

# SYNTH CHALLENGE 2019

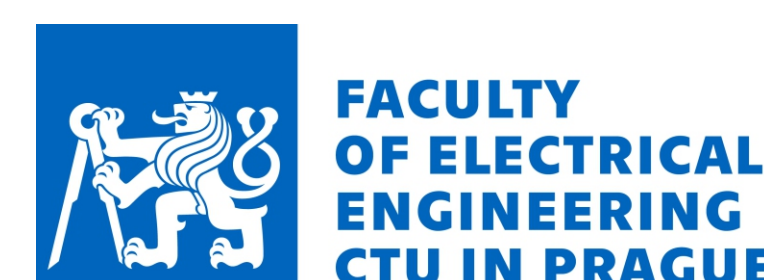


ČESKÁ AKUSTICKÁ SPOLEČNOST  
CZECH ACOUSTICAL SOCIETY

The Faculty of Electrical Engineering Czech Technical University in Prague, Czech Acoustical Society, and HUMUSOFT company announce student competition:

## Synthesis of sounds and musical instruments in the MATLAB environment

designated for highschool as well as undergraduate and graduate students.



Signal analysis, modelling, and interpretation group



Please, follow the assignment on the web page. We ask for used \*.m and \*.mid, recordings \*.m4a and a report in \*.pdf.

Are you into the topic and want to learn more about synthesis? Send us a message and we will recommend you a subject to study.

Show the world what an artist or programmer you are!

effects, non-music sounds, or other audio effects are also appreciated.

Committee of experts will evaluate the quality of your audio production and code.

**Deadline**  
**31.12.2019**  
**24:00**

<http://sami.fel.cvut.cz/synthchallenge2019eng>

The official web page provides detailed assignment and contacts. Please, contact us if you have any questions.



All algorithms must be programmed in the MATLAB environment. The provided "MIDI toolbox" allows you to load the MIDI files into the MATLAB. The toolbox contains also examples of a single-track and polyphonic synthesis. You can implemented your own synthesis in the function synth.m. There are no limitations in your production. Musicians can show-off their own compositions. Reverberation, stereo



You can use your own or any publicly available **MIDI** files.

