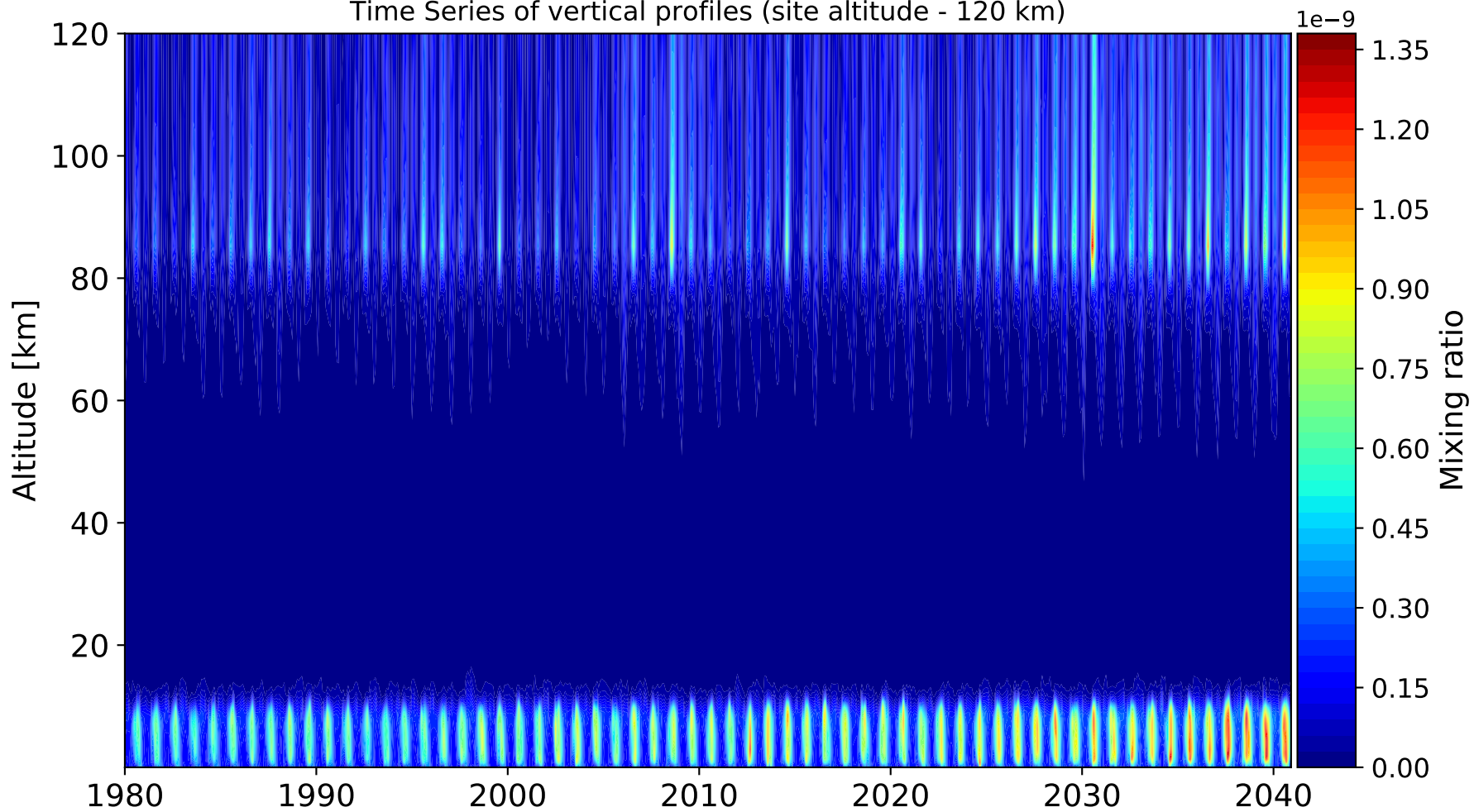
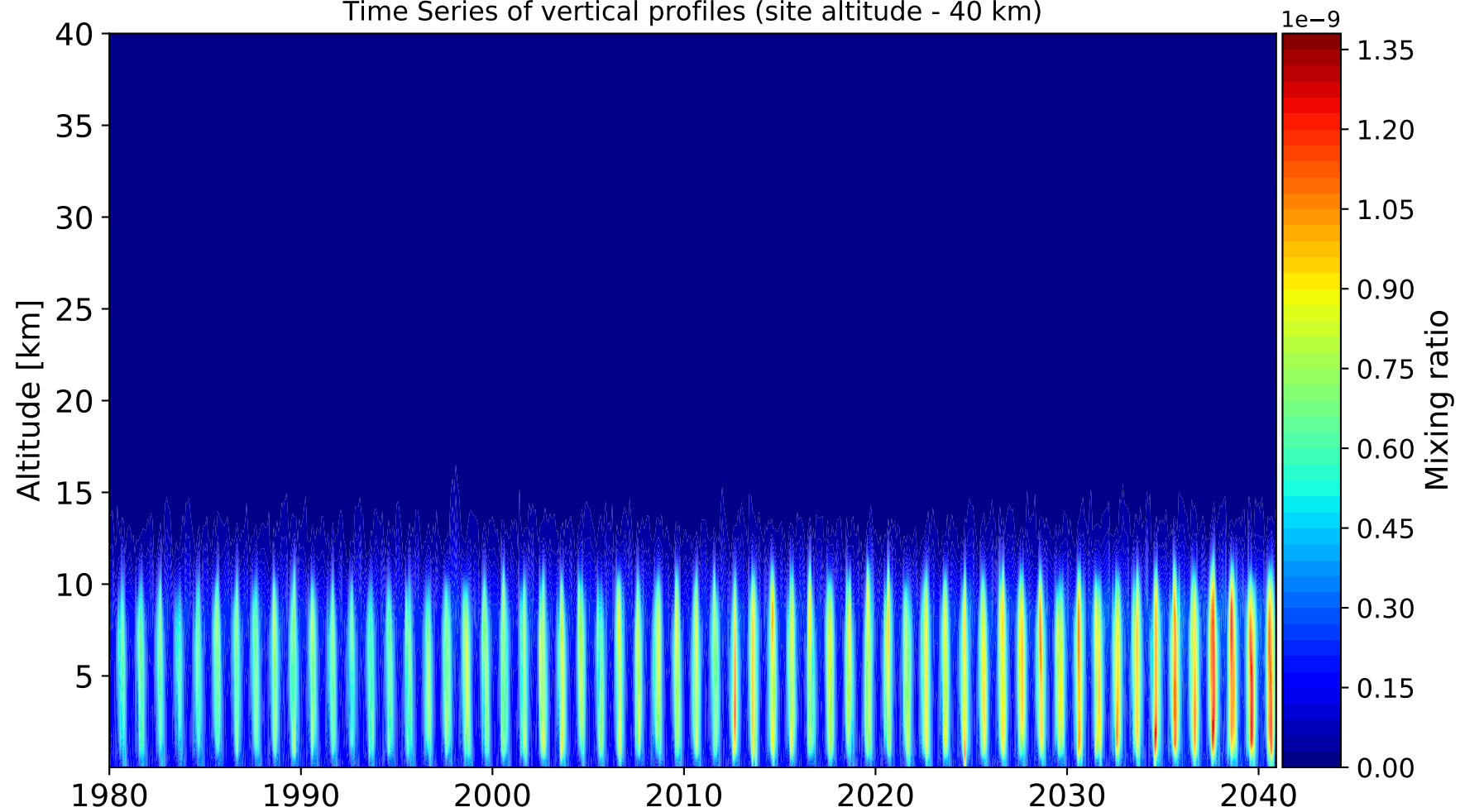


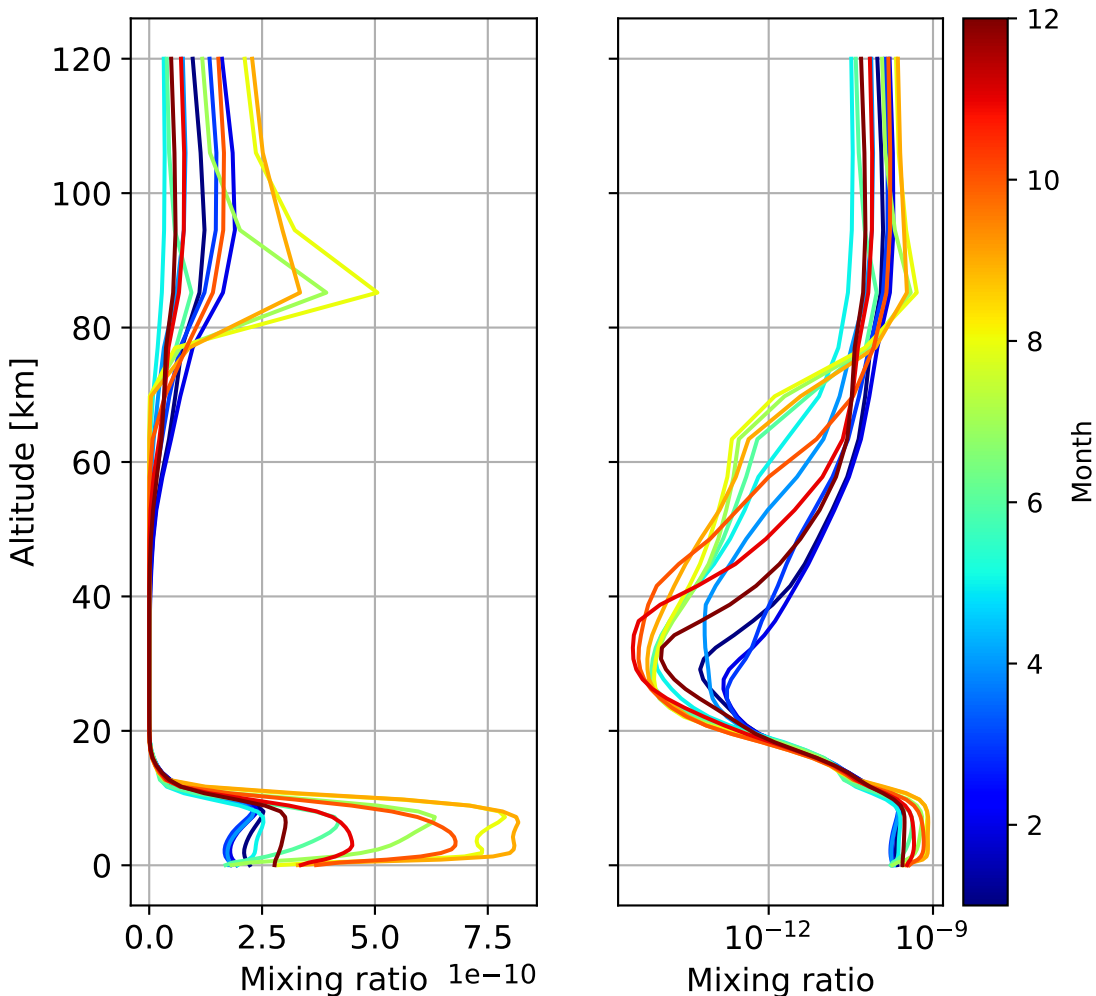
Time Series of vertical profiles (site altitude - 120 km)



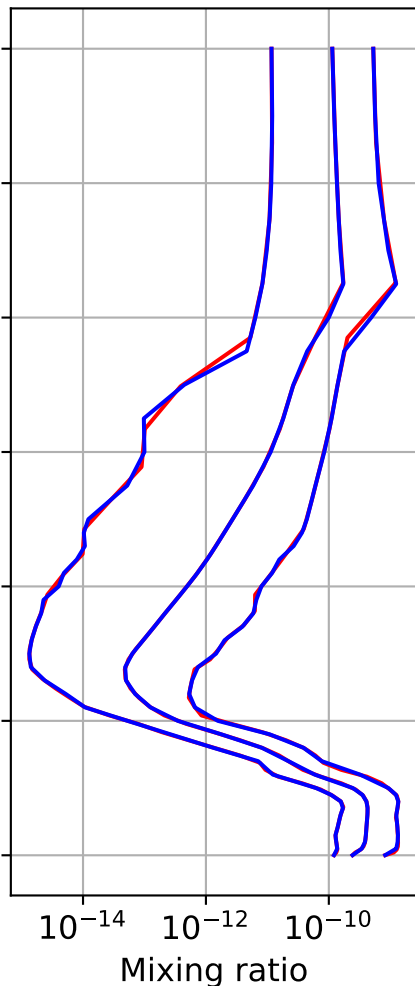
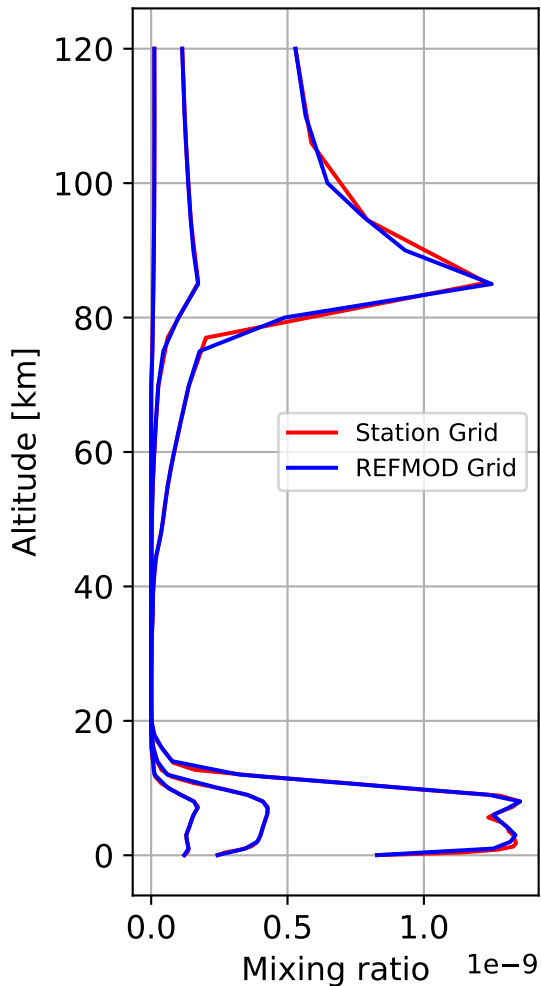
Time Series of vertical profiles (site altitude - 40 km)



