

Chapter 11.04

Discrete Fourier Transform

OBJECTIVES

1. transforming by discretizing the Fourier approximations in complex numbers, exponential formats into matrix formats to facilitate the computer implementation for finding the unknown Fourier ([complex numbers](#)) coefficients.
2. helping students to understand the number of operations involved in the Discrete Fourier Transform (DFT) formulation
3. helping students to understand aliasing phenomenon
4. preparing students to understand Fast Fourier Transform in the subsequent chapters ([chapters 11.05](#), and [11.06](#))