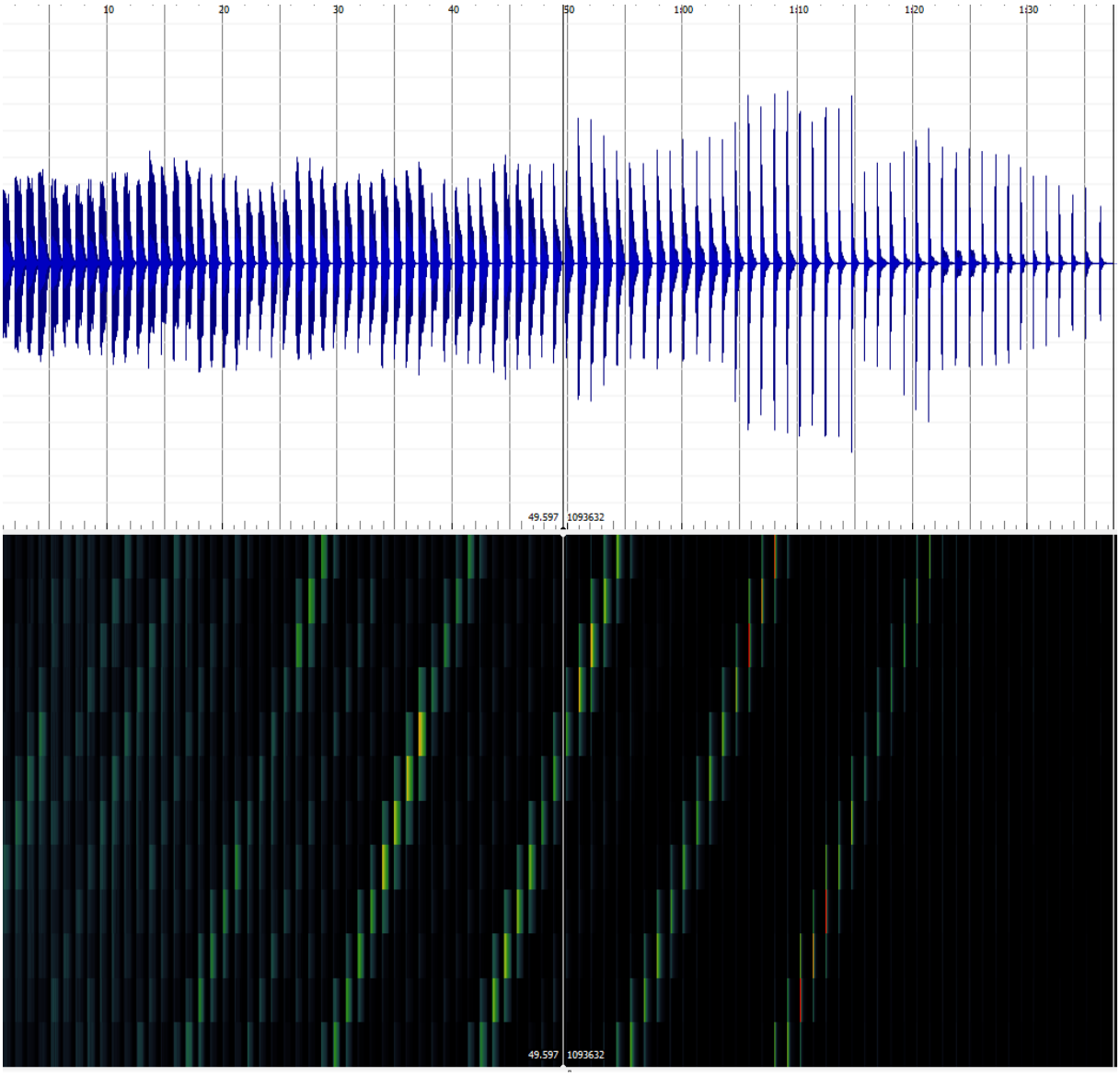
Task 1

Try to reproduce the graphs from class with sound file FMP_C3_F03.mp3

Note: After the class, for a detailed explanation, you can/should go to the FMP corresponding notebook.

Chromagram



Task 2

Download "class9_sounds.zip" and analyse the 3 sounds with the signal analysis tools you consider better for the job.

