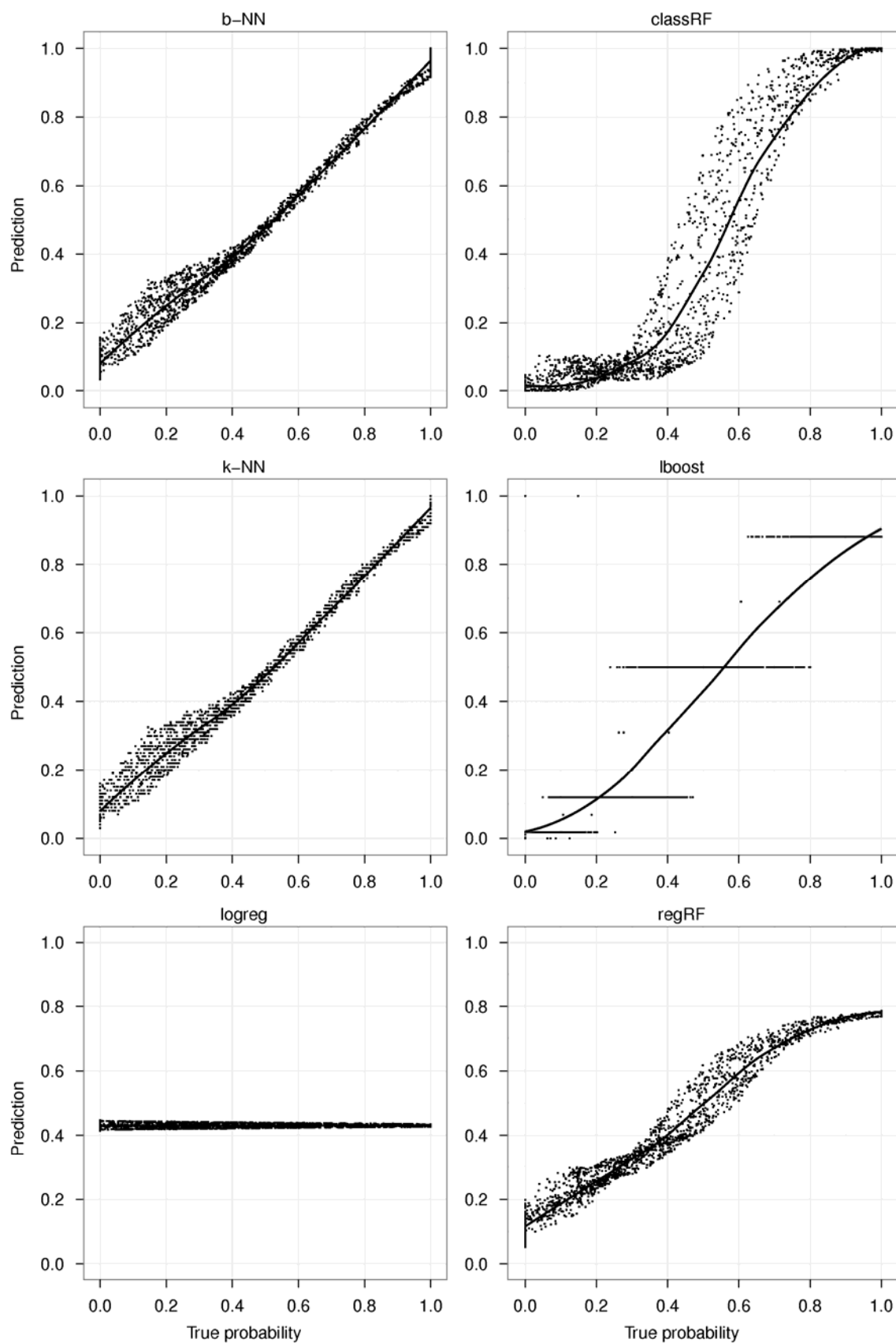
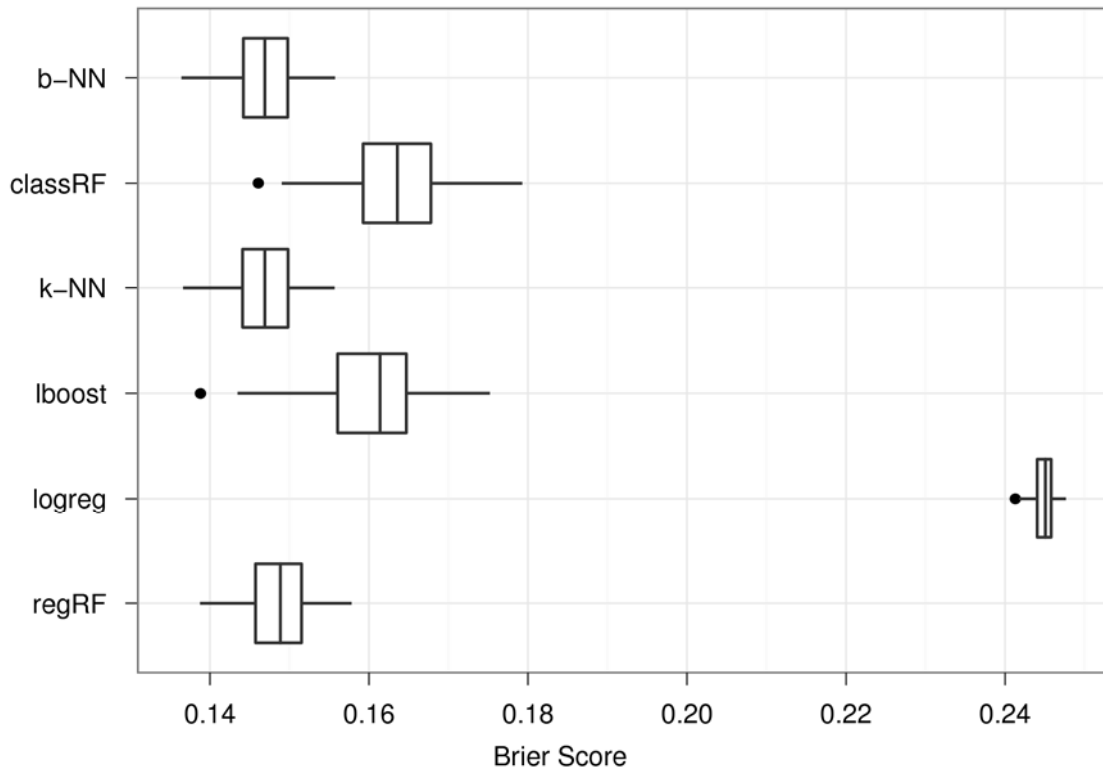


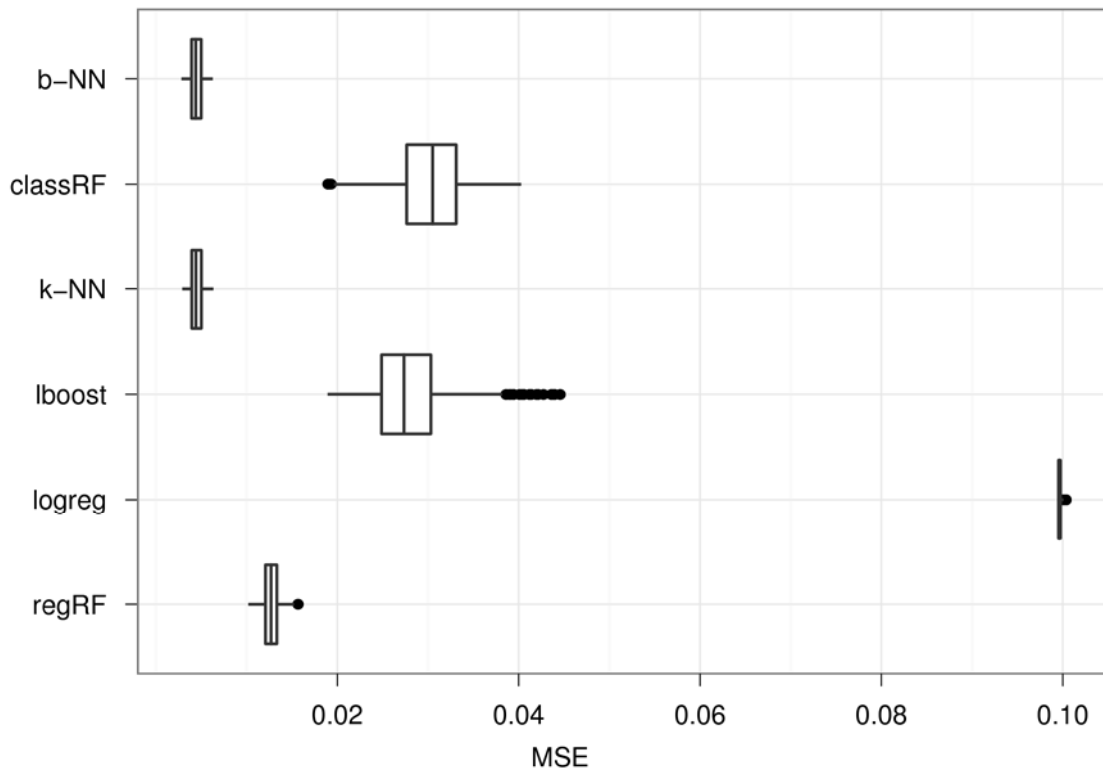
Supplementary Figures



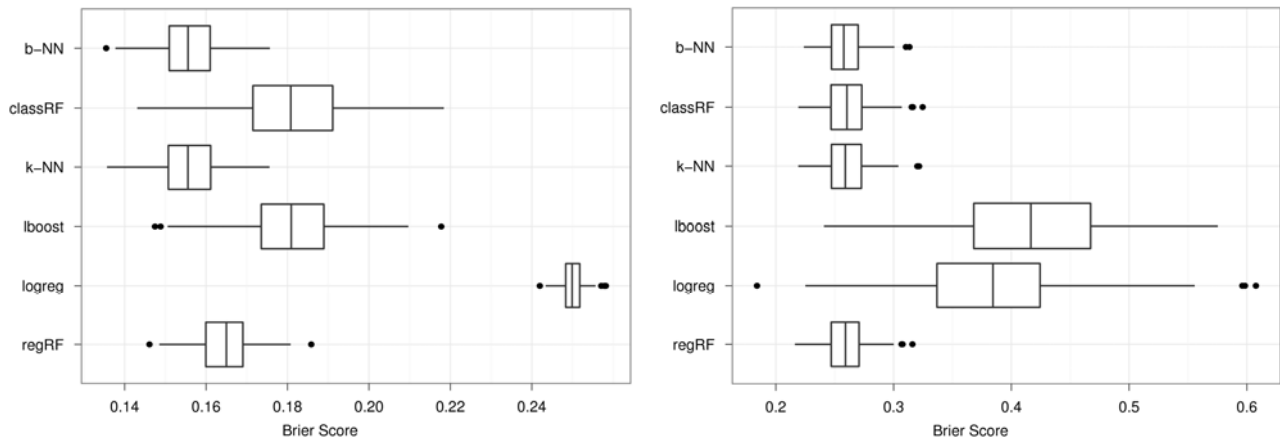
Supplementary Fig. 1. Predicted versus true probabilities in the Mease model for the 6 learning machines