An apology

First of all, an apology. The algorithms I'm using are not intelligent! They are live and they are algorithms and I hope that I've used them in an intelligent way, but...

> 8th Feb 63
> Notation is a way of making people move. If you lack others, like aggression or persuasion. The notation should do it. This is the most rewarding aspect of work on a notation. Trouble is, just as you find your sounds are too alien, intended 'for a different culture', you make the same discovery about your beautiful notation: no-one is willing to understand it. No-one moves.

Cornelius Cardew,
from Treatise Handbook, 1971

Performances

[to display, or not to display, the notation?]

Quantum Canticorum: ways of making people move

composing, mapping and interpreting using live generation of augmented musical scores

Live Algorithms for Music
Goldsmiths University of London
April 2014

Richard Hoadley
Digital Performance Laboratory
Anglia Ruskin University
Cambridge UK

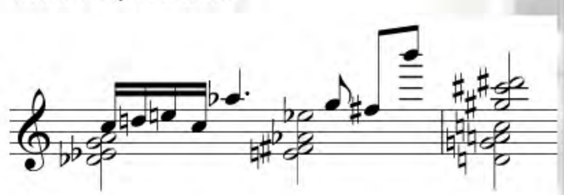
Three Streams

algorithms (patterns)
physicality (via microprocessors, etc.)
representation (notation)

(representing musical composition and performance)

Demonstration

Notation/representation



Thank you

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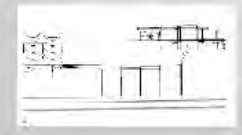

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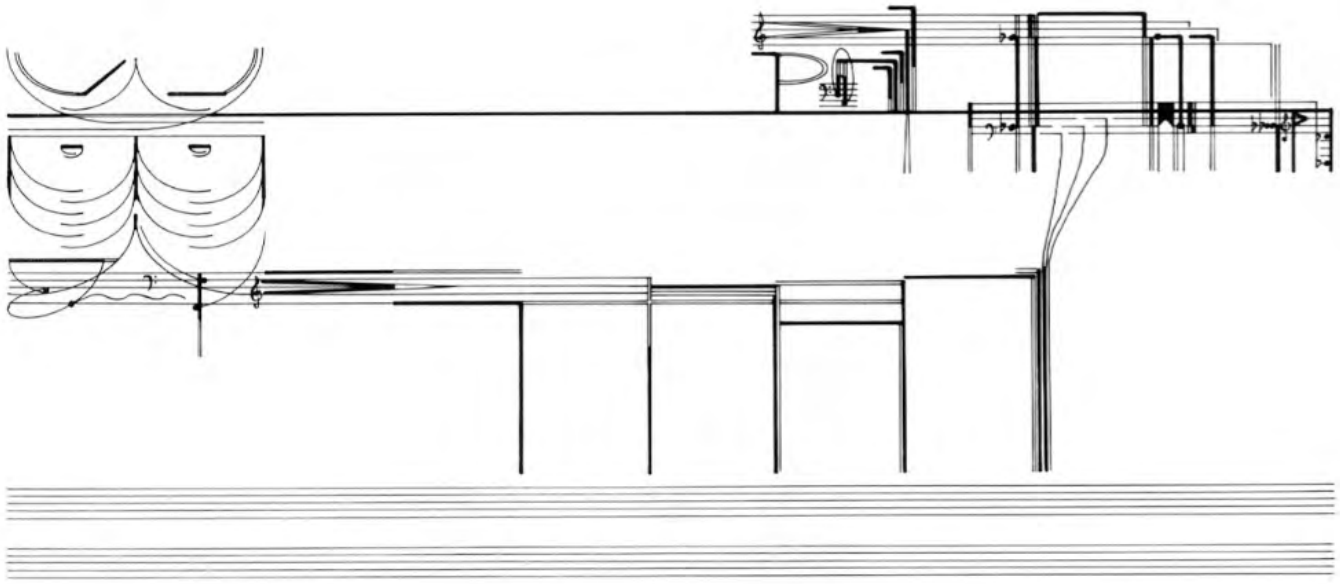

