

EECS 207
Spring 2021

Lecture 18

Homework

- HW 1 assigned on CatCourses.
- I have granted an extension to HW 1.
- It now due:
 - Sunday, April 4 by 11:59pm
 - Via CatCourses
 - As PDF
- Office hours to answer HW 1 questions:
 - Wednesday, March 31 from 11am-noon.
 - Zoom info sent as announcement (and should be available in CatCourses).
- You can also email me with (simple) questions.

Reading Assignments

- There are no reading assignments for our next topic, Content Based Image Retrieval.

Project

- Content Based Image Retrieval
- Individual effort—no teams.
- Project report due: Friday, May 14
- No presentation.
- Details to follow.

Questions?

Today

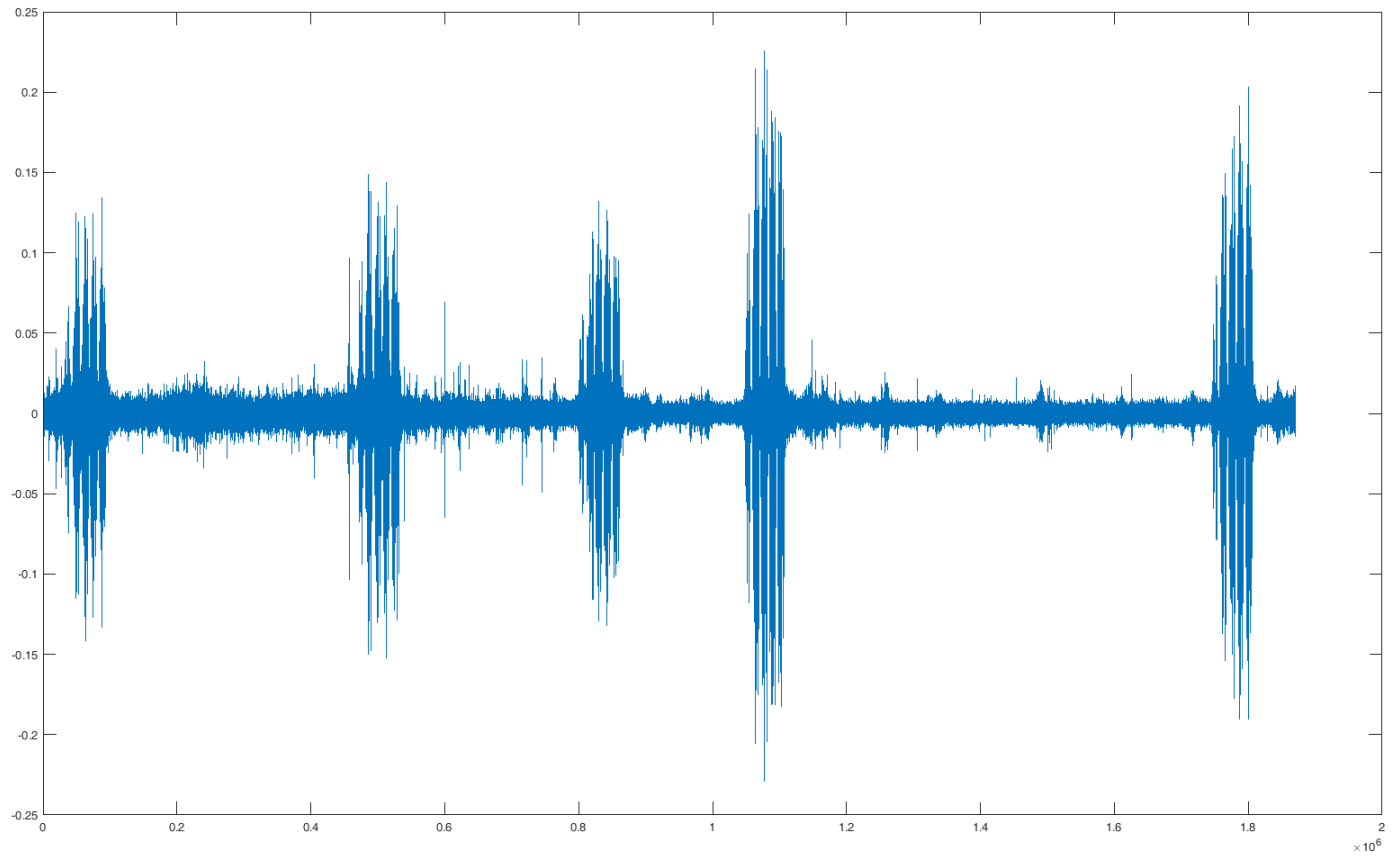
- Introduction to project dataset.
- Chap. 4: Filtering in the Frequency Domain
 - The fast Fourier transform (FFT).