using the training data. *b-NN*: k-nearest neighbor bagged regression, *classRF*: classification random forest, *k-NN*: k-nearest neighbors, *lboost*: logitboost, *logreg*: logistic regression, *regRF*: regression random forest.



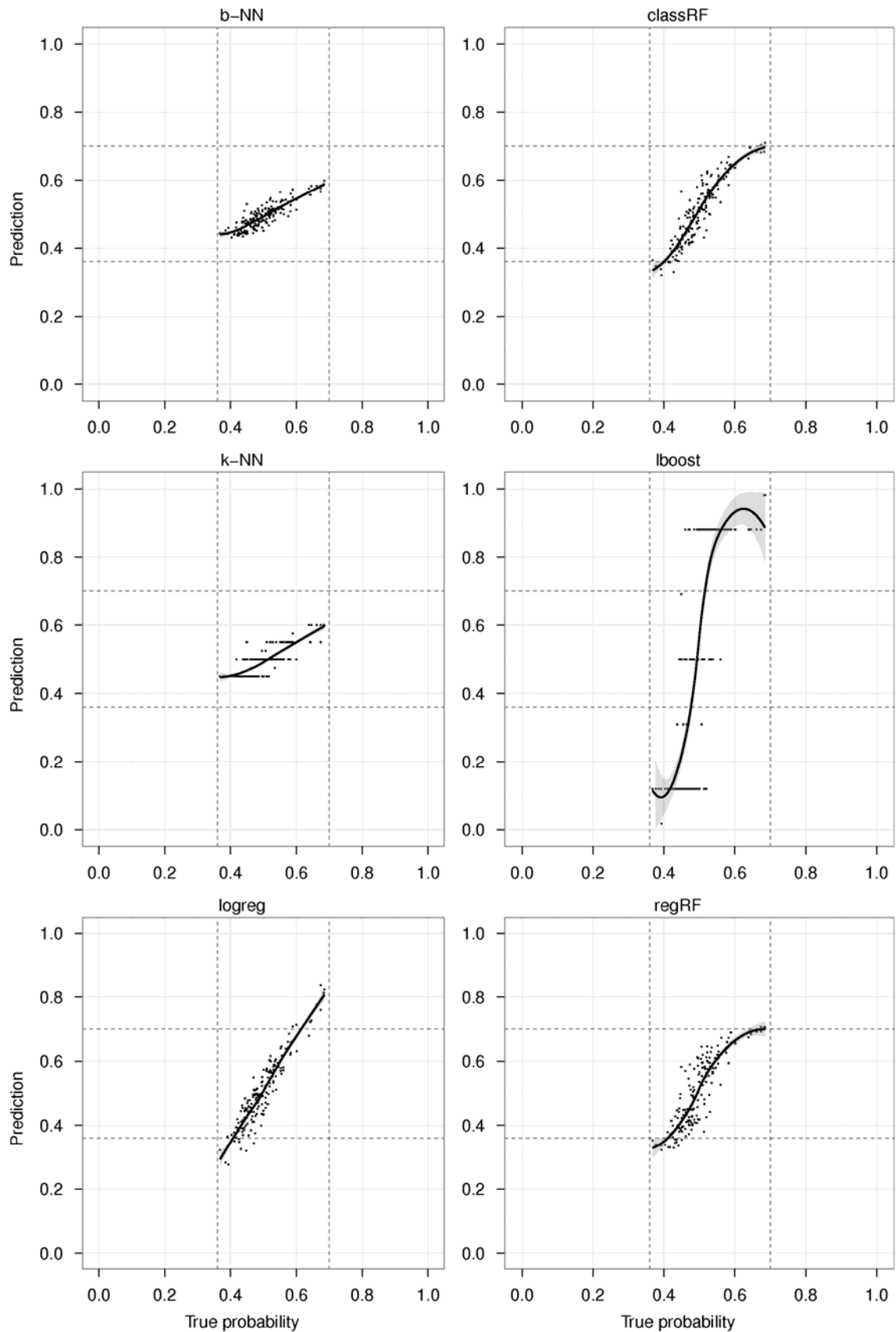
Supplementary Fig. 2. Boxplots of the Brier scores in the Mease model for the 6 learning machines using the training data. *b-NN*: k-nearest neighbor bagged regression, *classRF*: classification random forest, *k-NN*: k-nearest neighbors, *lboost*: logitboost, *logreg*: logistic regression, *regRF*: regression random forest.



