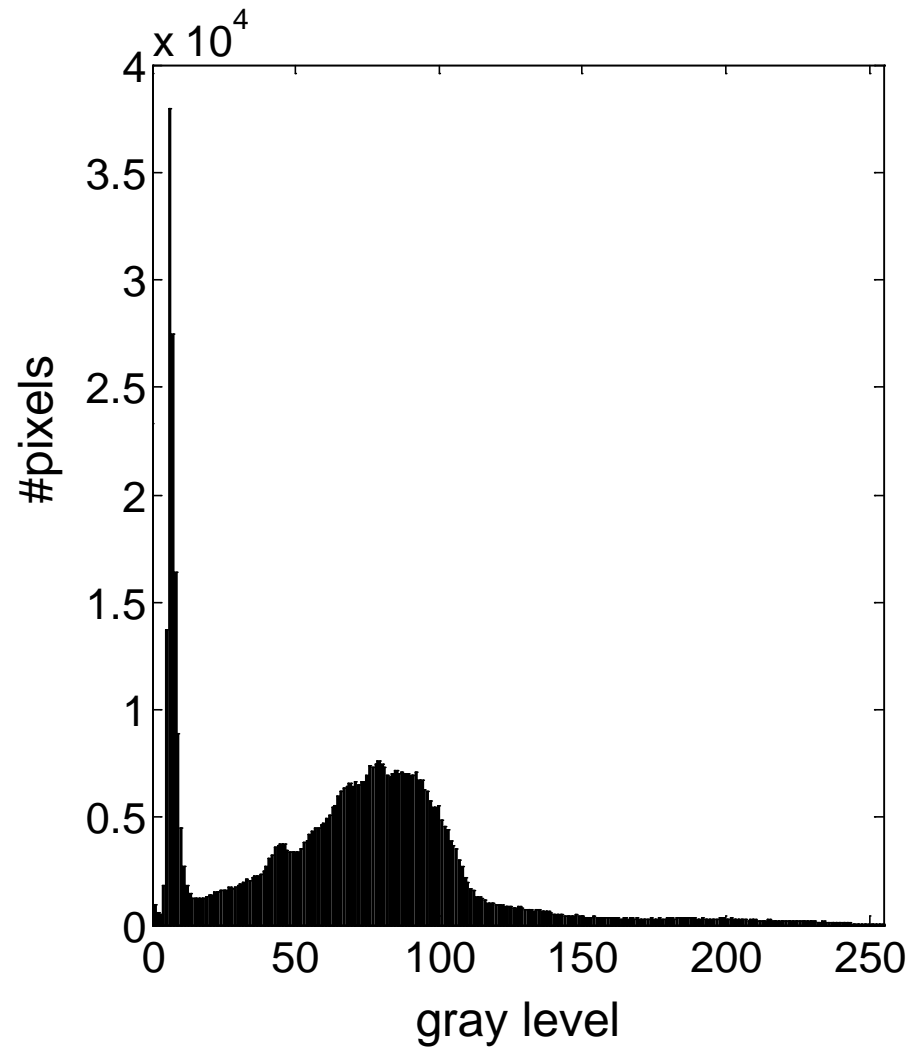


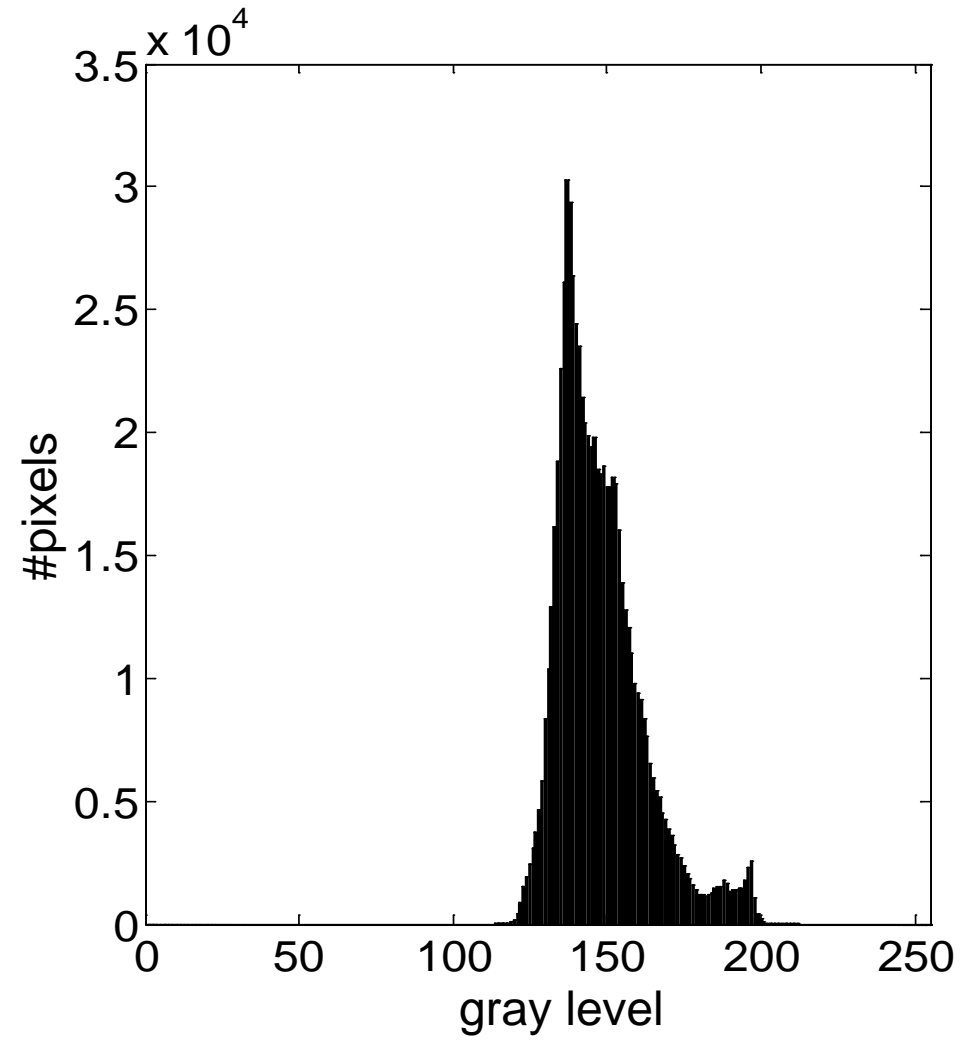
# Gray level histograms



*Brain image*



# Gray level histograms



*Bay image*



# Gray level histogram in viewfinder



# Gray level histograms

- To measure a histogram:
  - For B-bit image, initialize  $2^B$  counters with 0
  - Loop over all pixels  $x,y$
  - When encountering gray level  $f[x,y]=i$ , increment counter  $\#i$
- Normalized histogram can be thought of as an estimate of the probability distribution of the continuous signal amplitude
- Use fewer, larger bins to trade off amplitude resolution against sample size.