**S3 Table** Model performance metrics and their description: TP – true positive, FP – false positive, TN – true negative, FN – false negative, TPR – true positive rate (TP/Positives), TNR – true negative rate (TN/negatives)

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| --- | --- |
| **Performance metric** | **Formula** |
| Matthews correlation coefficient (MCC) | $$MCC= \frac{TPXTN-FPXFN}{\sqrt{\left(TP+FP\right)\left(TP+FN\right)(TN+FP)(TN+FN)}}$$ |
| F1 score | $$F1= \frac{2TP}{2TP+FP+FN}$$ |
| Balanced accuracy (BAC) | $$BAC= \frac{TPR+TNR}{2}$$ |
| Kappa statistic | $$Κ=\frac{2X(TPXTN-FNXFP)}{\left(TP+FP\right)X\left(FP+TN\right)+\left(TP+FN\right)X(FN+TN)}$$ |
| Positive predictive value (PPV) | $$PPV= \frac{TP}{TP+FP}$$ |
| Accuracy | $$ACC= \frac{TP+TN}{Positives+Negatives}$$ |
| Mean misclassification error (MMCE) | Defined as: mean(response != truth) |