Project

- Recognizing the calls of different bird species in audio recordings.

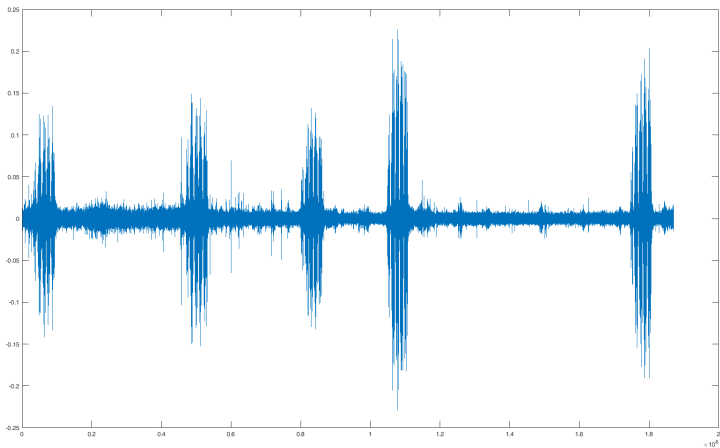


Wilson's Warbler (WIWA)



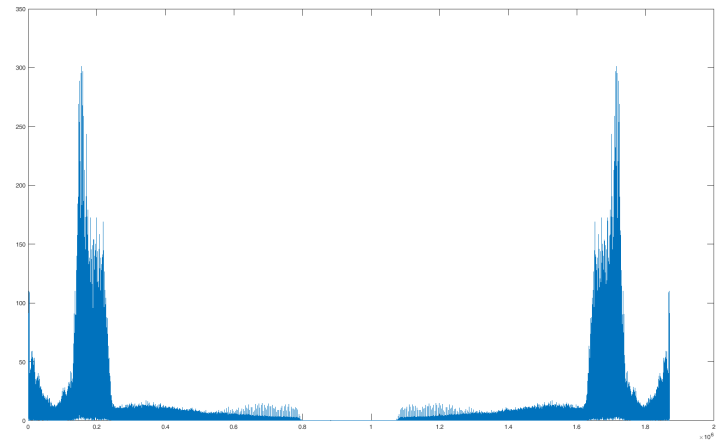
Time domain signal





Time domain signal

➔
DFT

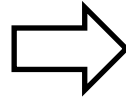
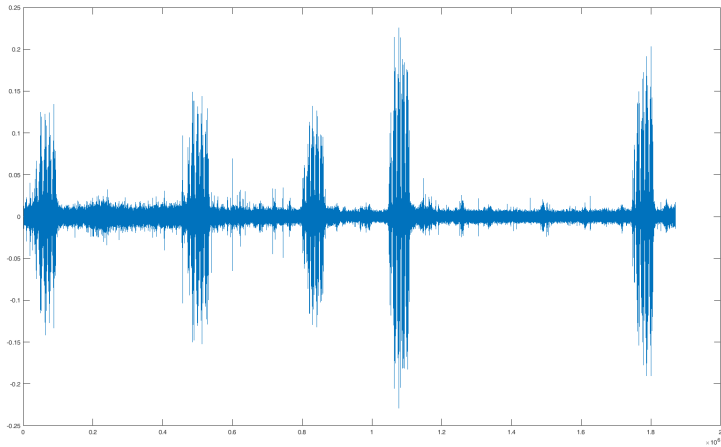