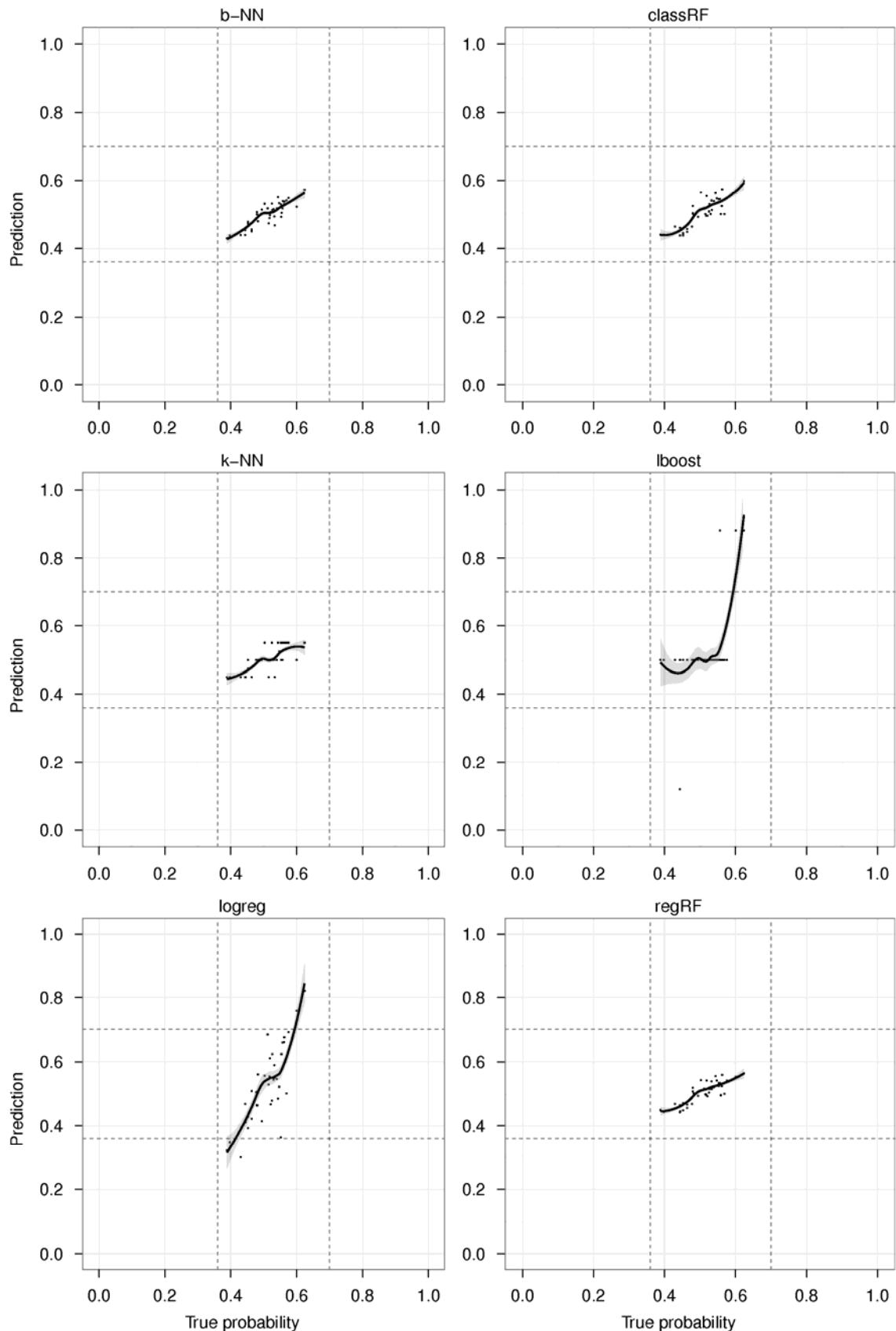
Supplementary Fig. 3. Boxplots of the MSE in the Mease model for the 6 learning machines using the training data. *b-NN*: k-nearest neighbor bagged regression, *classRF*: classification random forest, *k-NN*: k-nearest neighbors, *lboost*: logitboost, *logreg*: logistic regression, *regRF*: regression random forest.