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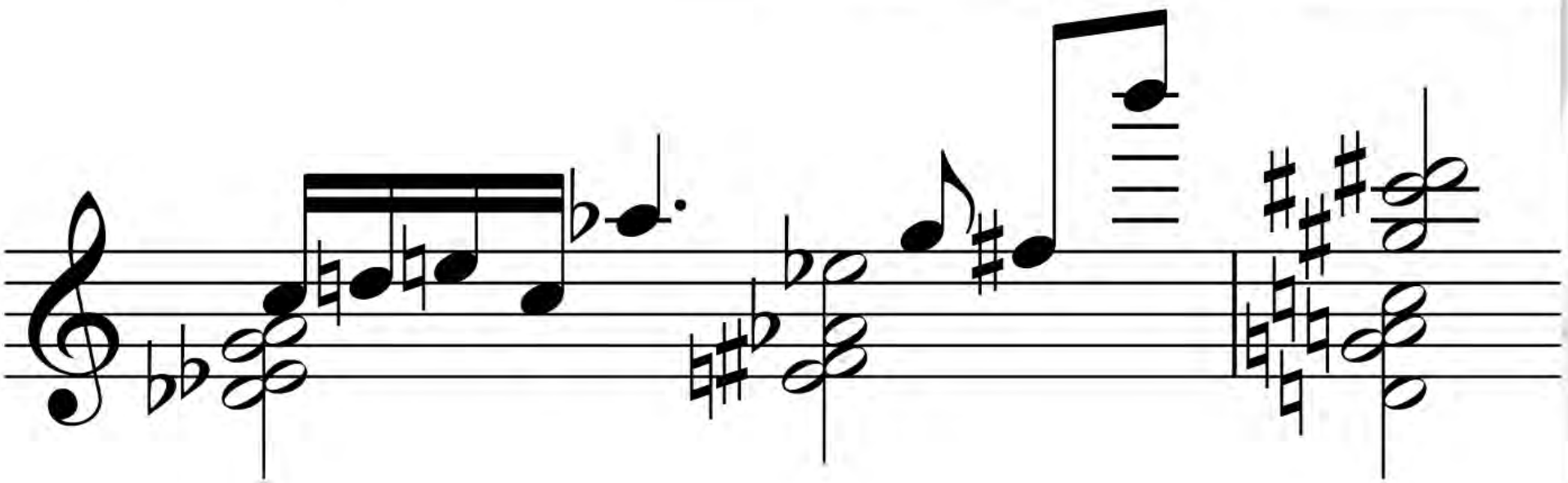
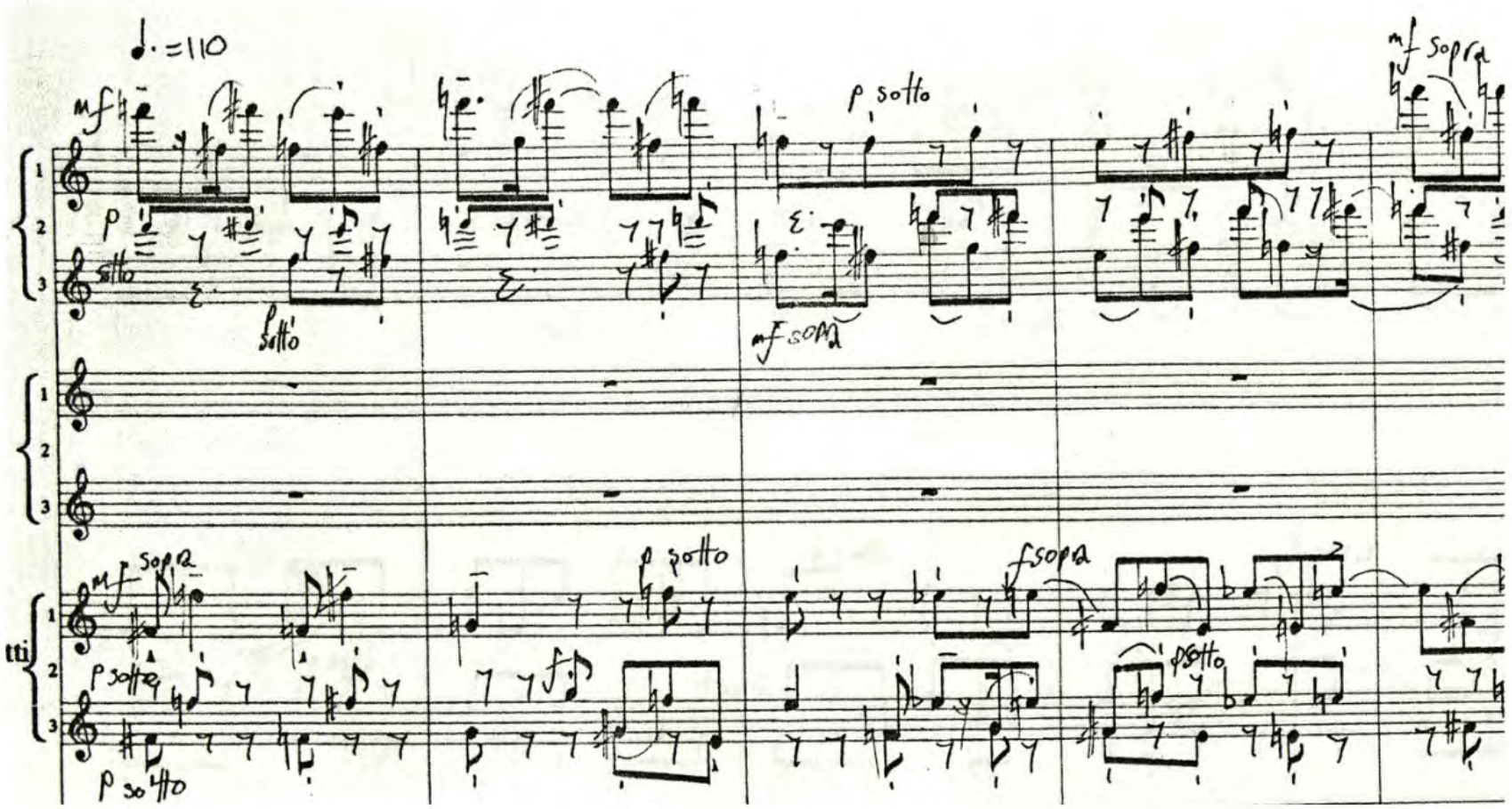


