STCE meeting

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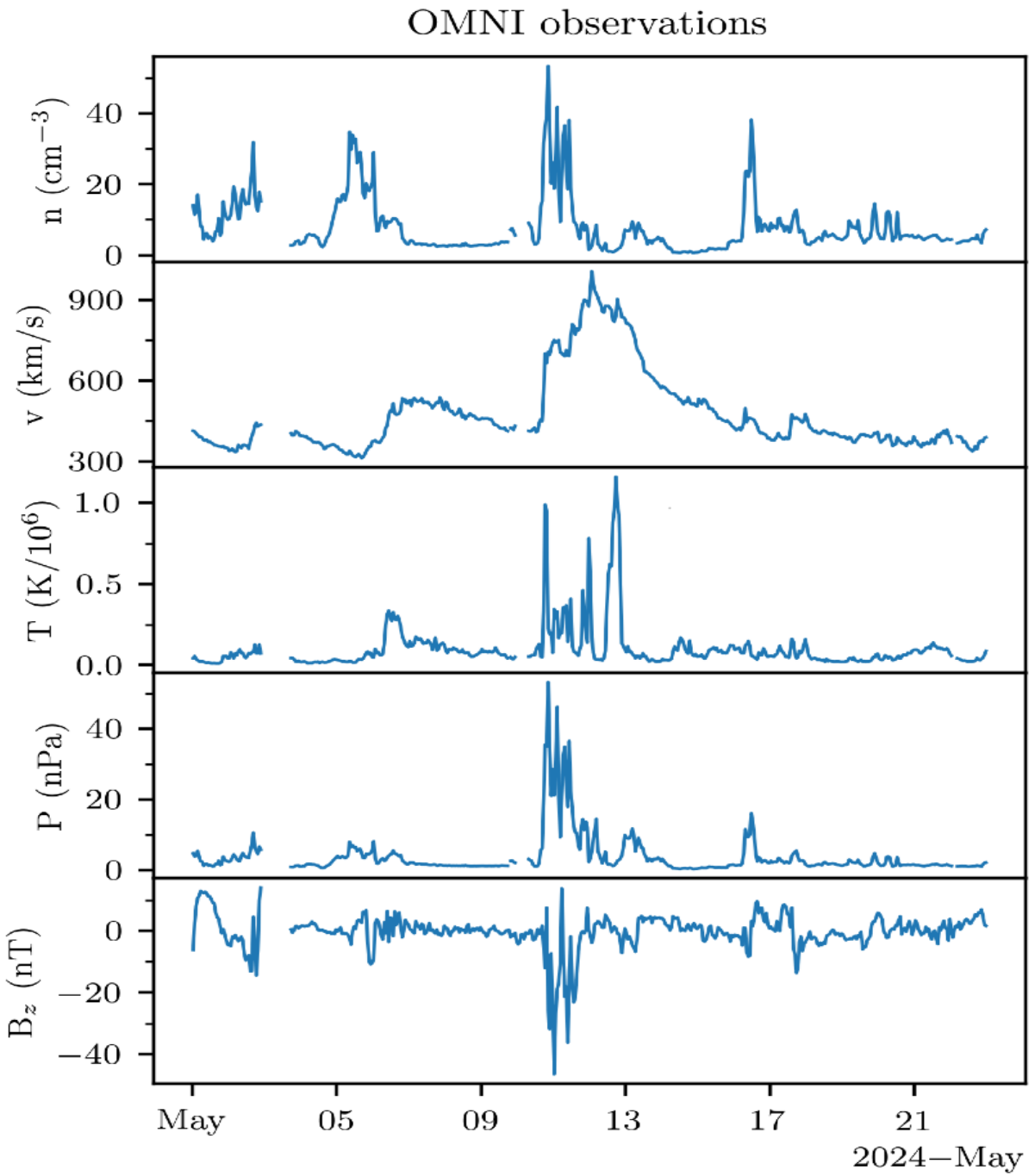
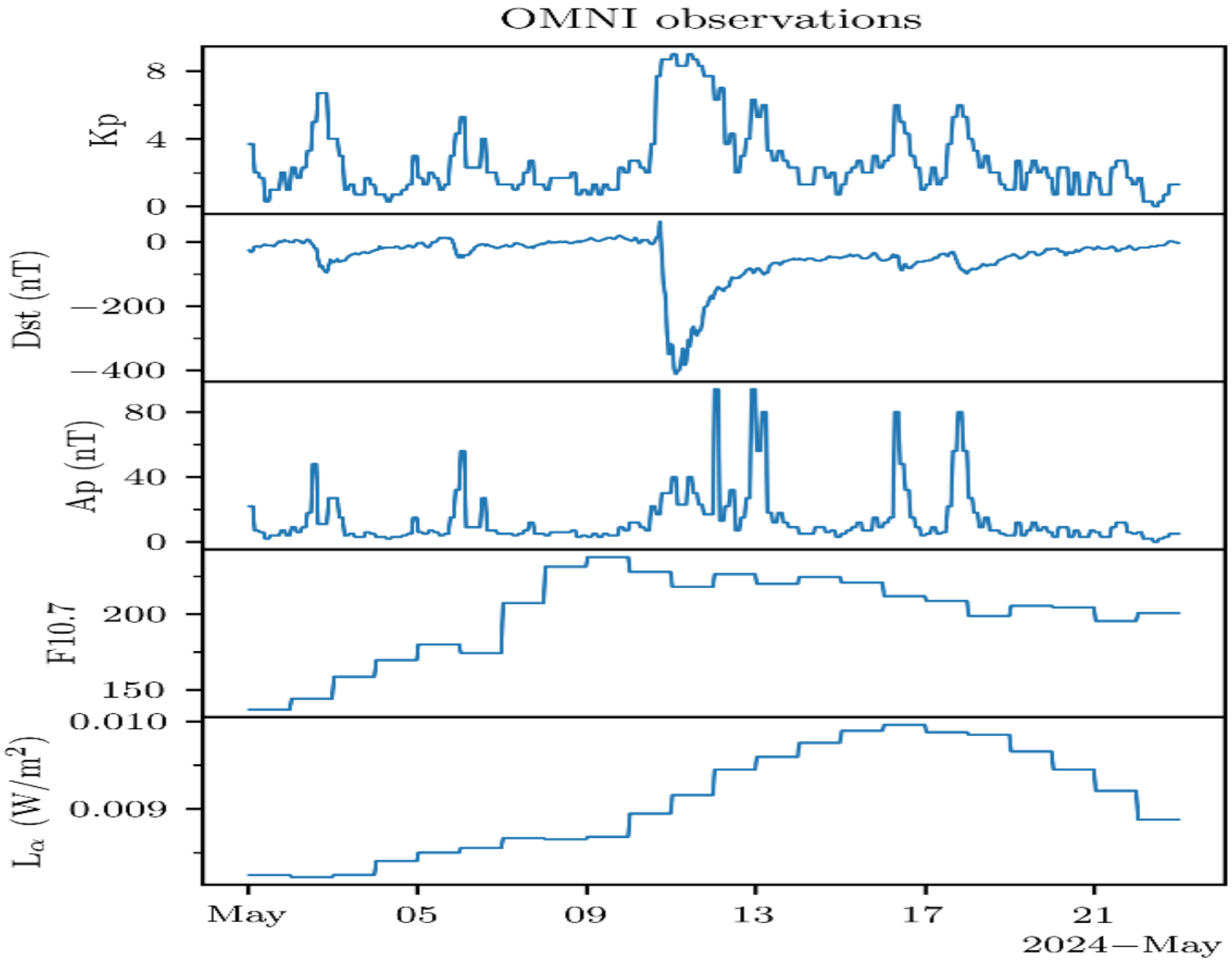
Event of 11 May 2024: Solar wind and space radiation observations

