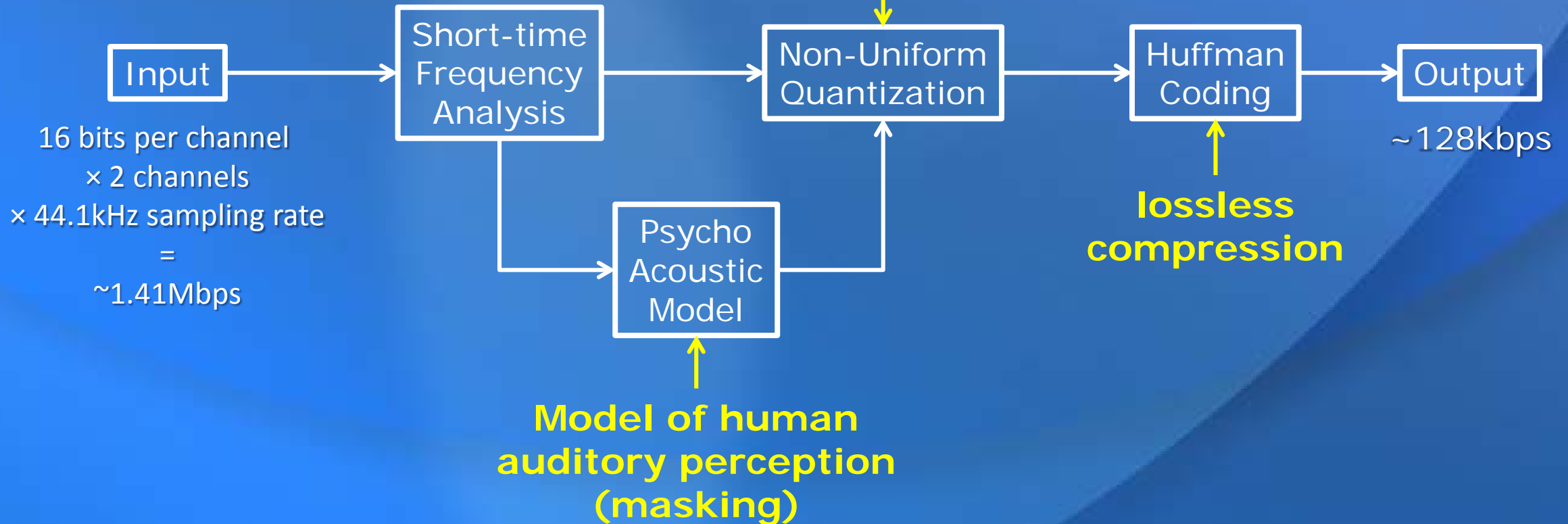


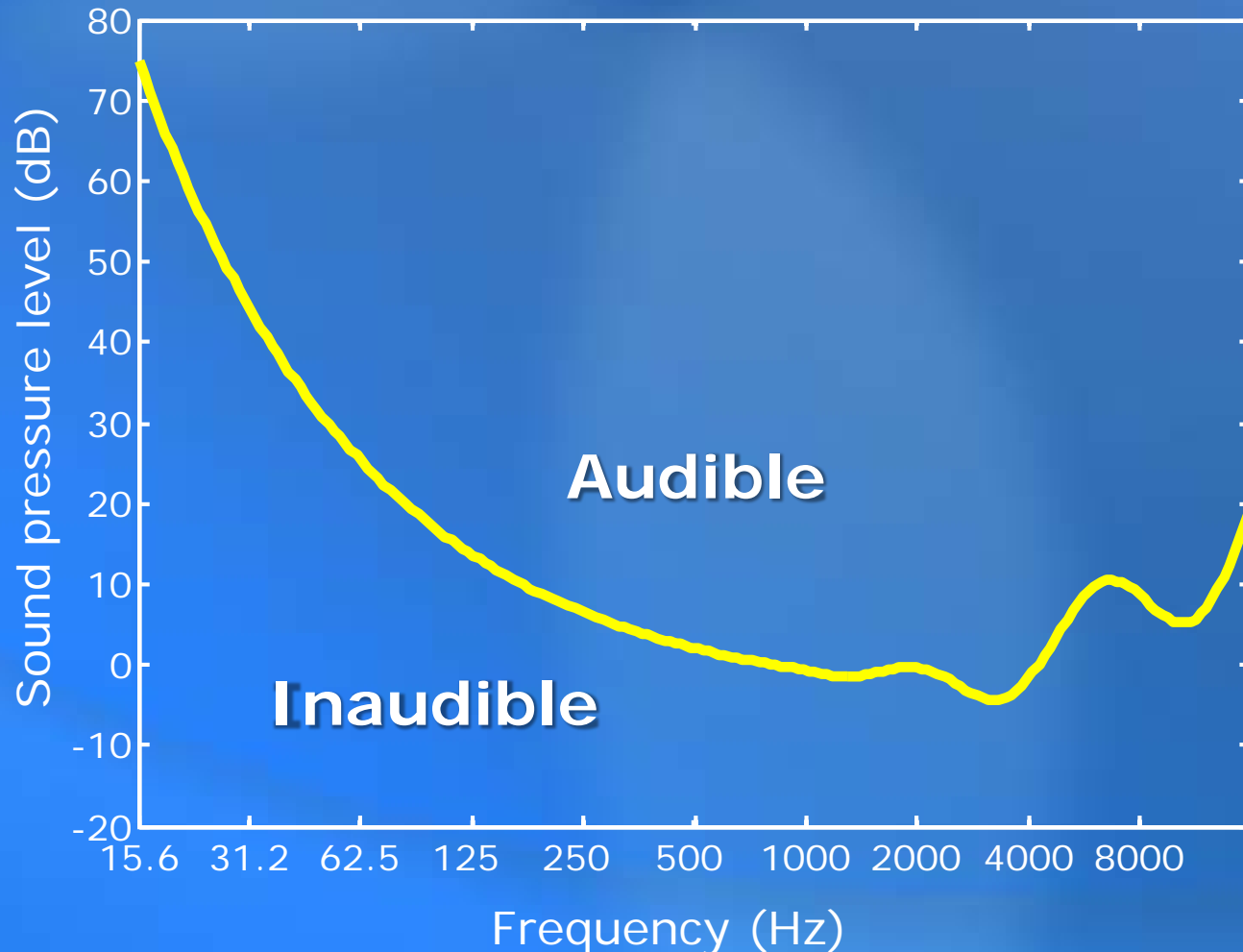
Masking

Key Steps in MP3 coding

loss of information
happens here



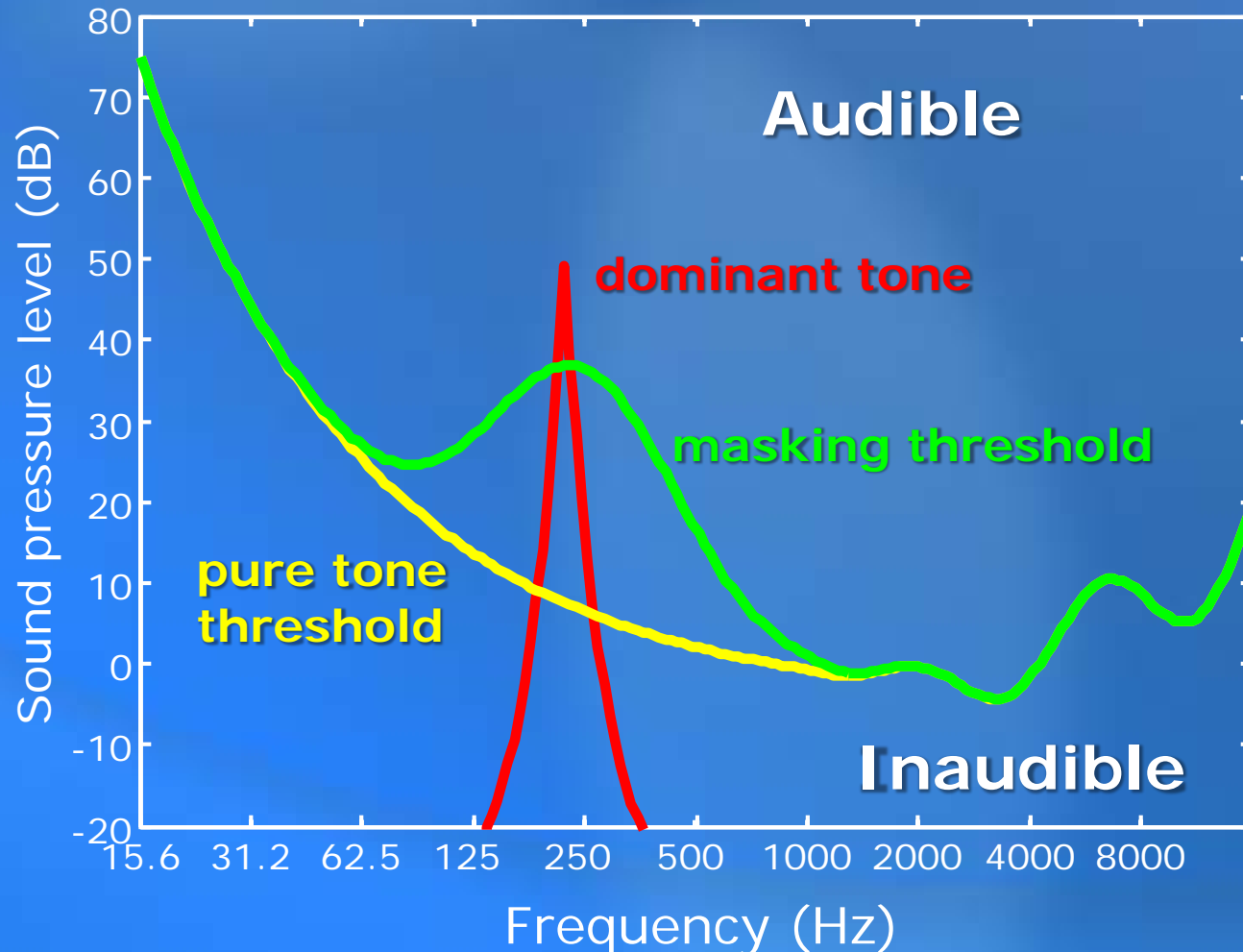
Auditory Threshold



