

SEAM PROJECT - SUSTAINED ELECTROACOUSTIC MUSIC

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ABSTRACT

The electro-acoustic musical composition is close to a breaking point: almost one hundred years ago Ottorino Respighi introduced a recorded media into his composition *I Pini di Roma* and even today we don't have a shared consolidate electro-acoustic practice to play it. Someone does it better than others, by its own knowledge consciousness equilibrium. It is only a recorded sound to be placed inside an orchestra, not a virtuoso part to be played on a handmade custom electro-acoustic instrument disappeared from the earth except for memories, words, and scores. The problem is more serious and deep if consider most of today's electronic-manipulators don't know who Respighi was and what happened after him.

1. INTRODUCTION

Sustained Electro-Acoustic Music is a project inspired by Alvisé Vidolin and Nicola Bernardini's article on *live electro-acoustic music sustainability*. In their article they point at multiple faces of the sustainability problem such as: technological, notational or general conception issues. Even if the article aforementioned focuses only on *live* electro-acoustic music, the concept of *sustainability* is applicable to any kind of documented music that uses electro-acoustic environments including therefore the acousmatic works, instruments with tape and amplified works. This will be the purpose of the presented text.

The ambition of this project is to grow the interpretation and the electro-acoustical musical practice with the consciousness of the electronic and informatics problems that had made difficult and arduous to approach to this music which prevented the growth of an interpretative thinking. It is possible, with a community structure, to determine, build and stratify interpretation of musical core, the repertoire, concealing the technological issues. They are instruments, not the music itself.

When we refer to a virtuoso musician, we often point at a violinist or at a piano player: someone who intensely practice on his instrument. This is the central point: Does the violinist builds its own violin every time he approaches a new composition? Does the pianist? The electro-acoustic musician does it every time.

The electro-acoustic music culture was born in a daily changing context. The sustainability of what the electro-acoustic musicians and composers were doing during the years wasn't an interesting and useful point during the realisation of the compositions. Today the situation remains similar to decades ago. Sustainability is an intricate and complex concept and *music sustainability* sounds like an *abstract problem* applied to an *abstract thing* only for a small number of people like an *abstract community* not related to the mass. Again,

we acknowledge that mass-media, mass-culture, mass-society-things, are no place for the *sustained people*.

Contemporary music composition, even the electro-acoustic music composition, is characterised by an interdisciplinary approach to research on sound and perception and writing itself. Writing something push the writing itself into a becoming writing, to the best comprehension of something. Yeah this is in a form of best wish.

If actual music is afflicted or not by the contemporary and electro-acoustic music issue, it is an ordinary question, but the evidence that musical thinking changed thanks to the electro-acoustic thought is an undeniable fact. Music was changed inexorably after the introduction of electronics and informatics in music composition, as well as the way how it has transformed the approach to playing and production of music.

An example. We have three interpretations of Beethoven's Complete Symphonies, by the famous conductor Herbert von Karajan. Each of those boxsets is a separate thing, a collection of objects. Not music itself. We have three sets of reproduction of the same musical things through the same mind. It is a huge resource of thinking, not a huge resource of music itself. Every man who has listened to Beethoven in a concert hall knows perfectly that his music can't fit in a box that can stay in a hand. But if the boxset is not Beethoven's music itself, it is sure an object of thinking. There is a point, sure, this is not the purpose it was built, but it doesn't matter. The point is that we have stratified musical thinking and listening attitude on Beethoven's music through interpretations of his music. We have not rewritten his music each time and we have not built his instruments each time. Is it a technological fact? A musical one? Both of them.

Luigi Nono's repertoire is not on a triple boxset of no one. It is on paper, in the best of the case. We have some recordings, yes we have them. But what can we study and interpret, if half of the instruments of the ensemble in a Nono's score was *Live Electronics Instruments* dated the '80s and it was not really described and not really *sustained* through the years? Who has memories of those instruments?

We have to study Vidolin's gestures to understand Nono, to have a clear sight on our music through an era. Vidolin is for Nono what Karajan was for Beethoven: time, consciousness and thinking. We need his work to know what was happening, what we have to do, what it is necessary and what doesn't matter. And that is we have to do, just one time, forever; refine it, maintain it, and again realise it forever.

What can we do about a lot of music made by composers who have framed their music in events without sustain at all their electronic instruments through decades?

Here are the focal points. What will happen when all the people who are part of the history of a work and continuously manipulates its electronics and knows all the production problems during a concert will disappear? What will become the electro-acoustic music repertoire if not the one played in the concert hall? Why we do con-

^{*} This work was supported by the XYZ Foundation

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concentrate too many resources and time on technical problems and not on musical interpretations and playing practices of repertoire?