Solar wind
observations at 1 AU

10 May 2024
17:07



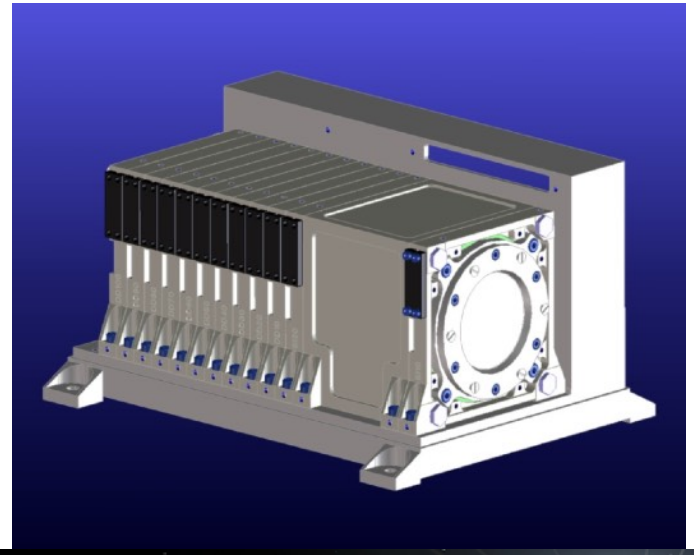
Geomagnetic and solar activity indices



Strongest storm for 20 years

