VACUUM

March 31, 2019

1 VACUUM

VISUAL AUDIO COMPARISION UTILITY [FOR] UNDERSTANDING [AND] MEASUREMENT

A testing and analysis workflow

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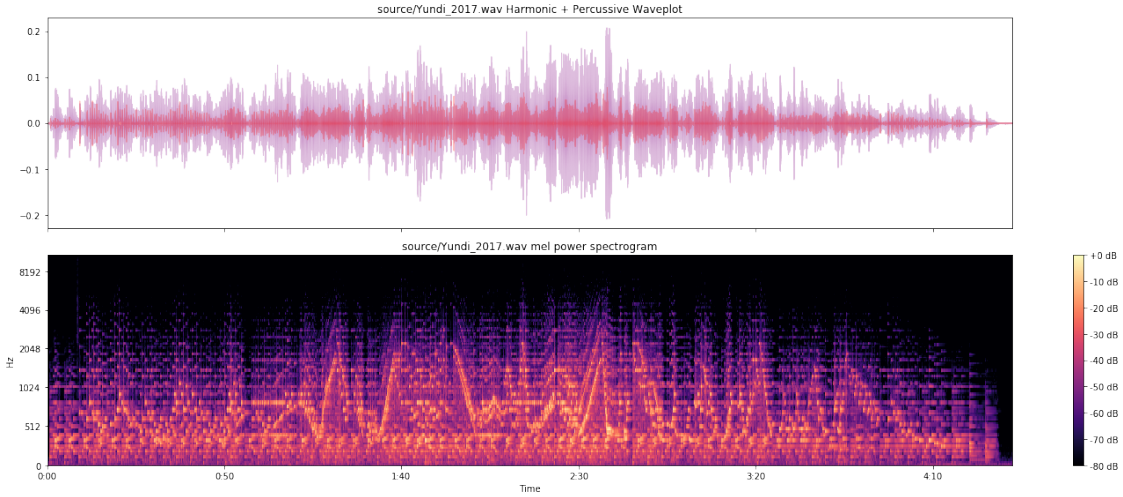
3.1.1 Open Source1, get some basic statistics and create a player

```
File: source/Yundi_2017.wav
Duration: 272.4534 sec
Tuning estimate: 0.08999999999999997
```

3.1.2 Let's take a first look at the file

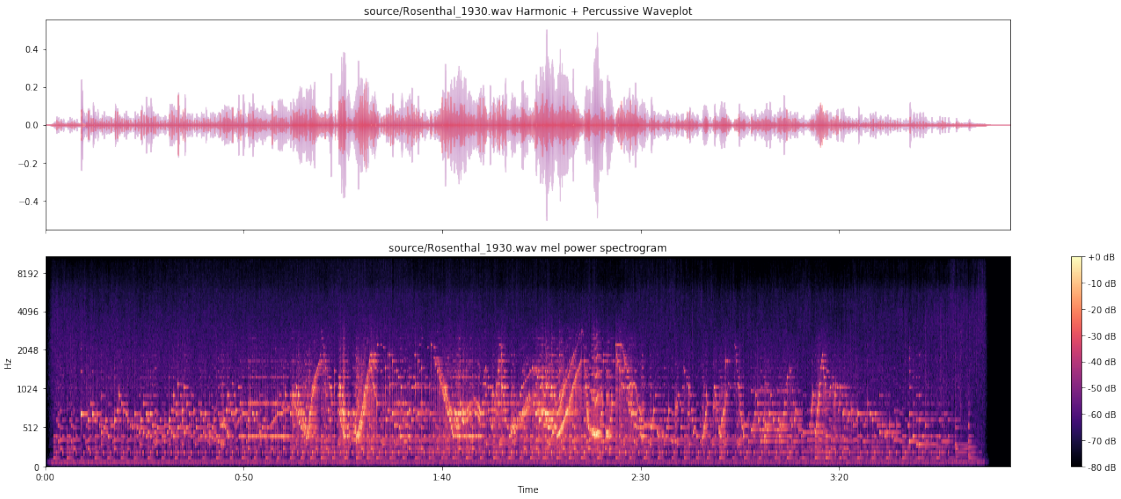


3.2 Source 2 Track (source/Rosenthal_1930.wav)

3.2.1 Open Source2, get some basic statistics and create a player

```
File: source/Rosenthal_1930.wav
Duration: 243.1334 sec
Tuning estimate: 0.19000000000000006
```