Looking at the Post-Graduate Doctoral offers to an electro-acoustic musician all over the world, there are many *interactive-all-you-can-think-about* positions but nothing about *electro-acoustic repertoire*. There are a lot of *Machines (that are) Learning* something, somewhere. All over the world, the music industry conceived the purpose of doing music. With or without problems. During that well studied *interaction learning* and, during this art of entertainment, where the industry is god, and *God is a DJ*, meanwhile there is also a repertoire of music that we must consider the core of the actual musical thinking that will disappear in a few years. Not the written papers, neither the recordings of that repertoire. We have *clouds* for that, and *Machine Learning* something of that, maybe. But it will disappear the practice, the interpretation, and musical thinking itself and there will be no place for that. Because if there are clouds, they are grey and full of rain.

To prevent catastrophic regression of musical thinking we must consider there are few dogmatic concepts to build, re-build and sustain an *electro-acoustic repertoire*:

1. Open and Be Open
2. Don't Repeat Yourself
3. Think and Act as Community

SEAM is an Open, DRY, Community.

1.1. Figures

All figures should be centered on the column (or page, if the figure spans both columns). Figure captions (in *italic*) should follow each figure and have the format given in Figure 1. Vectorial figures are preferred (e.g., Postscript, PDF, etc.). Also, in order to provide a better readability, figure text font size should be at least identical to footnote font size. If bitmap figures are used, please make sure that the resolution is enough for print quality. Figure 2 illustrates an example of a figure spanning two columns.



Figure 1: *Ping.*

1.2. Tables

As for figures, all tables should be centered on the column (or page, if the table spans both columns). Table captions should be in *italic*, precede each table and have the format given in Table 1.

Table 1: *Basic trigonometric values.*

angle (θ , rad)	$\sin \theta$
$\frac{\pi}{2}$	1
π	0
$\frac{3\pi}{2}$	-1
2π	0

1.3. Equations

Equations should be placed on separate lines and numbered:

$$y(n) = b_0x(n) - a_1y(n-1) \quad (1)$$

where equation (1) is a one pole filter with frequency response:

$$H(e^{j\omega T}) = \frac{b_0}{1 + a_1e^{-j\omega T}} \quad (2)$$

1.4. Code

Code can be listed in a block:

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int foo = 0;
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or directly in-lined in the body of the text: `int foo = 1;`

1.5. Page Numbers

Page numbers will be added to the document in the post-processing stage, so *please leave the numbering as is* (no numbers).

1.6. References

The references will be numbered in order of appearance [?], [?], [?] and [?]. Please avoid listing references that do not appear in the text.

1.6.1. Reference Format

The reference format is the standard IEEE one. We recommend to use BibTeX to create the reference list.

2. CONCLUSIONS

This template can be found on the conference website. For changing the number of author affiliations (1 to 4), uncomment the corresponding regions in the template `tex` file. Please, submit full-length papers (4 to 8 pages for full papers and 2 to 4 pages for poster papers) and keep the paper size to letter (don't change to A4). Submission is fully electronic and automated through the Conference Web Submission System. DO NOT send us papers directly by e-mail.

3. ACKNOWLEDGMENTS

Many thanks to the great number of anonymous reviewers!

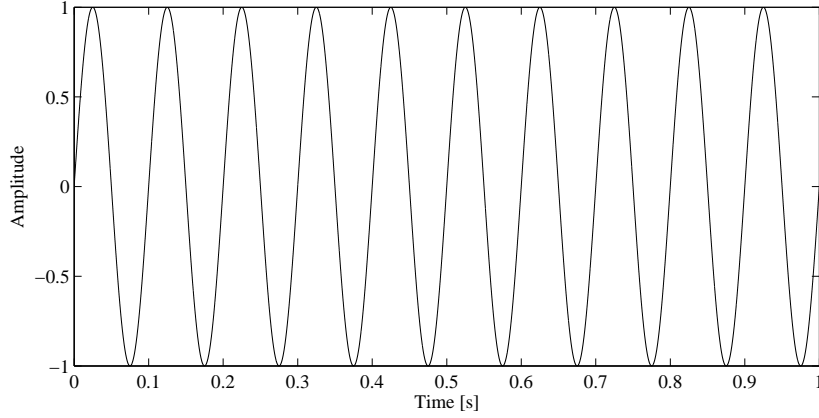


Figure 2: A figure spanning two columns, as mentioned in Sec. 1.1.

Table 2: Basic trigonometric values, spanning two columns.

angle (θ , rad)	$\sin \theta$	$\cos \theta$	$(\sin \theta)/2$	$(\cos \theta)/2$	$(\sin \theta)/3$	$(\cos \theta)/3$
$\frac{\pi}{2}$	1	0	$1/2$	0	$1/3$	0
π	0	-1	0	$-1/2$	0	$-1/3$
$\frac{3\pi}{2}$	-1	0	$-1/2$	0	$-1/3$	0
2π	0	1	0	$1/2$	0	$1/3$

4. APPENDIX: MARGIN CHECK

This section shows the column margins for the text.

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