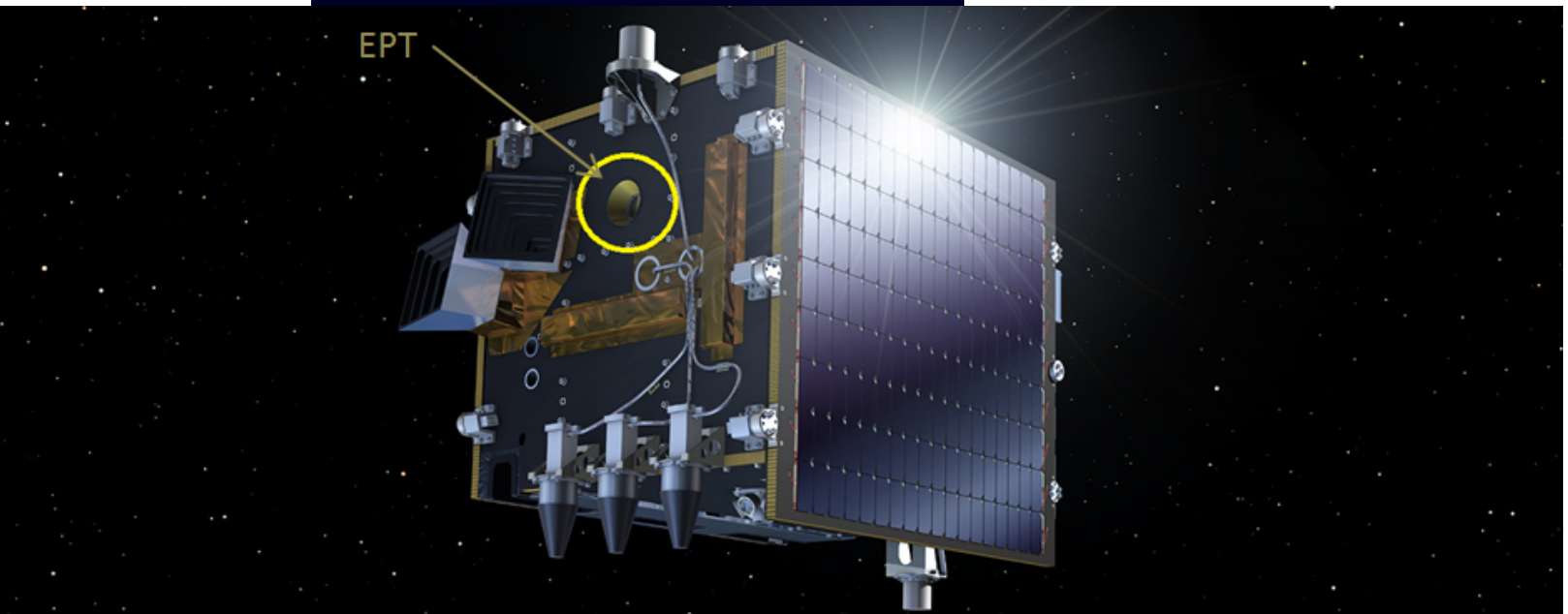


Energetic Particle Telescope



Dim:
127 x 162 x 211 mm^3

Mass:
4,6 kg



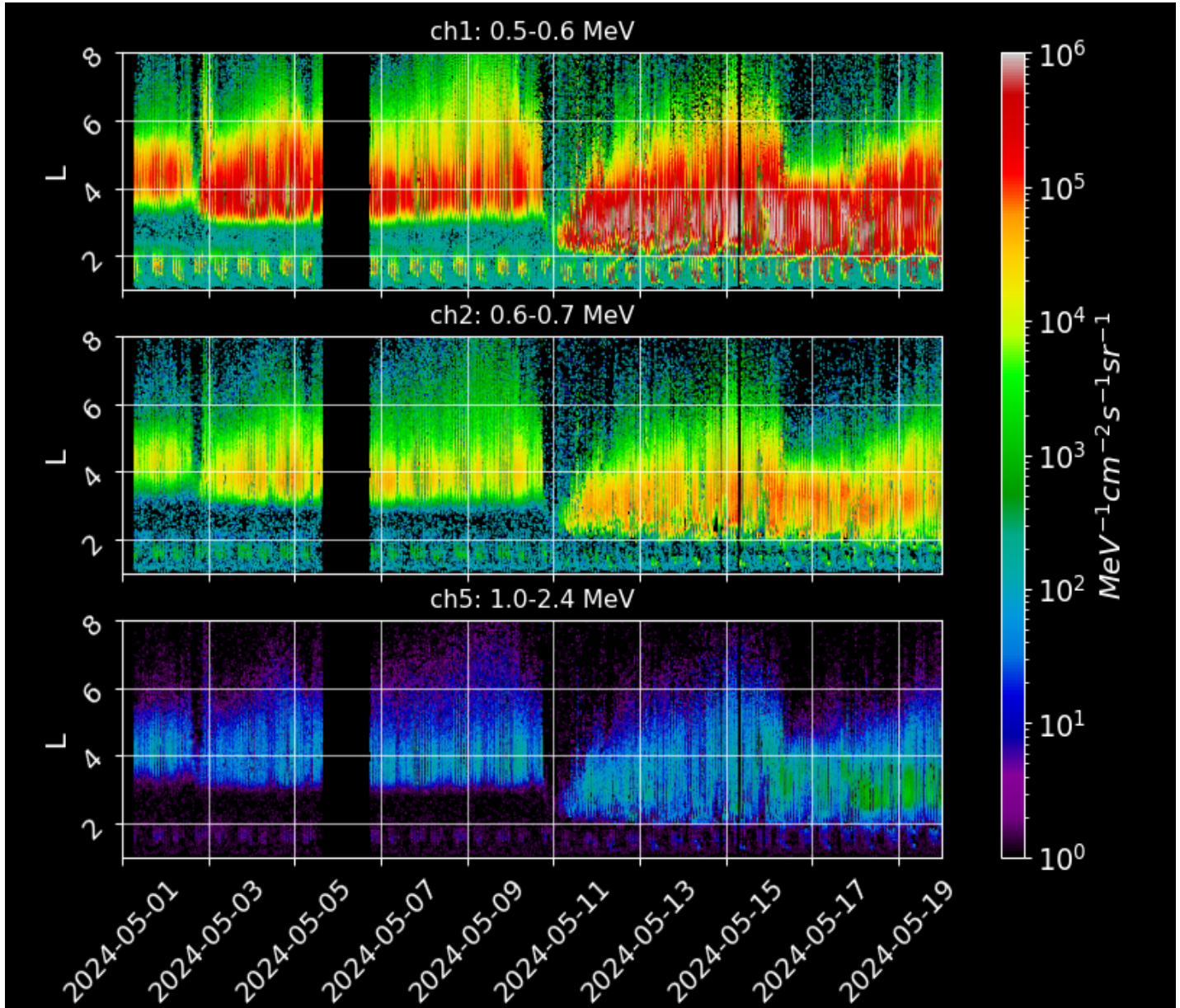
Pierrard et al., Space Sci. Rev. 184, 87, 2014