The auditory threshold is the minimum sound level at which a pure tone can be heard.

Signals below the auditory threshold can be discarded without perceptible changes in sound.

Masking

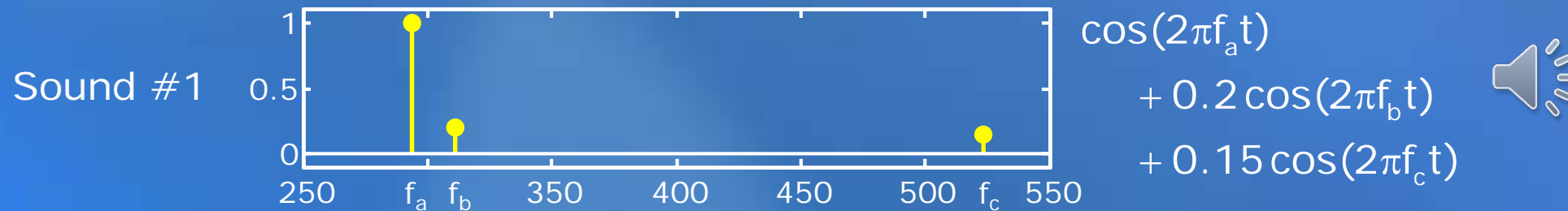


Masking: If a dominant tone is present, then sounds at frequencies near it will be harder to hear.

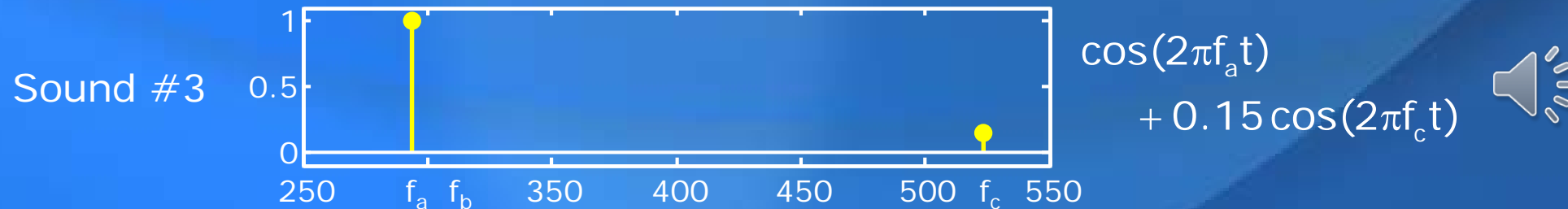
Less precision is required to store information about nearby frequencies.

