

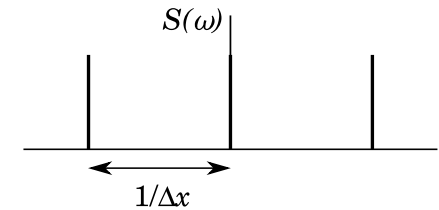
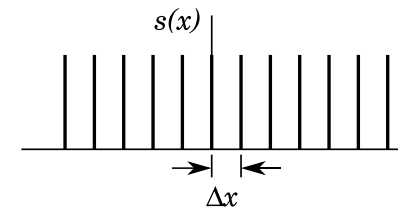
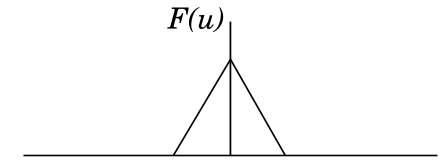
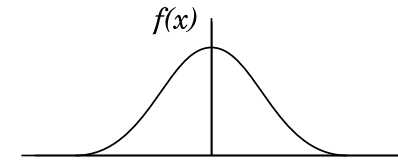
Sampling

Space domain

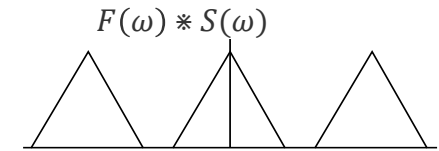
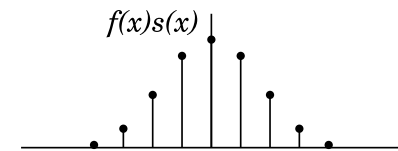


Fourier domain

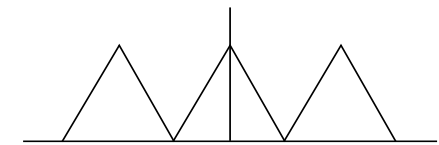
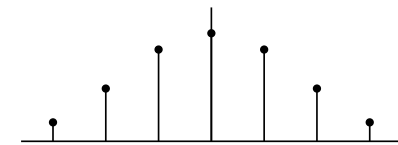
- Continuous function
 - Band-limited Fourier transform
- Sampled at discrete points
 - Multiplication with Comb function in space domain
 - Corresponds to convolution in Fourier domain
 - Multiple copies of the original spectrum
- Frequency bands overlap?
 - No: good
 - Yes: bad, aliasing



slight
oversampling



right at
Nyquist



undersampling