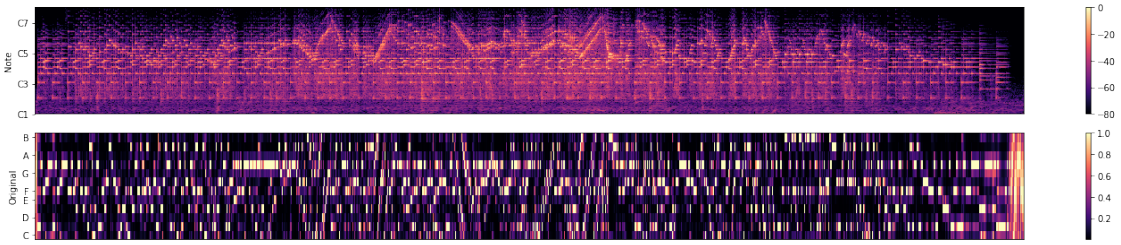
3.2.2 Let's take a first look at the file



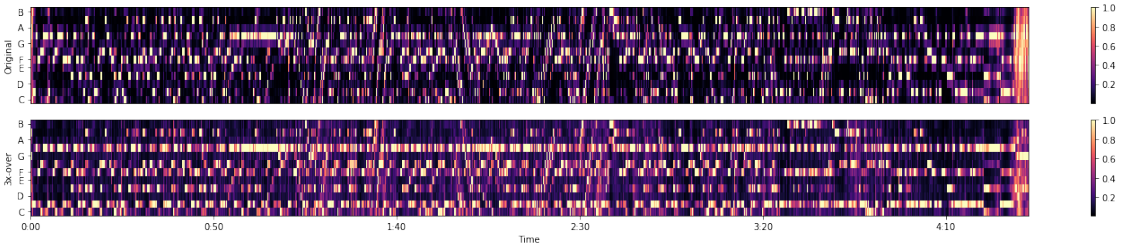
4 Enhanced chroma and chroma variants (source1)

