

Curriculum Vitæ

Richard R. Randall

Carnegie Mellon University
5000 Forbes Ave.
Pittsburgh, PA 15213

Tel.: (773) 263-3620
E-Mail: randall@cmu.edu,
r.r.randall@gmail.com

Born: Washington, D.C.
Citizenship: U.S.A.

Current Academic Employment

- 2008-Present **Carnegie Mellon University.** School of Music.
Associate Professor of Music Theory
Chair, Academic Division
- 2009-Present **Carnegie Mellon University.** Center for the Neural Basis of Co-
gnition. *Faculty*
- 2018-Present **Carnegie Mellon University.** Neuroscience Institute. *Faculty.*
- Leadership** Academic Division Chair (2023-2026, 2015-2016, 2009-2010)
Electronic Music Division Chair (2021-2022)
Preparing for Leadership: Workshop for Future Leaders (Invited participant, 2010)
- Service** Faculty Advisory Working Group (2023-2024)
School of Music COVID Advisory Committee (2019-2020)
College Review Committee (2017-2019)
School Review Committee (2017-present)
CFA Dean Reappointment Advisory Committee (2016-2017)
Musicology Faculty Search Committee (2015-16)
Dean of University Libraries Search Committee (2013-2014)
Sound Media Faculty Search Committee (2013-2014)
Scholarly Communications Advisory Board (2013-2015)
IDEATE Media Design Research Working Group (2013-2014)
Vice President of Research Search Advisory Committee (2012-2013)
Music and Technology Program Steering Committee (2011-2017)

Curriculum Committee (2010-11)
Music Theory Search Committee (2010-11)
Chamber Music Competition Judge (2010)
Fulbright Scholarship Grant Committee (2009-2010)
College Council (2008-2011)
Musicology Search Committee (2008-2009)
Concerto Competition Judge (2009)
Technology Committee (2008-2010)

Academic Division Chair Responsibilities

- Serves as the primary point of contact for the division.
- Oversees Theory, Musicology, and Library areas (13 faculty).
- Attends monthly division chair meetings with the Head of the School of Music.
- Represent questions/ideas/concerns from division members to the division, the division chairs, or directly to the Head and disseminate pertinent information to the division.
- Meet with other faculty in the division on a regular basis.
- Gather and/or produce division specific information in conjunction with curriculum/program reviews, NASM accreditation visits, admissions, and other related activities.

Visiting Academic Employment

2015 **University of Pittsburgh.** Department of Music (in Musicology).
Visiting Associate Professor of Music.

2008 **Tufts University.** Departments of Music and Psychology. *Visiting
Scholar*

2003-2008 **University of Massachusetts–Amherst.** Department of Music
and Dance. *Visiting Assistant Professor of Music*

Education

2006 **Ph.D. Music Theory:** Eastman School of Music. Rochester, NY.

1997 **M.A. Music Theory:** Aaron Copland School of Music, Queens Col-
lege, CUNY. Flushing, NY.

1995 **B.M. Theoretical Studies** with Distinction in Performance: New
England Conservatory of Music. Boston, MA.

Publications

- 2023 Gurariy, G., R. Randall and A. S. Greenberg. Neuroimaging Evidence for the Direct Role of Auditory Scene Analysis in Object Perception. *Cerebral Cortex*, 33(10), 6257-6272. <https://doi.org/10.1093/cercor/bhac501>
- 2022 McNeal, N. J. Huang, A. Umoren, S. Dai, R. Dannenberg, R. Randall, and T.S. Lee. Relating Human Perception of Musicality to Prediction in a Predictive Coding Model. arXiv preprint ar-Xiv:2210.16587
- 2021 Gurariy, G., R. Randall and A. S. Greenberg. Manipulation of Low-level Features Modulates Grouping Strength of Auditory Objects. *Psychological Research*, 85(6), 2256-2270. <https://doi.org/10.1007/s00426-020-01391-4>
- 2020 Randall, R. "Pittonkatonk and Valuing Music as a Public Good." In (Eds.) R. Garafolo, E. Allen, A. Snyder. *HONK!: Mapping a Street Band Renaissance*, Rutledge (New York, NY).
- 2017 Randall, R. Musical Affordance and the MP3. *Boundary 2*, 44(2), 127-143. <https://doi.org/10.1215/01903659-3826654>
- 2016 Randall, R. and A. S. Greenberg. Principal Components Analysis of the Perception of Musicality in Pitch Sequences. In *Proceedings of the 14th International Conference on Music Perception and Cognition*, 112-118. <https://doi.org/10.1184/R1/7121654.v1>
- 2016 Randall, R. A Case for Musical Privacy. In (Eds.) R. Purcell and R. Randall. *21st Century Perspectives on Music, Technology, and Culture: Listening Spaces* (pp. 120-133). Palgrave Macmillan.
- 2016 Purcell, R. and R. Randall, Eds. *21st Century Perspectives on Music, Technology, and Culture: Listening Spaces*. Palgrave Macmillan (Basingstoke, UK)
- 2016 Randall, R. and I-T. Liu. Predicting Missing Music Components with Bidirectional Long Short-Term Memory Neural Networks. In *Proceedings of the 17th International Society on Music Information Retrieval Conference*, 225-231.
- 2013 Randall, R. Torture and Punishment Through Music. In J. Edmondson. *Music in American Life*. (Westport, Connecticut: Greenwood), 1161-1164.

