

Detmold University of Music

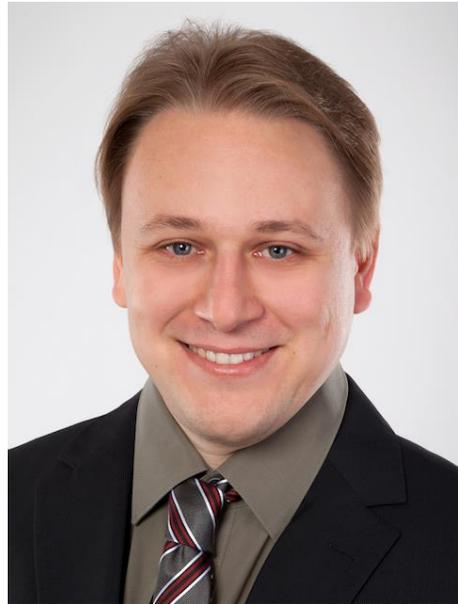
Axel Berndt

Center of Music and Film Informatics

Erich Thienhaus Institute

cemfi

Representatives in the Project



Aristotelis Hadjakos



Music Technology



Malte Kob



Musical Acoustics



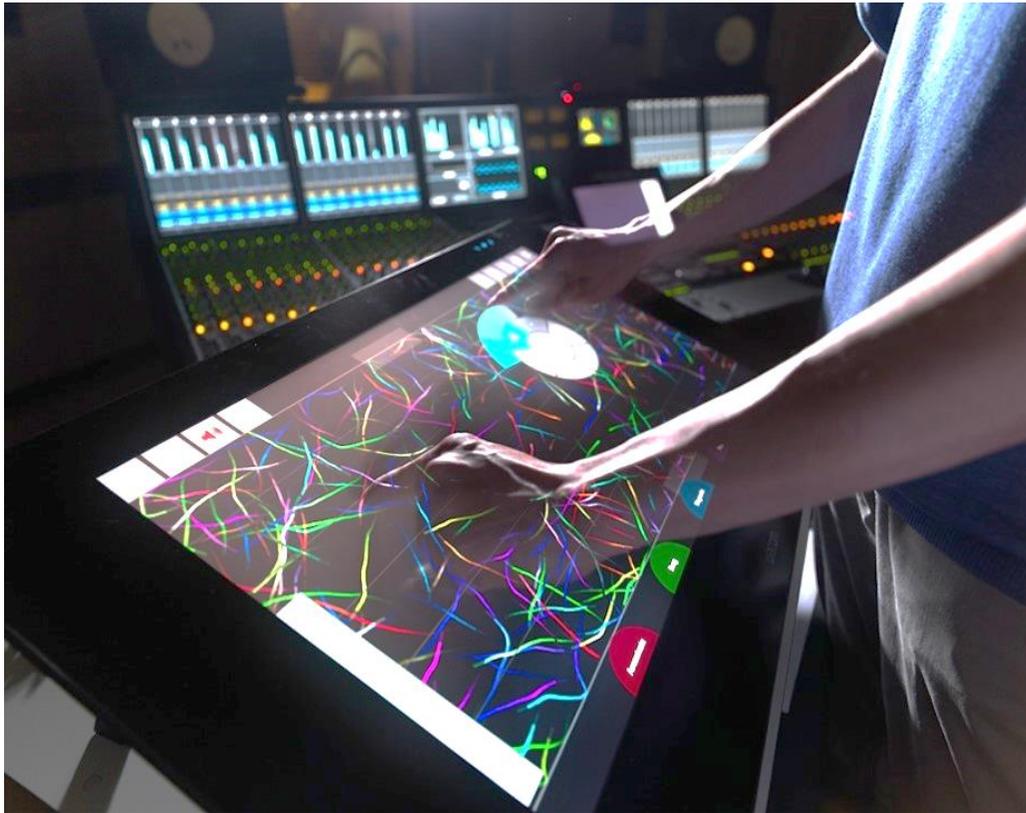