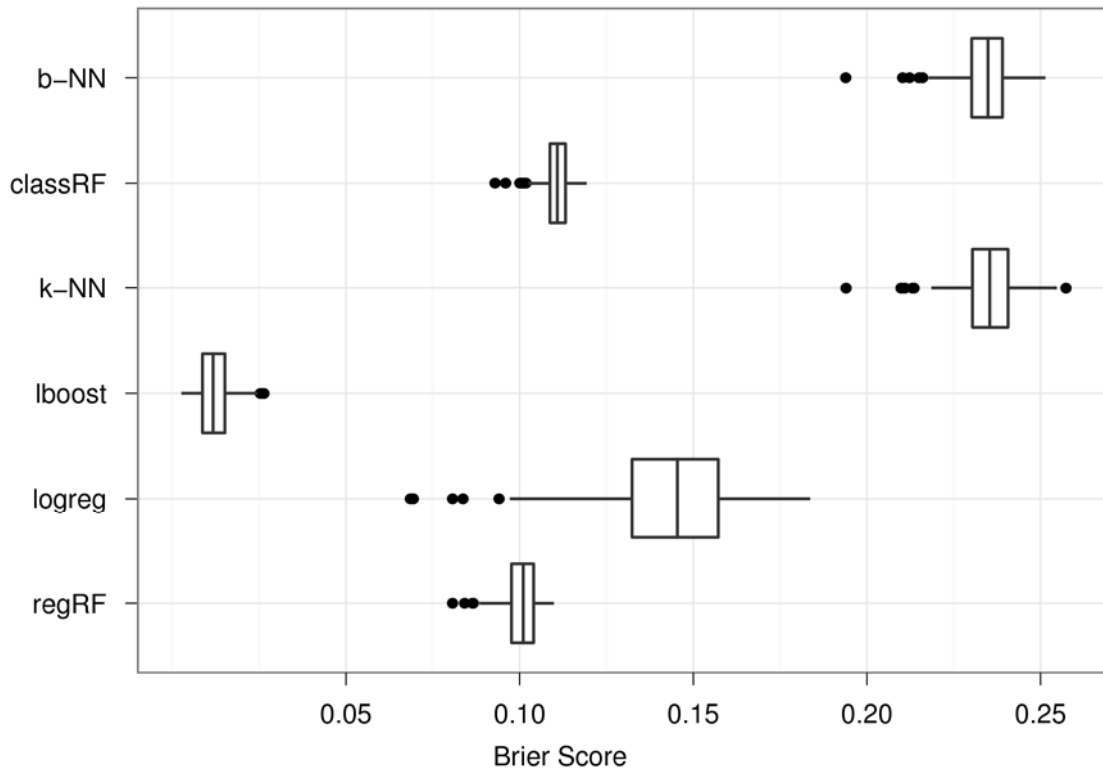
Supplementary Fig. 4. Boxplots of the Brier scores in the Mease model (left) and the Sonar model (right) for the 6 learning machines using the test data. *b-NN*: k-nearest neighbor bagged regression, *classRF*: classification random forest, *k-NN*: k-nearest neighbors, *lboost*: logitboost, *logreg*: logistic regression, *regRF*: regression random forest.



