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, and directs 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 was performed at Lincoln Center in July 2024. Other recent premiers include Hajar Yasini for narrator, string quartet and video (premiered by the Kronos Quartet), and Mekong:Soul (co-composed with Van Anh Vo) which was performed at the Kennedy Center and in Houston.

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.

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

ADMINISTRATIVE APPOINTMENTS

- Director, The Center for Computer Research in Music and Acoustics (CCRMA), (2024- present)

HONORS AND AWARDS

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

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Director, The Center for Computer Research in Music and Acoustics (CCRMA) (2025 - present)

PROGRAM AFFILIATIONS

- Center for Comparative Studies in Race and Ethnicity (CCSRE)
- 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

2026-27

- Analysis and Repertoire: Late-Romantic to Contemporary: MUSIC 300G (Aut)
- Music, Mind, and Human Behavior: MUSIC 1A (Aut)

2025-26

- Analysis and Repertoire: Late-Romantic to Contemporary: MUSIC 300G (Aut)
- Doctoral Seminar in Composition: MUSIC 323 (Aut)
- Engaging with Music: MUSIC 12N (Aut)

2024-25

- Doctoral Seminar in Composition: MUSIC 323 (Aut)
- Music, Mind, and Human Behavior: MUSIC 1A (Aut)
- Soundscapes of New York: Capturing and Mapping Cultures through Sound and Music: SINY 10 (Win)

STANFORD ADVISEES

Doctoral Dissertation Advisor (AC)

Nima Farzaneh, Anna Kristina Golubkova, Luna Valentin

Master's Program Advisor

Nicholas Abaunza, Mark Farrell, Thomas Poimenidis, Ilan Salomon-Jacob

Doctoral (Program)

Nima Farzaneh, Anna Kristina Golubkova, Lemon Guo, Mohammad H. Javaheri, Eito Murakami, Yoav Tirosh, Luna Valentin, Calvin Van Zytveld

Publications

PUBLICATIONS

- **The Test of Auditory-Vocal Affect (TAVA) dataset.** *IEEE Workshop on Applications of Signal Processing to Audio and Acoustics : [proceedings]. IEEE Workshop on Applications of Signal Processing to Audio and Acoustics*
  Gómez-Cañón, J. S., Noufi, C., Berger, J., Parker, K. J., Bowling, D. L.
  2025; 2025

- **A model of vocal persona: context, perception, production** *FRONTIERS IN COMPUTER SCIENCE*
  Noufi, C., May, L., Berger, J.
  2025; 7

- **The Test of Auditory-Vocal Affect (TAVA) dataset**
  Gomez-Canon, J. S., Noufi, C., Berger, J., Parker, K. J., Bowling, D. L., IEEE
  IEEE.2025

- **The Sound of Data: Designing a Framework for Parameter Mapping Sonification** *LEONARDO*
  Peng, T., Choi, H., Berger, J.
  2024; 57 (5): 566-572

- **Designing audio processing strategies to enhance cochlear implant users' music enjoyment** *FRONTIERS IN COMPUTER SCIENCE*
  May, L., Hodges, A., Park, S., Kaneshiro, B., Berger, J.
  2024; 6

- **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.
  edited by 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