Ultrafast Optics, Homework 3

Due on June 10, 2022, electronic submission through TA's email

Problem 1:

- Given a scenario of multiple-mode(frequency) superposition as discussed in class, use any math software such as Matlab to simulate the temporal function. (note: mode(frequency) is in the optical frequency range, suggest to use optical spectrum in 800nm range and mode-spacing set to ~100MHz)
- Use above mentioned pulse description, assuming to use an opto-electronic detector (detection bandwidth cutoff set at 10GHz) to convert the optical signal to electronic signal, plot the spectrum in the radio-wave frequency range.