

# Predict and plot

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The scripts to predict and plot the avalanche-day frequency are briefly described. Additionally, the script to generate some model evaluation plots is presented.

In the directory `Avalanche_Plot_Scripts` under `NORA3_and_NorCP` utilise the scripts

`Gen_ADF_Model_With_SNOWPACK_fullNORA3.py` and

`Gen_ADF_Model_With_SNOWPACK_NorCP.py`

to use the random forest models trained via the procedure described in `Doc_Train_ML_Models.pdf`.

Be sure to set the parameters correctly, so that the correct random forest models are loaded.

There are also batch scripts provided for these procedures that call the above scripts.

The plots in the paper can then be produced with the scripts:

`Plot_ADF_Means_Hindcast.py`

`Plot_ADF_Means_EC-Earth.py`

`Plot_ADF_Means_GFDL.py`

To generate the model evaluation plots (confusion matrix, feature importance bar plot) use the script:

`Plot_MultiModel_ConfMat_and_FeatureImp.py`