

Problem Psychometric Function

An observer responds according to a psychometric function shaped like a cumulative Gaussian probability function in a signal detection task. The table lists the number of yes-responses out of 50 trials for five stimulus levels given in arbitrary units.

Stimulus level	0.4	0.9	1.2	1.7	2.3
Number of yes Responses	1	6	13	32	49

Fit the psychometric function to the data using a squared error function.

- What are the estimates of the parameters of the psychometric function?
- In a follow-up experiment we use only intensity levels 1 and 2. The task of the observer is to say whether the intensity level is 'high' or 'low'. What value do we expect for the sensitivity (d')?