

HUW WILLIAM CHESTON

[Email](#) | [Webpage](#) | [GitHub](#) | [Portfolio](#) | [Google Scholar](#) | [@HuwCheston](#)

EDUCATION

Ph.D., Music, Centre for Music & Science, University of Cambridge *expected* October, 2024
Thesis: New Methods in Quantitative Analysis and Modeling of Musical Improvisation
Supervisor: Peter Harrison & Ian Cross

MSt., Music, Linacre College, University of Oxford (*Distinction*) October, 2020
Final average of 85%, *graduated with the highest mark in the year*

BA., Music, Christ Church, University of Oxford (*First Class*) June, 2019
Final average of 76%, *graduated with the highest mark in the year*

SELECTED PUBLICATIONS

Cheston, H., Cross, I., & Harrison, P. M. C. (2024, in press). Trade-offs in Coordination Strategies for Duet Jazz Performances Subject to Network Delay and Jitter. *Music Perception*.
TOPICS: linear modelling, computer simulations, experiment software design, massive online experiments

Cheston, H., Schlichting, J. S., Cross, I., & Harrison, P. M. C. (2024). Rhythmic Qualities of Jazz Improvisation Predict Performer Identity and Style in Source-Separated Audio Recordings. *PsyArXiv*. [DOI: [10.31234/osf.io/txy2f](https://doi.org/10.31234/osf.io/txy2f)]
TOPICS: machine learning, audio signal processing, music information retrieval, music classification

Cheston, H., Schlichting, J. S., Cross, I., & Harrison, P. M. C. (2024). Cambridge Jazz Trio Database: Automated Timing Annotation of Jazz Piano Trio Recordings Processed Using Audio Source Separation. *PsyArXiv*. [DOI: [10.31234/osf.io/jyqp3](https://doi.org/10.31234/osf.io/jyqp3)]
TOPICS: audio signal processing, music information retrieval, dataset, data pipeline

SELECTED AWARDS AND PRIZES

Project Incubation Award (£ 2000), Cambridge Digital Humanities May, 2022
Awarded for development and testing of *Audio-Visual Manipulator* software [Project page]

Vice-Chancellor's Award (£ 75,000), Cambridge Trust September, 2021
Full scholarship (fees & stipend) for Ph.D study

Musicology Prize (£ 100), Faculty of Music, University of Oxford October, 2020
Awarded for highest average mark in 2020 MSt. cohort

Louis Curran Scholarship (£ 25,000), Linacre College, University of Oxford August, 2019
Full scholarship (fees & stipend) for MSt. study

Gibbs Prize in Music (£ 500), Faculty of Music, University of Oxford June, 2019
Awarded for highest average mark in 2019 BA. cohort

Academic Scholarship (£ 300 x2), Christ Church, University of Oxford

2017; 2018

TEACHING

Music & Science Module Leader, Cambridge Summer School, Sutton Trust August 2023
Delivered workshop on audio signal analysis for summer school participants (A-Level equivalent)

Supervisor & Guest Lecturer , Faculty of Music, University of Cambridge January 2022 –

- Delivered small-group supervisions for Undergraduate students on: (i) analysing audio recordings, (ii) introduction to programming in Python and R, (iii) visualising and simulating data.
- Delivered yearly lecture on analysing audio recordings for Undergraduate *Music & Science* course, involving introduction and demonstration of Music Information Retrieval concepts.
- Co-supervised final-year Undergraduate dissertation project, involving automated harmonic analysis of jazz piano recordings in Cambridge Jazz Trio Database (*see above*).
- Supervised first-year Undergraduate extended essay projects on jazz history and theory.

Graduate Music Assistant, Kingswood School, Bath, UK September 2020 – June 2021
Duties involved: (i) teaching music theory & composition classes; (ii) managing school's recording studio; (iii) delivering extra-curricular music performance and audio production classes.

EXPERIENCE

Professional Musician & Sound Technician [[Showreel link](#)] September 2016 –

Administrator, WallpaperJazz [[Website link](#)] June 2016 –
Online blog hosting transcriptions of jazz improvisations, averaging 1000+ monthly views.

TECHNICAL SKILLS

Programming

- Python 🐍 (NumPy, Pandas, Matplotlib, Plotly, Scikit-learn, SciPy, Statsmodels, Librosa)
- R (ggplot2, lme4, tidyverse)
- **git**, L^AT_EX, Jupyter, PyCharm, RStudio, Docker, HTML, CSS, JavaScript (jQuery, Plotly)

Statistics

- Generating and working with large audio data sets
- Machine learning pipelines (data cleaning, feature extraction, optimisation)
- Time series analysis and modelling
- Data visualisation, including interactive plots and animations [[Example 1](#)] [[Example 2](#)]
- Completed all *Basic Statistics Stream* and *Time Series Analysis* modules taught by Cambridge [Social Sciences Research Methods Programme](#) and passed all end-of-module exams

REFERENCES AVAILABLE ON REQUEST

FULL PUBLICATION LIST

Articles

Cheston, H., Cross, I., & Harrison, P. M. C. (2024, in press). Trade-offs in Coordination Strategies for Duet Jazz Performances Subject to Network Delay and Jitter. *Music Perception*.

Preprints

Cheston, H., Schlichting, J. S., Cross, I., & Harrison, P. M. C. (2024). Rhythmic Qualities of Jazz Improvisation Predict Performer Identity and Style in Source-Separated Audio Recordings. *PsyArXiv*. [DOI: [10.31234/osf.io/txy2f](https://doi.org/10.31234/osf.io/txy2f)]

Cheston, H., Schlichting, J. S., Cross, I., & Harrison, P. M. C. (2024). Cambridge Jazz Trio Database: Automated Timing Annotation of Jazz Piano Trio Recordings Processed Using Audio Source Separation. *PsyArXiv*. [DOI: [10.31234/osf.io/jyqp3](https://doi.org/10.31234/osf.io/jyqp3)]

Conference Proceedings

Cheston, H., Cross, I., & Harrison, P. (2023). An Automated Pipeline for Characterizing Timing in Jazz Trios. Paper presented at the DMRN+18: Digital Music Research Network Workshop, Queen Mary University of London, UK. [Proceedings]

Cheston, H., Cross, I., & Harrison, P. (2023). Modelling Coordination Strategies in Improvised Musical Performances by Skilled Jazz Groups. Paper presented at the 16th International Conference of Students of Systematic Musicology (SysMus23), Sheffield University, UK. [Proceedings]

Cheston, H., Cross, I., & Harrison, P. (2023). Coordination Strategies in Networked Jazz Performances. Paper presented at the 17th International Conference on Music Perception and Cognition (ICMPC), Nihon University, Tokyo, Japan. [Proceedings]

Cheston, H., Cross, I., & Harrison, P. (2022). The Effects of Variable Latency Timings and Jitter on Networked Musical Performances. Poster presented at the 15th International Conference of Students of Systematic Musicology (SysMus22), University of Ghent, Belgium. [Proceedings]

Cheston, H., Cross, I., & Harrison, P. (2022). Measuring the Effects of Variable Latency Timings on Networked Jazz Performances. Poster presented at the SEMPRES 50th Anniversary Conference, Senate House, University of London, UK. [Proceedings]

Cheston, H. (2022). “Turning the Beat Around”: Time, Temporality, and Participation in the Jazz Solo Break. Paper presented at the 13th Conference on Interdisciplinary Musicology: ‘Participation’, University of Edinburgh, UK. [Proceedings]

Other Publications

Cheston, H. (2022) Conference Review: Interdisciplinary Musicology 2022: 'Participation'. Royal Musical Association. [\[Conference review\]](#)