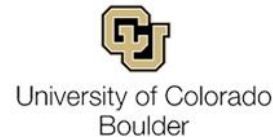
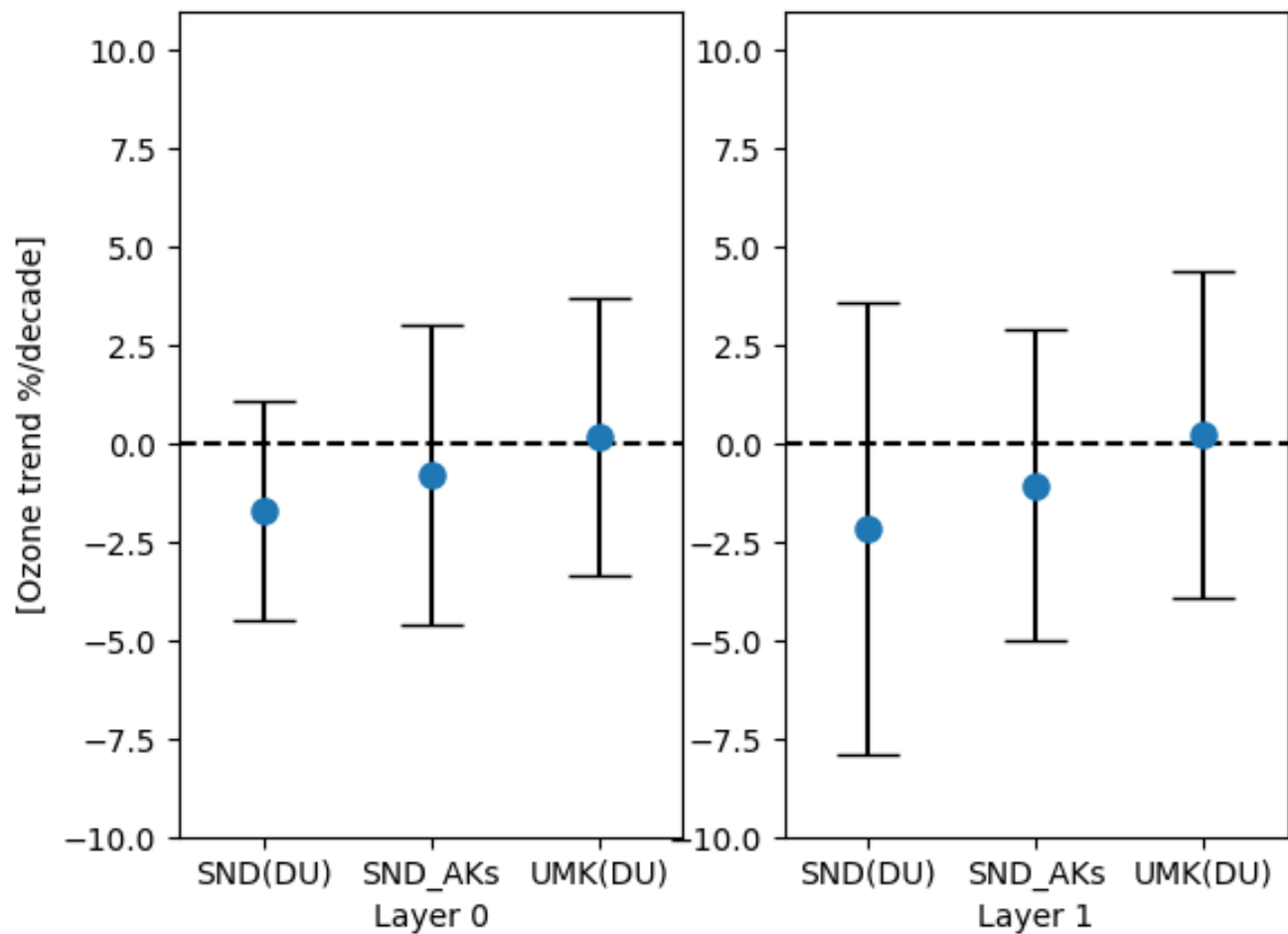


