

Table S1. The 5-fold cross-validation details on RPI488 dataset.

Fold set	Acc(%)	TPR(%)	TNR(%)	PPV(%)	MCC(%)
1	87.76	93.02	81.63	93.88	76.08
2	90.72	95.24	85.11	96.00	81.81
3	89.69	100.00	80.00	100.00	81.22
4	86.60	92.68	79.17	93.88	73.93
5	91.75	91.49	91.49	92.00	83.49
Average	89.30±2.11	94.49±3.37	83.48±5.02	95.15±3.06	79.31±4.08

Table S2. Performance of individual predictors and RPI-SE on RPI488 dataset.

Predictors	Acc(%)	TPR(%)	TNR(%)	PPV(%)	MCC(%)
XGBoost	89.10	94.04	83.48	94.75	78.86
SVM	87.86	93.45	81.39	94.34	76.47
ExtraTree	86.63	89.33	83.07	90.18	73.53
RPI-SE	89.30	94.49	83.48	95.15	79.31

Table S3. The 5-fold cross-validation details on RPI1807 dataset.

Fold set	Acc(%)	TPR(%)	TNR(%)	PPV(%)	MCC(%)
1	96.39	96.63	96.90	95.76	92.69
2	96.87	97.45	96.90	96.82	93.66
3	96.08	95.82	97.17	94.72	92.07
4	96.86	96.13	98.31	95.05	93.65
5	98.12	97.50	99.15	96.82	96.19
Average	96.86±0.78	96.71±0.76	97.69±1.00	95.83±0.98	93.65±1.57

Table S4. Performance of individual predictors and RPI-SE on RPI1807 dataset.

Predictors	Acc(%)	TPR(%)	TNR(%)	PPV(%)	MCC(%)
XGBoost	96.89	97.24	97.18	96.54	93.72
SVM	96.52	96.27	97.52	95.27	92.95
ExtraTree	97.33	97.05	98.19	96.26	94.60
RPI-SE	96.86	96.71	97.69	95.83	93.65