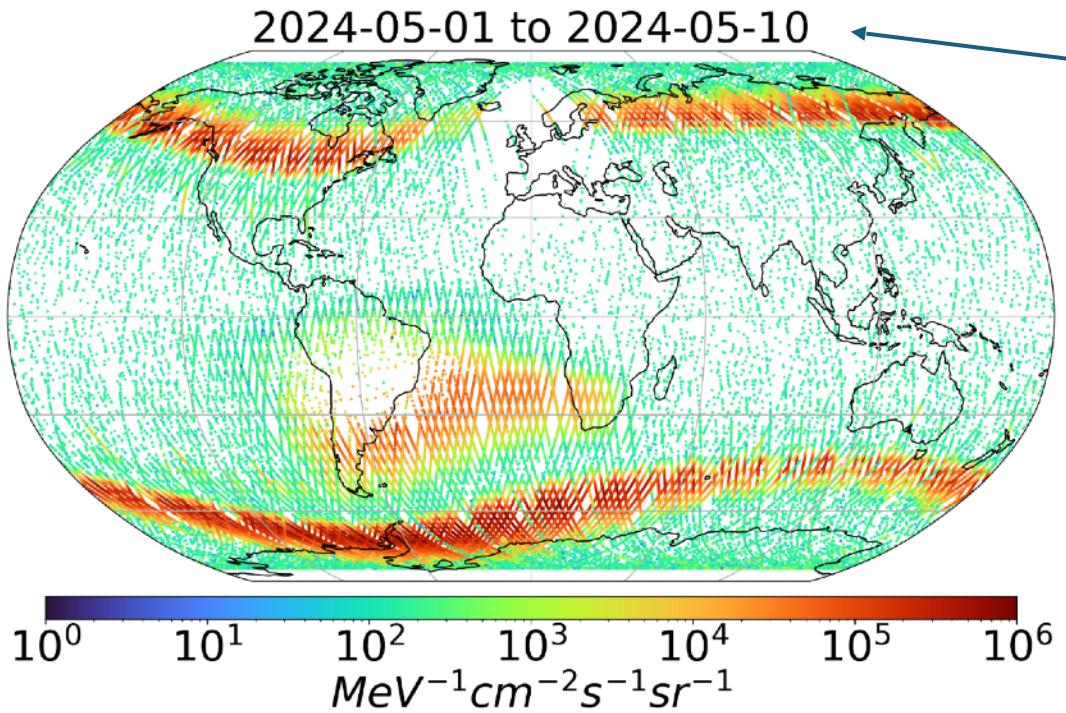
e^-: 500 keV-10 MeV
p^+: 9.5 MeV-300 MeV
alpha: 38 MeV- 1 GeV

