

Classification

$$y \in \{-1, +1\}$$

Latent process: $f(x)$

Class probabilities:
$$p(y|f) = \frac{1}{1 + \exp(-yf)}$$

Training:

- Approximate latent process from data

$$p^*(f(x)) = p(f(x) \mid y_1(x_1), \dots, y_n(x_n))$$

- Compute predictions

$$\pi(x) = \int p(y(x) \mid f(x)) \cdot p^*(f(x)) df(x)$$