Frequency domain signal

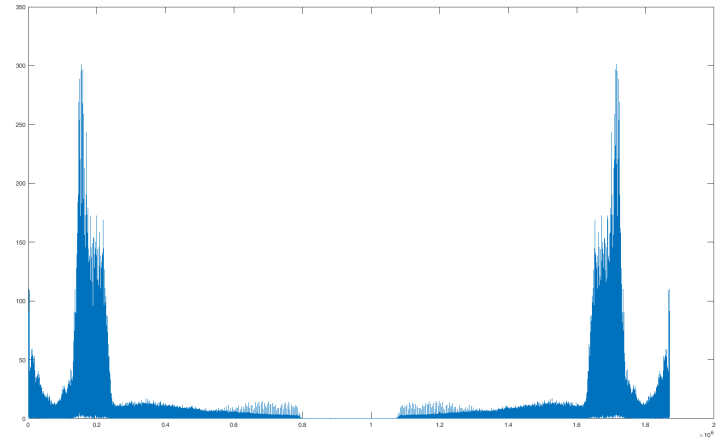


Spotted Towhee (SPTO)

WIWA



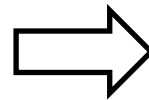
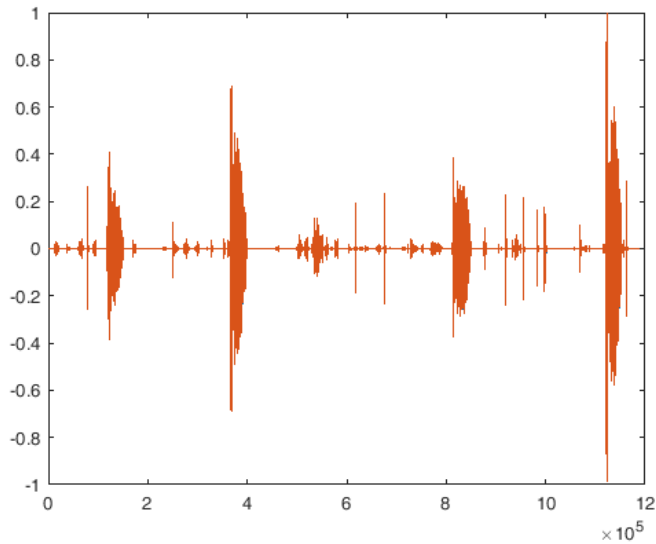
DFT



