# Stanford



# Jonathan Berger

Denning Family Provostial Professor Music

## Bio

#### BIO

Jonathan Berger is the Denning Family Provostial Professor in Music at Stanford University, where he teaches composition, music theory, and cognition at the Center for Computer Research in Music and Acoustics (CCRMA).

Jonathan is a 2017 Guggenheim Fellow and a 2016 winner of the Rome Prize.

He was the founding co-director of the Stanford Institute for Creativity and the Arts (SICA, now the Stanford Arts Institute) and founding director of Yale University's Center for Studies in Music Technology

Described as "gripping" by both the New York Times and the Chicago Tribune, "poignant", "richly evocative" (San Francisco Chronicle), "taut, and hauntingly beautiful" (NY Times), Jonathan Berger's recent works deal with both consciousness and conscience. His monodrama, My Lai, toured internationally. The Kronos Quartet's recording was released by Smithsonian/Folkways. His opera, The Ritual of Breath is the Rite to Resist will be performed at Lincoln Center in July 2024. Thrice commissioned by The National Endowment for the Arts, Berger'a recent commissions include The Mellon and Rockefeller Foundations, Chamber Music Society, Lincoln Center, and Chamber Music America.

Upcoming commissions include a new work for the Kronos Quartet.

In addition to composition, Berger is an active researcher with over 80 publications in a wide range of fields relating to music, science and technology and has held research grants from DARPA, the Wallenberg Foundation, The National Academy of Sciences, the Keck Foundation, and others.

Berger is the PI of a major grant from the Templeton Religion Trust to study how music and architecture interact to create a sense of awe.

## ACADEMIC APPOINTMENTS

- Professor, Music
- Member, Bio-X
- Member, Wu Tsai Neurosciences Institute

#### HONORS AND AWARDS

- The Elliott Carter Fellow (Rome Prize), American Academy in Rome (2016-2017)
- Guggenheim Fellowship, Guggenheim Foundation (2018)

#### **PROGRAM AFFILIATIONS**

• Symbolic Systems Program

#### **PROFESSIONAL EDUCATION**

• DMA, Stanford University, Music Composition (1983)

# **Research & Scholarship**

#### PROJECTS

- Musical Archeoacoustics Stanford University, The National Academy of Sciences/Keck Foundation, Museo Nazionale Roma, Palazzo Altemps (1/1/2017 present)
- Music Engagement Research Initiative Stanford University

# Teaching

#### COURSES

#### 2022-23

- Doctoral Seminar in Composition: MUSIC 323 (Aut)
- Musical Engagement: MUSIC 264 (Aut, Win, Spr)
- The Arts and Social Justice: MUSIC 150U, MUSIC 250D (Aut)

#### 2021-22

- Art Meets Life: Social Justice in Urban America: SINY 105 (Win)
- Doctoral Seminar in Composition: MUSIC 323 (Aut)
- Musical Engagement: MUSIC 264 (Aut, Win, Spr)
- Stories and music of refugees: MUSIC 70 (Spr)

#### 2020-21

- Graduate Composition Forum: MUSIC 324 (Aut, Win, Spr)
- Music, Mind, and Human Behavior: MUSIC 1A (Win)
- Musical Engagement: MUSIC 264 (Spr)
- The Aesthetics of Data: MUSIC 15N (Aut)

#### STANFORD ADVISEES

#### Doctoral Dissertation Reader (AC)

Engin Daglik, Vidya Rangasayee

#### Doctoral Dissertation Advisor (AC)

Lloyd May

#### Master's Program Advisor

Terry Feng, Tristan Peng

#### Doctoral (Program)

Tatiana Catanzaro, Engin Daglik, Nima Farzaneh, Anna Kristina Golubkova, Lloyd May, Luna Valentin, Seán Ó Dálaigh

# **Publications**

#### PUBLICATIONS

• Inter-subject correlation of electroencephalographic and behavioural responses reflects time-varying engagement with natural music. The European journal of neuroscience