- 2012 Randall, R., G. Sudre, Y. Xu, A. B. Bagic. Effects of Short-Term Experience on Music-Related ERAN Responses. In (Eds) E. Cambouropoulos, C. Tsourgas, P. Mavromatis, C. Pastiadis. Proceedings of the 12th International Conference on Music Perception and Cognition and European Society for the Cognitive Sciences of Music, 839-840.
- 2010 **Randall, R.** and B. Khan. Fred Lerdahl's Tonal Pitch Space Model and Associated Metric Spaces. *Journal of Mathematics and Music* 4(3). <https://doi.org/10.1080/17459737.2010.529654>

Recordings

- In production Bombici. *Live at Studio B*. Adhyaropa Records. Brooklyn, NY. Credits: Performer (Tapan), Co-producer.
- 2018 Bombici. *Plevenski Kyuchek – Acano Mlada Nevesto*. Credits: Performer (Tapan), Co-producer.

Events, Conferences, Symposia as Organizer

- 2022 *The Meeting of the Zurlaji*, Ratevo, Berovo, N. Macedonia. Co-organizer.
- 2018 Balkan Music and Culture: Sounds of Past and Present. Carnegie Mellon University, Pittsburgh, PA: Organizer
- 2014-17 *Pittonkatonk: May Day Brass Music Festival*, Pittsburgh, PA. Creator and co-organizer.
- 2015-16 *Young Musicians Collaborative Program*, Milliones, University Preparatory School, Pittsburgh, PA. Director.
- 2015 *Music and Community Workshop*, Pittsburgh, PA. Organizer.
- 2014/2017 *May Day: Music and Labor Roundtable*, Pittsburgh, PA. Organizer.
- 2014 *Neuroscientific Investigations of Music Processing*. Society for Neuroscience. Washington, DC. Co-organizer
- 2012 *Listening Space Symposium and Workshop*. Carnegie Mellon University, Pittsburgh, PA. Co-organizer.

Invited Presentations and Lectures

- 2019 “Scholarship, Activism, and Music as a Public Good.” Dean Speaker Series, Binghamton University.
- 2016 “Neuroscientific Investigation of Low-level Grouping Cues on the Perception of Musicality.” Department of Communication Science and Disorders. University of Pittsburgh,
- 2015 “Music as a Property of Auditory Objects.” Auditory Perception Seminar. Department of Psychology, Carnegie Mellon University. Pittsburgh, PA.
- 2014 “Effects of Low-level Grouping Cues on the Perception of Musicality.” Universidad Nacional de la Plata, Argentina.
- 2012 “Experiencing Music in the 21st Century.” The Saxifrage School. Pittsburgh, PA
- 2012 “Introduction to Magnetoencephalography in Music Research.” Northeast Music Cognition Group. Boston University, MA.
- 2012 “Using MEG to Study Musical Expectation.” MEG Special Interest Group, Pittsburgh, PA.
- 2011 “The Effect of Music-Syntax Violations on Musical Experience (an ERAN Study).” Center for the Neural Basis for Cognition Retreat. Seven Springs, PA.
- 2010 “Modeling Dynamic Human Brain Activity Associated with Melodic Consonance and Dissonance.” Northeast Music Cognition Group. Yale University
- 2005 “Comparing Tonal Models.” University of Massachusetts, Dept. of Music and Dance Faculty Lecture Series. Amherst, MA.
- 2004 “Language, Syntax, and Musical Style.” University of Massachusetts, Dept. of Music and Dance Faculty Lecture Series. Amherst, MA.
- 2003 “Music, Models, and the Relative Complexity of Analysis.” American Mathematical Society Special Session on Mathematical Techniques in Music Analysis. Baton Rouge, LA.