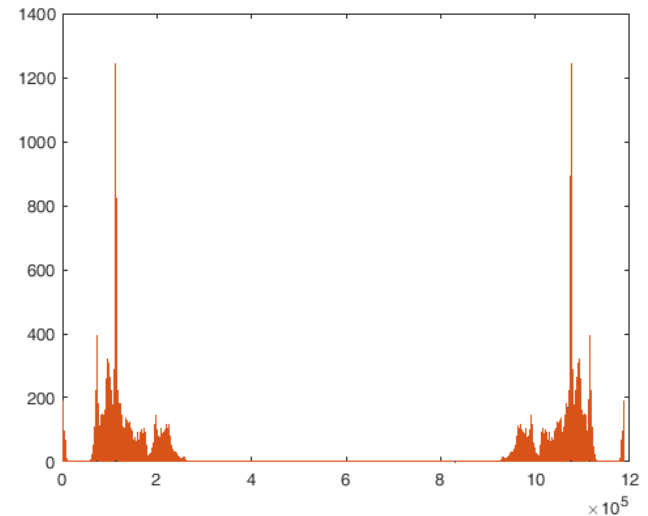
Time domain signal

Frequency domain signal

SPTO



DFT

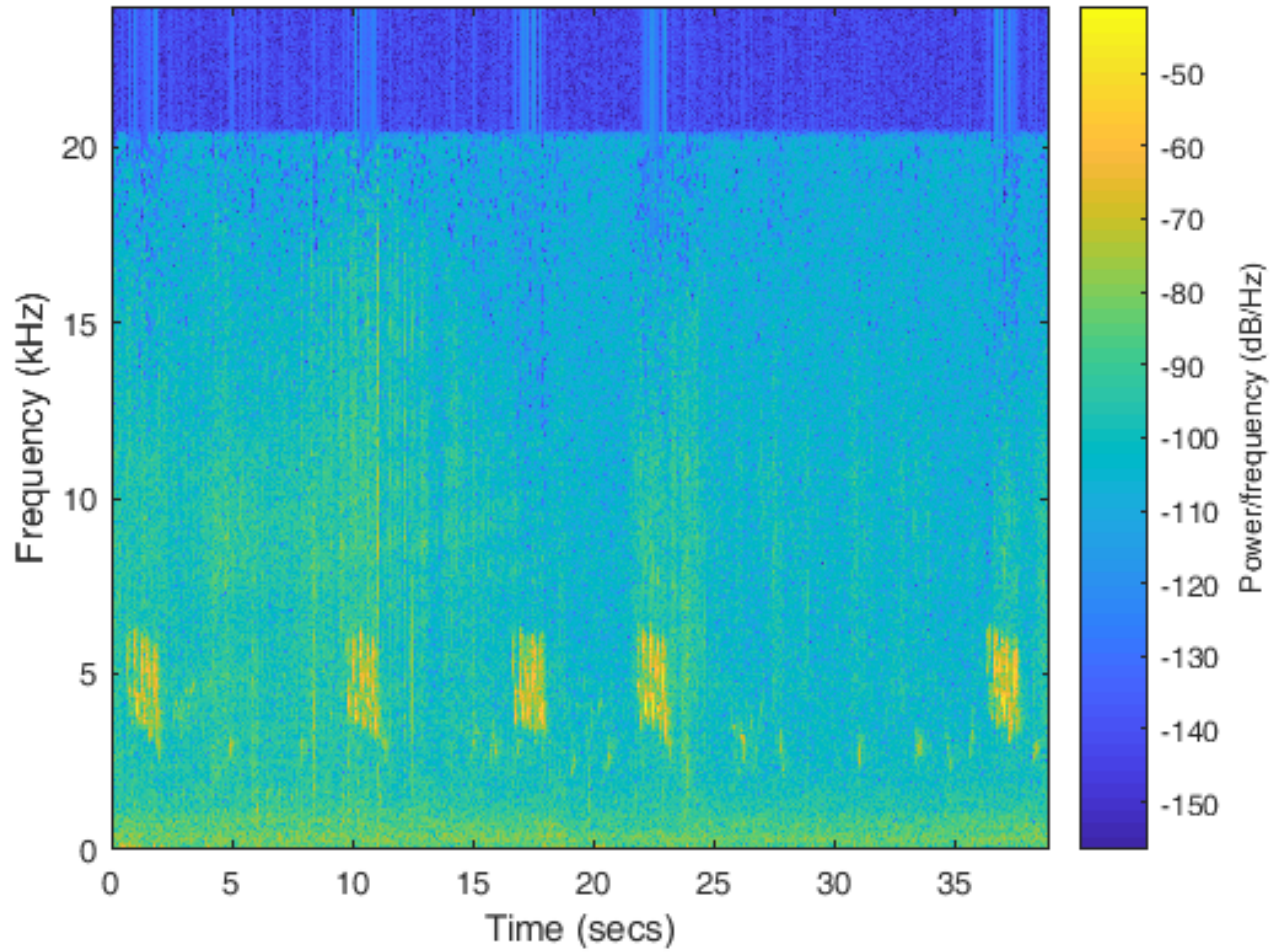


Time domain signal

Frequency domain signal

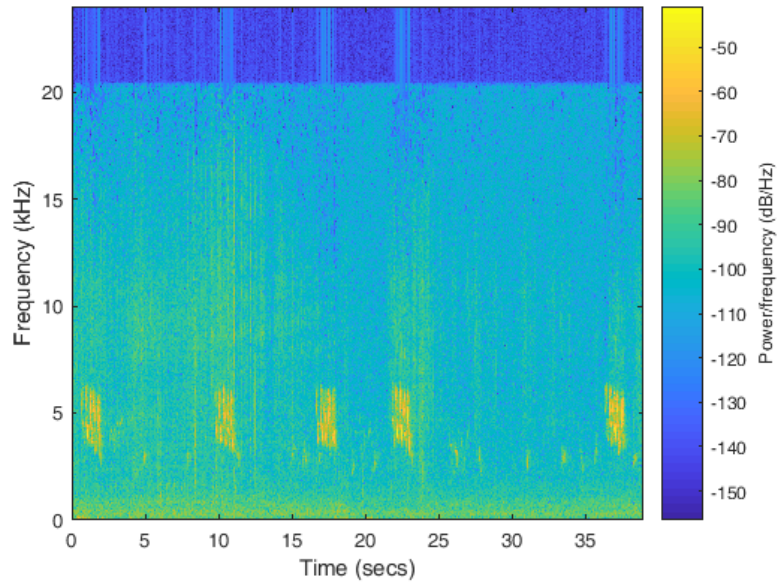