Ozone Trends in the Troposphere Comparison with Umkehr and Ozonesondes

Peter Effertz, Irina Petropavlovskikh, Koji Miyagawa

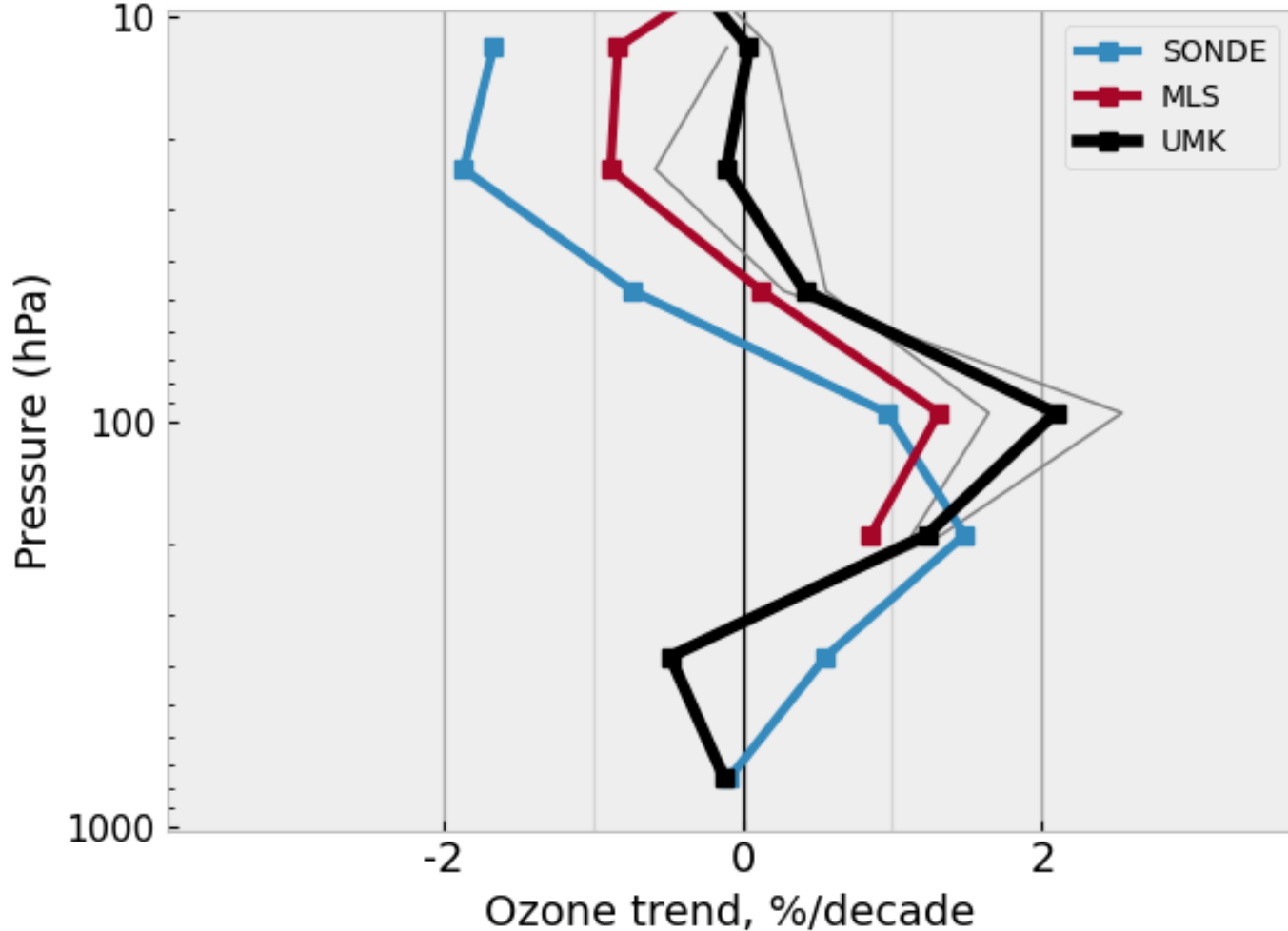


Ozone Trends (2000-2020) at Boulder



Layer	Height (hPA)
0	1013 - 506.5
1	506.5 - 253.3

Boulder, CO. (40.0 N, 105.3 W) 2000-2021 3-years trend



Optimized Dataset.