launch on 7 May 2013 on Proba-V

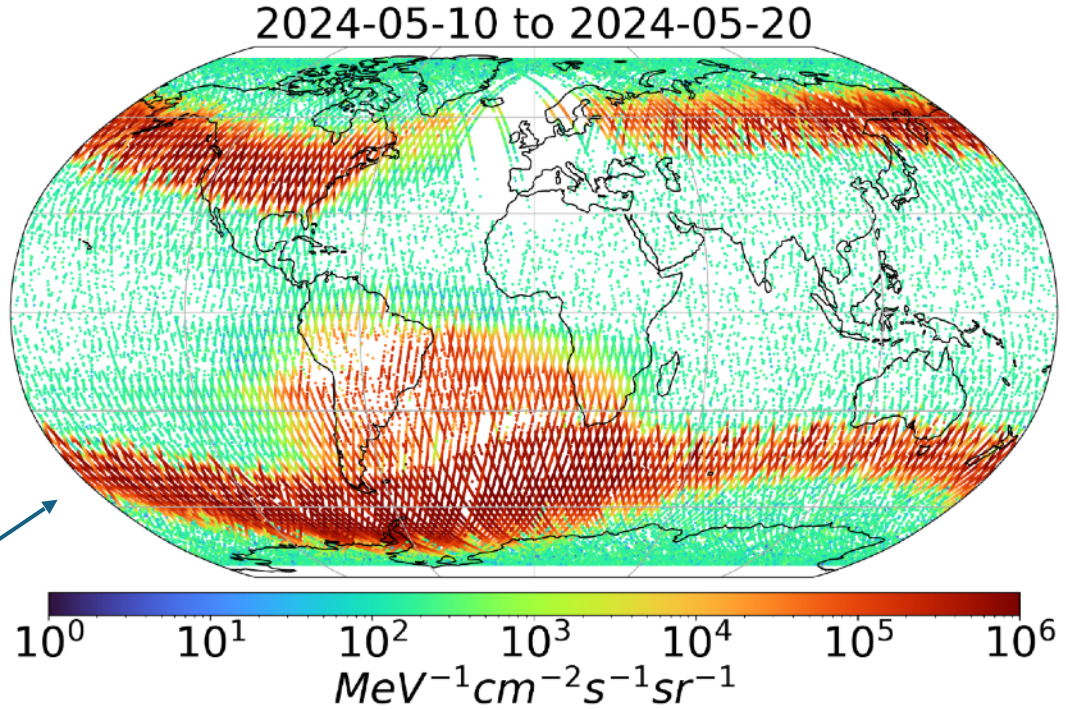
LEO orbit
820 km
98° inclin

Electron fluxes from EPT



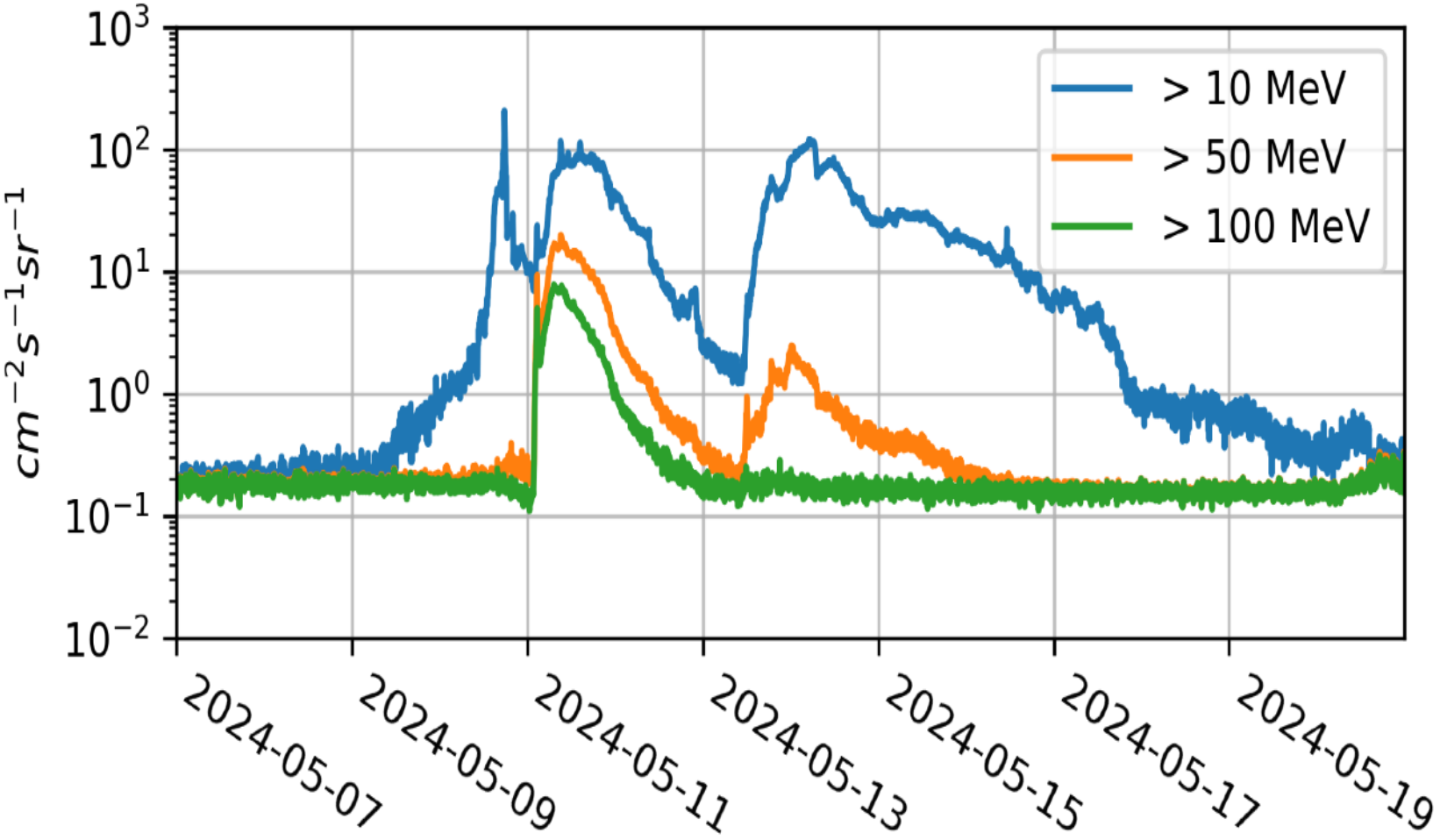


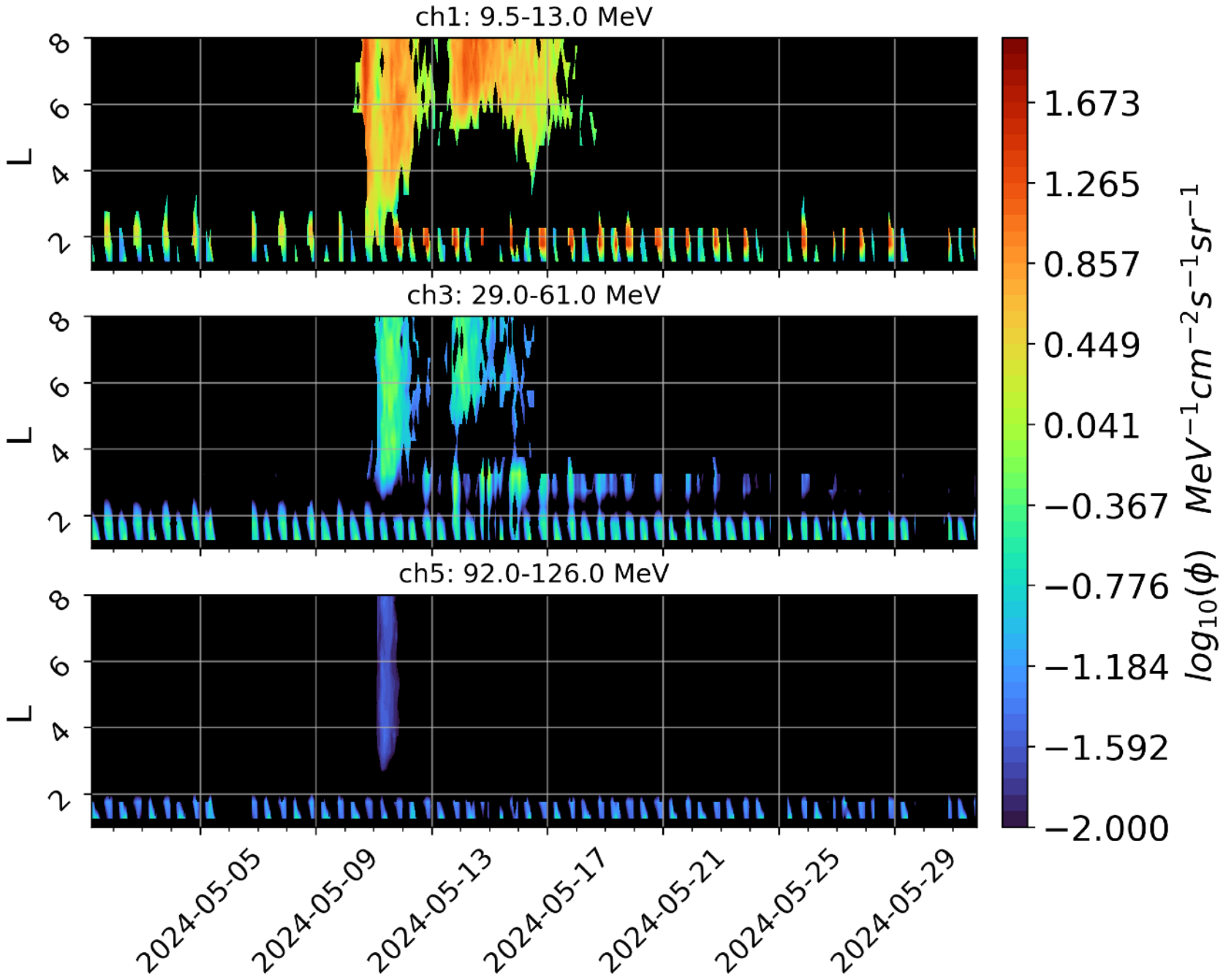