Spectrograms

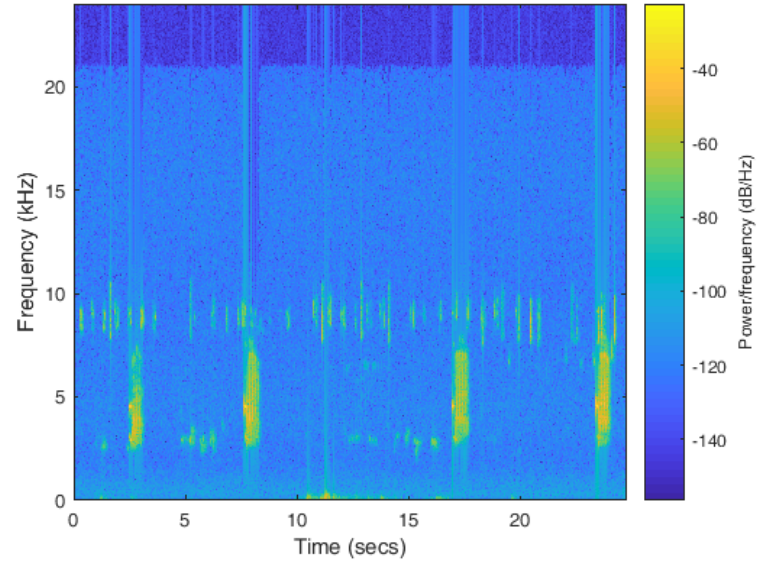
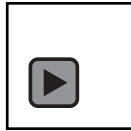


WIWA

Spectrograms



WIWA

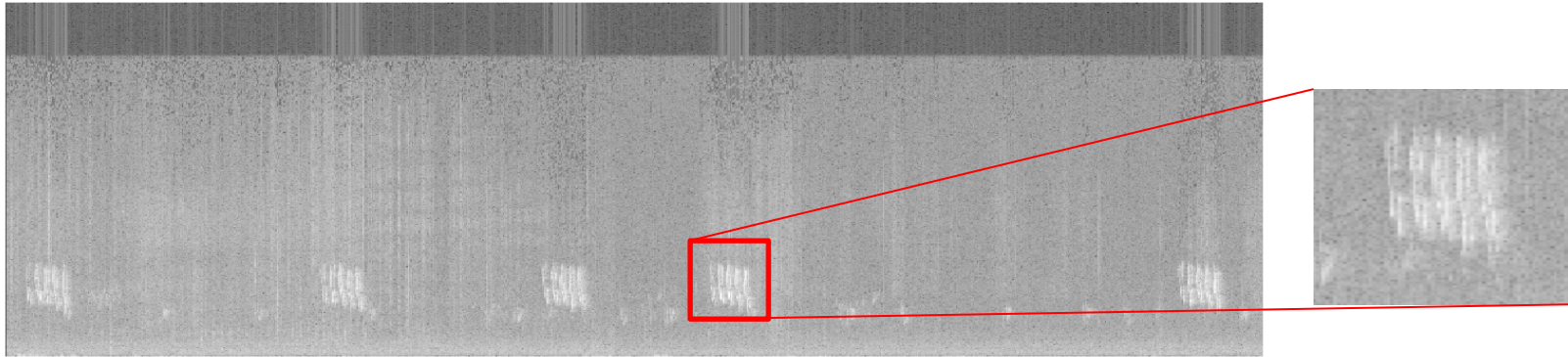


SPTO



Spectrograms

WIWA



SPTO