Fabien Lévy

HOCHSCHULE
FÜR MUSIK UND THEATER
»FELIX MENDELSSOHN
BARTHOLDY«
LEIPZIG

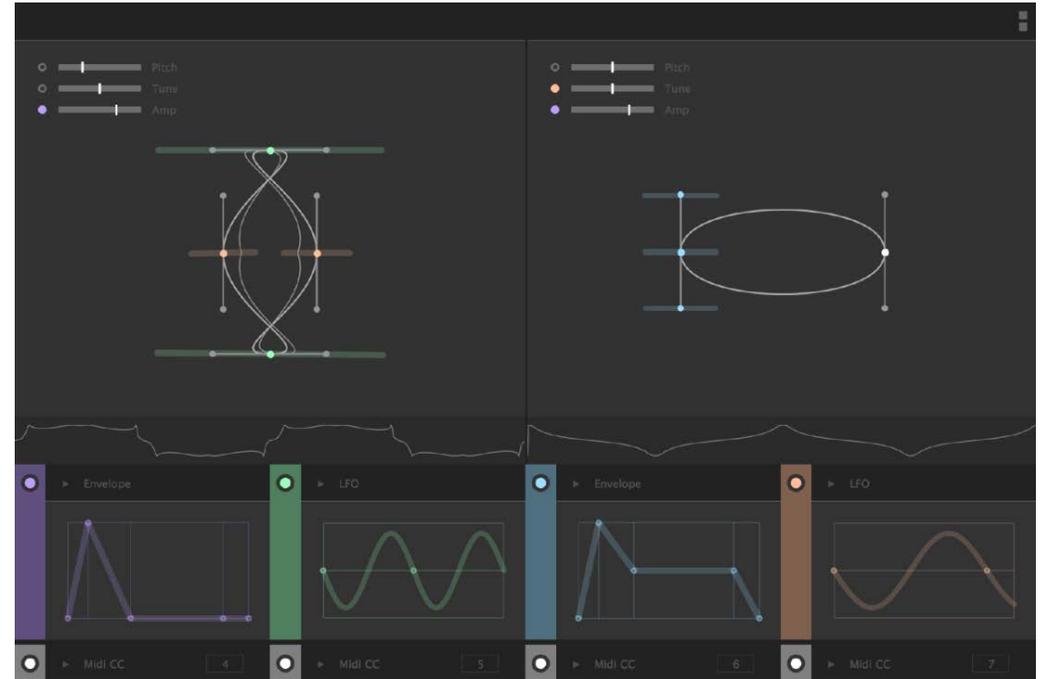


Composition

Musical HCI & Sound Synthesis

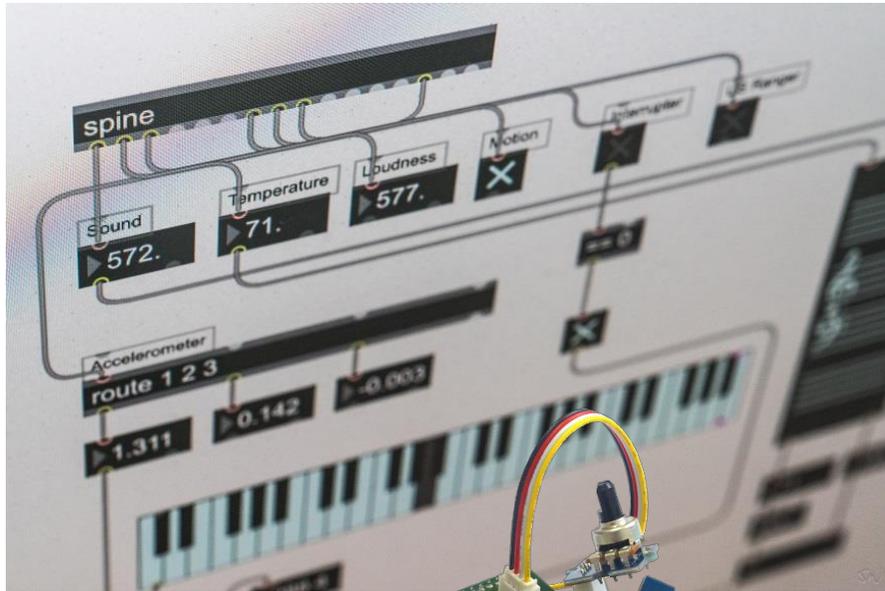


TouchNoise

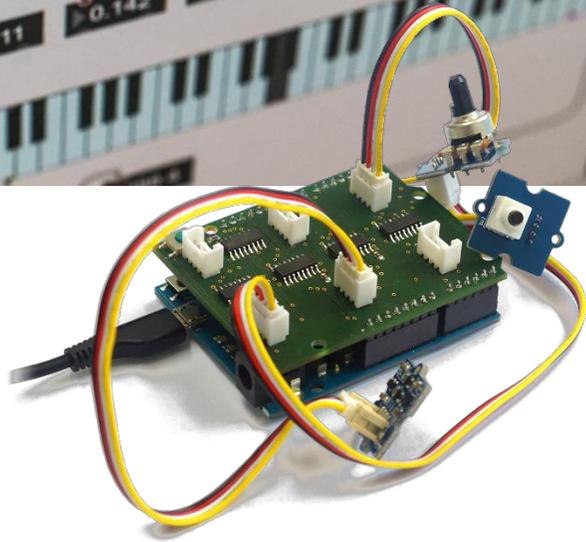


Cyclone

