

A Visualization Tool for the CIRMMT Distinguished Lecture Series

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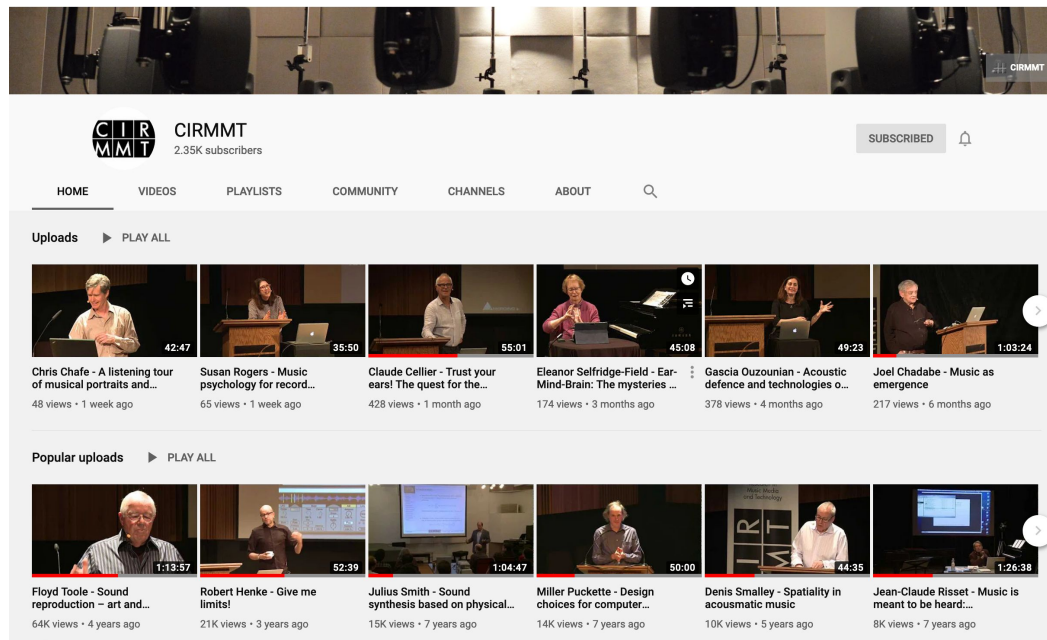
CIRMMT

Centre for Interdisciplinary Research in Music, Media, and Technology

- Research institution based in Montreal
- Founded in 2001
- Currently organized in four research axes
 - Instruments, Devices, and Systems (RA1)
 - Engineering and mathematics research applied to sound and music
 - Music Information Research (RA2)
 - Computer applications for music information research
 - Cognition, Perception, and Movement (RA3)
 - Scientific study of music, from performer to listener
 - Expanded Musical Practice (RA4)
 - Artistic research

CIRMMT Distinguished Lecture Series

- Started in 2005
- World-class researchers and artists present a 1-hour overview of their research



Archiving Lectures and Establishing a DL dataset

- Simple list of videos on website

2019–2020

- Nov 21, 2019 – [Susan Rogers: Music psychology for record makers \[NEW!\]](#)
- Oct 24, 2019 – [Claude Cellier: Trust your ears! The quest for the optimum \(digital\) audio representation](#)
- Sep 19, 2019 – [Eleanor Selfridge-Field: Ear–Mind–Brain: The mysteries of musical similarity](#)

2018–2019

DISTINGUISHED LECTURES

- May 02, 2019 – [Joel Chadabe: Music as emergence](#)
- Apr 11, 2019 – [Udo Zölzer: DAFX digital audio effects and applications](#)
- Mar 21, 2019 – [Daniel Russell: Animations as educational tools for understanding the acoustics of musical instruments](#)
- Feb 21, 2019 – [Steven Takasugi: A machine for deception: Electro-acoustic composition as sleight of hand](#)
- Nov 29, 2018 – [Sally Jo Cunningham: Engagement with personal music collections](#)
- Oct 18, 2018 – [William Hartmann: Sound source localization: How the auditory system copes with confusing data](#)
- Sep 20, 2018 – [Richard Lyon: Extracting meaning from sound: Experiences in machine hearing](#)

CIRMMT–OICRM–BRAMS STUDENT SYMPOSIUM (COBS) KEYNOTE

- May 09, 2019 – [Gascia Ouzounian: Acoustic defence and technologies of listening during the First World War](#)

2017–2018

DISTINGUISHED LECTURES

- Mar 15, 2018 – [Sylvie Gibet: Gesture: a language to sense, express, control](#)
- Feb 01, 2018 – [Trevor Wishart: Composing the real](#)
- Dec 13, 2017 – [Bill Seaman: Recombinant music: Generative approaches](#)
- Nov 09, 2017 – [Toshifumi Kunimoto: YAMAHA's musical instruments and audio products as DSP applications](#)
- Oct 09, 2017 – [Joseph Myers: Recital halls, rehearsal rooms, and research spaces](#)