Enhanced chroma and chroma variants

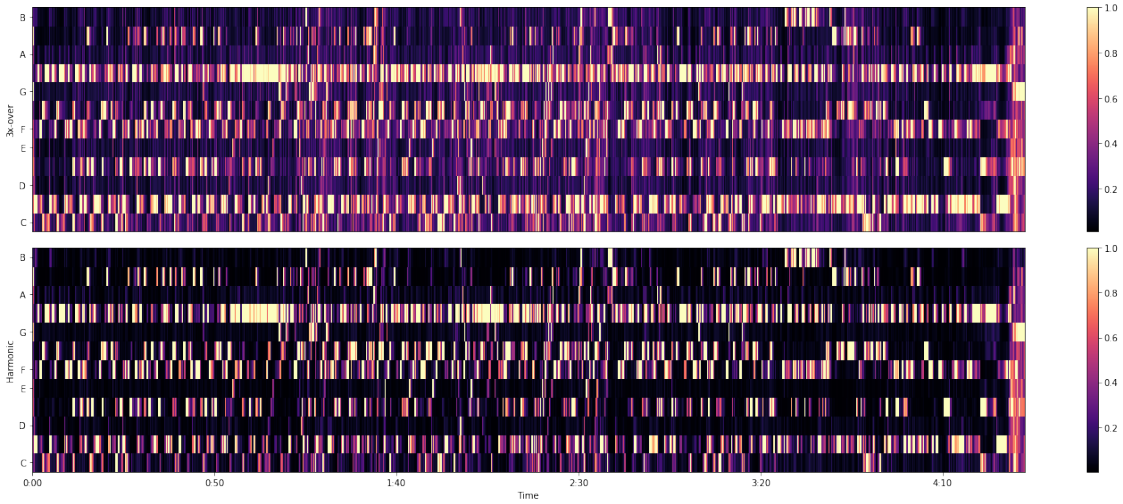
4.1 Original source1



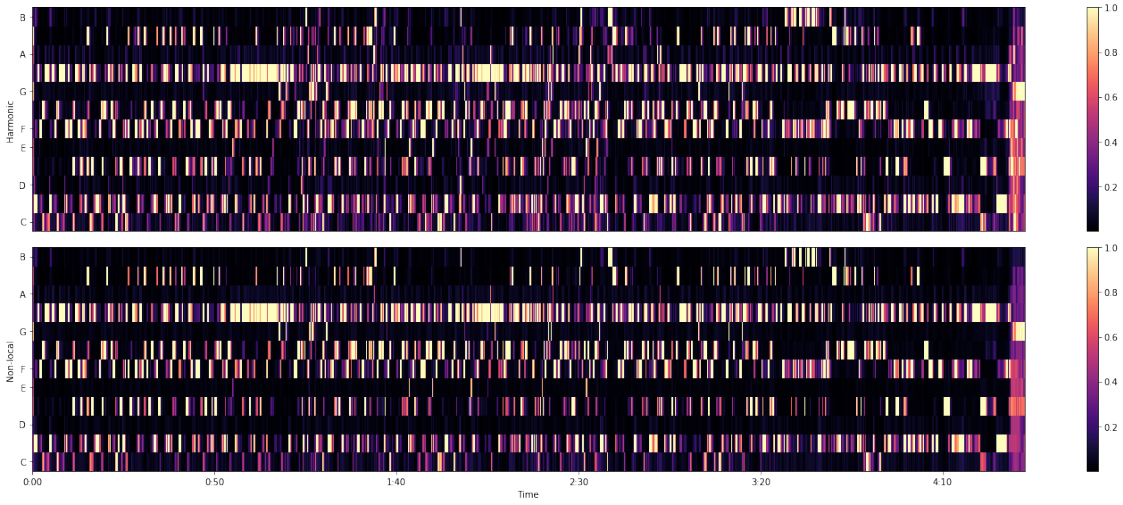
4.2 Correct Tuning Deviations



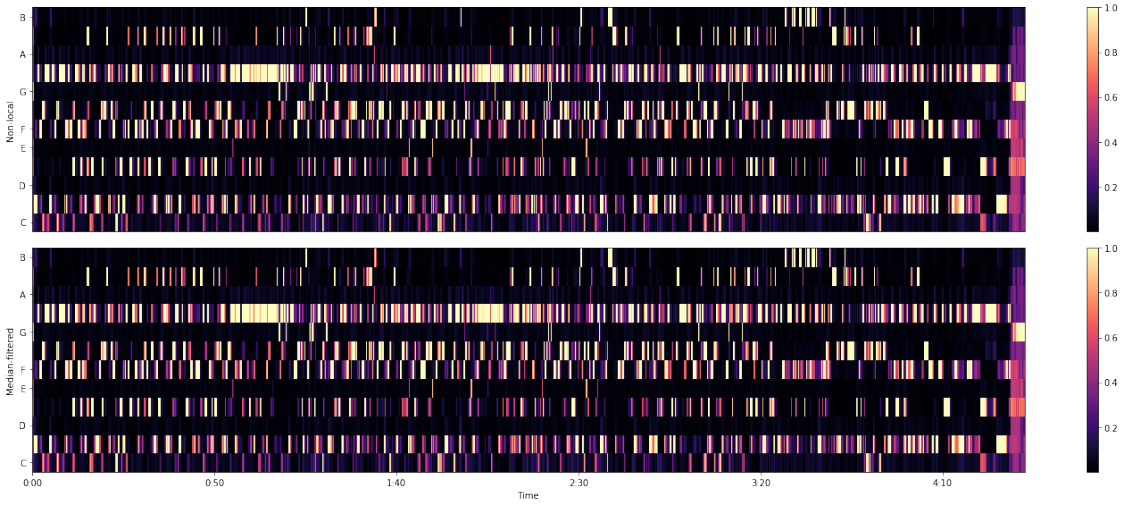
4.3 Isolate harmonic component