Musical HCI & Physical Computing



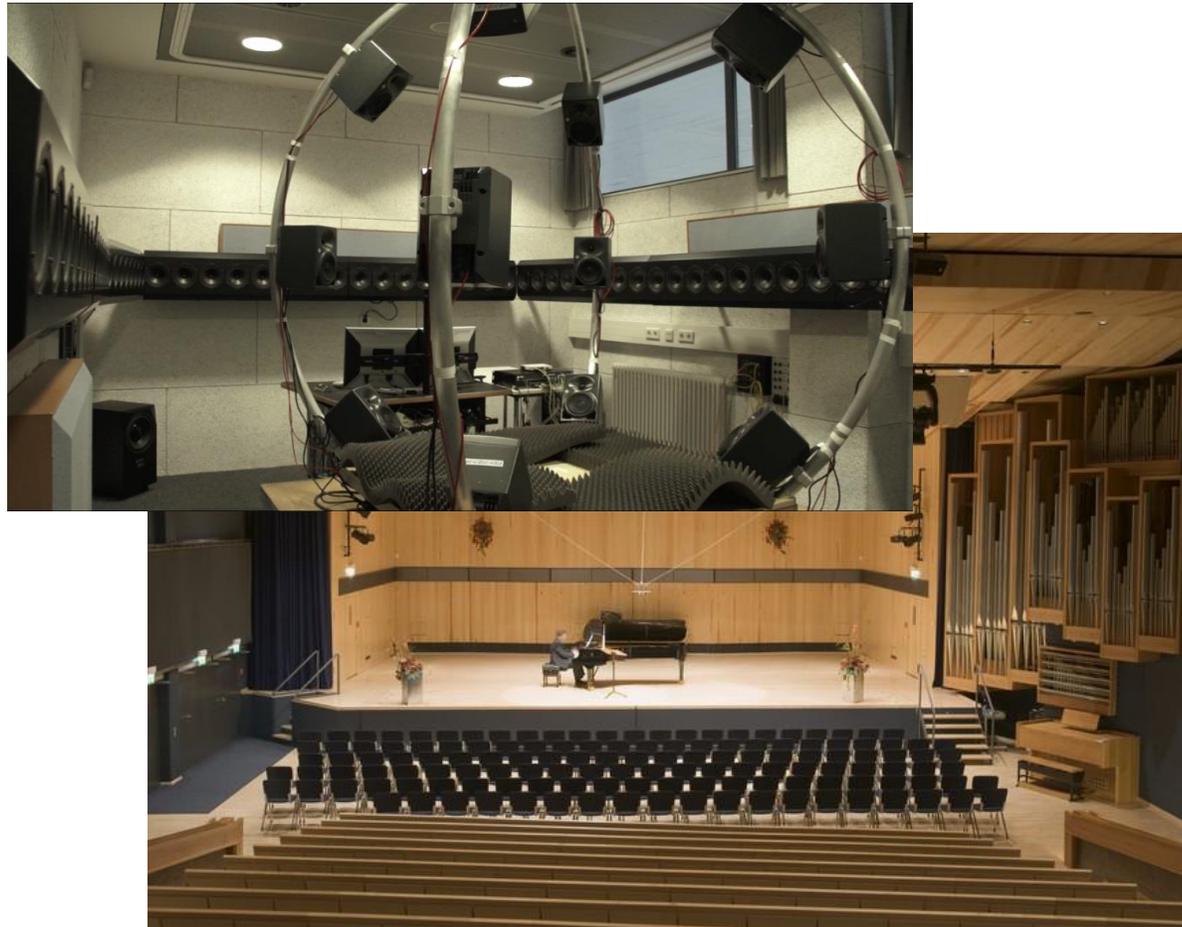
SPINE



AmbiDice



Musical Acoustics: Simulation & Rendering



Wave Field Synthesis in Concert Hall,
Lab and portable

AMISE

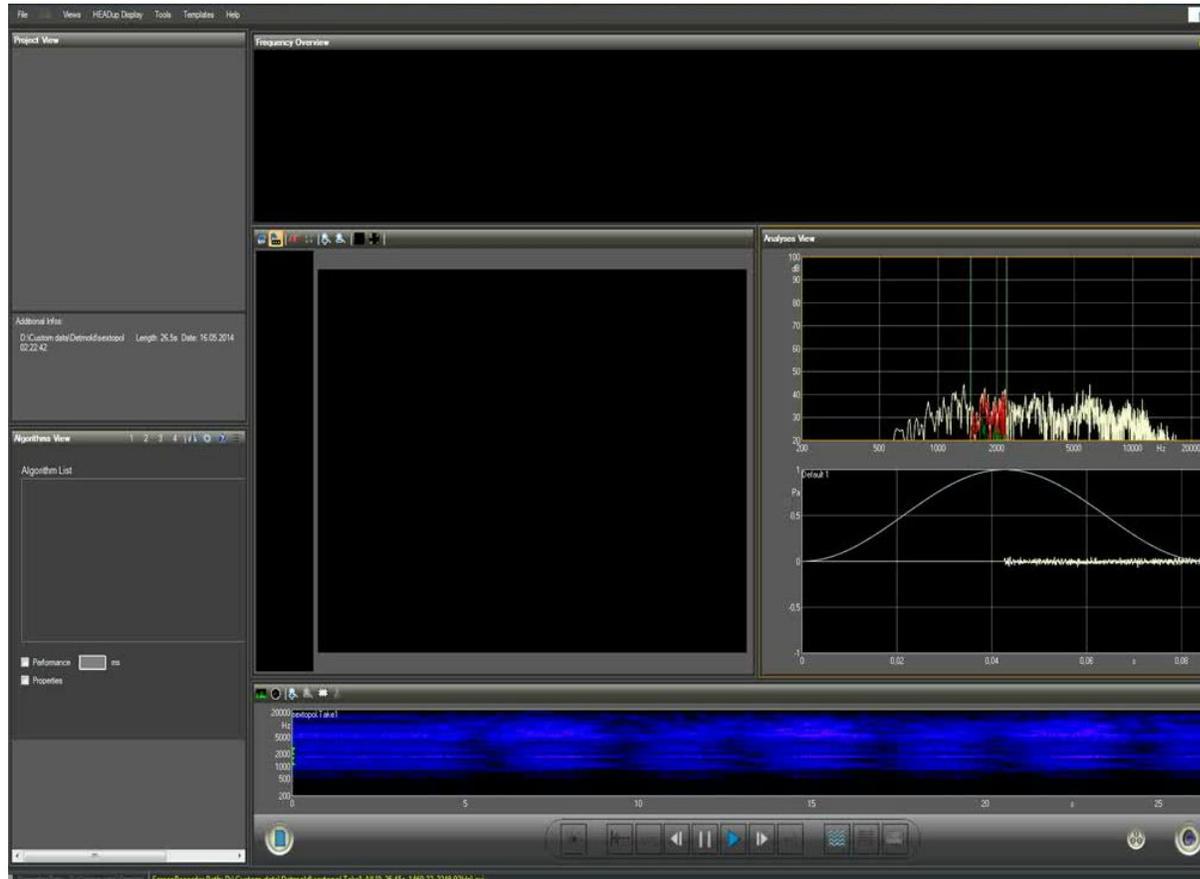
Acoustics and Musical Instruments Sound Explorer (AMISE)