Richard Hoadley

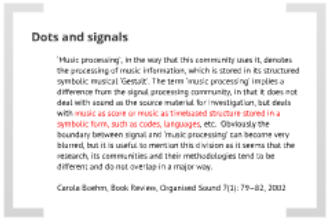
Four Archetypes, 1995



Notation

- complex semantic and graphic 'language'
- not really suited to non-specialised environments
- many challenges in electronic implementation and display

Why?



Dots and signals

'Music processing', in the way that this community uses it, denotes the processing of music information, which is stored in its structured symbolic musical 'Gestalt'. The term 'music processing' implies a difference from the signal processing community, in that it does not deal with sound as the source material for investigation, but deals with music as score or music as timebased structure stored in a symbolic form, such as codes, languages, etc. Obviously the boundary between signal and 'music processing' can become very blurred, but it is useful to mention this division as it seems that the research, its communities and their methodologies tend to be different and do not overlap in a major way.

Carola Boehm, Book Review, Organised Sound 7(1): 79–82, 2002

- it unifies dots and signals: enriching electronic music with live performance and algorithmic patterning [quote]
- it enables the live synchronisation of algorithmic generation of both electronic and electroacoustic material and notation
- to investigate links between 'technologies' and approaches: mapping between domains: algorithm and physical gesture into live notation: understanding which gestures have 'meaning' and which don't
- it utilises virtuosic performance and investigates liveness in music performance and improvisation
- it allows analysis of compositional processes through automation
- ...as a consequence and to clarify, it's a technique and a tool, just as these compositions are both pieces and experiments

The tools...

...provide a structure for the generation of music and/or common practice notation (plus) according to stylistic rules

...facilitate communication between SuperCollider and INScore (Dominique Fober, Grame)

http://supercollider.sourceforge.net/

http://inscore.sourceforge.net/

http://rhoadley.net/inscore (from April 2014)

...eventually, maybe, offer the beginnings of a more standard interface for physical mapping

Performances

Gaggle v2

Quantum³ Canticorum, Sensations Festival, Empty Shop, Meadows Shopping Centre, Chelmsford, Saturday September 28th 2013

Gaggle @ HCI conference, Cambridge 2009

The Fluxus Tree, LIPAM, Leeds, September 2012

Public interactions with the Fluxus Tree at the Cambridge Festival of Ideas, October 2012

Quantum³ Canticorum, Deptford Town Hall, London, Friday 18th October 2013

Gaggle @ Museums, interfaces, spaces, technologies, 2010

Triggered, Kings Place, London, 2011

The Fluxus Tree, Intime Syposium, Coventry University, 2012

[to display, or not to display, the notation?]

