1. Cohen class time frequency analysis

[Wr, A, H, t, f] = cohen_class(x, fs, "Cone", alpha);

Input:

X, input signal

Fs, sample rate

“Name”, the type of time frequency distribution, e.g. “CW”(Chole-William), “Riha”(Rihaczek), “Cone”, and “wigner”(All-pass filter).

Alpha, if the distribution requires parameter.

Output:

Wr, Cohen class analysis output

A, Ambiguity function

H, band-pass filter

T, time axis

F, frequency axis

The exact example can be examined in cohen_example.m and example pictures.

2. Fractional Fourier transform

Faf = FrFT(x, [], a);

Input:

X, input signal

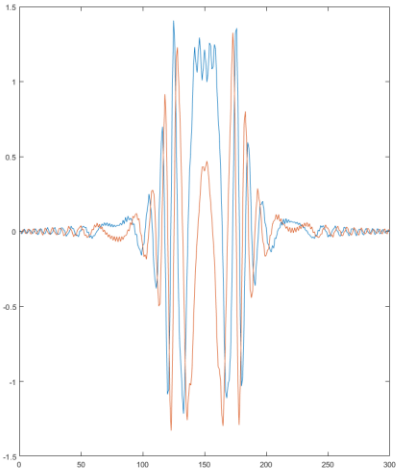
[], length of FFT

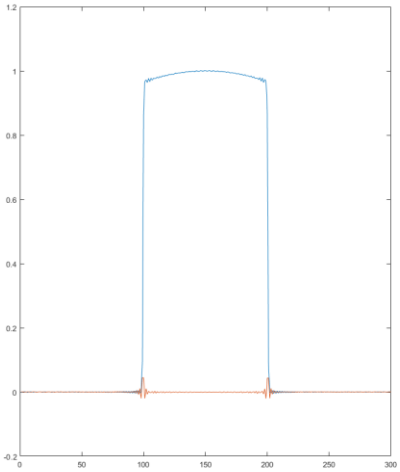
A, FrFT parameter

Output:

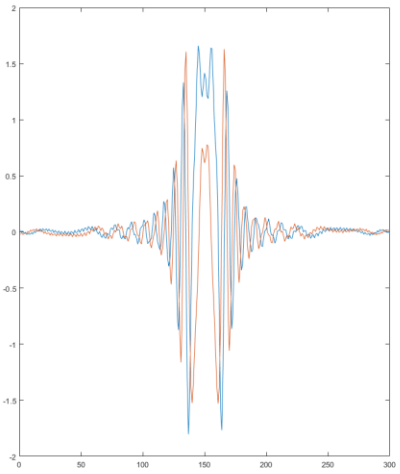
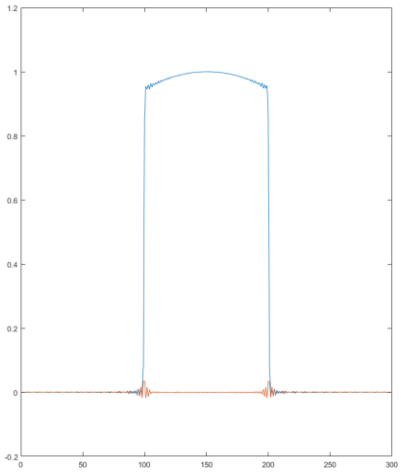
Faf, output signal

a = 0.5.

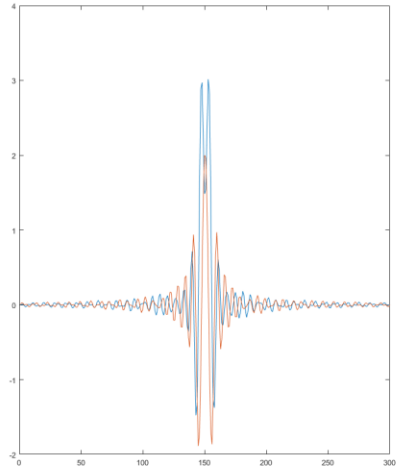
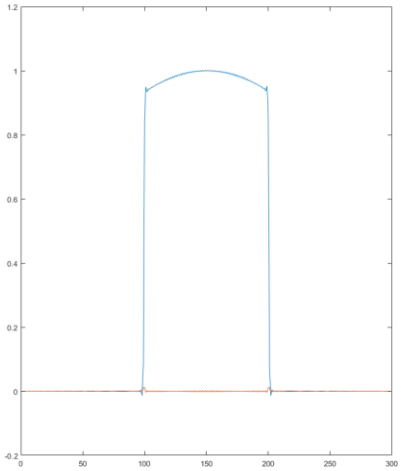
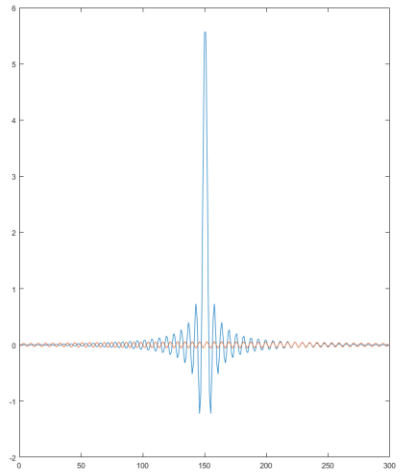
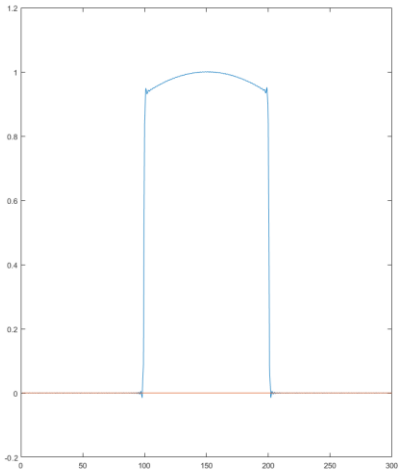




a = 0.7.

a = 0.9.




a = 1.