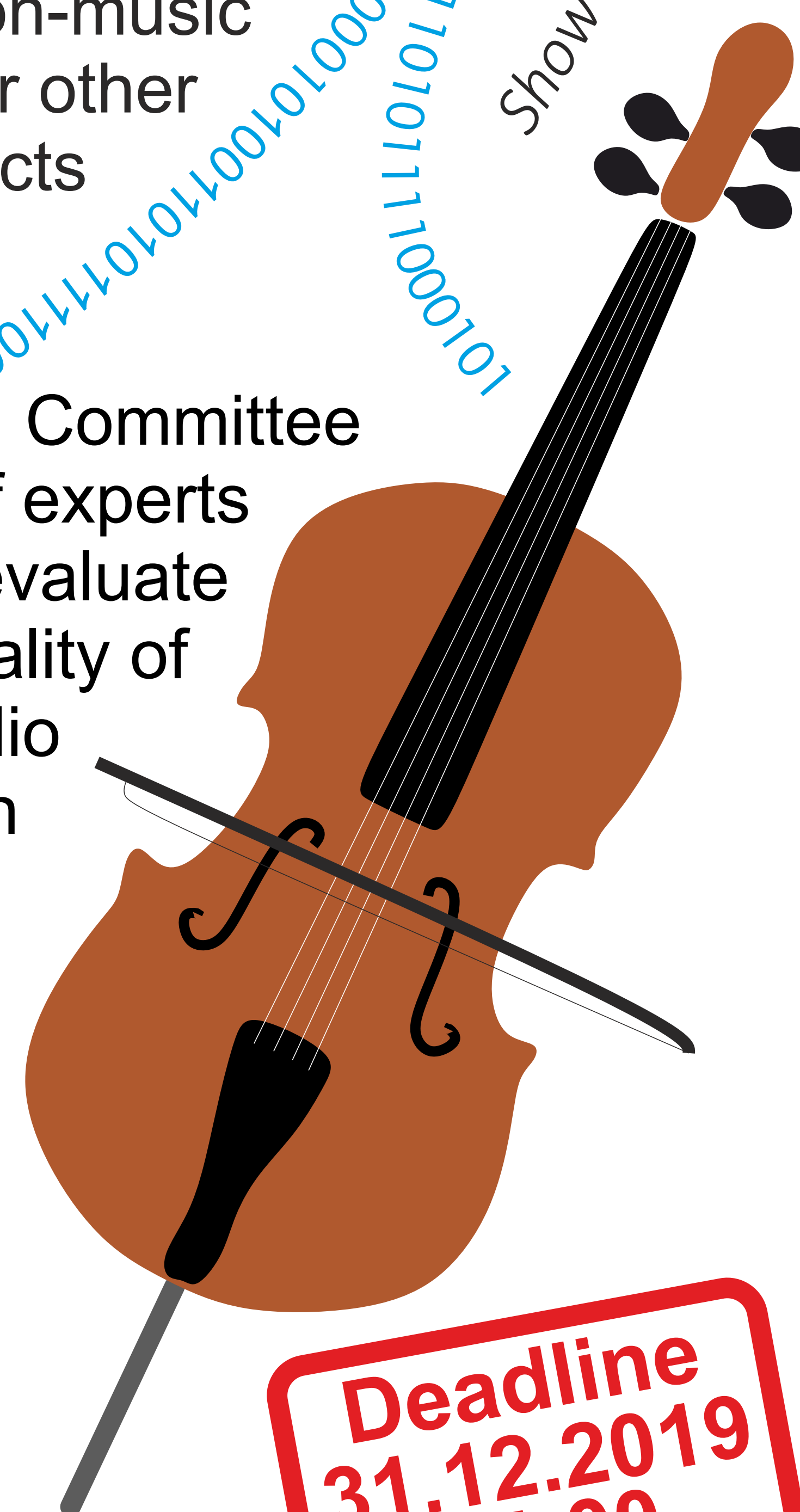
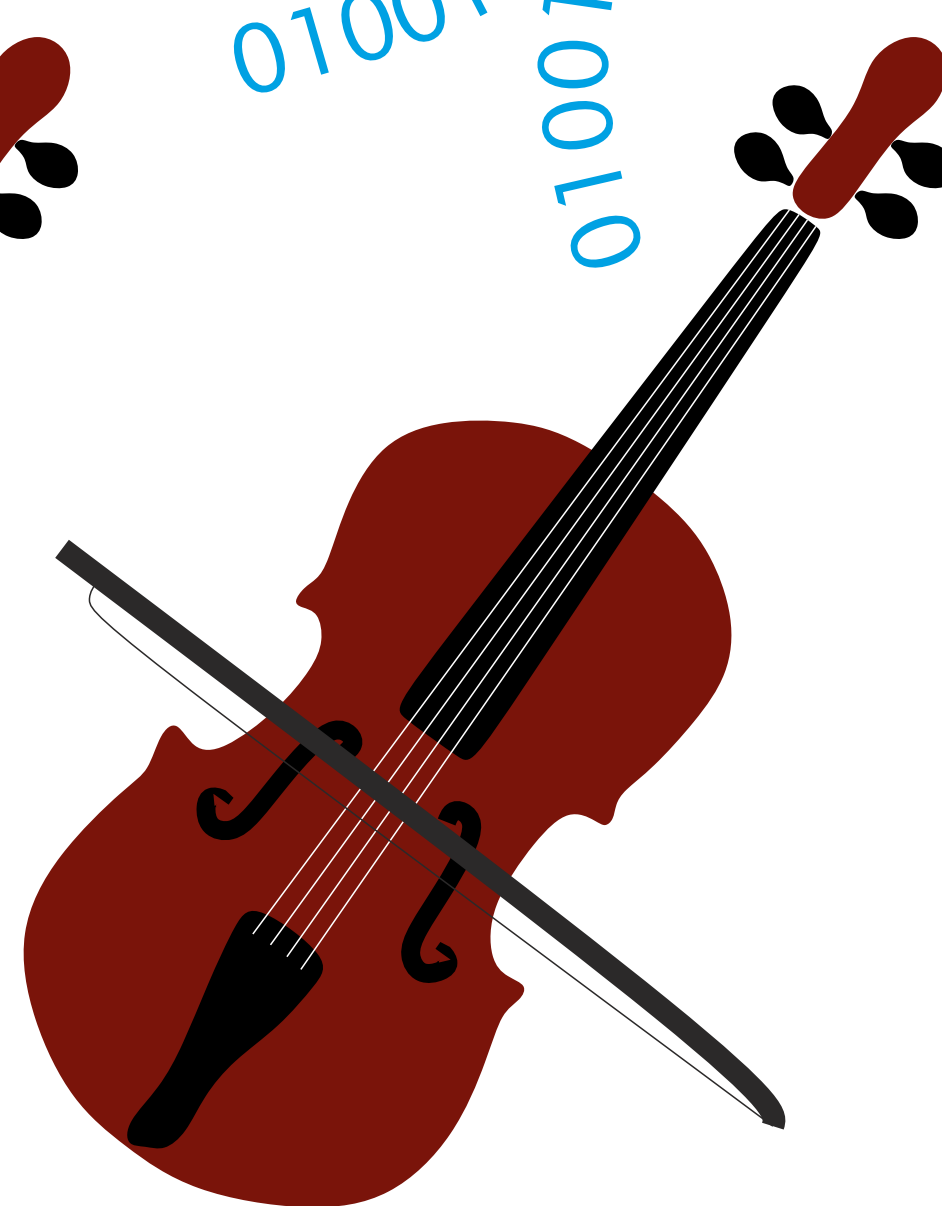
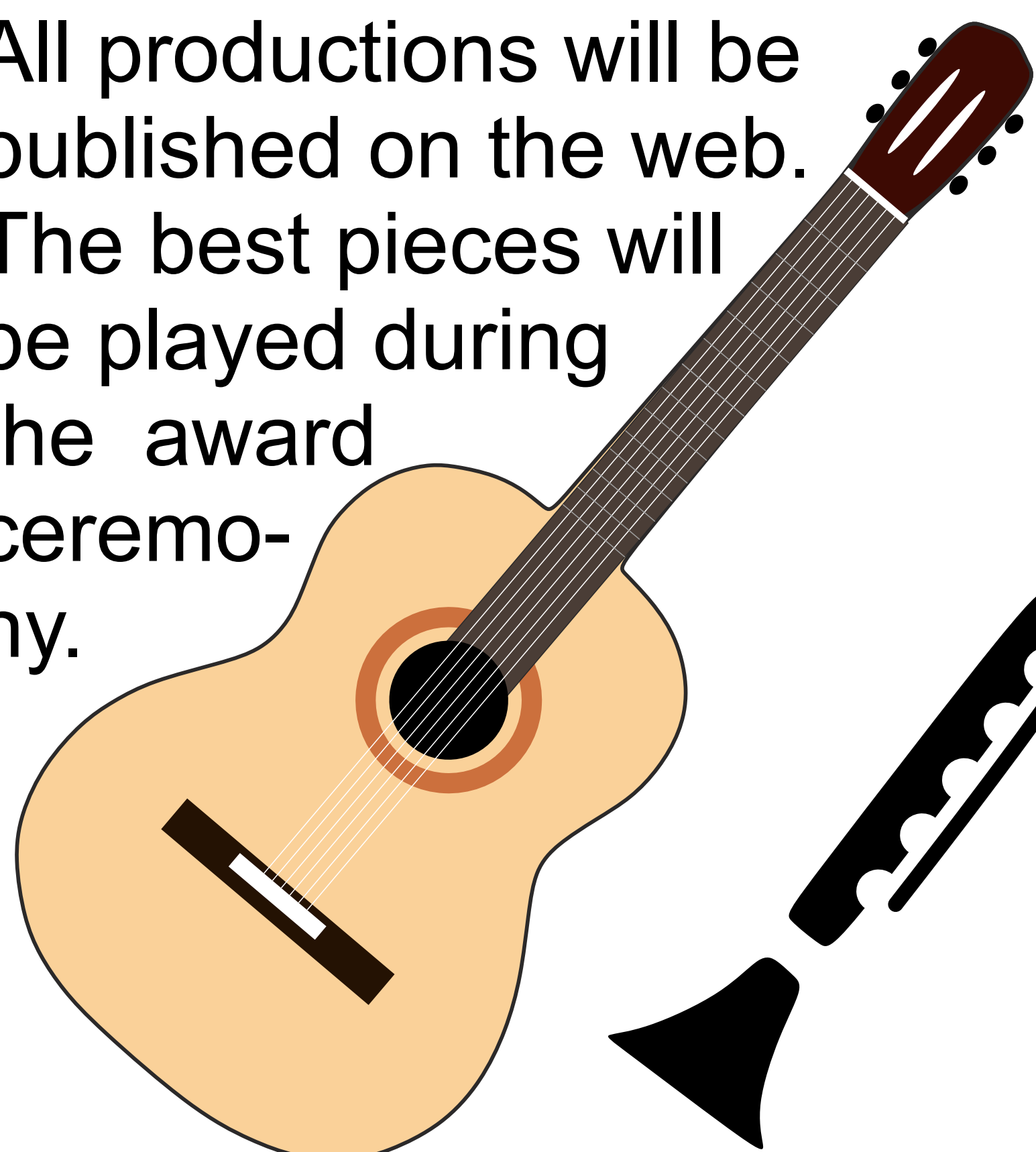
### Tasks

- One of the pieces
  - "Three Wishes for Cinderella" (Karel Svoboda)
  - "Waterloo" (Benny Andersson & Björn Ulvaeus)
- Major scale
- Arbitrary synthesis

Detailed assignment can be found on the web page.

[synthchallenge@fel.cvut.cz](mailto:synthchallenge@fel.cvut.cz)

All productions will be published on the web. The best pieces will be played during the award ceremony.



Selected participants will be awarded by valuable gift such as a keyboard, personal licence for the MATLAB, hard disk, studio-grade headphones, or flash disk.

*We are curious about your creations!*