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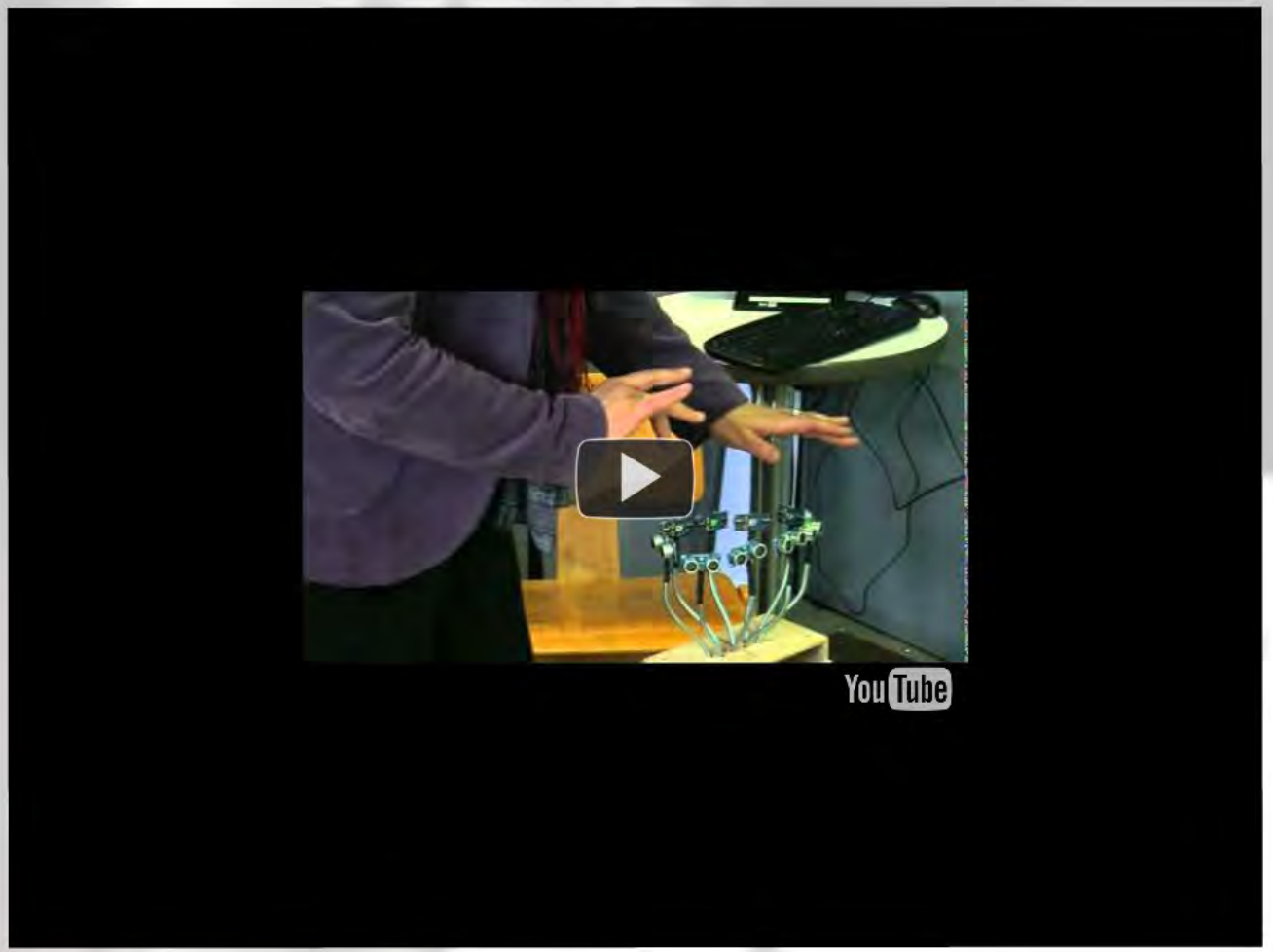
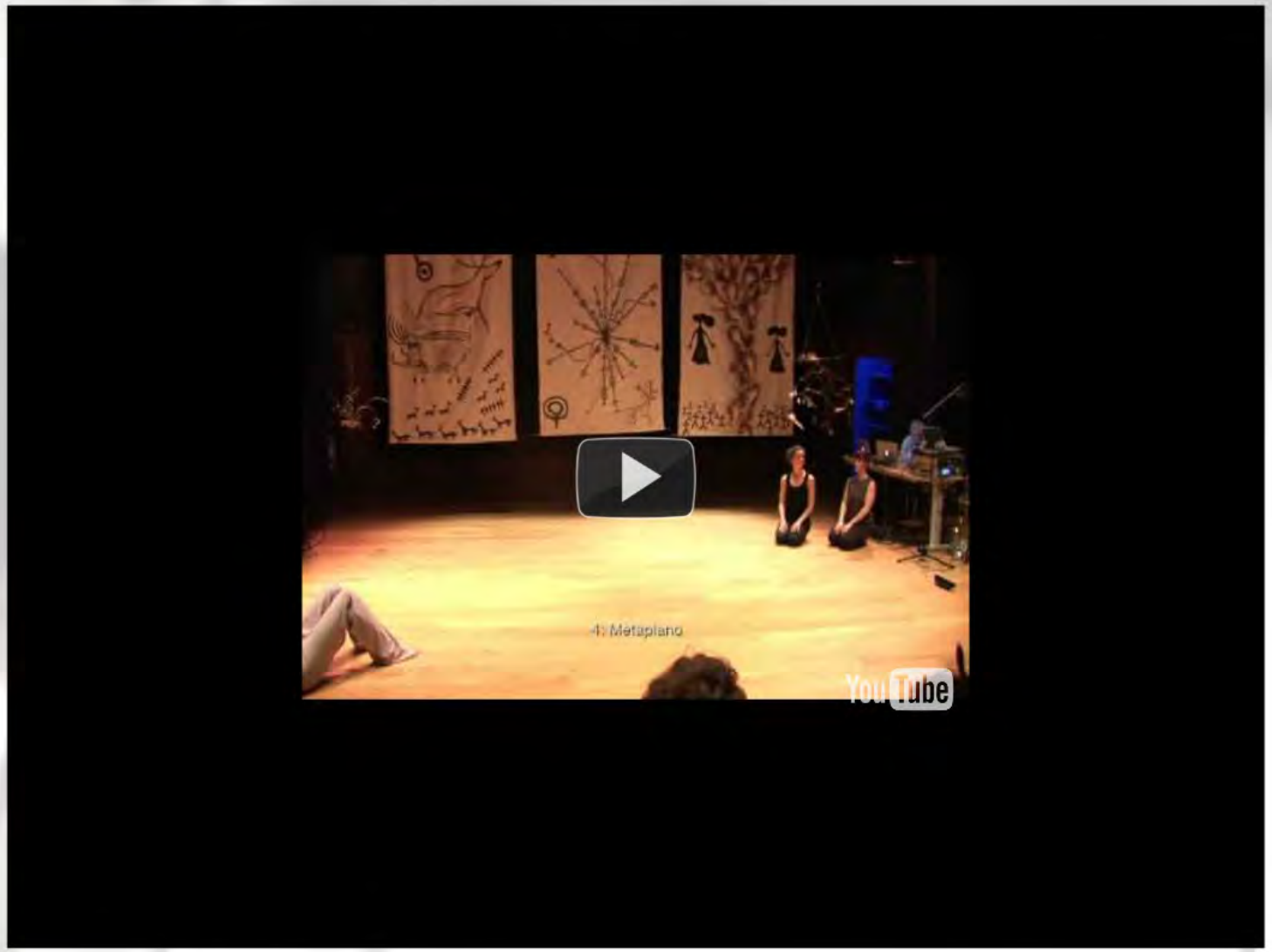


