

- ▶ Densities estimated using Parzen windows can be used with the Bayesian decision rule for classification.
- ▶ The training error can be made arbitrarily low by making the window width sufficiently small.
- ▶ However, the goal is to classify novel patterns so the window width cannot be made too small.

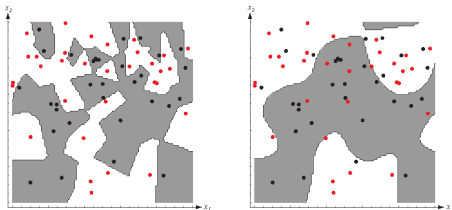


Figure 8: Decision boundaries in 2-D. The left figure uses a small window width and the right figure uses a larger window width.