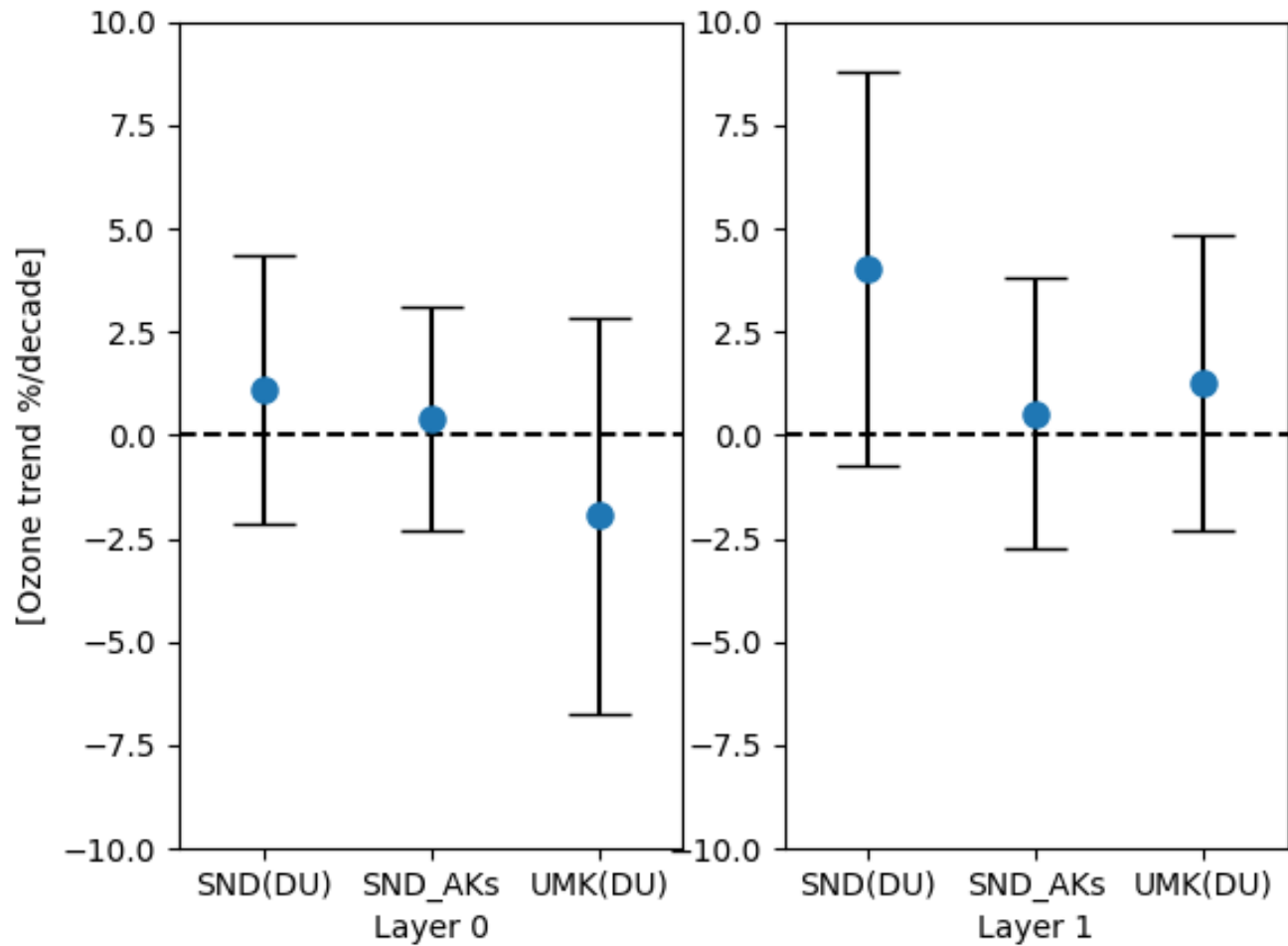
Thick black line - all Umkehr observations.