Electron flux prior the event



Electron flux during and after the event

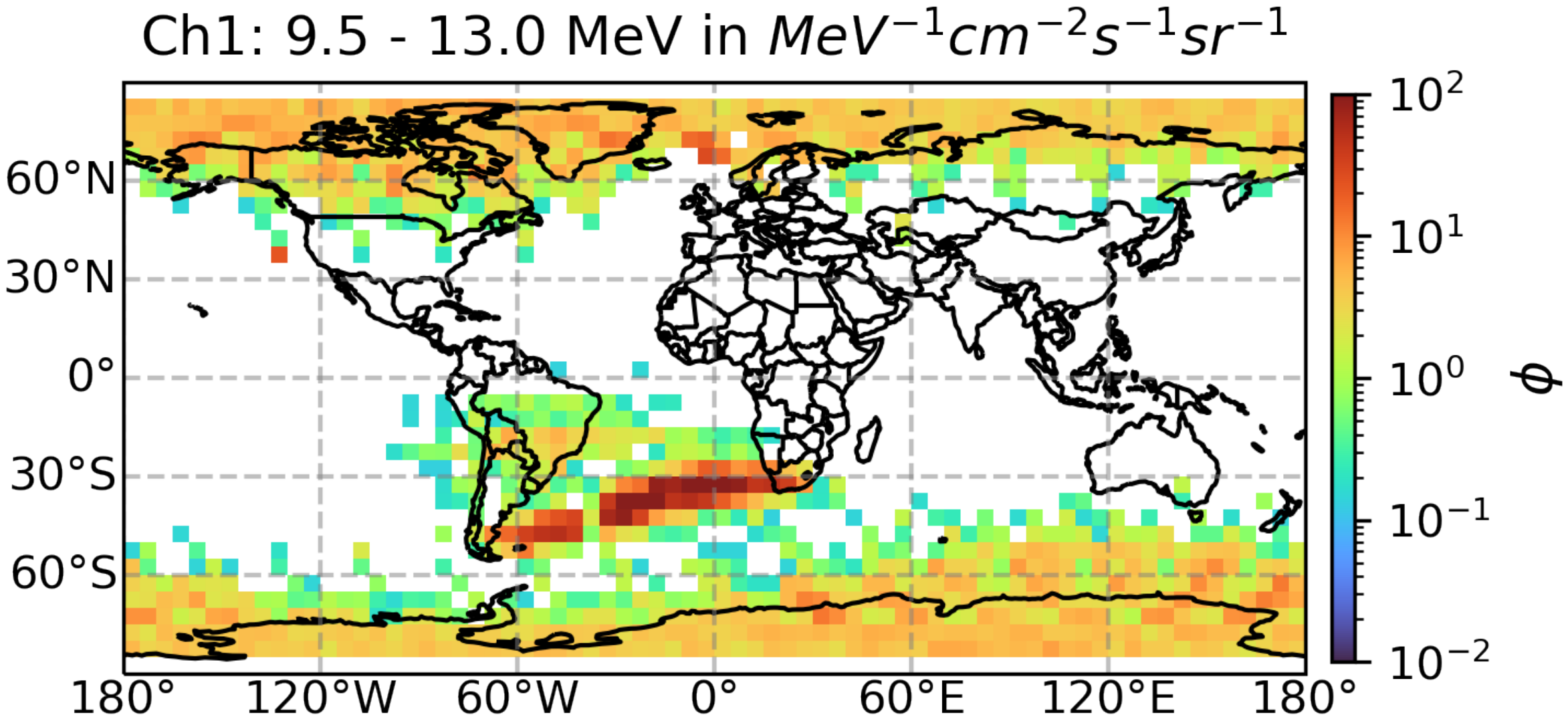
Proton fluxes from GOES observations



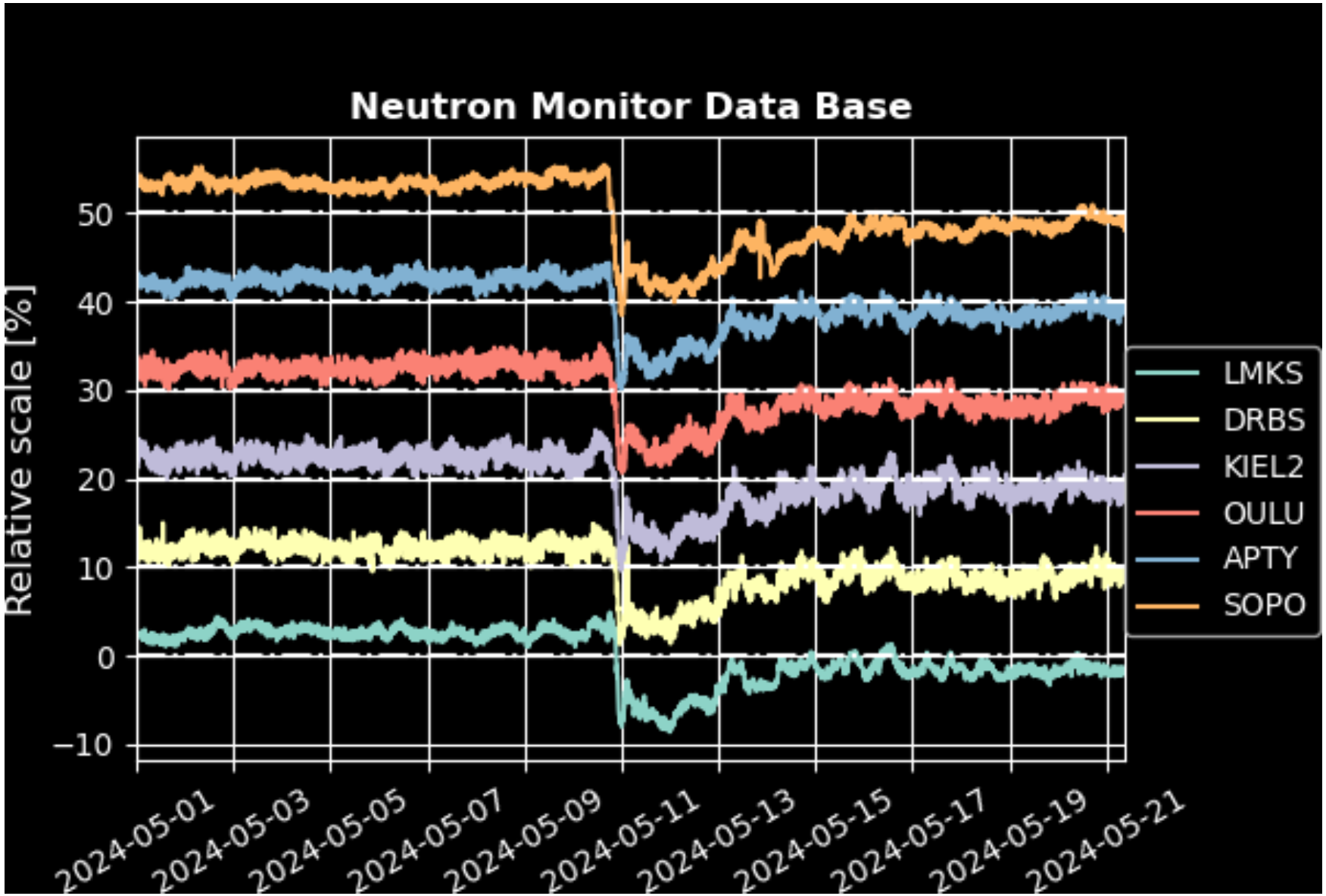