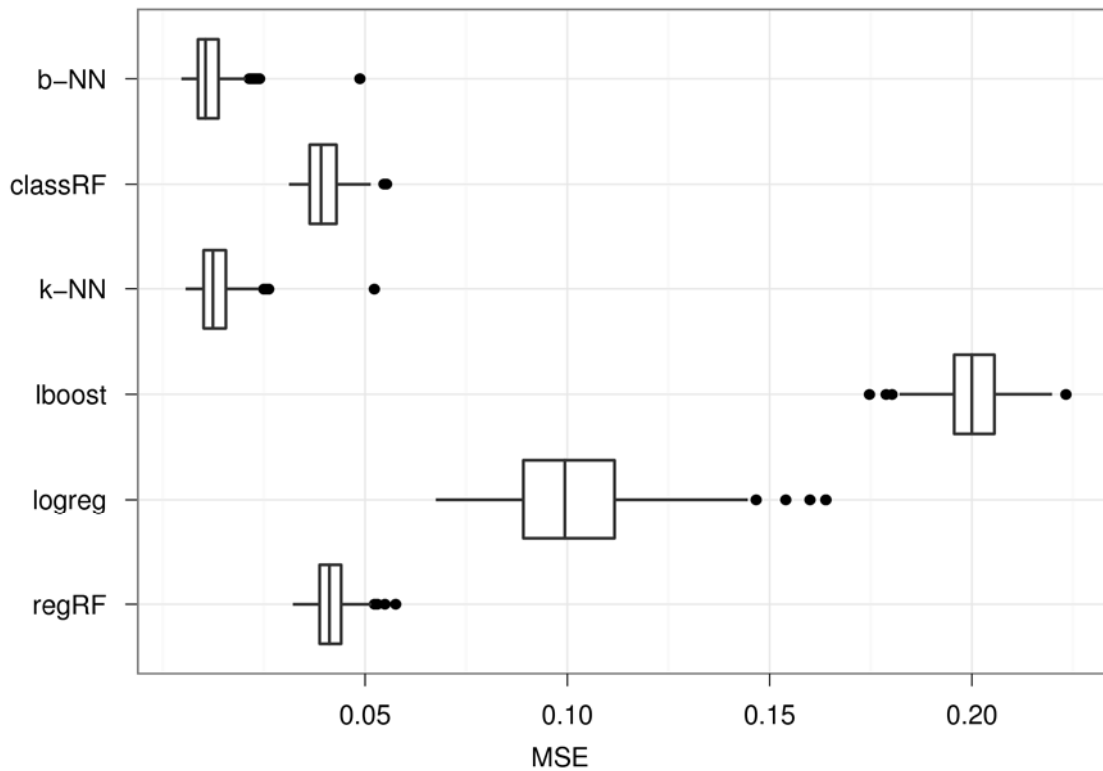
Supplementary Fig. 5. Predicted versus true probabilities in the Sonar model for the 6 learning machines using the training data. *b-NN*: k-nearest neighbor bagged regression, *classRF*: classification random forest, *k-NN*: k-nearest neighbors, *lboost*: logitboost, *logreg*: logistic regression, *regRF*: regression random forest.



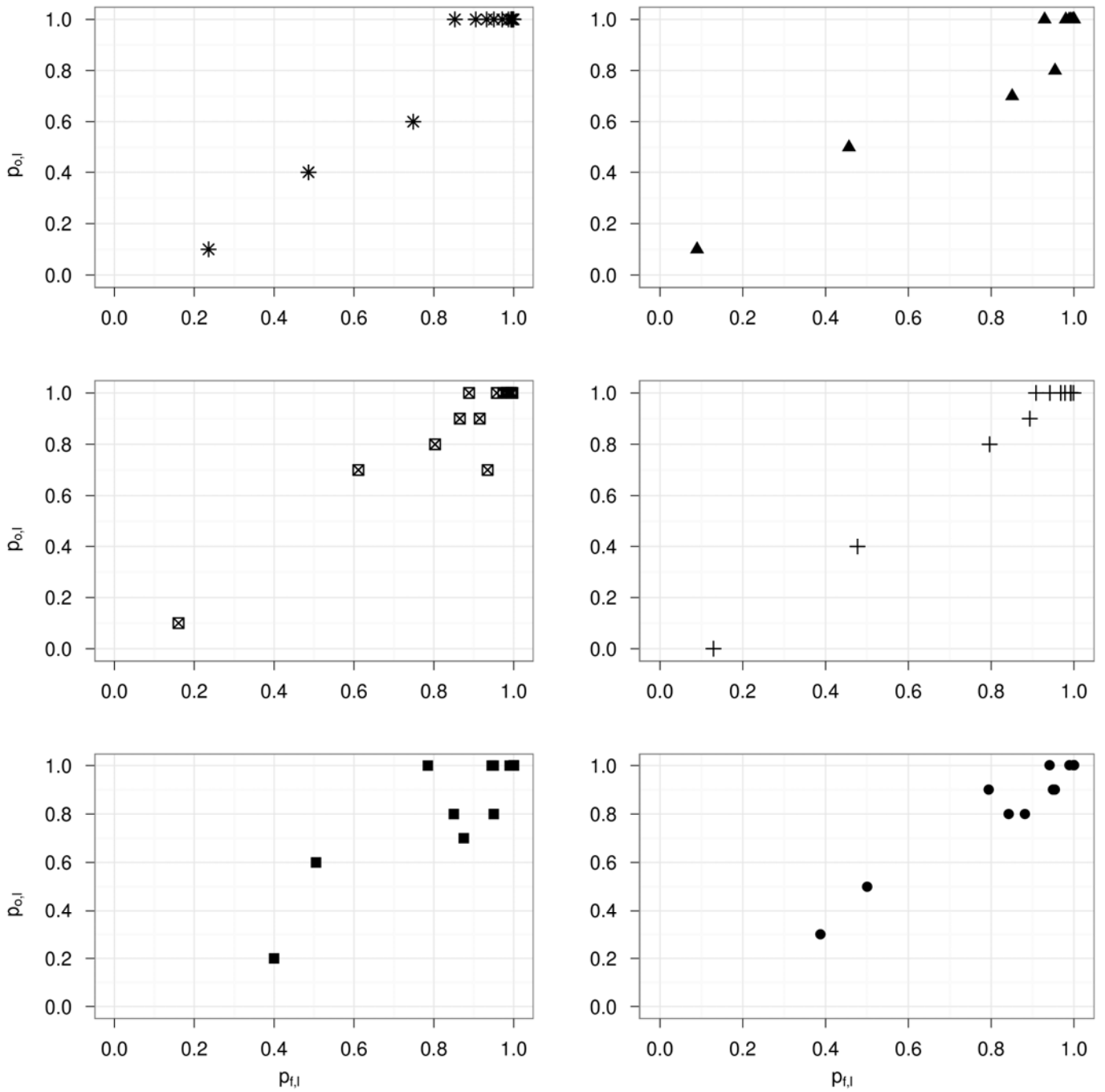
Supplementary Fig. 6. Predicted versus true probabilities in the Sonar model for the 6 learning machines using the test data. *b-NN*: k-nearest neighbor bagged regression, *classRF*: classification random forest, *k-NN*: k-nearest neighbors, *lboost*: logitboost, *logreg*: logistic regression, *regRF*: regression random forest.



