Manual of ContiNet

In this manual, we introduce ContiNet based on the chronological order of the content in the manuscript. Before this, we felt it necessary to point out:

(1) All the results have been saved in the corresponding files. When users conduct re-tests, it is recommended that they first back up the saved data to prevent any overwriting. (2) If users need to train from scratch, the complete training dataset can be obtained by contacting the author via email: [gxchen@email.cugb.edu.cn](mailto:gxchen@email.cugb.edu.cn).

1. **Evaluation of the discrete UC TrainSet**

In the discrete UC simulation section, when comparing different training sets or different network architectures, users can use "UC\_0Train.py" for training, and then use "UC\_Discrete\_1DataSet\_Evaluation.py" for comparative analysis of different data sets.

1. **Generalization of UpContiNet**

In the discrete UC simulation section, in order to analyze the generalization ability of the training results, users can run "UC\_Discrete\_2Generalization.py".

1. **Discrete UC weight**

In the discrete UC simulation section, "UC\_Discrete\_3FinalWeight.py" can be run to obtain the final visualized result of the discrete weights.

1. **Theoretical UC Weight and Results**

In the theoretical UC simulation section, to obtain the weights corresponding to a single point (the center point) on the UC profile or to all the calculation points, users can run "UC\_Theoretical\_1singlepoint.py" and "UC\_Theoretical\_2allpoint.py", respectively. And the test results can be obtained by running "UC\_Theoretical\_3test\_visualization.py".

1. **Theoretical DC simulation based on DnContiNet**

For the theoretical DC simulation, users can use "DC\_Theoretical\_1train.py" to conduct the DC-training, and use "DC\_Theoretical\_2visualization\_train.py" to obtain the training results, and use "DC\_Theoretical\_3visualization\_test.py" to obtain the test results.

1. **Field survey**

Users can use "DC\_Actualcase.py" to conduct tests based on the measured data provided in this study.