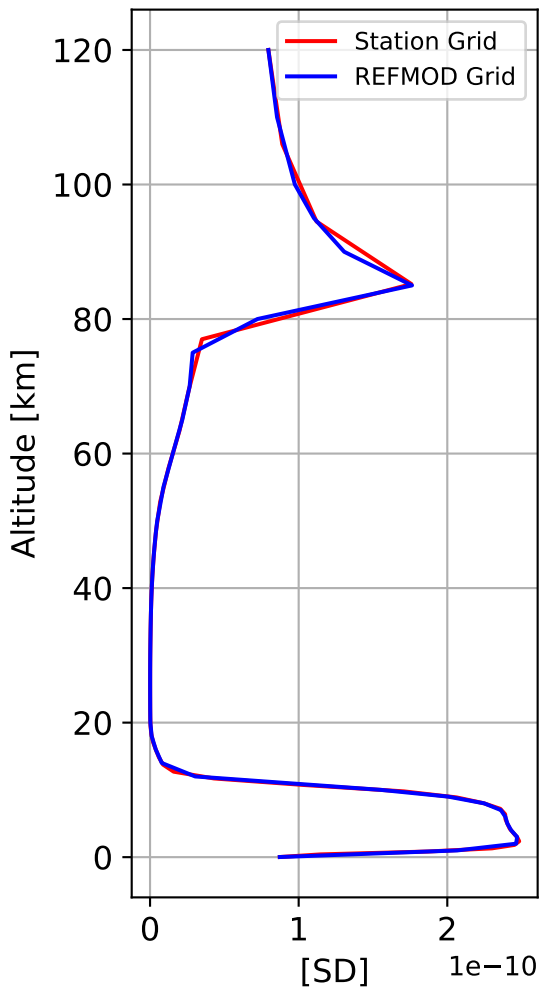
Monthly mean WACCM profile (interpolated to station grid)  
Ny\_Alesund, 78.9N, 11.9E, 0.02kmasl