Instrument <ul style="list-style-type: none"><input checked="" type="radio"/> Clavichord<input type="radio"/> Glockenspiel (hard)<input type="radio"/> Glockenspiel (soft)<input type="radio"/> Horn<input type="radio"/> Saxophone<input type="radio"/> Violin (baroque)<input type="radio"/> Violin (modern)<input type="radio"/> Voice (female)<input type="radio"/> Voice (male)	Piece <ul style="list-style-type: none"><input checked="" type="radio"/> Arpeggio<input type="radio"/> Chromatic Scale<input type="radio"/> Melody Dynamics <ul style="list-style-type: none"><input type="radio"/> Piano<input checked="" type="radio"/> Mezzoforte<input type="radio"/> Forte<input type="radio"/> Sforzato Articulation <ul style="list-style-type: none"><input type="radio"/> Legato<input checked="" type="radio"/> Non Legato<input type="radio"/> Pizzicato<input type="radio"/> Staccato	Room <ul style="list-style-type: none"><input checked="" type="radio"/> Brahmsaal<input type="radio"/> Konzerthaus (KH)<input type="radio"/> Sommertheater Position <ul style="list-style-type: none"><input checked="" type="radio"/> R1<input type="radio"/> R2<input type="radio"/> R3<input type="radio"/> R4<input type="radio"/> R5<input type="radio"/> R6	Artificial Reverberation (KH only) <ul style="list-style-type: none"><input type="radio"/> C1<input type="radio"/> C2<input type="radio"/> C3<input type="radio"/> C4<input type="radio"/> C5<input type="radio"/> C6<input type="radio"/> C7	
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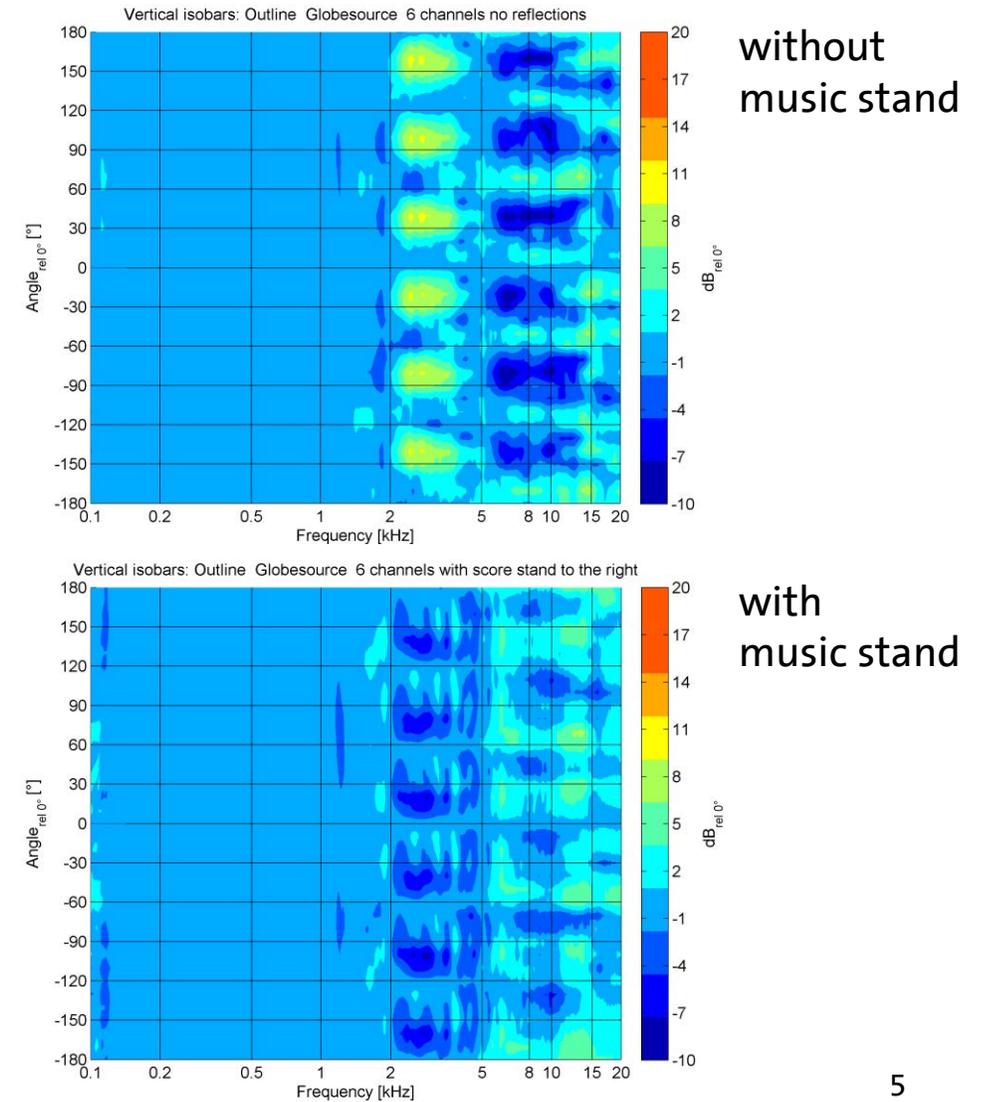
Chrome browser only.
Please use headphones