CIRMMT STUDENT SYMPOSIUM KEYNOTE

- May 17, 2018 – [Eric Heller: Journey into psychoacoustics](#)

2016–2017

DISTINGUISHED LECTURES

- Apr 20, 2017 – [Dan Gauger: Giving people control of our most important human sense – hearing](#)
- Feb 23, 2017 – [Benoit Fabre: Musical instruments and players – an acoustical approach to the relations between](#)

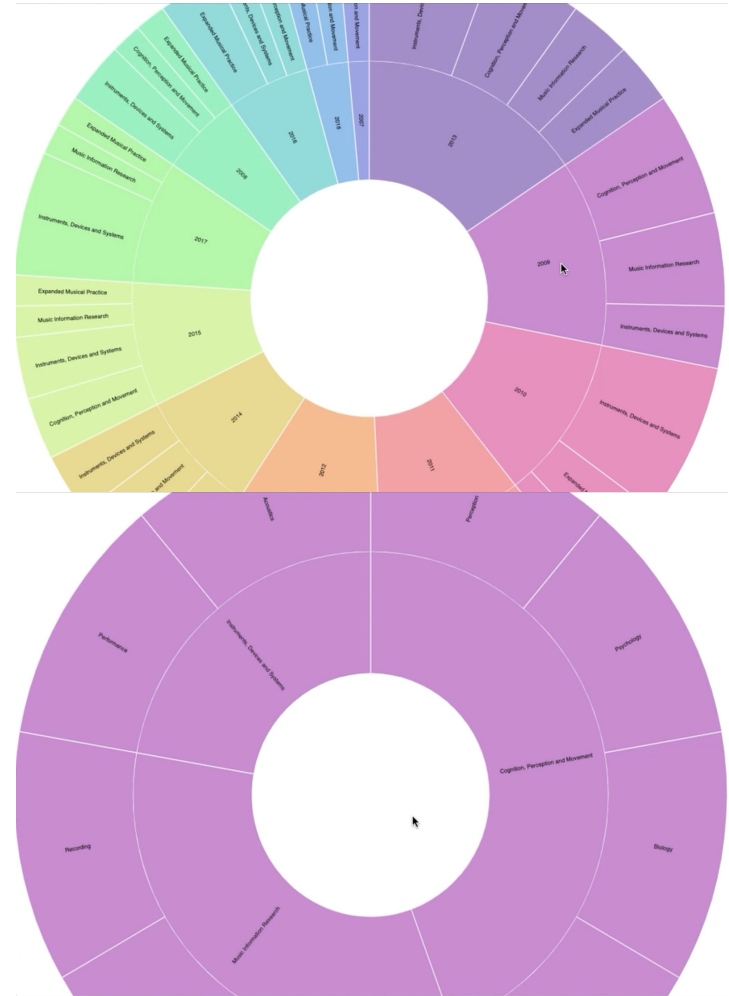
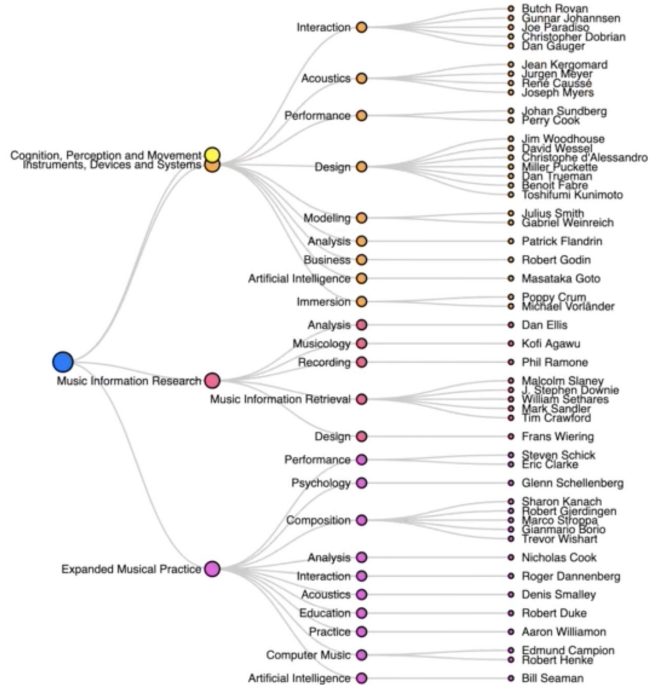
Distinguished Lecture Dataset

- CIRMMT graduate students were hired to create dataset
- Homogenizing keywords
- 5-6 keywords per research axis
- Same keywords belong to multiple axes