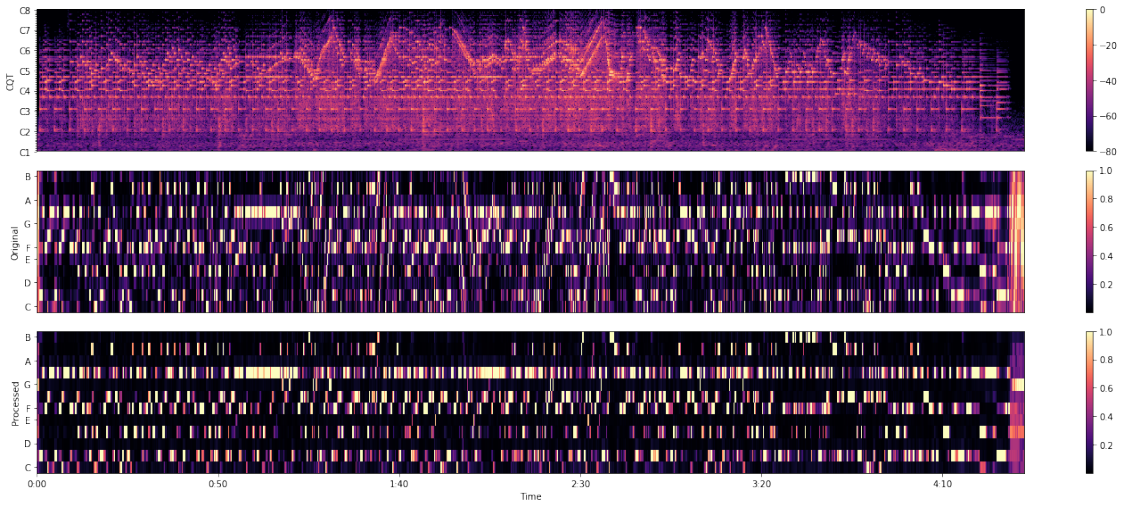
4.4 Non-local filtering



4.5 Horizontal Median Filter

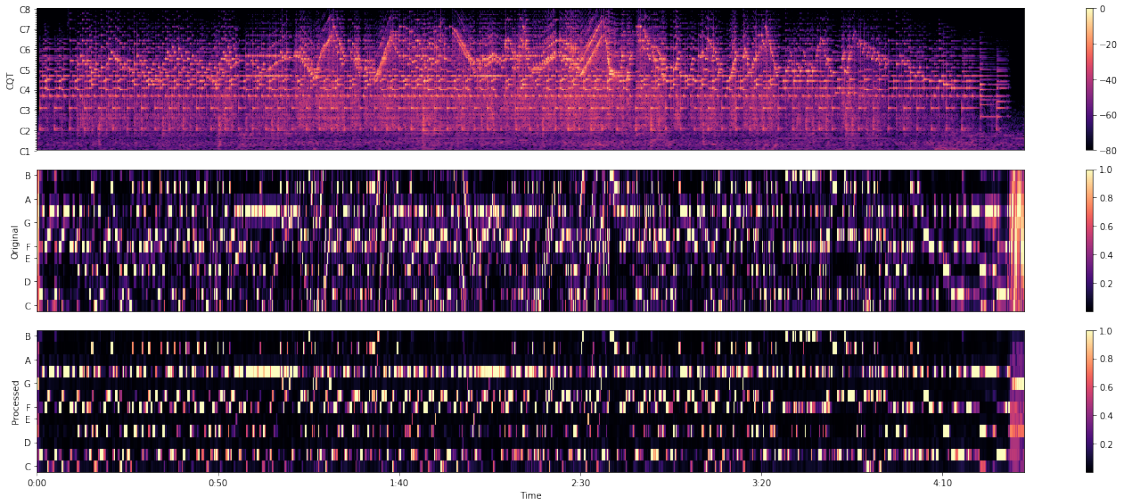


4.6 Before and After

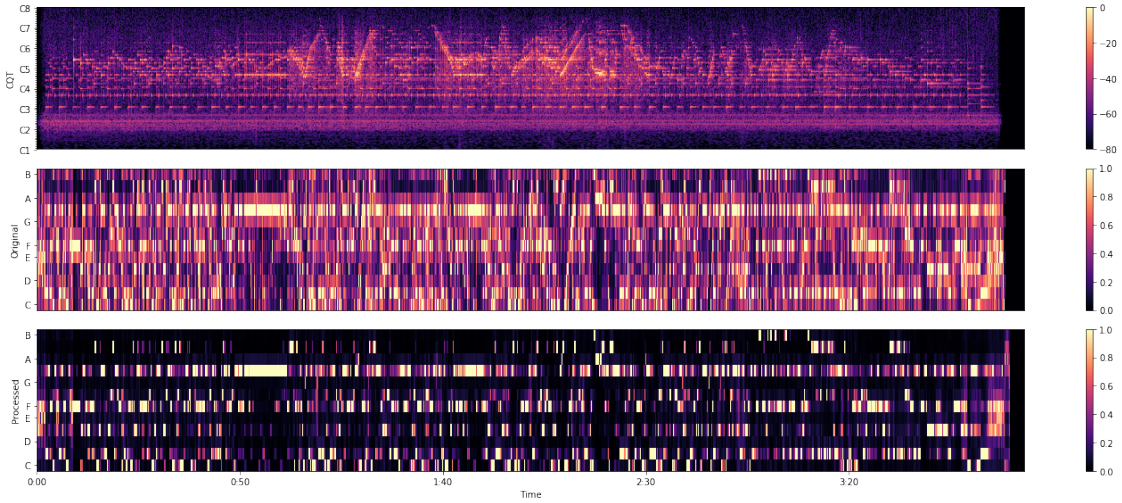


