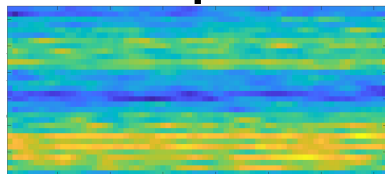Variable-rate Quantizer

Feature Vector (Continuous)

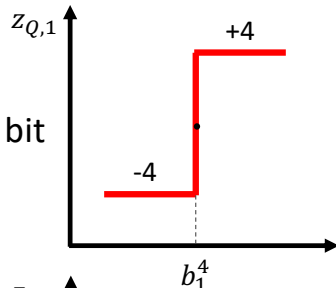Channel Encoder
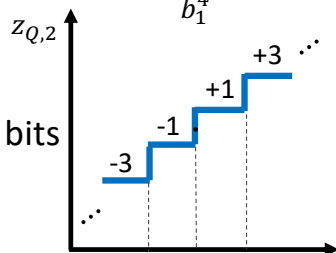
Estimated Channel
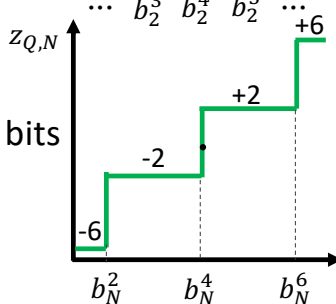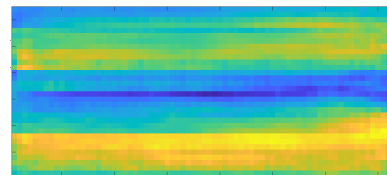
Feature #1: 1 bit

$z_{Q,1}$ +4 −4 b_1^4

Feature #2: 3 bits

$z_{Q,2}$ −3 −1 +1 +3 b_2^3 b_2^4 b_2^5

Feature #N: 2 bits

$z_{Q,N}$ −6 −2 +2 +6 b_N^2 b_N^4 b_N^6

Reconstructed Channel

Channel Decoder

Feature Vector (Discrete)