

| | | Expected | |
|----------|-----------|-----------|------|
| | | different | same |
| Observed | different | TP | FP |
| | same | FN | TN |

$$\text{True Positive Rate (Sensitivity, Recall)} = \frac{TP}{TP + FN}$$

$$\text{True Negative Rate (Specificity)} = \frac{TN}{TN + FP}$$

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

Figure 5.5. Summary of measures extracted from a confusion matrix. These measures are used to construct the ROC and PR curves.