**S1 Table: Other hyperparameters adopted in the machine learning models**

| **Model** | **Hyperparameter** | **Value** |
| --- | --- | --- |
| Lasso Lgistic Regression | *λ* (penalty) | 0.0000580 |
| K-nearest Neighbors | *k* (neighbors) | 14 |
| Classification Trees | cost\_complexity | 0.0001 |
| tree\_depth | 15 |
| min\_n | 27 |
| Random Forests | mtry | 5 |
| Bagging | cost\_complexity | 0 |
| min\_n | 2 |
| RBF SVM | cost | 5 |
| rbf\_sigma | 0.25 |
| Polynomial SVM | cost | 0.5 |
| degree | 1 |