Left thick black line represents temporal matching with sonde (24 hour)

Right thick black line is when Umkehr is matched with MLS (24 hour)

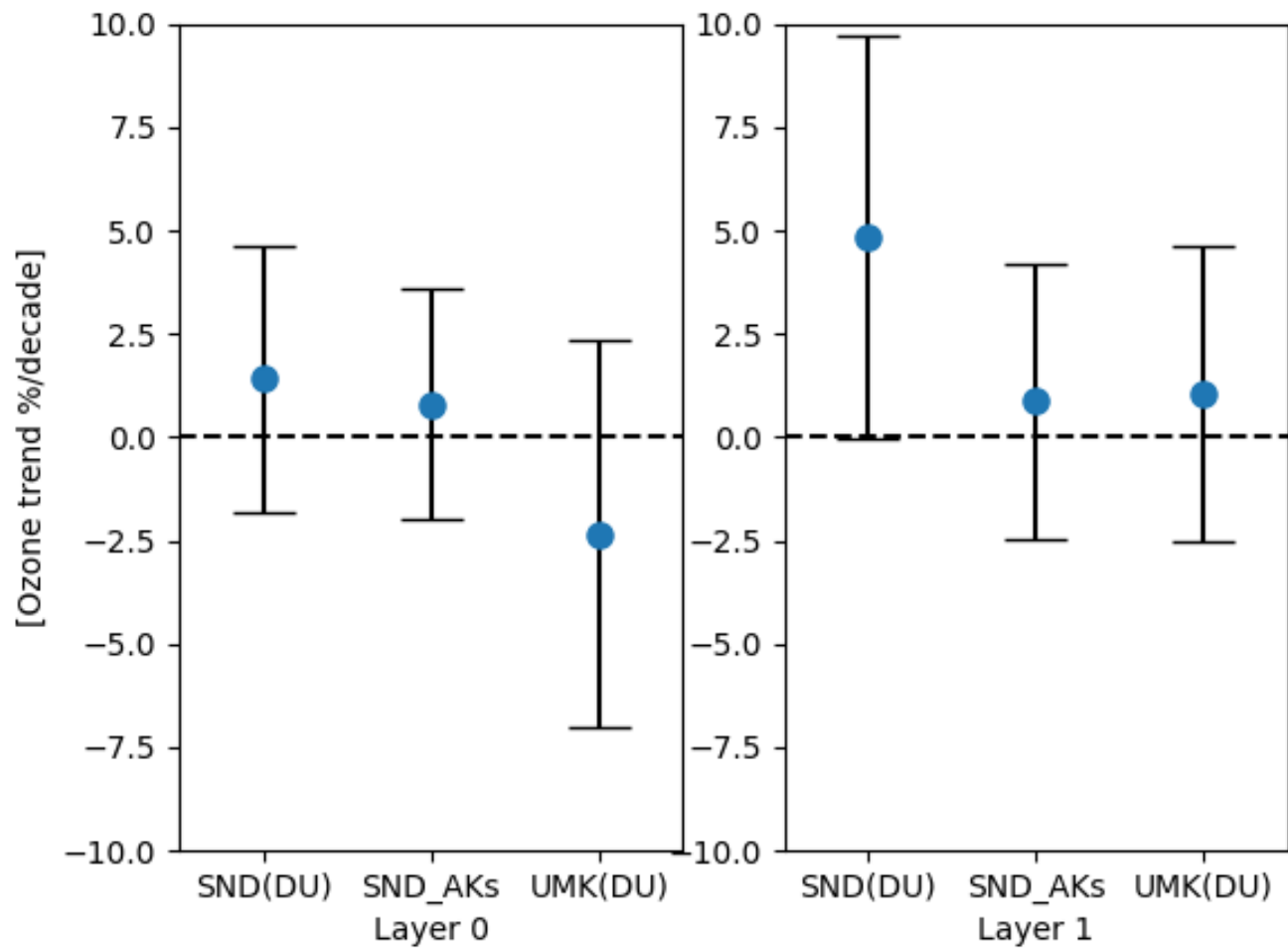
