

Type-2 Decision Functions Tutorial Exercise

Find the regions where the two-dimensional populations Ω_1 , Ω_2 and Ω_3 belong to, so that they can be separated using the type 2 decision functions:

$$\begin{aligned}d_{12}(\mathbf{x}) &= x_1 - x_2 + 5, \\d_{13}(\mathbf{x}) &= -x_1 + 3, \\d_{23}(\mathbf{x}) &= -x_1 + x_2.\end{aligned}$$

Classify the vectors $[4, 3]^T$ and $[2.9, 2.5]^T$.