

Dice Similarity:  $\rho_{DSC}[\%] = 100 \frac{2|\mathbf{M} \cap \hat{\mathbf{M}}|}{|\mathbf{M}| + |\hat{\mathbf{M}}|} = 100 \frac{2TP}{2TP + FP + FN}$

intersection over union:  $\rho_{IoU}[\%] = 100 \frac{|\mathbf{M} \cap \hat{\mathbf{M}}|}{|\mathbf{M} \cup \hat{\mathbf{M}}|} = 100 \frac{TP}{FN + FP + TP}$

sensitivity:  $\rho_{sen}[\%] = 100 \frac{TP}{TP + FN}$

specificity  $\rho_{spec}[\%] = 100 \frac{TN}{TN + FP}$

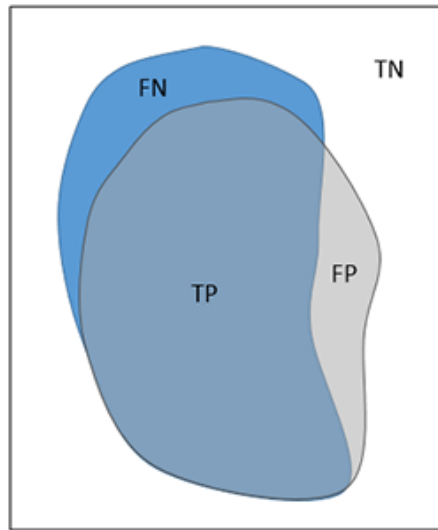
precision:  $\rho_{prec}[\%] = 100 \frac{TP}{TP + FP}$

$TP$  : True Positive

$TN$  : True Negative

$FP$  : False Positive

$FN$  : False Negative



Manual Segmentation  $\mathbf{M}$

Automated Segmentation  $\hat{\mathbf{M}}$