Conference Presentations

- 2016 Randall, R. and I-T. Liu. Predicting Missing Music Components with Bidirectional Long Short-Term Memory Neural Networks. International Conference on Music Perception and Cognition, San Francisco, CA.
- 2016 Randall, R. and A. S. Greenberg. Principal Components Analysis of the Perception of Musicality in Pitch Sequences. International Conference on Music Perception and Cognition, San Francisco, CA.
- 2015 Kulkarni, M., K. Potkonjak, Randall, R., A. S. Greenberg. "Formal Music Education Alters Perceived Musicality of Pitch Sequences." Auditory Perception, Cognition, and Action Meeting, Chicago, IL.
- 2015 Randall, R., A. S. Greenberg. "The Role of Auditory Cortex in Mid-Level Audition." Society for Neuroscience. Chicago, IL.
- 2014 Randall, R., A. S. Greenberg. "Separate Networks for Music Processing and Auditory Scene Analysis." Society for Neuroscience. Washington, DC.
- 2013 Randall, R., A. S. Greenberg. "Functionally Defining the Neural Correlates of Music Processing." Society for Neuroscience. San Diego, CA.
- 2013 Randall, R., A. S. Greenberg. "Principal components analysis of the perception of musicality in pitch sequences." Society for Music Perception and Cognition. Toronto, Ontario.
- 2012 Randall, R., G. Sudre, Y. Xu, A. B. Bagic. "Using MEG to Investigate Habituation in Musical Contexts." 18th International Conference on Biomagnetism. Paris, France.
- 2012 Randall, R., G. Sudre, Y. Xu, A. B. Bagic. "Effects of Short-Term Experience on Music-Related ERAN Responses." International Conference on Music Perception and Cognition, Thessaloniki, Greece.
- 2011 Aguila, E., Randall, R. "The Effect of Musical Expectation on Short-term Phonological Memory." Society for Music Perception and Cognition. Rochester, NY.
- 2007 Randall, R. "Understanding Hybridity: Comparing Geometric Models of Tonal Hierarchy." New England Conference of Music Theorists Annual Meeting, Somerville, Massachusetts.

- 2007 Randall, R. "Understanding Hybridity: Comparing Geometric Models of Tonal Hierarchy." Music Theory Society of the Mid-Atlantic Annual Meeting. Washington, DC.
- 2007 Randall, R. "Understanding Hybridity: Comparing Geometric Models of Tonal Hierarchy." 24th Annual Florida State University Music Theory Forum. Tallahassee, Florida.
- 2006 Randall, R., and B. Khan. "Similarity Measures for Tonal Models." International Conference on Music Perception and Cognition. Bologna, Italy.
- 2002 Randall, R. "Re-imagining the Concept of Style and the Role of Music Theory." Music Theory Society of New York State Annual Meeting. Columbia University, New York.
- 2001 Randall, R. "The Roles of Contour and Scale-Degree in the Encoding of Tonal Melodies." Society for Music Perception and Cognition Annual Meeting. Queens University, Kingston, Ontario.
- 2000 Randall, R., and J. Mailman. "Conceiving and Communicating Multiplicity in Post-Tonal Analyses." Society for Music Theory Annual Meeting. Toronto, Canada.

Recent Awards, Fellowships, and Grants

Frank-Ratchye Fund for Art @ the Frontier [\$4,500](2017)
 Fine Foundation [\$3,000](2016)
 Sprout Hive Fund for Connected Learning [\$12,000](2015)
 Best Music Festival: Pittonkatonk, *Pittsburgh City Paper* Reader's Poll (2015)
 ProSEED/BrainHub Seed Grant (Co-I), Carnegie Mellon University [\$25,000](2015)
 Cooper-Siegel Endowed Chair, Carnegie Mellon University [\$15,000](2014-2017)
 UPMC Brain Mapping Center MEG Research Seed Fund [\$10,000](2012)
 Center for the Arts in Society: Media Initiative Grant [\$38,000](2011)
 Rothberg Research Award in Human Brain Imaging [\$60,000](2011, renewed 2013)
 Fellow, STUDIO for Creative Inquiry, Carnegie Mellon University (2011-2014)
 Provost's Award for fMRI Research [\$5000](2010)

