"Cheat sheet" on accuracy, precision, recall, TPR, FPR, specificity, sensitivity, ROC, and all that stuff!
William H. Press, ver 1.0, 3/29/08

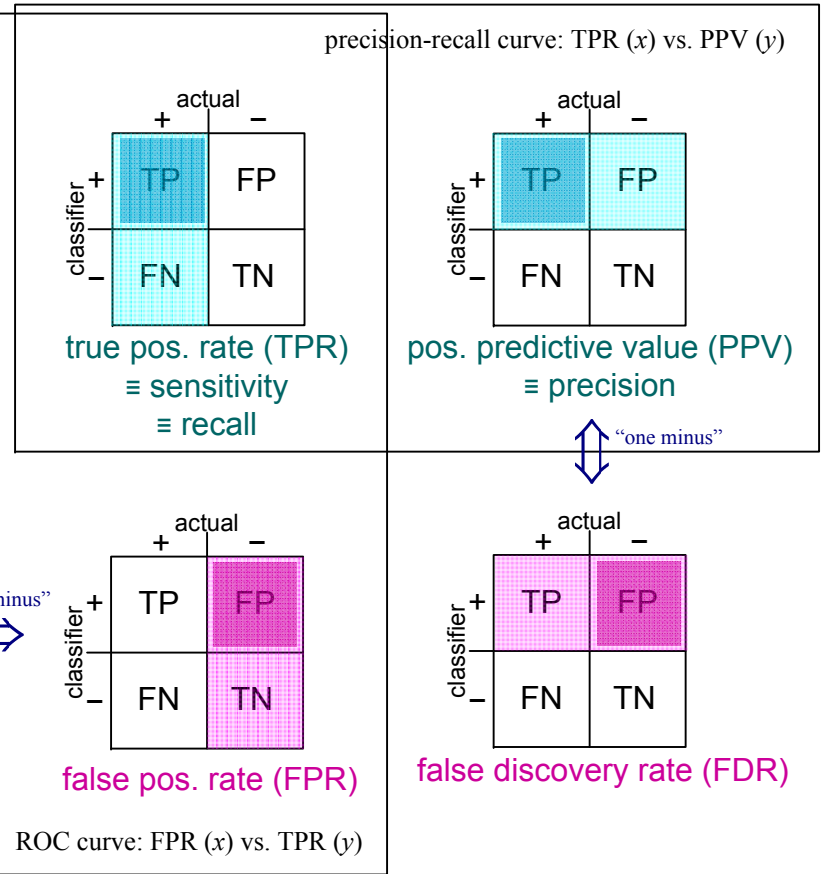Confusion matrix:

actual
+   −

classifier

+	TP	FP
		Type I error
−	FN	TN
Type II error		

column totals: P   N

actual
+   −

classifier
accuracy (ACC)

+	TP	FP
−	FN	TN

precision-recall curve: TPR (x) vs. PPV (y)

actual
+   −

classifier
true pos. rate (TPR)
≡ sensitivity
≡ recall

+	TP	FP
−	FN	TN

actual
+   −

classifier
pos. predictive value (PPV)
≡ precision

+	TP	FP
−	FN	TN

"one minus"

actual
+   −

classifier
neg. predictive value (NPV)

+	TP	FP
−	FN	TN

actual
+   −

classifier
specificity (SPC)

+	TP	FP
−	FN	TN

"one minus"

actual
+   −

classifier
false pos. rate (FPR)

+	TP	FP
−	FN	TN

ROC curve: FPR (x) vs. TPR (y)

actual
+   −

classifier
false discovery rate (FDR)

+	TP	FP
−	FN	TN

value (between 0 and 1) = numerator / denominator
numerator = dark color shade
denominator = dark + light color shade
blue: value 1 is good
pink: value 0 is good

Map points from ROC to
Precision-Recall or vice-versa:
(TPR same values in both)

$$PPV = \frac{P\ TPR}{P\ TPR + N\ FPR} \quad \text{(ROC to P-R)}$$

$$FPR = \frac{P\ (1 - PPV)\ TPR}{N\ PPV} \quad \text{(P-R to ROC)}$$