PROBA-V/
EPT proton flux

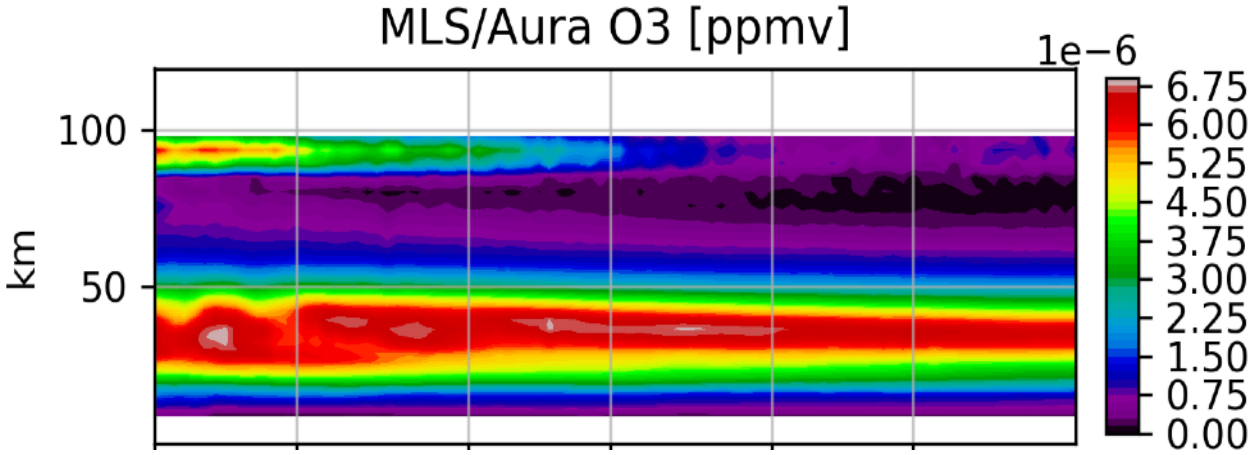
Map of PROBA-V/EPT flux (South SAA)



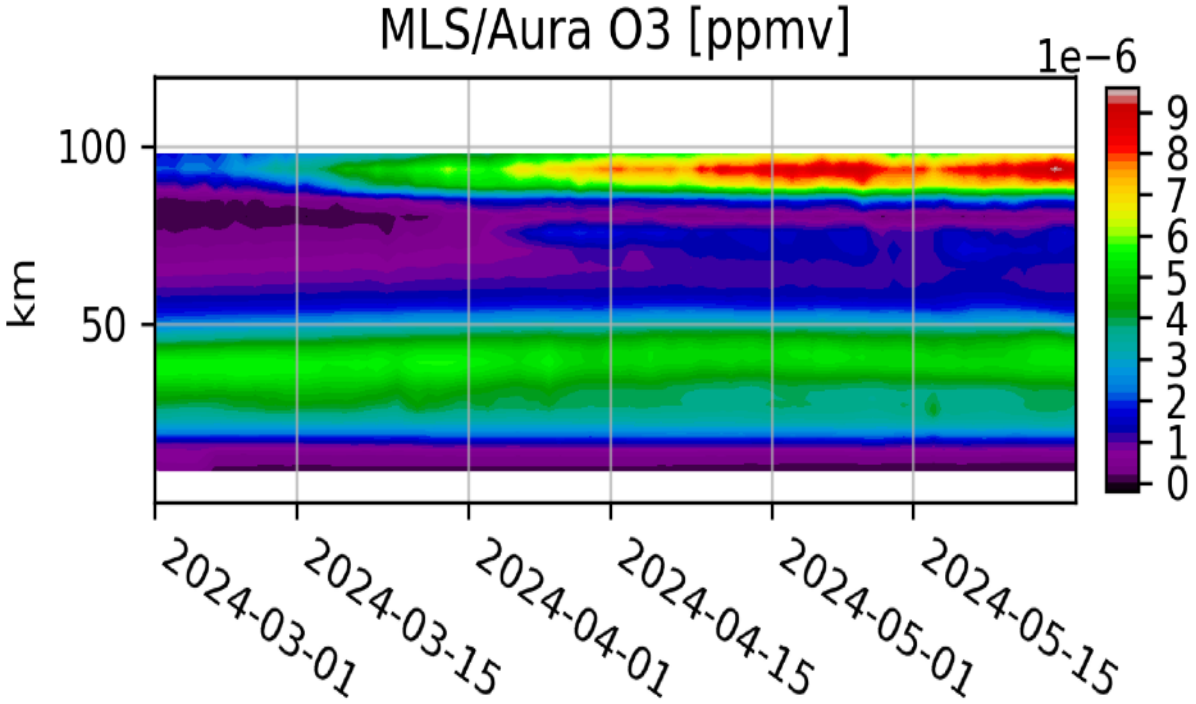
Neutron monitors



Ozone (MLS observations)



North hemisphere



South hemisphere

BIOSPHERE

BSPM model of plasmasphere

Pierrard et al., *Front. Astron. Space Sci.*, 8:681401, 2021

https://pithia-nrf.eu and on NASA CCMC, ESA SSA, VSWMC