Berkman Faculty Development Fund [\$9500](2009)
Fellow, Institute for Advanced Studies in Music Theory (Music and
the Mind) (2009)

Recent Press

- 2022 “Report: The First Zurlaji Meeting was held in Ratevo.” August 25.
- 2016 “Pittonkatonk Brass Band Gathering Promises to be a Blast.” *Pittsburgh Tribune Live*, May 4.
- 2016 “The Digital Music Revolution: New Listening Spaces Book Explores Music, Technology and Culture.” Dietrich College of Humanities and Social Sciences News, April 27.
- 2015 “Pittonkatonk: Changing How We Experience Live Music.” *Local Pittsburgh*, Oct 15.
- 2015 “Pittonkatonk, the Brass Band Music Festival, Steps Off Saturday.” *WESA Pittsburgh*, aired May 1.
- 2015 “In Its Second Year, the Pittonkatonk May Day Brass BBQ Is More Than a Music Festival.” *Pittsburgh City Paper*, April 29.
- 2015 “Pittonkatonk May Day Brass BBQ Picnic has Brass to Pump up Your Day.” *Pittsburgh Tribune-Review*, April 29.
- 2015 “Top 10 Pittsburgh Events Not to Miss in May.” [Pittonkatonk ranked No. 1] *NEXT Pittsburgh*, April 26.
- 2015 “Pittonkatonk and 5 Pittsburgh Projects You Should Crowdfund Now.” *NEXT Pittsburgh*, March 21.
- 2014 “Frozen’s Soundtrack: Kids Can’t ‘Let It Go’.” *Pittsburgh Tribune-Review*, April 18.
- 2013 “Kenny Chesney Concert About Much More than Music.” *Pittsburgh Tribune-Review*, June 23.
- 2012 “Listening Spaces Project Looks at Technology and Music Consumption.” *Pittsburgh City Paper*, Oct. 17.
- 2012 “What Makes a Sad Song Sad?” *I wonder...* WRCT, Pittsburgh, aired May 2.

Teaching and Advising

Graduate Thesis Committees and Advising

Tina Liu. Carnegie Mellon University, MS in Music and Technology (2015). “Melody Harmonization with Bidirectional Recurrent Neural Networks.”

Ziyun Peng. Carnegie Mellon University, MS in Music and Technology (2015). “Musical Breath: A Bi-Directional Breath Controller.”

Joel (Jiuqiang) Tang. Carnegie Mellon University, MS in Music and Technology (2013). “Extracting Commands From Gestures: Gesture Spotting and Recognition for Real-time Music Performance.”

Dalong Chen. Carnegie Mellon University, MS in Music and Technology (2013). “A Music Player for the Human Computer Music Performance Project.”

Zeyu Jin. Carnegie Mellon University, MS in Music and Technology (2013). “Intelligent Human-Computer Music Interaction: Score Display and Music Generation.”

Adam Kolek. University of Massachusetts, PhD in Music Theory (2013). “Finding the Proper Sequence: Form and Narrative in the Collage Music of John Zorn.”

Dawen Liang. Carnegie Mellon University, MS in Music and Technology (2012). “An Interactive Personal Audio Database for Musicians.”

Undergraduate Mentoring and Advising

Monica Ly. “Effects of Musicality on the Short-Term Memory of Auditory Perceptual Objects.” Summer Undergraduate Research Fellowship (2013)

Philip Zakko. “Physiology of Music: How the Frequency of Music Affects the Experience of Valence and Arousal by Examination of Heart Rate, Blood Pressure, and Galvanic Skin Response.” BxA Capstone Project supported by a Summer Undergraduate Research Fellowship (2013)

Beth Aguila. “The Effect of Musical Expectation in Background Music on Short-Term Phonological Memory.” Summer Undergraduate

Research Fellowship (2011)

Recent Courses Taught at CMU

Introduction to Music Cognition Research (co-taught with Psychology)

Music, Technology, and Culture (co-taught with English)

Advanced Analytical Techniques

Harmony I and II

Psychology of Music