Introductory information

Python code:

advancedmathmatictwo.py

Arimpredictionwithlstmdata.py

BubbleThreeDchart.py

KLdivergenceenergylevledifferencethree.py

LSTMandRNN.py

Optimizationalgorithmwithglobalconvergence.py

proposed\_and\_transform\_and\_rnn.py

Matlab code:

atomicenergyleveltransitionequation.m

Neuralnetworkforsolvinglinearstochasticdifferentialequations.m

Neuralnetworkforsolvingsystemsofmultivariatelinearequations.m

Simulation data excel file:

lstmdata.csv

machinelearningevaluationstandard.csv

**Methodological information**

PINN was improved,created and analyzed by Matlab 2024

BI-LSTM was improved,created and analyzed by python pycharm 202

**Data specific information**

Python Code of algorithms figures in manuscript

Matlab Code of analysis figures in manuscript

Two excel file of simulation datasets

**Sharing and Access information**

Don’t need such information