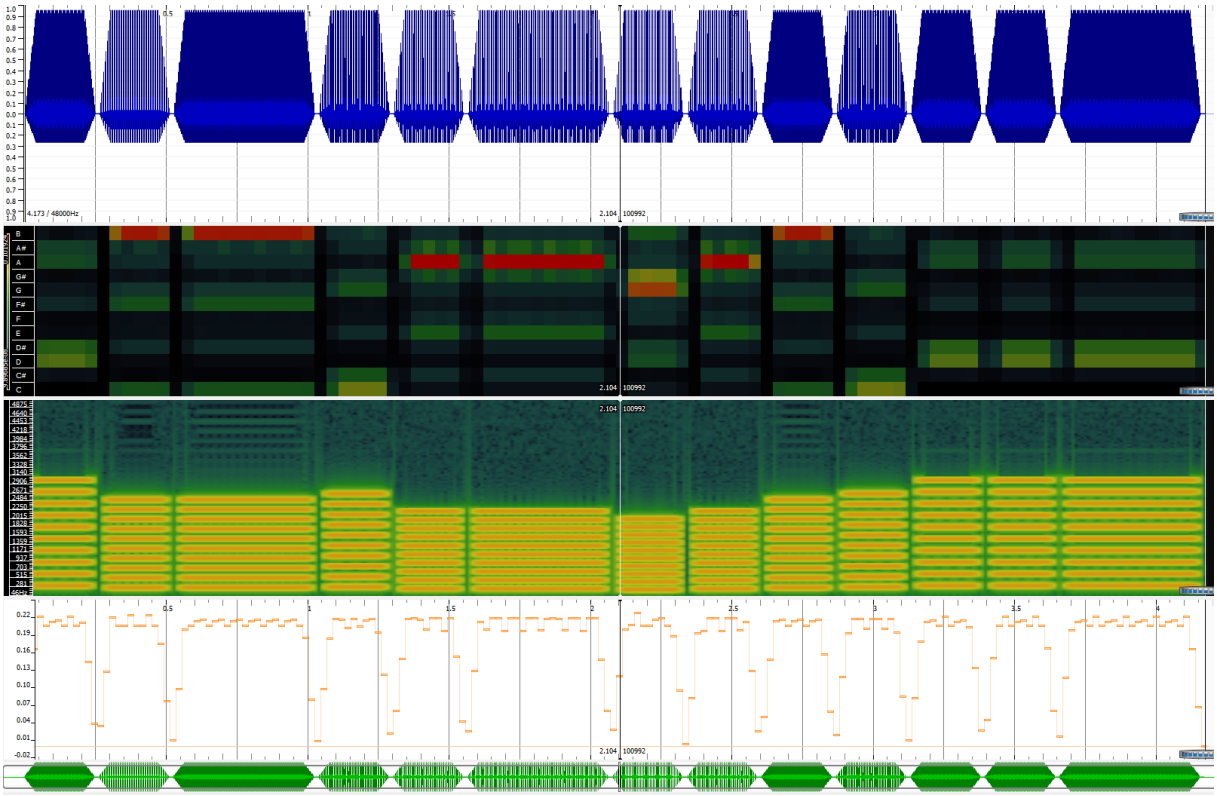
-In which ways are the 3 sounds similar and dissimilar? (ie, what are the similar characteristics, and what are the different characteristics) - (paragraph with figures if you find them helpful)
-Do you have any explanation for what is happening? (short paragraph)
-In what way is this related to today's class? (short paragraph)

Results

The three sounds have the same chromagram (same notes are being played), they have same pitch, but they have different spectrum because they contain different frequencies.

Also, they have different loudness as we can notice from RMS analysis (the tone0 has higher values).