Ozone Trends (2000-2020) at Lauder

Prelim (Richard
Quarrel)
homogenization

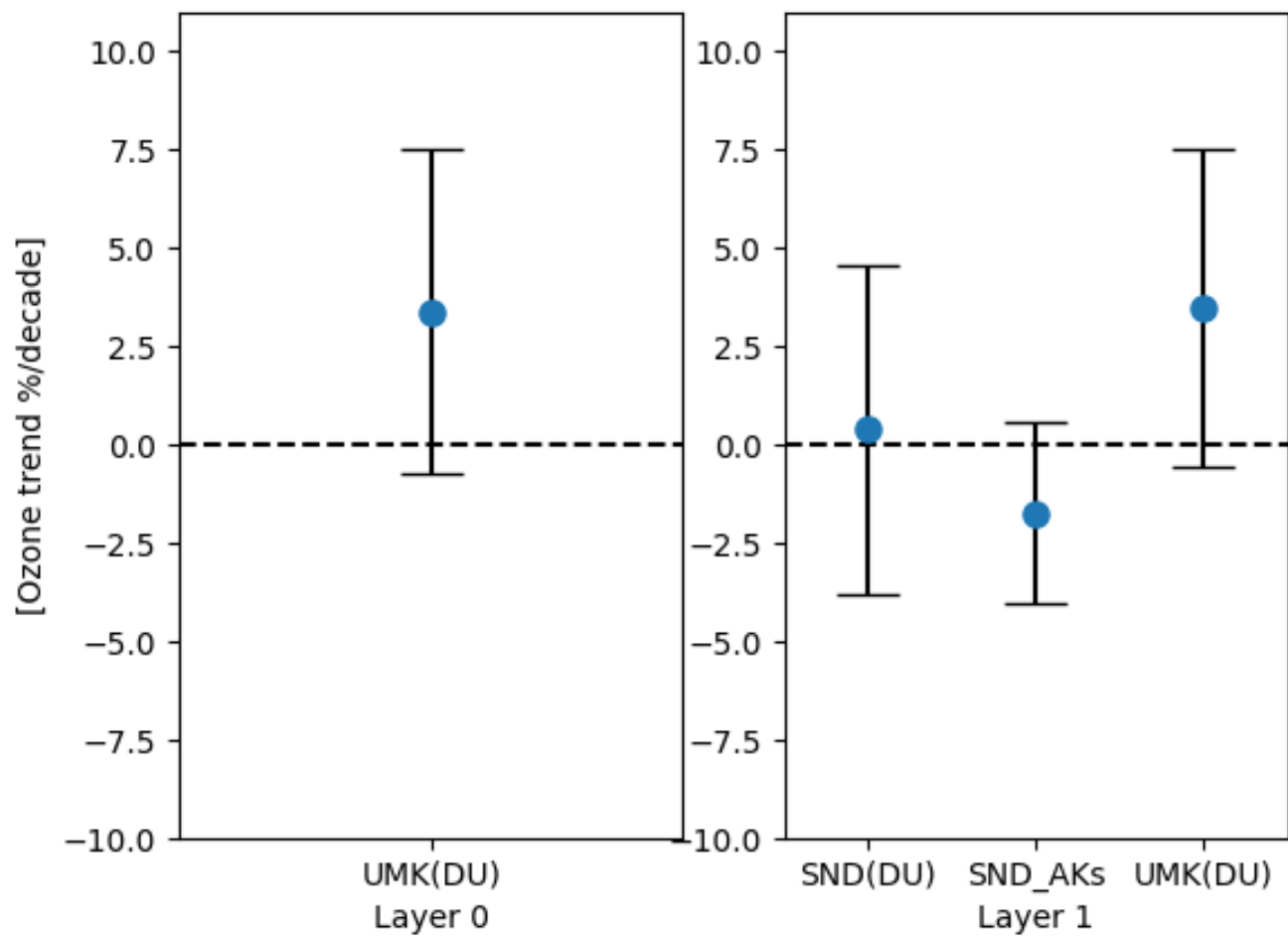


Ozone Trends (2000-2020) at Lauder

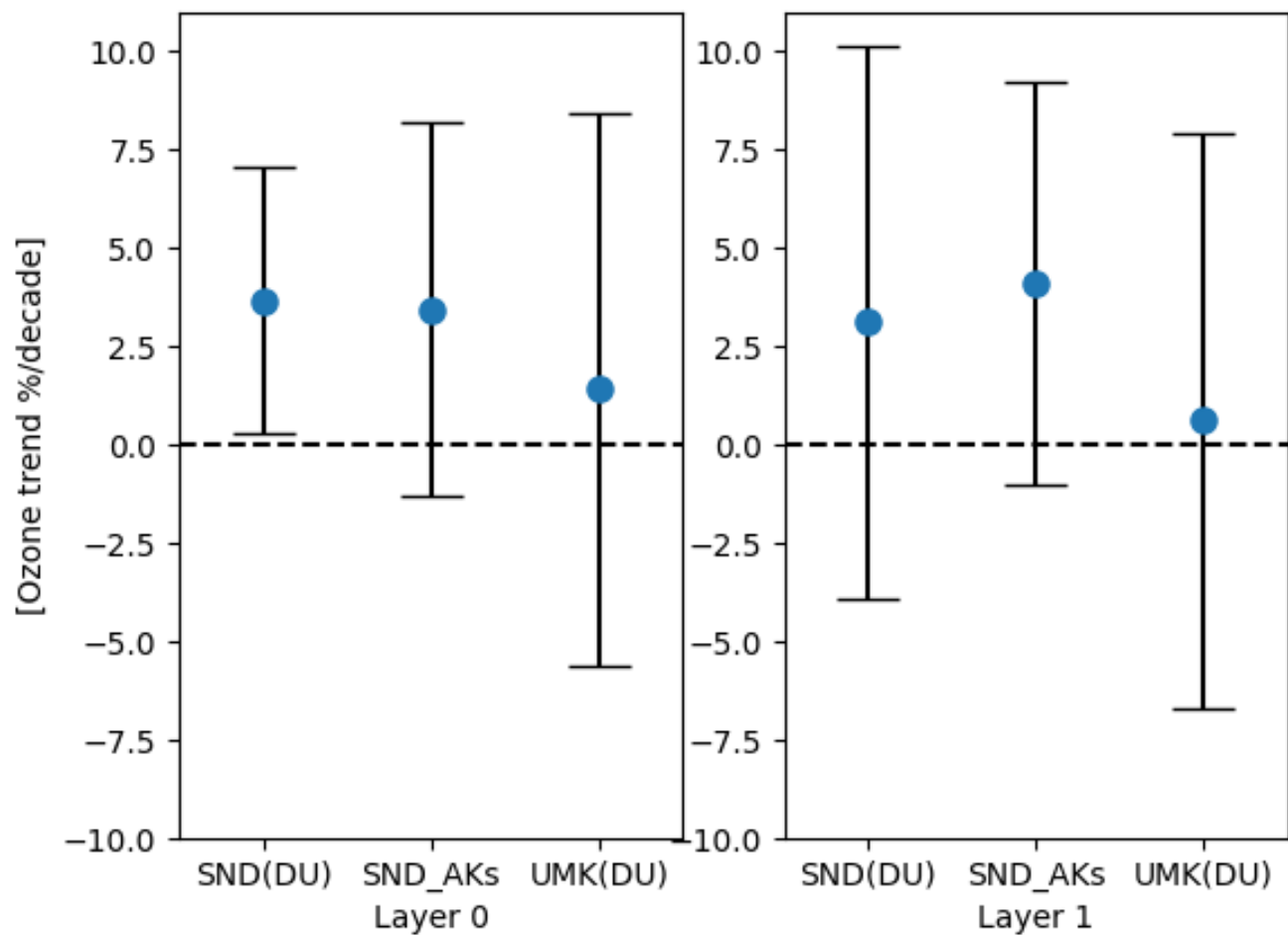