to avoid audio feedback.

amise.netzwerk-musikhochschulen.de

Musical Acoustics



Sound Radiation from Music Stand



Digital Music Archive



Digitization of the whole archive
of the Erich Thienhaus Institute

NORDWESTDEUTSCHE MUSIK-AKADEMIE
DETMOLD

Montag, den 4. Mai 1953, 20 Uhr, Aula

LIEDER-ABEND
Dietrich Fischer-Dieskau
Am Flügel: GUNTHER WEISSENBORN

Vortragsfolge

Franz Schubert (1797-1828) Sechs Lieder a. d. Zyklus „Der Schwanengesang“
Der Atlas
Ihr Bild
Das Fischermädchen
Die Stadt
Am Meer
Der Doppelgänger

Robert Schumann (1810-1856) „Dichterliebe“
Liederzyklus nach Gedichten von H. Heine
Im wunderschönen Monat Mai
Aus meinen Tränen
Die Rose, die Lilie
Wenn ich in deine Augen seh
Ich will meine Seele tauchen
Im Rhein, im heiligen Strome
Ich grolle nicht
Und wüßten's die Blumen
Das ist ein Flöten
Hör' ich ein Liedchen klingen
Ein Jüngling liebt ein Mädchen
Am leuchtenden Sommermorgen
Ich hab im Traum geweinet
Allnächtlich im Traume
Aus alten Märchen
Die alten, bösen Lieder

HE MUSIK-AKADEMIE DETMOLD
d, 22. Februar 1958, 20 Uhr, Aula
derabend
rs - Benjamin Britten
(Klavier)
Vortragsfolge:
I attempt from Love's sickness to fly
Not all my torments
I'll sail upon the Dog-Star
There's not a swain
Man is for the woman made
Der Einsame
Sprache der Liebe
Auf dem Wasser zu singen
Gesang des Harfners
Der Musensohn
P A U S E
Seven Sonnets of Michelangelo (op. 22)
FOLK SONGS
Down by the Sally Gardens
The Ploughboy
Come you not from Newcastle?
Sweet Polly Oliver
(Liedertexte umseitig)
den einzelnen Liedern keinen Beifall
nts-Kammerkonzert am 25. Februar 1958; Strass-Quintett.

