Readme file for source code: neuraltmp.F code

This code is a Neural Network emulator of the Thompson Microphysics scheme (NN-MP). The software includes interfaces of the NN-MP code with the ARW WRF code, which is an open-source code in the public domain, with no restriction on its use. The code is released by the Global Systems Division of NOAA/OAR/ESRL. For further details, see Disclosure information below.

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Software Description

Please provide a basic description of the software and its intended functionality.

Title *
Short title for the software - please spell out any acronyms.
Neural Network Microphysics (NN-MP)

Software Description *
Short paragraph that describes the function and utility of the software.
The neuraltmp.F code (NN-MP) is a neural network emulator of the Thompson microphysics code used in the NNMB and ARW WRF Numerical Weather Prediction (WNP) models, developed by Vladimir Krasnopolsky of the Environmental Modeling Center. NN-MP was trained with data generated by the Global Systems Division with the NNMP model using the original Thompson scheme. The software includes interfaces of the NN-MP code with the ARW WRF code, which is an open-source code in the public domain, with no restriction on its use. After further testing, the NN-MP code can replace the Thompson microphysics scheme in NWP models to provide significant savings in cpu time.

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Please select all the funding sources that apply to this software. Federal appropriations would be your normal lab or program funding.

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Co-Developers and Partners

Please provide the PI or other POC information for any non-federal (e.g. university, private, grantee) co-developers for this software.

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