Example of Masking

Consider a sound with amplitude spectrum

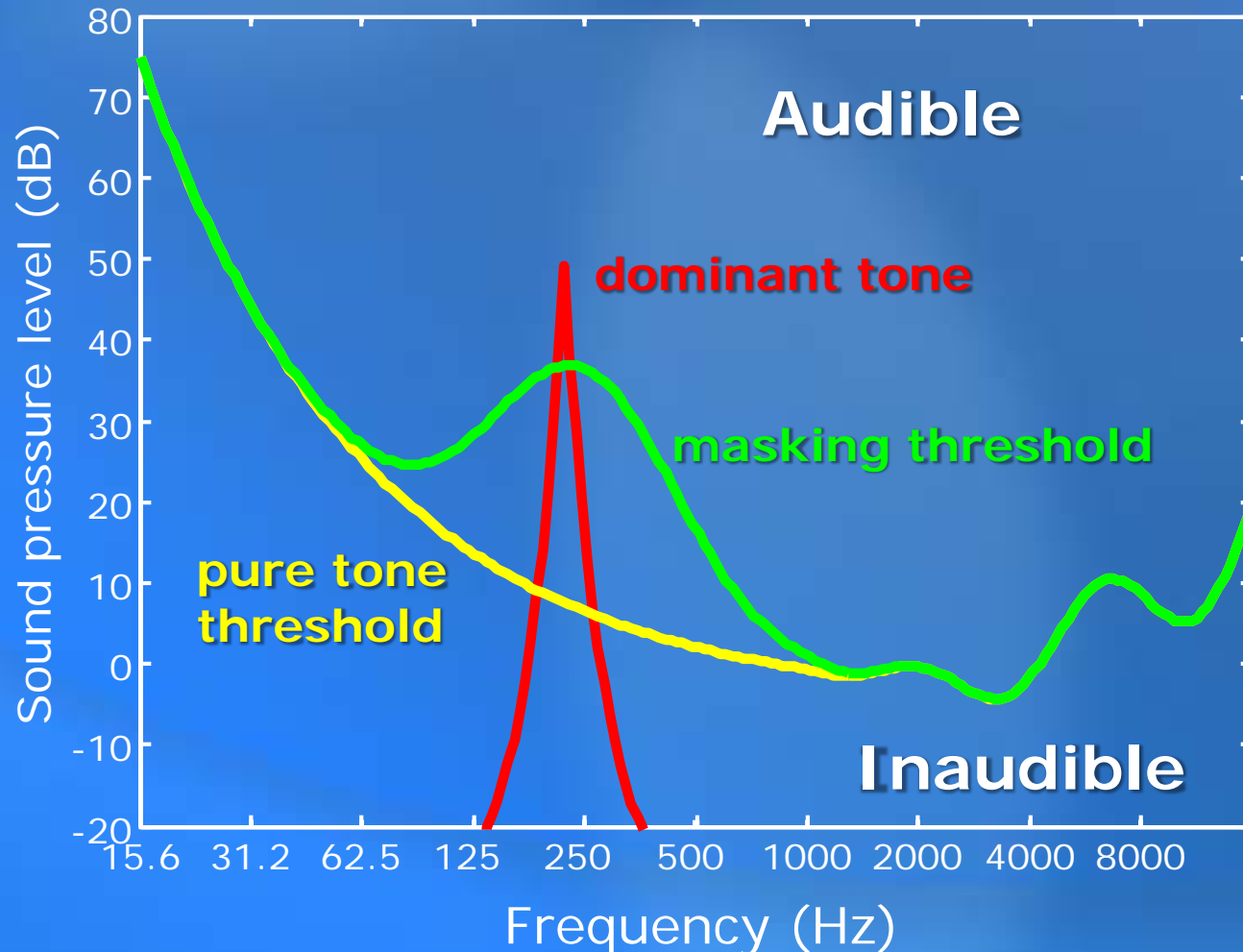


Which of the two sounds below sounds more similar?



$f_a = 293.6\text{Hz}$
 $f_b = 311.1\text{Hz}$
 $f_c = 523.3\text{Hz}$

Masking



Masking: If a dominant tone is present, then sounds at frequencies near it will be harder to hear.

Less precision is required to store information about nearby frequencies.