www.youtube.com/watch?v=FroFT1vHU0

Triggered, Kings Place, London, 2011



www.youtube.com/watch?v=W3vnuA3torc

The Fluxus Tree, LIPAM, Leeds, September 2012

www.youtube.com/watch?v=wH0mjb-jf8Q

Quantum² Canticorum, Sensations Festival, Empty Shop, Meadows Shopping Centre, Chelmsford, Saturday September 28th 2013

www.youtube.com/watch?v=-mq6ejdP0hg

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Peer comment and criticism

- machine musicianship as a compelling reason for using real-time notation
- concern over possible difficulties in keeping track of one's place in the score
- concern over the feasibility of obtaining an 'accurate' and structured rendition due to lack of rehearsal
- concern over the 'fetishisation' of the notation (when displayed)
- concern over the dancer being 'caged' by the 'cone of the Kinect'
- concern over the 'conservative' nature of the music

(musicians involved do not tend to agree with the majority of these comments)

Forthcoming Performances

Quantum Canticorum, 1845, Deptford Town Hall, April 2nd 2014

Quantum Canticorum, 1300, Mumford Theatre, Cambridge, April 4th 2014

Quantum2, June 6-8, Barcelona Museum of Modern Art, Barcelona Science Festival

Workshop: "Interactive Music Notation and Representation" at NIME 2014

Demonstration

Thank you

any questions?

contact:
richard.hoadley@anglia.ac.uk
or
research@rhoadley.net

this presentation is available at
http://rhoadley.net/presentations
as "qclam-s.pdf"