Conclusions

- The mechanism of the upward movement of unit linings is that the tail void provides the floating space and the upware external forces affect the floating trend.
- The combination of PSO and CV effectively determines the optimal hyper-parameters and improves the medic ion performance of the RF.
- The PSO-RF model successfully redicts the maximum upward displacement of linings with a low error (MAE=4.04, RMSE=5.67) and a high correlation (R2=0.914).
- The thrust and depth of the tunner are the most important influencing factors for the PSO-FF based model to predict the upward displacement of linings.