**Table S10.** Evaluation of prediction results of IPSO-LSTM and LSTM models, comparing PSM and ridge regression.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Prediction Models** | **Stocks** | **MAPE** | **RMSE** | **MAE** | **R2** |
| IPSO-LSTM | Hengrui\_independent | 0.0059 | 0.2584 | 0.2388 | 0.9705 |
| Hengrui-Zhangjiang | 0.0044 | 0.2217 | 0.1748 | 0.9783 |
| Hengrui-Huana | 0.0034 | 0.1799 | 0.1332 | 0.9857 |
| LSTM | Hengrui \_independent | 0.0154 | 0.7216 | 0.6029 | 0.7700 |
| Hengrui-Zhangjiang | 0.0136 | 0.6421 | 0.5360 | 0.8178 |
| Hengrui-Huana | 0.0123 | 0.6116 | 0.4874 | 0.8347 |

Note: Root Mean Square Error, RMSE; Mean Absolute Error, MAE; Mean Absolute Percentage Error, MAPE; coefficient of determination, R2.