Live Algorithms for Music is a well developed field in which engineers, musicians, and performers share an equally important role. Engineers develop programs and/or mechanical devices used for musical expression. The musicians take these new tools and produces music. And sometimes are performers is used to express this music, especially in the case of a new physical device.

Among the most important composers using algorithmic in the past 50 years we can name; John Cage, Iannis Xenakis, Laurie Spiegel, Karlheinz Essl, Charles Dodge, Pauline Oliveros, Morton Subotnick, Mario Davidovsky and Paul Lansky.

Programs used for real time audio synthesis include (but are not limited to): Max/MSP, SuperCollider, Csound, Pure Data, ChucK, and Reaktor. As part of our final paper and presentation, we intend to expand upon each of the programs: how the work, what makes each unique, who has used them, and difficulties in them.

Interaction and improvisation are two key areas brought about to music through electronics. Within electronic music [using live algorithms], performers are both interacting with the music and in turn improvising their actions. Also within this realm of interaction and improvisation are the 'new instruments for musical expression.' These can include new usages of existing instruments, and entirely new instruments.

Bibliography

