Cem Çakmak, PhD

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Contact: +4915731099509 | contact@cem.works | www.cem.works
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Curriculum Vitae

Work Experience

2020–present *Artist and Researcher*, Freelance
Berlin, Germany
Max/MSP workshops and online courses. Live sound for concerts and events. Technical and creative assistance to artists. Independent sound art and music practice. Independent research on spatial audio and artificial intelligence.

2018 *Developmental Teaching Assistant*,
Rensselaer Polytechnic Institute, NY, USA
Teaching Assistant for Sound Recording and Production course. Evaluation, testing, and cataloging of equipment donated by **Pauline Oliveros** to the Center for Deep Listening Archives.

2016–2018 *Research Assistant*,
Rensselaer Polytechnic Institute, NY, USA
Research assistantship under **Dr. Rob Hamilton**'s Music in Virtual Worlds Lab.

2017 *Researcher,*
The Craig H. Neilsen Foundation, NY, USA
Assistive technologies research for instrument design under **Dr. Jonas Braasch**, reporting and dissemination via ISATMA.

2015–2016 *Artist*, Freelance
Istanbul, Turkey

Education

2016–2020 **Rensselaer Polytechnic Institute**, NY, USA
School of Humanities, Arts and Social Sciences
PhD, ***Electronic Arts***
Advisor: Rob Hamilton, Thesis: *A Systems-Theoretical Approach to Spatial Electronic Music Practices*

2013–2015 **Istanbul Technical University**, Turkey
Centre for Advanced Studies in Music (MIAM)
MSc, ***Music***
Advisor: Anil Çamci, Thesis: *Online Gaming as a Model for Networked Intra-Active Music Spaces*

2009–2013 **University of Manchester**, UK
School of Mechanical, Aerospace and Civil Engineering
BEng (Hons), ***Civil Engineering***
Thesis: *Development and Application of Water Resistant Foam Concrete*

Knowledge and Skills

Languages:
Turkish (Native)
English (C2)
German (B2)

Programming:
C, C++, C#, HTML, CSS, Java, Python, TensorFlow, OpenCV, Fortran, Mathematica, MATLAB, Xcode, Max/MSP, gen~, Pd, ChucK, SuperCollider, WebAudio, Arduino, Raspberry Pi, OSC, MIDI, DMX, TCP/IP

Audio Systems:
Ableton Live, Cubase, Logic, ProTools, Audacity, Reaper, SPAT, Panoramix, Dante

Graphic and Visuals:
Processing, Unity3D, Unreal, openFrameworks, A-Frame, LaTeX, Premiere, Wordpress, After Effects, Final Cut, Resolve, AutoCAD

Operating Systems:
macOS, Windows, Linux, iOS, Android

***Performance*:**
Guitar, Piano, Percussion, Live-Electronics, 3D Audio

Further Education

2018 - **Spatial Audio Summer Seminar**, EMPAC, New York, Jul 9-13

2022 - **Binaural Auditory Display**, Interactive Sonification Workshop (ISon), Delmenhorst, Sep 22-23

Selected Performances

tch (Live Electronics)
- 01.08.2025 - *Transferans Gallery Echoes #2*, Errant Sound, Berlin
- 05.12.2024 - *Taming the City*, Errant Sound, Berlin
- 10.05.2024 - *Transferans Label Night #11*, ACUD, Berlin
- 03.05.2024 - *Echoing Dimensions*, Kunstraum Potsdamer, Berlin
- 26.04.2023 - *Fundraiser for Communities Affected by the Earthquake in Syria/Turkey*, Arkaoda, Berlin

SOFTER (Live Electronics)
- 24.03.2024 - *Variable Cloudiness*, Cashmere Radio, Berlin

Das Schwarz des Birkenspanners *by Amelie von Godin* (Live SFX)
- 9-12.03.2023 - HfS Ernst Busch, Berlin

P.W.A.H (Live Electronics, with Roberta Stein)
- 15.11.2024 - *Im Sog Des Waldes*, Fotogalerie Friedrichshain
- 19.11.2022 - *Impromtu Series*, ACUD, Berlin

double-lined (Live Electronics)
- 20.11.2021 - Schloss Schönow, Brandenburg

die Zofen *by Amelie von Godin* (Sound Design & Composition)
- 28 & 29.09.2021 - HfS Ernst Busch, Bühne UNTEN, Berlin

nötr (Fixed Multi-Channel) 41' 46"
- 06.08.2018 - *International Computer Music Conference (ICMC)*, Daegu, South Korea
- 18.07.2018 - *New York City Electroacoustic Music Festival (NYCEMF)*, New York
- 26.06.2018 - *Kaleidophone: New Multichannel Electronic Music from MIAM*, Arter Gallery, Istanbul
- 20.04.2018 - *nötr: 43-channel acousmonium / an evening of electronic music*, EMPAC, New York
- 10.04.2018 - *[ART_X] Pop-up Concert*, RPI Playhouse, New York
- 04.04.2018 - *3rd Collaborative Electroacoustic Music Concert*, University of Buffalo, New York