Es wird höflichst gebeten, die einzelnen Lieder nicht durch Beifall zu unterbrechen.

Digital Music Editions

ZEN|M|E|M
ZENTRUM MUSIK – EDITION – MEDIEN

Edirom
2016 SUMMER
SCHOOL

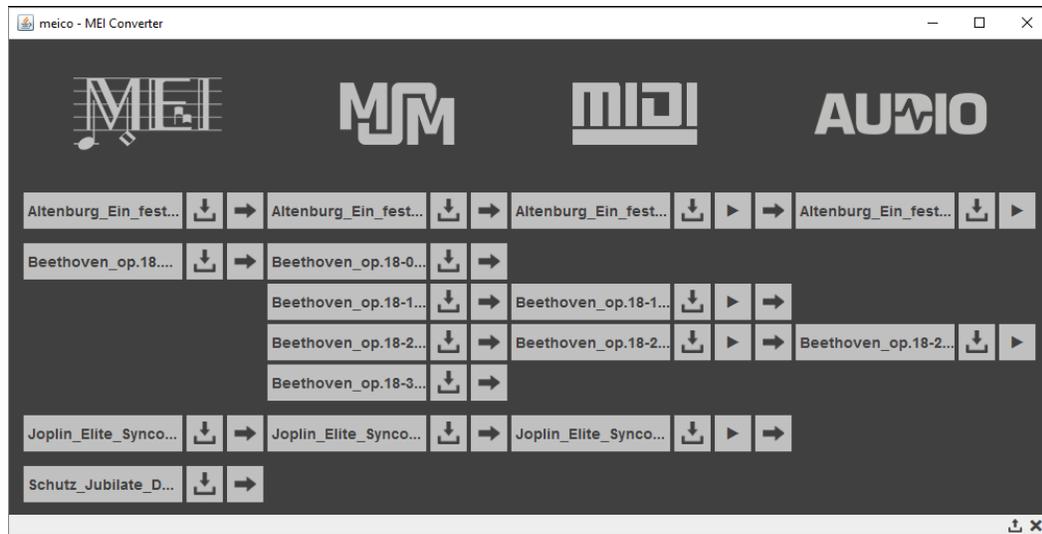
The screenshot displays the Edirom software interface for digital music editions. The main window shows a score for 'Ein feste Burg ist unser Gott' op. 27, featuring Org. Pl. and I. Man parts. The interface is divided into several panes:

- ED - Erstdruck (4)**: Shows the original manuscript score.
- RWA - Werkkausgabe (1)**: Shows the critical edition score with performance instructions like 'I. Man', 'ff', and 'Trompete 8' / Posaune 16'.
- AS - Autograph für Straube (3)**: Shows the autograph manuscript with handwritten annotations in red and blue ink.
- Anmerkung**: A pop-up window providing details for a specific annotation, including 'Kategorie: Vortragsanweisung', 'Quellen: Werkkausgabe, Erstdruck, Autograph für Straube', 'Takt: 3', 'Stimmen: II, Pedal', and 'Zahlzeit: 3. ED ohne ff; RWA folgt AS'.
- Suchfenster öffnen**: A search window on the right side listing sources like 'RWA - Werkkausgabe (1)', 'ED - Erstdruck', and 'AS - Autograph für Straube'.

The bottom status bar indicates 'Edirom-Hilfe'.

