

Effects of supernova induced soft X-rays on middle and upper atmospheric nitric oxide and stratospheric ozone

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The scientific society, European Geophysical Union, requires that computer data accompany any journal article. Included in this data release are 9 data files.

Two are the solar flare spectra from NRLFLARE (merged with FISM as discussed in our papers).

They are python-readable IDLsave files. The program to read them is fig1_supernova_plot.pro

Then there are 7 output save files from the TIME-GCM runs. Four of them have diurnal/zonally averaged constituent fields.

1) baseline for 2017 (saved every day, thus 113 days total starting from day 253) and for 2018 (saved every 5 days, thus 73 total for

the complete year)

2) the same but for the X13 simulation

3) two files which have hourly output to focus on the initial response.

these are for both the X13 and X27 simulations and are tagged "first8days". They were used to make Figure 8.

4) Finally, a file which has the first day of the X13 simulation as a function of longitude and which was used to make Figure 2.

It is tagged "equator"