Çizgi Film Kusagi / Cartoon Time (Live Electronics) ~20'
- 28.12.2017 - *Çünkü Siz Buna Değersiniz*, Peyote, Istanbul

taalq (Generative Quadraphonic) ~17'
- 04.05.2017 - Collar Works Gallery, New York
- 04.04.2017 - Bennington College, Vermont
- 28.02.2017 - Bard College, New York

ob/lik (Live Electronics, with G. Özdemir)
- 30.04.2016 - *A.I.D Room #5*, Moda, Istanbul
- 26.04.2016 - *Radio Patapoe*, OT301, Amsterdam
- 24.04.2016 - *SOTU Festival*, Butcher's Tears, Amsterdam
- 20.03.2016 - *MultiRAID Festival*, Arkaoda, Istanbul

MONAD (Networked Audiovisual)
- 26.12.2015 - *A.I.D Room #2*, Private Venue, Istanbul
- 24.05.2015 - *Electronic Music Composition 2015*, Arkaoda

AAA(…)AAA (Electroacoustic/Live Diffusion) 5' 01"
- 16.10.2015 - *MIAM Electroacoustic Retrospective*, Maçka
- 01.06.2014 - *Electronic Music Composition 2014*, Arkaoda

Awards & Grants

Musikfonds e.V.

2025 *Project Funding*
2022-2023 *Research Stipend*
2021 *Project Funding*

RPI-HASS

2018–2020 *Research Stipend*
2017–2018 *Production Grant*

Web Audio Conference
2019 *Best Paper Award*

Installation

2025
Harmonic Motion (in F#)
Tanzhalle Wiesenburg

Beating Variations: 60-80Hz
Kulturquartier Bethanien

2024
Beating Variations: 60-80Hz
frei-raum.berlin

2023
u-ton
Gallery Periode, Berlin

2022
Oblique
frei-raum.berlin

2021
NO AXIS
Gitter Raum, Essen

2015
Codes of Light
Contemporary Istanbul

Residency

2021
Parallel Residency
Schloss Schönow, Brandenburg

2018
Acousmonium & WFS
EMPAC, New York

Papers & Publications

Çakmak, Cem. “Infrastructures for Immersion: Institutional Mediation of Spatial Audio.” *Most Wanted: Music Research*, 13 November 2025.

Çakmak, Cem. “Implementing Ignorance and Unlearning Methods to AI Music Systems.” *CTM Festival Research and Networking Day (Module 3)*, 29 January 2023.

Çakmak, Cem, and Rob Hamilton. “od: Composing Spatial Multimedia for the Web.” Journal of the Audio Engineering Society 68, no. 10 (November 30, 2020): 747–55.

Çakmak, Cem, and Robert Hamilton. “Composing Spatial Music with Web Audio and WebVR.” In *Proceedings of the Web Audio Conference*. Trondheim, Norway, 2019.

Çakmak, Cem, Anil Çamci, and Angus G. Forbes. “Applying Game Mechanics to Networked Music HCI Systems.” In *New Directions in Music and Human-Computer Interaction*, edited by Simon Holland, Tom Mudd, Katie Wilkie-McKenna, Andrew McPherson, and Marcelo M. Wanderley, 223-41. Springer Series on Cultural Computing. Cham: Springer International Publishing, 2019.

Çakmak, Cem, “Theory and Technique of Super High Frequency Lighting,” Artist Talk in *Proceedings of the International Symposium on Electronic Art*, Manizales, Colombia, 2017.

Keil, Nathan, Huang, Min and Çakmak, Cem, “Designing Immersive Audiovisual Environments for Music Performers with Disabilities,” In *Proceedings of the 5th Annual International Symposium on Adaptive Technology in Music and Art*, Troy, NY, 2017.

Çakmak, Omer C. and Hamilton, Rob, "Musical Sonification of Super High Frequency Lighting", In *Proceedings of the International Computer Music Association Conference*, Shanghai, China, 2017.

Çakmak, Cem, Anil Çamci, and Angus G. Forbes. “Networked Virtual Environments as Collaborative Music Spaces.” In *Proceedings of the International Conference on New Interfaces for Musical Expression*, 106–11. Brisbane, Australia, 2016.

Çakmak, Ömer C., Çamci, Anil and Forbes, Angus G. “Using Game Mechanics to Facilitate Networked Musical Collaboration,” *CHI 2016 Music and HCI Workshop*, San Jose, CA. May 2016.

Çakmak, Ömer C. and Çamci, Anil. (2015) “Online Gaming as a Model for Network Music Systems,” *ISCRiM Student Conference on Music Multimedia and Electronics 2015*, University of Leeds, Leeds, UK. June 15, 2015.

Academic Service

2023 - Present
Max Consultant & Beta Tester
Cycling ’74

2022 - Present
Member
CHIME-ESPRC Music and HCI Research Network

2019 & 2021
Guest Jury for Computation Based Basic Design
Istanbul Bilgi University

2019
Reviewer
International Computer Music Conference (ICMC)

References

Dr. Robert K. Hamilton
Associate Professor, Arts
Department Head,
Rensselaer Polytechnic Institute
hamilr4@rpi.edu

Dr. Anil Çamci
Assistant Professor of Performing Arts Technology, University of Michigan at Ann Arbor
acamci@umich.edu

Dr. Reuben de Lautour
Assistant Professor of Sonic Arts, Istanbul Technical University
lautour@itu.edu.tr