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1.

- What is the length of the audio signal: t in seconds?

3.60333333333335 sec

- What is the fundamental frequency of the audio signal: F0 in Hz? $1877\ \mathrm{Hz}$

- What are the second and third partials of the audio signal?

The second partial of the audio signal: 7012Hz
The third partial of the audio signal: 1033Hz

4.

- Do you think your synthesized signal resembles the original musical instrument?

Not similar as we want. Because the number of partials in the synthesized signal is different from number of partials in the synthesized signal.

- What would you do to make the synthesized signal more similar to the original? In my view, there are three factors which could enhance this feature:
- ♦ Amplitude of the synthesized signal should as the same as the amplitude of original signal.
- ♦ And the frequency of the synthesized signal could include the same number of partials as those in the original signal.
- ♦ Add some noises to the synthesized signal.