Contents

1 Performance of Classification Procedure

These classifications are used to calculate accuracy, precision (also called positive predictive value), recall (also called sensitivity), specificity and negative predictive value:

- **Accuracy** is the fraction of observations with correct predicted classification

$$\text{Accuracy} = \frac{TP + TN}{TP + FP + FN + TN}$$

- **Precision** is the proportion of predicted positives that are correct

$$\text{Precision} = \text{Positive Predictive Value} = \frac{TP}{TP + FP}$$

- **Negative Predictive Value** is the fraction of predicted negatives that are correct

$$\text{Negative Predictive Value} = \frac{TN}{TN + FN}$$

- **Recall** is the fraction of observations that are actually 1 with a correct predicted classification

$$\text{Recall} = \text{Sensitivity} = \frac{TP}{TP + FN}$$

- **Specificity** is the fraction of observations that are actually 0 with a correct predicted classification

$$\text{Specificity} = \frac{TN}{TN + FP}$$