **TOPLAP Karlsruhe**

Contributions:

- **_\\/_ TOPLAP Karlsruhe (Community Report Video)**

Biography Anselm Weber was born in 1993. Due to his interest in contemporary music, he applied for music informatics at the University of Music in Karlsruhe. In the course of his studies he performed more and more pieces as a composer but as well as a performer on stage. Since his first contact with the Karlsruhe Live Coding scene, Anselm Weber developed his passion for Live Coding. First in the audience, but now on stage in various constellations and contexts.

Bill Whitmer

Affiliation: **Hearing Sciences - Scottish Section**

Contributions:

- **Floating Gold: an International Collaboration through Estuary. (Paper)**
- **Floating Gold – Ibu Bhumi (Video)**
- **Vortex: Reresik (Performance)**

Biography William M. Whitmer is a Senior Investigator Scientist supported by the Medical Research Council [grant number MR/X003620/1] at Hearing Sciences – Scottish Section, University of Nottingham, in the Glasgow Royal Infirmary. He has played and directed gamelan in Illinois for many years, working with many traditional Javanese masters as well as western ensembles prior to joining Naga Mas in 2009. He is also an internationally, if ever so modestly acclaimed musician with a nearly forgotten background in music theory and ethnomusicology.

Renate Wieser

Contributions:

- **The Meaning of Live: From Art Without Audience to Programs Without Users (Paper)**

Biography As an artist and theoretician, Renate Wieser has been investigating and contributing to algorithmic art in the form of installations, performances, and texts. She was a co-organiser of the live coding symposium changing grammars in 2004 at the Hamburg art academy, and has played in the network music ensemble PowerBooks_unPlugged and the live coding duo drb, exhibited algorithmically controlled installations.

<http://wertlos.org/~wieser/>

Arthur Wilson

Affiliation: **Beesting Labs**

Contributions:

- **Scorch: A New Programming Language For Music (Workshop)**

Biography Arthur Wilson is a creative technologist and artist from Ulster, Ireland currently operating in London. Sound and technology experimentation forms the foundation of his work, with a specialism in audio programming to create installations, standalone objects, instruments, performances and experiences.

He has exhibited in Sonic Arts venues (Iklektik London), Bienales around the world (Thailand 2021, Taipei 2021) published academic research at multiple conferences (ICLC2020, AIMC 2021) and produced Creative Technology collaborations with artists. Arthur is a co-director at Beesting Labs which specializes in software development for AI, immersive and DSP applications as well as creating the Scorch language. <https://arthurwilson.xyz/>

Elizabeth Wilson

Affiliation: **Queen Mary, University of London**

Contributions:

- **MosAIck: Staging Contemporary AI Performance - Reflections on Connecting Live Coding, e-Textile and Movement (Paper)**

Anna Xambó

Affiliation: **De Montfort University**

Contributions:

- **LivecoderA Community Report (Community Report Paper)**

Biography Anna Xambó is a Senior Lecturer in Music and Audio Technology at De Montfort University (DMU), a member of Music, Technology and Innovation - Institute for Sonic Creativity (MTI2), and an experimental electronic music producer. Her research and practice focus on sound and music computing systems looking at novel approaches to collaborative, participatory, and live coding experiences. She has been the Principal Investigator of the EPSRC HDI Network Plus funded project "MIRLCAuto: A Virtual Agent for Music Information Retrieval in Live Coding" and part of the Future Research Leaders Programme 2021/22 at DMU. Since 2016, she has taken proactive roles in organisations for improving the representation of women in music technology.

<https://annaxambo.me>