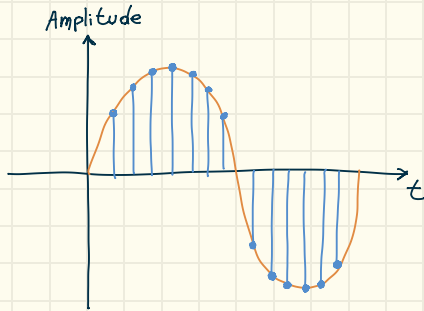


# PCM - PULSE CODE MODULATION

Analog  $\rightarrow$  Digital

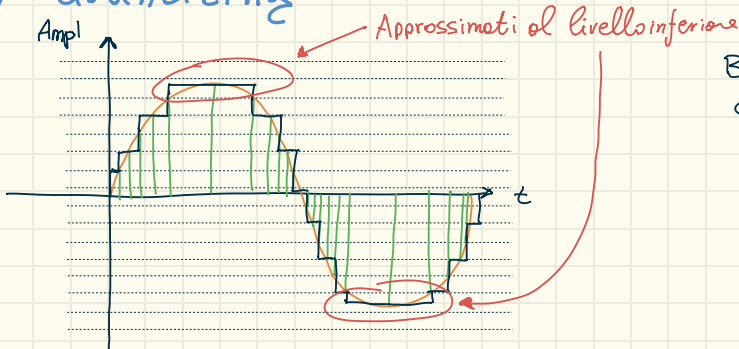
Sampling  $\rightarrow$  Quantizing  $\rightarrow$  Encoding  
(1) (2) (3)

## 1) SAMPLING



Telefono	8 kHz	$8 \times 10^3 / s$
VoIP	16 kHz	$16 \times 10^3 / s$
Audio-mp3	44 kHz	$44 \times 10^3 / s$
Blue Ray	1 MHz	$1 \times 10^6 / s$

## 2) Quantizing



Bit depth: Il numero di bit per ogni campione. comuni AD: 8 / 16 / 24 bit

8 bit  $\rightarrow 2^8 = 256$  livelli

24 bit  $\rightarrow 2^{24} = 16.777.216$  livelli 16 milioni

Più Varietà di Valori

## 3) CODIFICA

Convertiamo i livelli ottenuti in word di bit 01...00101