Week 7

November 13, 2017

Exercise 28.1 in MacKay Chapter 28.

Random variables x come independently from a probability distribution $P(x)$. According to model H_0, $P(x)$ is a uniform distribution

$$P(x \mid H_0) = \frac{1}{2}, x(1,1).$$

According to model H_1, $P(x)$ is a nonuniform distribution with an unknown parameter $m(1,1)$:

$$P(x \mid m, H_1) = \frac{1}{2}(1 + mx), x(1,1).$$

Given the data $D = 0.3, 0.5, 0.7, 0.8, 0.9$, what is the evidence for H_0 and H_1?