

Boja i zvuk u video kompresiji

Kompresija - sažimanje signala

Perceptualno kodiranje

Redukiranje suvišnih (redundantnih) i nevažnih podataka

Kompresija bez gubitka (lossless)

Kompresija s gubitcima

Redukcija podataka za boju

RGB \rightarrow luminantna i krominantna komponenta

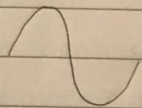
YCbCr (YUV)

$$Y = (0,3 \cdot R) + (0,59 \cdot G) + (0,11 \cdot B)$$

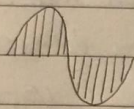
$$Cb = 0,56 \cdot (B - Y)$$

$$Cr = 0,71 \cdot (R - Y)$$

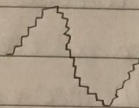
Sampling rate - brzina uzorkovanja



continuous
analog signal



sampling
proces



discrete
digital signal

Sampling depth - preciznost uzorka

$$\text{Bit rate} = \text{Sample rate} \times \text{Sample depth}$$

$$= \text{vzorak/sek} \times \text{bit/vzorak} = \text{bit/sek}$$

Kompresija podataka \Rightarrow redundantni i irelevantni podaci

Najčešći korišteni sampling rate:

8 kHz - telefonija

44,1 / 48 kHz - TV/CD

96 / 192 kHz - blu-ray

> 300 kHz

Nyquist - Shannonov teorem