

SIGNAL PAINTING

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ABSTRACT

Composition submission for the 16th International Conference on Auditory Display.

1. DESCRIPTION

Signal Painting is a time-based work that visualizes relationships between harmonics of synthesized tones. The modulating tones are designed to have specific harmonic content, and they appear to create unfolding interwoven visual patterns when their audio spectrum is seen as a moving color spectrogram.

2. TECHNIQUES

Signal Painting was realized with Cycling '74's Max/Msp/Jitter multimedia software. Tone generation and modulation were performed using classical synthesis techniques (figure 1), and a large filterbank of noise was used to sonically print the pixels of a bitmap (figure 2). The resulting audio signal was captured and used to create a moving color spectrogram. The piece was created live, in real time, and recorded directly to a video file.

3. MEDIA FORMAT

The work was rendered as a color 640 x 480 (16:9) stereophonic quicktime .mov file which can be delivered on DVD or sent electronically in any preferred format.

4. PREVIEW URL

<http://musicgrad.ucsd.edu/~cbaker/files/baker.m4v>

5. STILL IMAGES

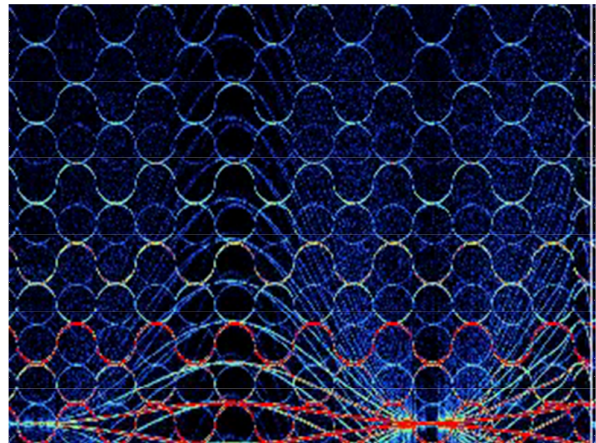


Figure 1: still image from Signal Painting.

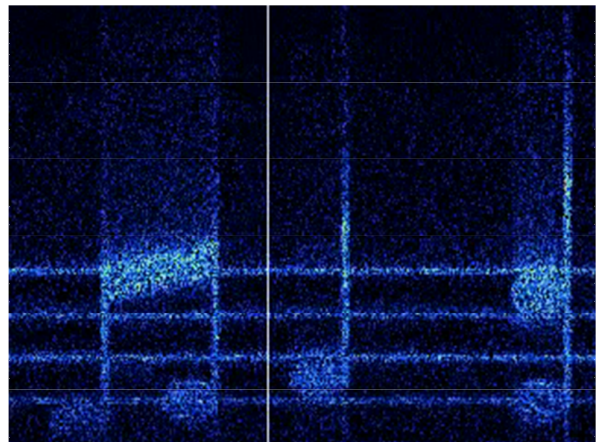


Figure 2: Still image from Signal Painting.