5 Applying chroma enchancement techniques to source files

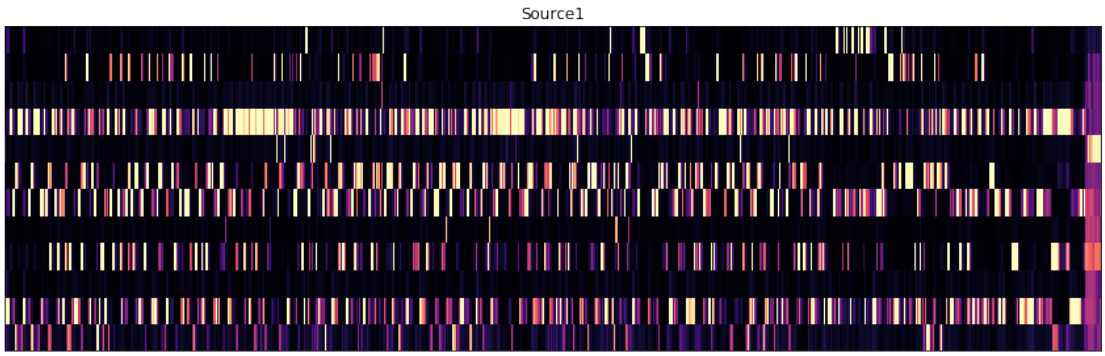
5.1 Source1

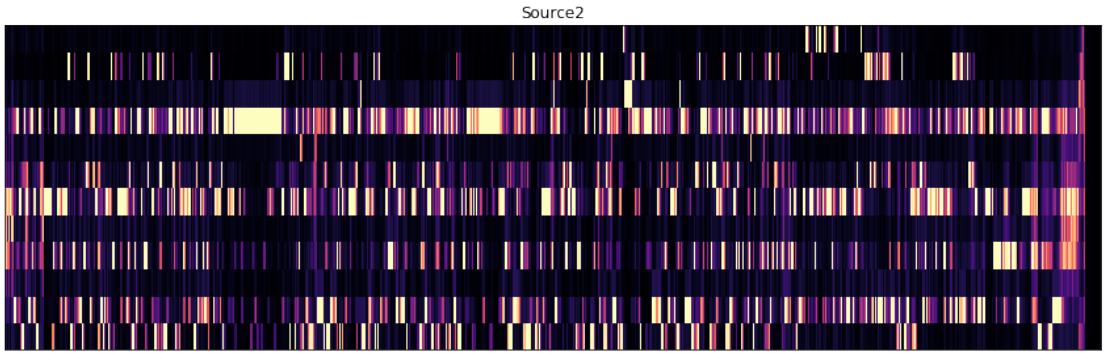


5.2 Source2



6 Output comparisions for testing





7 Run imageDiff

```
SSIM: 0.2895809881272474
```