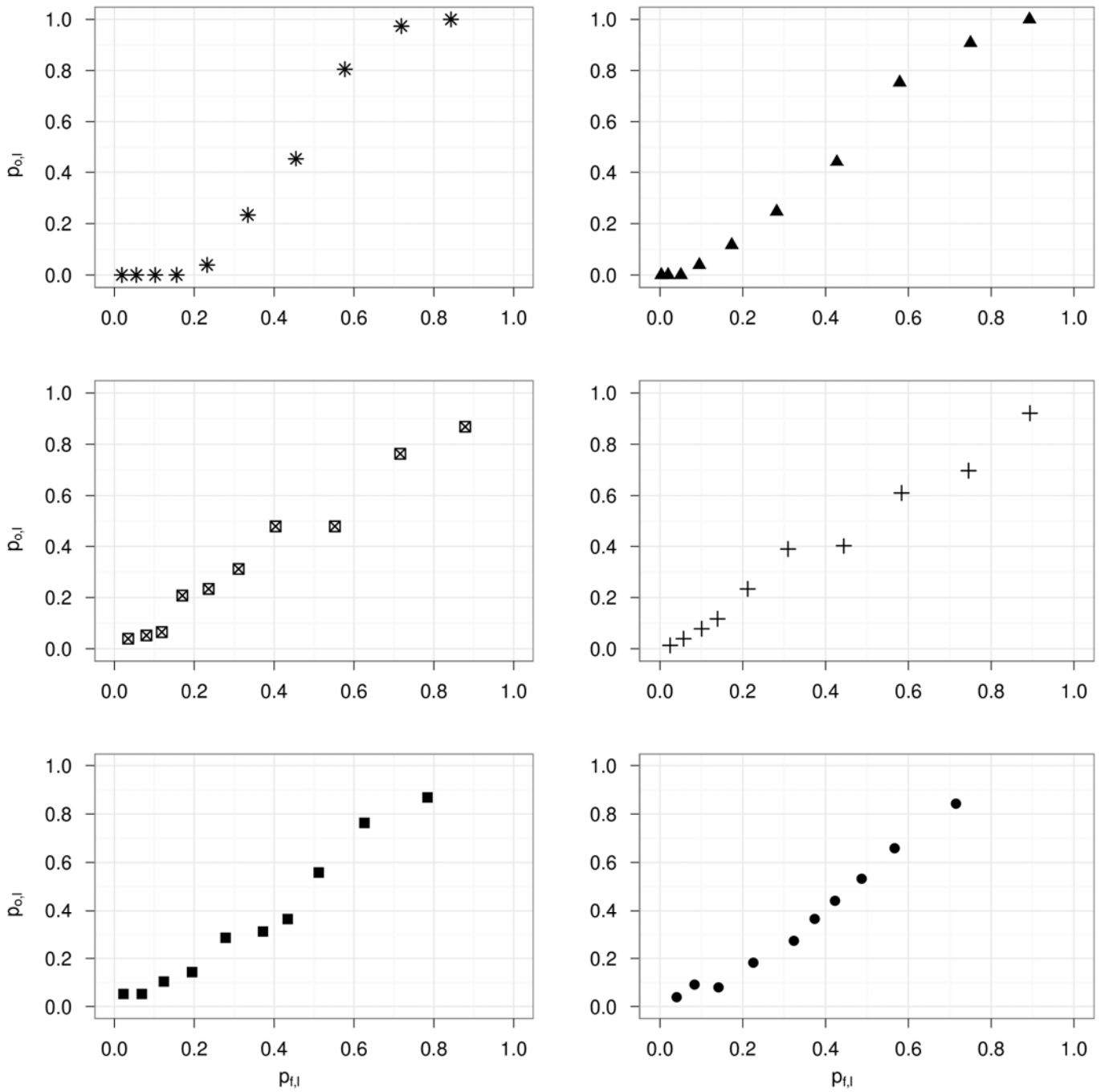
Supplementary Fig. 7. Boxplots of the Brier scores in the Sonar model for the 6 learning machines using the training data. *b-NN*: k-nearest neighbor bagged regression, *classRF*: classification random forest, *k-NN*: k-nearest neighbors, *lboost*: logitboost, *logreg*: logistic regression, *regRF*: regression random forest.