Kaneshiro, B., Nguyen, D. T., Norcia, A. M., Dmochowski, J. P., Berger, J. 2024

- Syncopation as Probabilistic Expectation: Conceptual, Computational, and Experimental Evidence. Cognitive science Fram, N. R., Berger, J. 2023; 47 (12): e13390
- Inducing and disrupting flow during music performance. Frontiers in psychology Zielke, J., Anglada-Tort, M., Berger, J. 2023; 14: 1187153
- ACOUSTICALLY-DRIVEN PHONEME REMOVAL THAT PRESERVES VOCAL AFFECT CUES. Proceedings of the ... IEEE International Conference on Acoustics, Speech, and Signal Processing. ICASSP (Conference) Noufi, C., Berger, J., Frank, M., Parker, K., Bowling, D. L. 2023: 2023
- Enhancing Non-Speech Information Communicated in Closed Captioning Through Critical Design May, L., Park, S., Berger, J., ACM ASSOC COMPUTING MACHINERY.2023
- Characterizing the Relationship Between the COVID-19 Pandemic and U.S. Classical Musicians' Wellbeing. *Frontiers in sociology* Wang, G., Fram, N. R., Carstensen, L. L., Berger, J. 2022; 7: 848098
- Hiting Pause: How User Perceptions of Collaborative Playlists Evolved in the United States During the COVID-19 Pandemic Park, S., Redmond, E., Berger, J., Kaneshiro, B., ACM ASSOC COMPUTING MACHINERY.2022
- How Music Can Literally Heal the Heart Chew, E.

Scientific American. 2021 ; Scientific American (September 18 2021):

• Collaborating in Isolation: Assessing the Effects of the Covid-19 Pandemic on Patterns of Collaborative Behavior Among Working Musicians. Frontiers in psychology

Fram, N. R., Goudarzi, V., Terasawa, H., Berger, J. 2021; 12: 674246

• Inter-subject Correlation While Listening to Minimalist Music: A Study of Electrophysiological and Behavioral Responses to Steve Reich's Piano Phase. Frontiers in neuroscience

Dauer, T., Nguyen, D. T., Gang, N., Dmochowski, J. P., Berger, J., Kaneshiro, B. 1800; 15: 702067

- Natural music evokes correlated EEG responses reflecting temporal structure and beat. *NeuroImage* Kaneshiro, B. n., Nguyen, D. T., Norcia, A. M., Dmochowski, J. P., Berger, J. n. 2020: 116559
- A Method for Studying Interactions between Music Performance and Rooms with Real-Time Virtual Acoustics Canfield-Dafilou, E. K., Callery, E. F., Abel, J. S., Berger, J. J., Loughran, R., AngusWhiteoak, J. AUDIO ENGINEERING SOC INC.2019
- Characterizing Listener Engagement with Popular Songs Using Large-Scale Music Discovery Data FRONTIERS IN PSYCHOLOGY Kaneshiro, B., Ruan, F., Baker, C. W., Berger, J. 2017; 8
- The impact of audiovisual biofeedback on 4D functional and anatomic imaging: Results of a lung cancer pilot study. *Radiotherapy and oncology* Yang, J., Yamamoto, T., Pollock, S., Berger, J., Diehn, M., Graves, E. E., Loo, B. W., Keall, P. J. 2016; 120 (2): 267-272
- In Search of a Perceptual Metric for Timbre: Dissimilarity Judgments among Synthetic Sounds with MFCC-Derived Spectral Envelopes JOURNAL OF THE AUDIO ENGINEERING SOCIETY

Terasawa, H., Berger, J., Makino, S. 2012; 60 (9): 674-685

- Commissioning and quality assurance for a respiratory training system based on audiovisual biofeedback. *Journal of applied clinical medical physics* Cui, G., Gopalan, S., Yamamoto, T., Berger, J., Maxim, P. G., Keall, P. J. 2010; 11 (4): 3262-?
- Analysis of Pitch Perception of Inharmonicity in Pipa Strings Using Response Surface Methodology JOURNAL OF NEW MUSIC RESEARCH Chin, S. H., Berger, J. 2010; 39 (1): 63-73
- Commissioning and quality assurance for a respiratory training system based on audiovisual biofeedback JOURNAL OF APPLIED CLINICAL MEDICAL PHYSICS

Cui, G., Gopalan, S., Yamamoto, T., Berger, J., Maxim, P. G., Keall, P. J. 2010; 11 (4): 42-56

- Neural dynamics of event segmentation in music: Converging evidence for dissociable ventral and dorsal networks *NEURON* Sridharan, D., Levitin, D. J., Chafe, C. H., Berger, J., Menon, V. 2007; 55 (3): 521-532
- Melody extraction and musical onset detection via probabilistic models of framewise STFT peak data IEEE TRANSACTIONS ON AUDIO SPEECH AND LANGUAGE PROCESSING

Thornburg, H., Leistikow, R. J., Berger, J. 2007; 15 (4): 1257-1272

• SICIB: An interactive music composition system using body movements *COMPUTER MUSIC JOURNAL* Morales-Manzanares, R., Morales, E. F., Dannenberg, R., Berger, J. 2001; 25 (2): 25-36