HEGIFTOM RS80

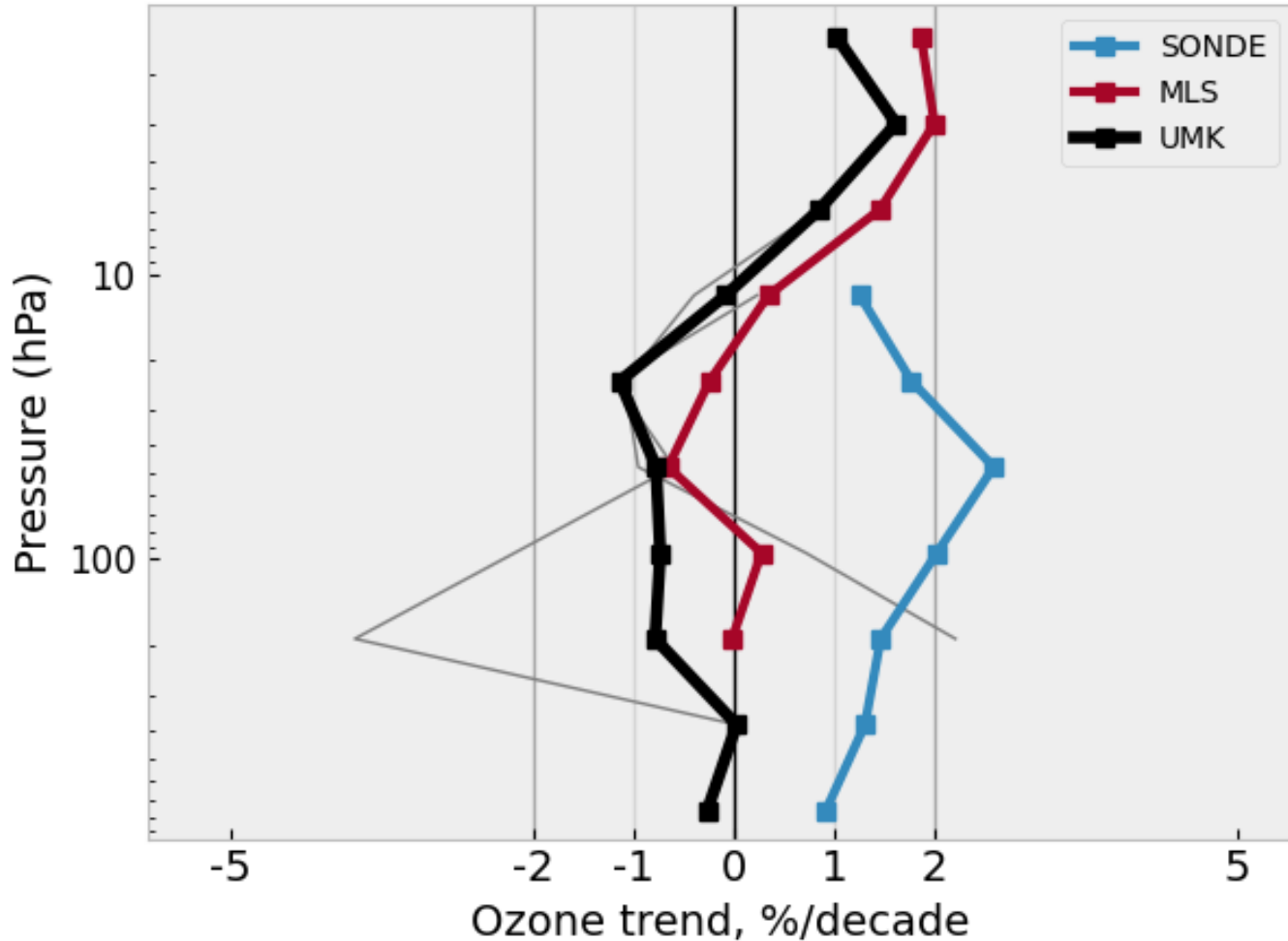


Ozone Trends (2000-2020) at Mauna Loa / Hilo



Ozone Trends (2000-2020) at Haute Provence





Optimized Dataset.

Thick black line - all Umkehr observations.

Left thick black line represents temporal matching with sonde (24 hour)

Right thick black line is when Umkehr is matched with MLS (24 hour)