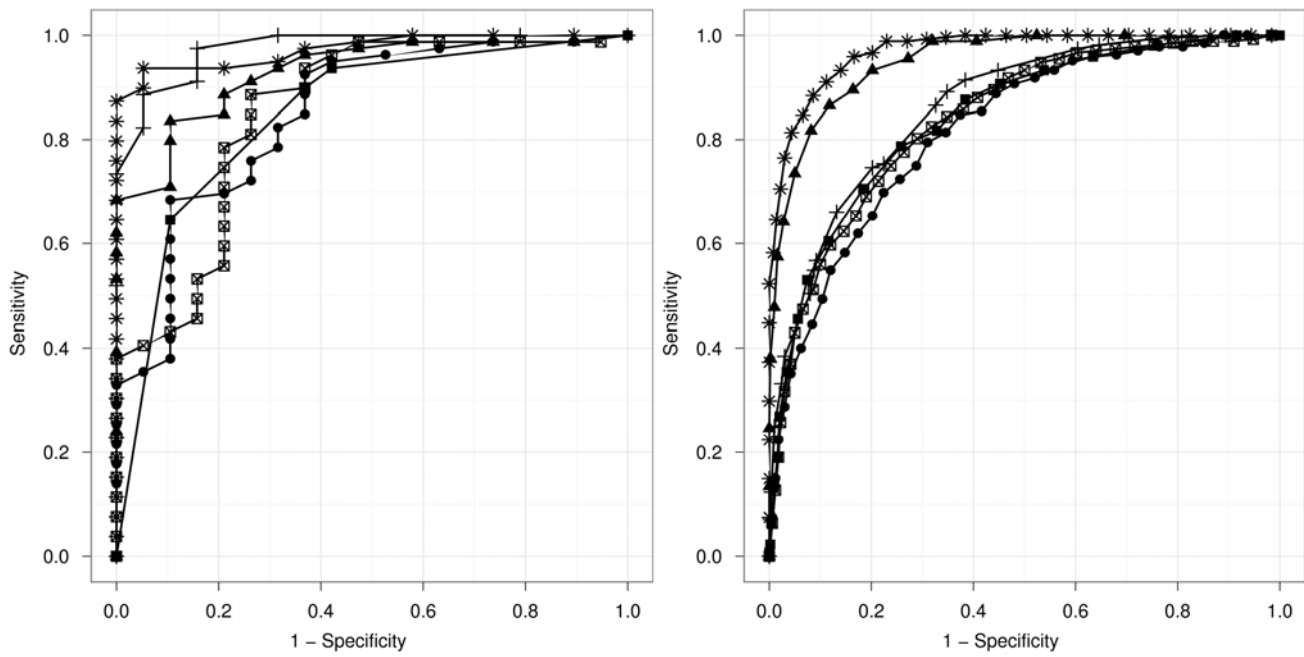
Supplementary Fig. 8. Boxplots of the MSE in the Sonar model for the 6 learning machines using the training data. *b-NN*: k-nearest neighbor bagged regression, *classRF*: classification random forest, *k-NN*: k-nearest neighbors, *lboost*: logitboost, *logreg*: logistic regression, *regRF*: regression random forest.



Supplementary Fig. 9. Hosmer-Lemeshow-type plots in the appendicitis data. The y-axis ($p_{o,i}$) indicate a set of model-free estimates of the average probability of the i^{th} bin of success of an observation. The x-axis ($p_{f,i}$) are the average of the estimated probabilities of the i^{th} bin. Symbols for the 6 learning machines are: (●) k-nearest neighbor bagged regression, (▲) classification random forest, (■) k nearest neighbor with $k=20$, (+) logitboost, (⊠) logistic regression, (*) regression random forest.



Supplementary Fig. 10. Hosmer-Lemeshow-type plots in the Pima Indians diabetes data. The y-axis ($p_{o,i}$) indicate a set of model-free estimates of the average probability of the l^{th} bin of success of an observation. The x-axis ($p_{f,i}$) are the average of the estimated probabilities of the l^{th} bin. Symbols for the 6 learning machines are: (●) k-nearest neighbor bagged regression, (▲) classification random forest, (■) k nearest neighbor with $k=20$, (+) logitboost, (⊠) logistic regression, (*) regression random forest.



Supplementary Fig. 11. Receiver operating characteristic (ROC) curve for the appendicitis data set (left) and the Pima Indians diabetes data set (right) for the 6 learning machines. (●) k-nearest neighbor bagged regression, (▲) classification random forest, (■) k-nearest neighbor, (+) logitboost, (⊠) logistic regression, (*) regression random forest.