Edirom

Digital Music Editions

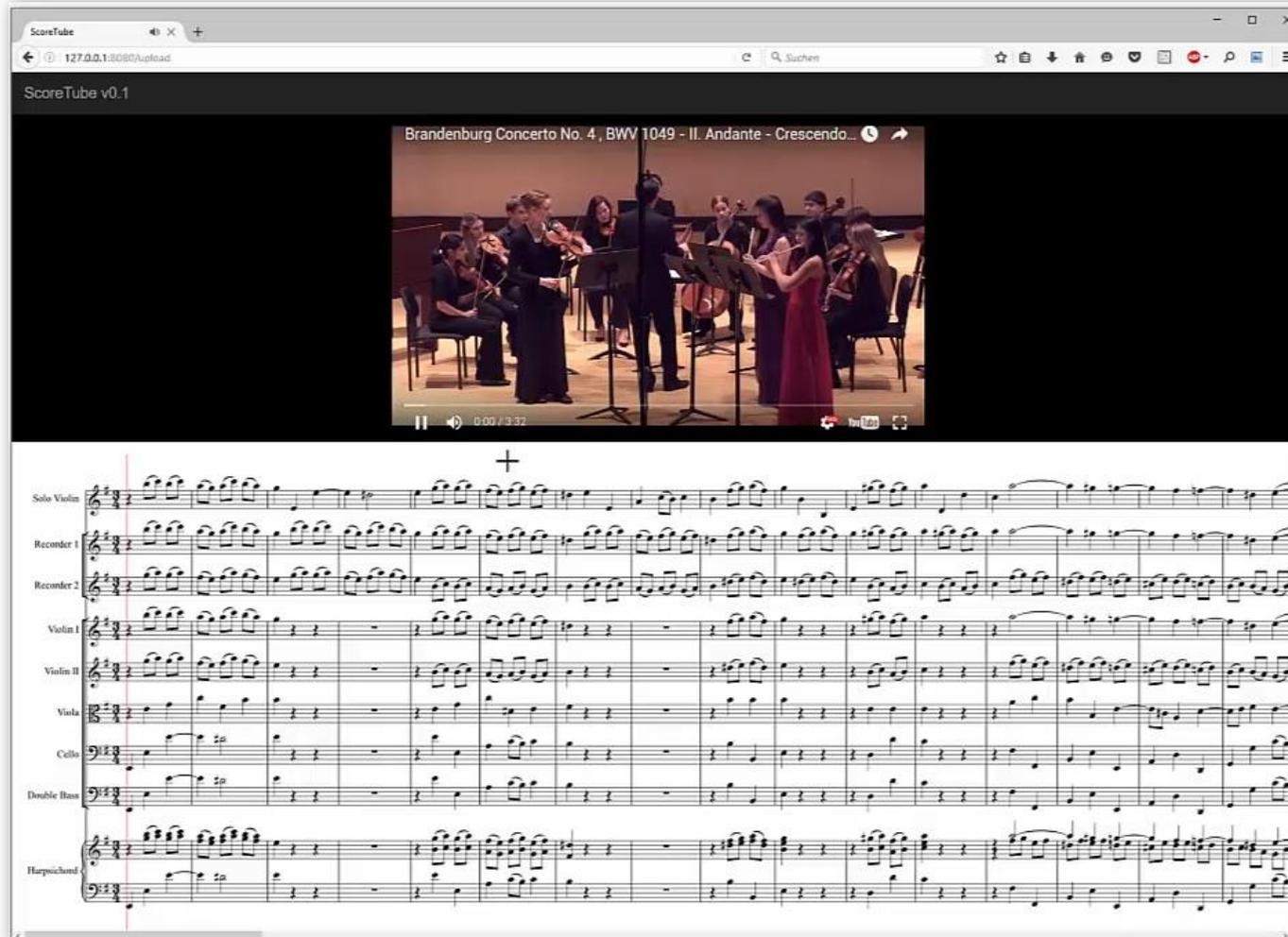


meico: MEI Converter



Vertaktoid

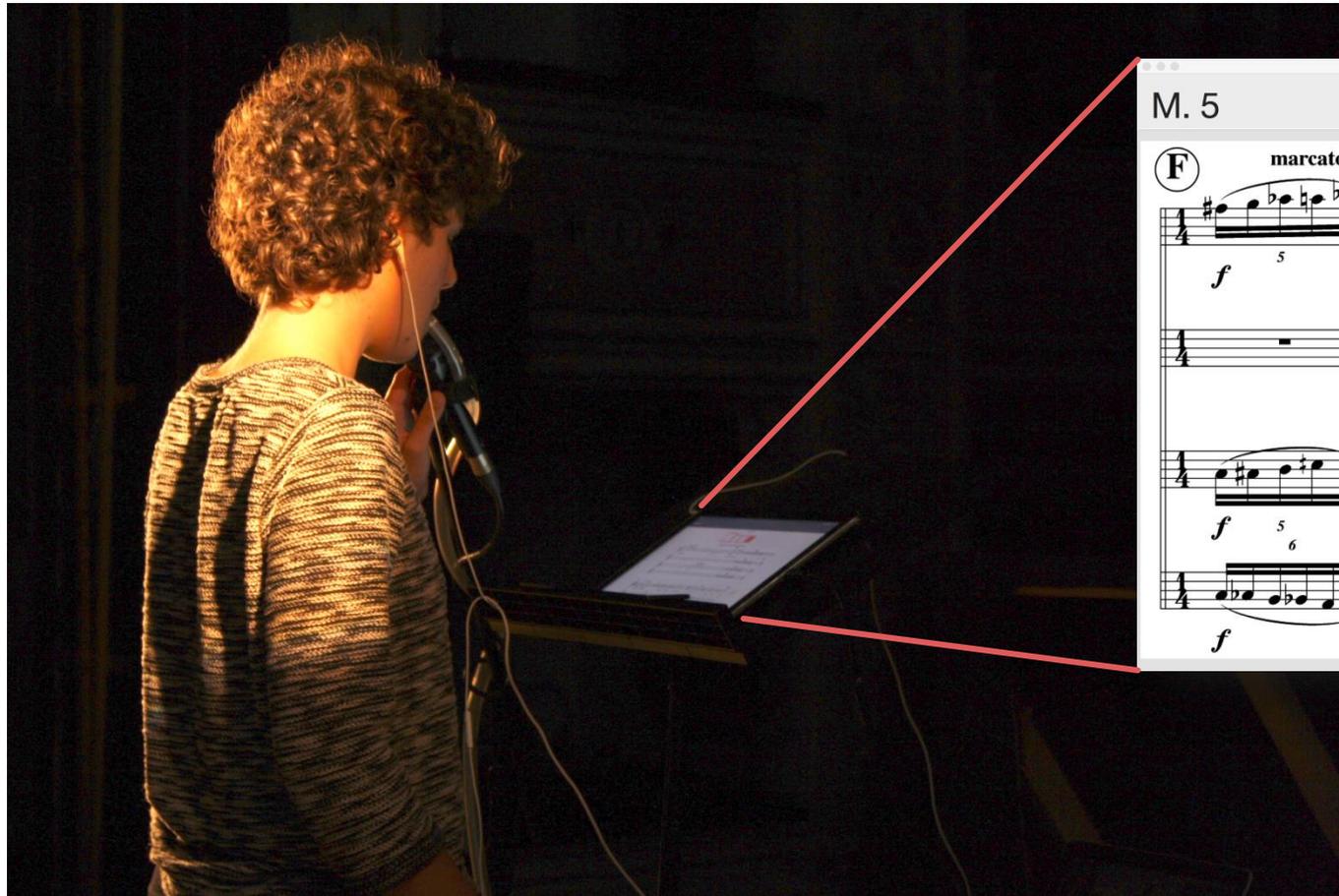
Interactive Scores: Audio-to-Score Alignment



The screenshot displays the ScoreTube v0.1 web application. At the top, a browser window shows the URL 127.0.0.1:8080/Upload and a search bar. Below the browser, the application title "ScoreTube v0.1" is visible. The main content area features a video player with the title "Brandenburg Concerto No. 4, BWV 1049 - II. Andante - Crescendo...". The video shows an orchestra performing. Below the video player, a musical score is displayed, featuring staves for Solo Violin, Recorder 1, Recorder 2, Violin I, Violin II, Viola, Cello, Double Bass, and Harpsichord. The score is aligned with the video, showing the audio-to-score alignment. A plus sign (+) is centered above the score. The video player has a progress bar at 0:00 / 3:32 and standard playback controls.

ScoreTube

Interactive Scores: Digital Music Stand



M. 5

M-Sync Player

F *marcato*

The image shows a digital music score for measure 5. It features four staves of music. The first staff is marked with a circled 'F' and 'marcato'. The music includes dynamic markings like 'f' and 'ad lib.', and articulation like accents. There are also fingerings indicated by numbers 5, 6, and 3. The score is displayed on a tablet interface with a red progress bar and control buttons.

Digital Music Stand for
Distributed Ensembles

Interactive Scores: Music Production