<i>Research Axis</i>	<i>Keywords</i>
RA1	Audio processing, Computer music systems, Musical acoustics & instruments, New interfaces for musical expression, Room acoustics
RA2	Audio processing, Computer music systems, Music information retrieval, Music theory, Musicology
RA3	Composition, Movement, Music performance & education, Music theory, Neurosciences, Perception & cognition
RA4	Composition, Computer music systems, Music performance & education, Music production, Musicology, Perception & cognition

Visualization iterations

- Initial prototypes
- Dendrogram & Sunburst

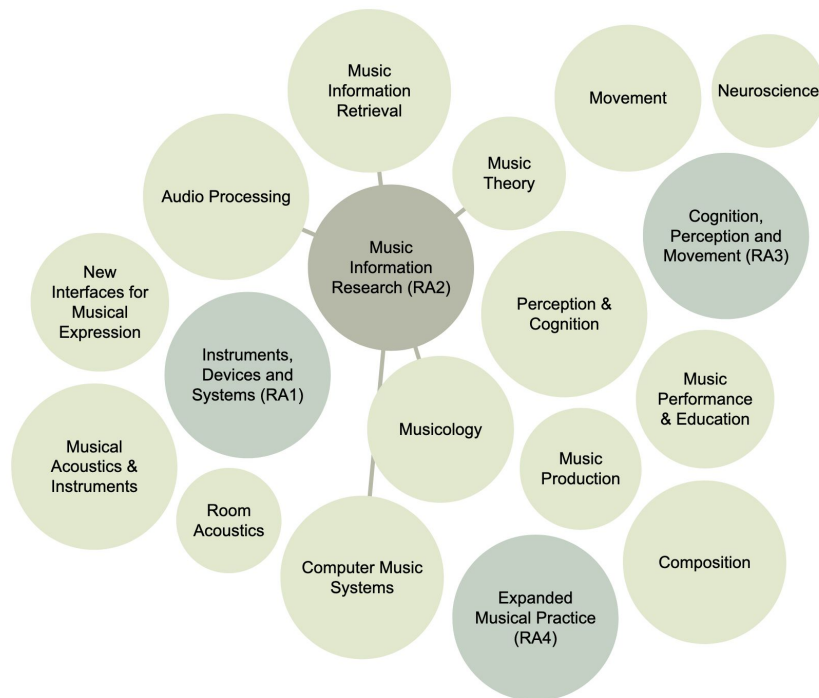


Current prototype



CIRMMT Distinguished Speaker Series Visualization [about](#)