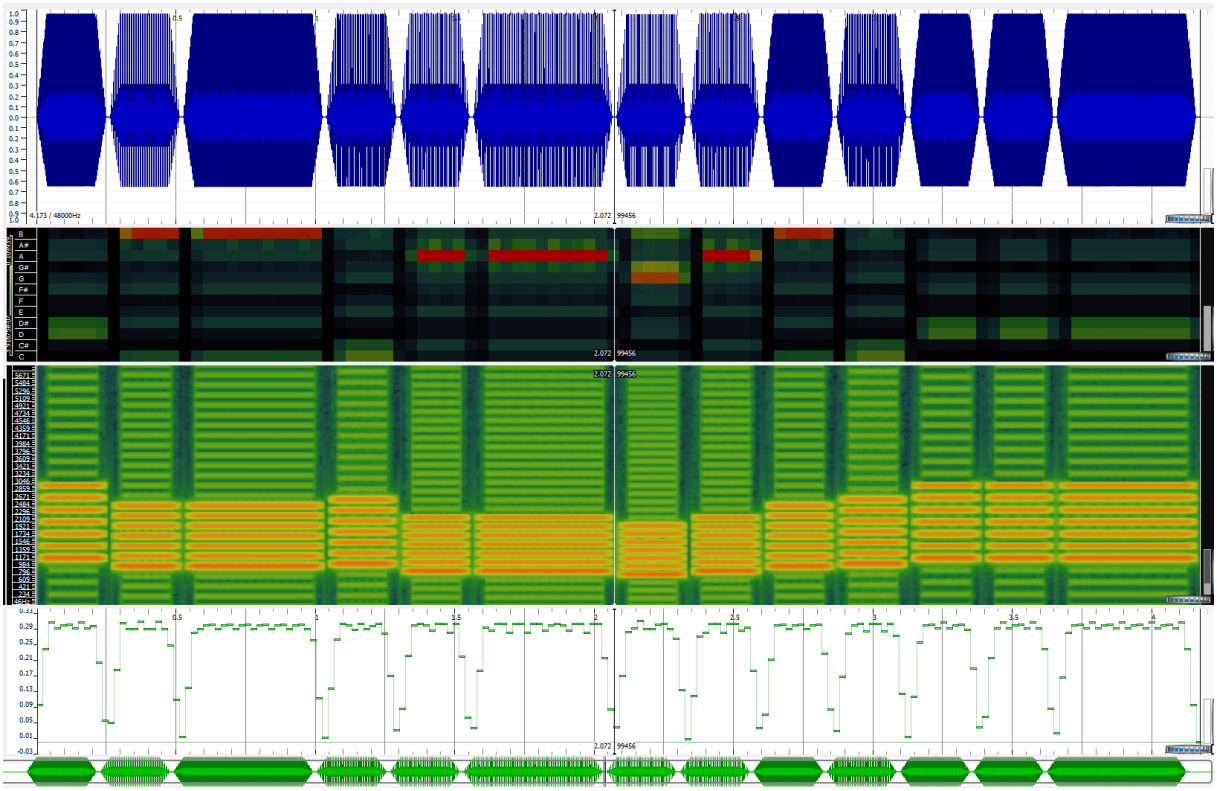
Tone1



10 harmonics

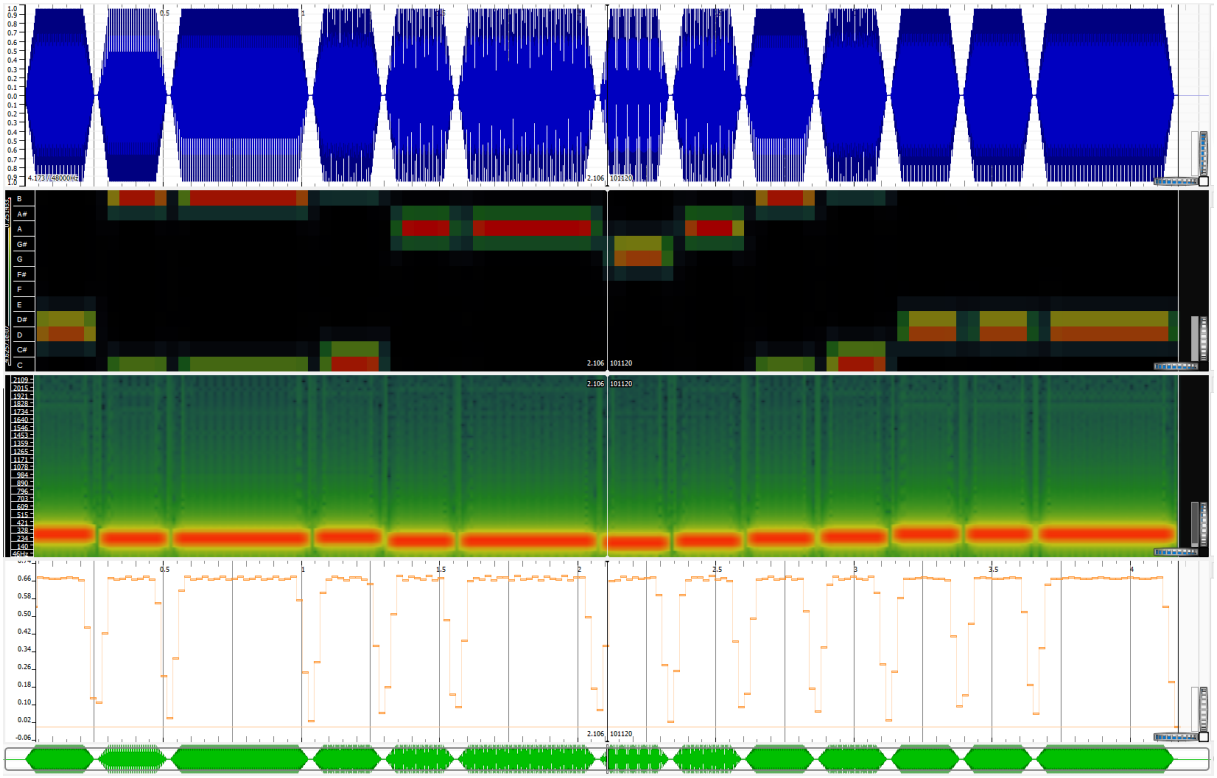
Tone2

7 harmonics (one is more frequent)



Tone0

Pure sound



In what way is this related to today's class? (short paragraph)

Even if the sound sounds different, the pitch is the same (if we sing it, the height of the notes is the same) but frequencies spectrum varies.