The image shows a screenshot of a music production software interface. The top part of the window displays a musical score with two staves. The upper staff contains a melodic line with several notes, and the lower staff contains a bass line. A red circle highlights a specific chord in the upper staff, and a red arrow points from it to a later measure. A green circle highlights a specific note in the lower staff, and a green arrow points from it to the same measure. Below the score, there is a piano roll view with several horizontal bars representing notes. The bars are labeled with numbers 13, 14, 15, 16, 17, 18, and 19. The bar labeled 16 is highlighted with a red circle, and a red arrow points from it to the red circle in the score above. The bar labeled 17 is highlighted with a green circle, and a green arrow points from it to the green circle in the score above.

Expressive Music Performance

musical raw material



sounding result



Music **P**erformance **M**arkup

<https://github.com/axelberndt/MPM>

Future Plans & Sub-Axes Alignment

- Sub-axis 1: MEI processing, orchestration analysis algorithms
- Sub-axis 3: Audio-to-Score Alignment, spatial rendering (AMISE), room-musician-listener interaction
- Sub-axis 5: Model development (MPM, acoustical models), impact of room acoustics on performance and ensemble communication, directivity of musician and instr.
- Sub-axis 6: Integration of machine-readable scores and images (Vertaktoid), link to audio clips (ScoreTube)
- Sub-axis 7: Performance rendering and orchestral simulation (MPM, meico)
- Sub-axes 8-11: Artistic and pedagogical perspective, functional orchestration (Fabien)