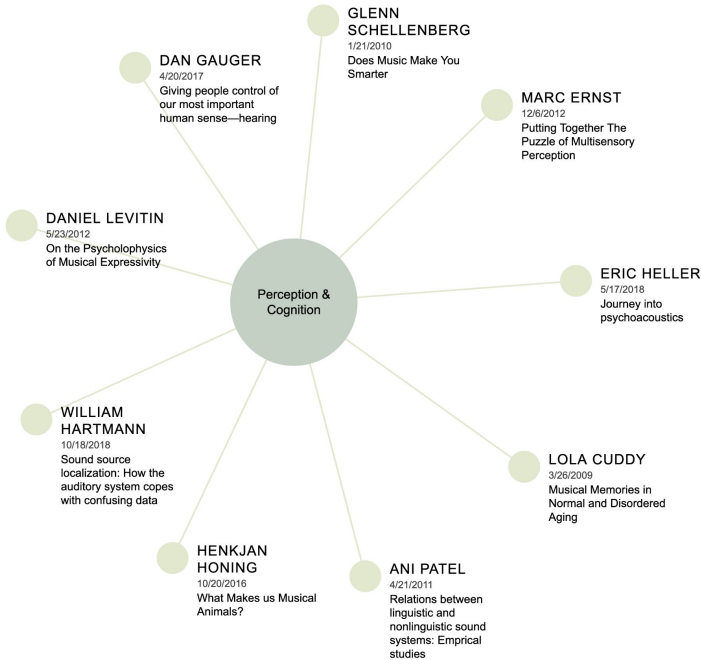
- Force-directed layout



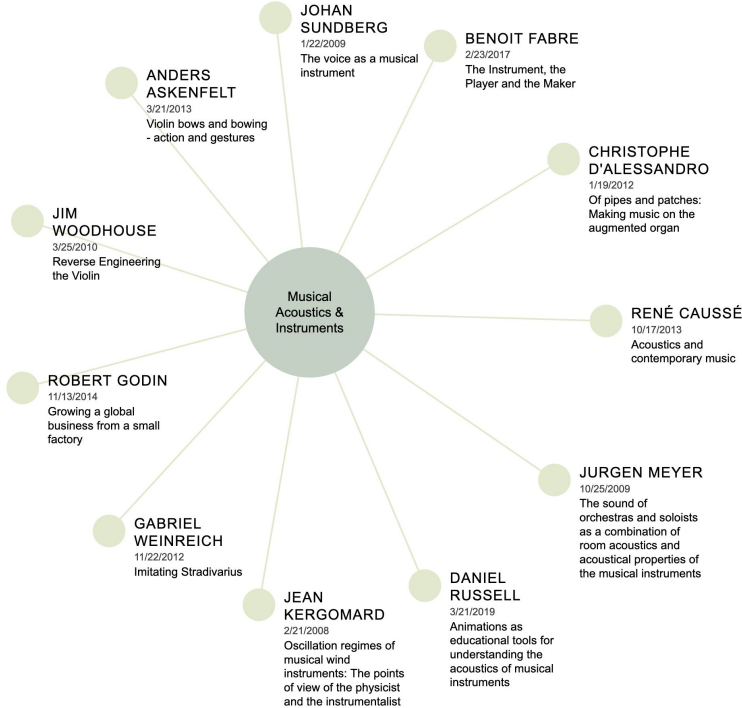
Current prototype



CIRMMT Distinguished Speaker Series Visualization [about](#)



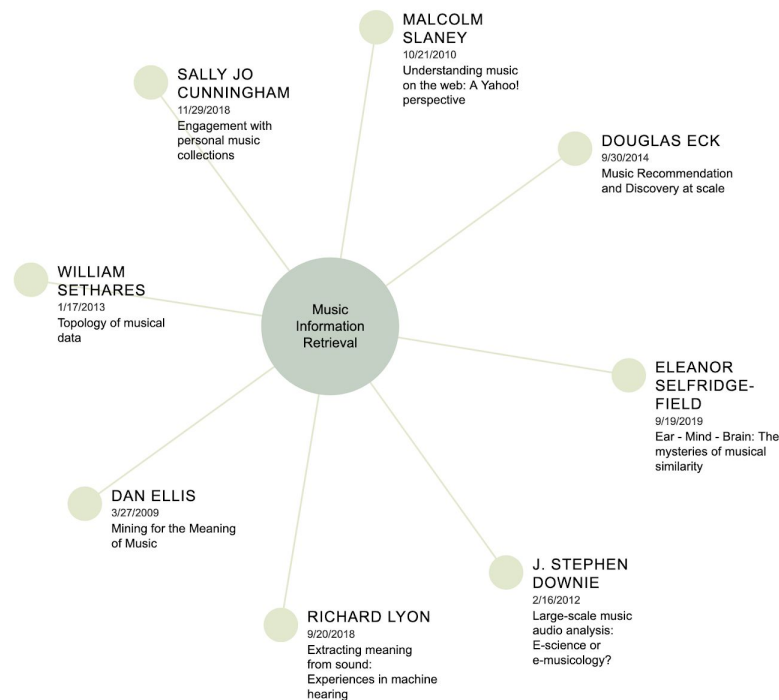
CIRMMT Distinguished Speaker Series Visualization [about](#)



Current prototype



CIRMMT Distinguished Speaker Series Visualization [about](#)



ELEANOR SELFRIDGE-FIELD

Stanford University, USA

Ear - Mind - Brain: The mysteries of musical similarity

Distinguished Lecture, September 19, 2019



In music, it is very common for artists to perform and record the musical works of other musicians. The concept of musical similarity seems simple. Evaluating similarity becomes more complicated when specific pieces are put forward. They may be similar in genre, style, meaning, mood, melody and/or associated rhythm; this can get very confusing and has raised copyright issues, even with accompanying lawsuits. This talk reviews several approaches to the understanding of musical similarity using theoretical approaches, cultural/cognitive factors, methods of masking an obvious melody and so on. Selfridge-Field presents live examples of a few famous copyright disputes and ends on a little test for the watcher!

Current prototype

acoustics|

Search results (17 of 84)



JOSEPH MYERS

October 19, 2017

Recital Halls, Rehearsal Rooms, and Research Spaces



JURGEN MEYER

October 25, 2009

The sound of orchestras and soloists as a combination of room acoustics and acoustical properties of the musical instruments



RENÉ CAUSSE

October 17, 2013

Acoustics and contemporary music



DANIEL RUSSELL

March 21, 2019

Animations as educational tools for understanding the acoustics of musical instruments



JEAN KERGOMARD

February 21, 2008

Oscillation regimes of musical wind instruments: The points of view of the physicist and the instrumentalist



BENOÎT FABRE

February 23, 2017

The Instrument, the Player and the Maker



JEAN-CLAUDE RISSET

March 17, 2011

Music is Meant to be Heard: Perception is Central in (my) Computer Music



JOHAN SUNDBERG

January 22, 2009

The voice as a musical instrument



JIM WOODHOUSE

March 25, 2010

Future work

- More advanced choice of keywords
- Other visualization techniques
 - More than one keyword per video
- Automatic extraction of features from videos and their transcriptions

Q&A