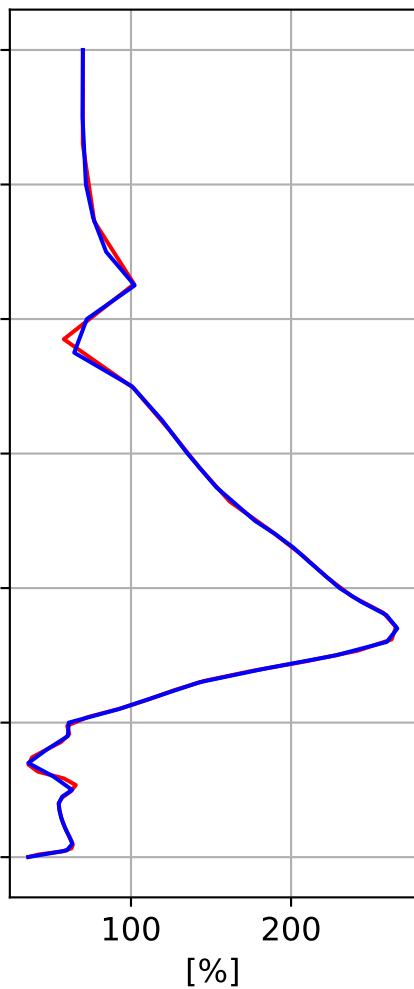
Min, Max, Mean of 732 profiles  
Ny\_Alesund, 78.9N, 11.9E, 0.02kmasl



### Std. Deviation



### Percent Deviation

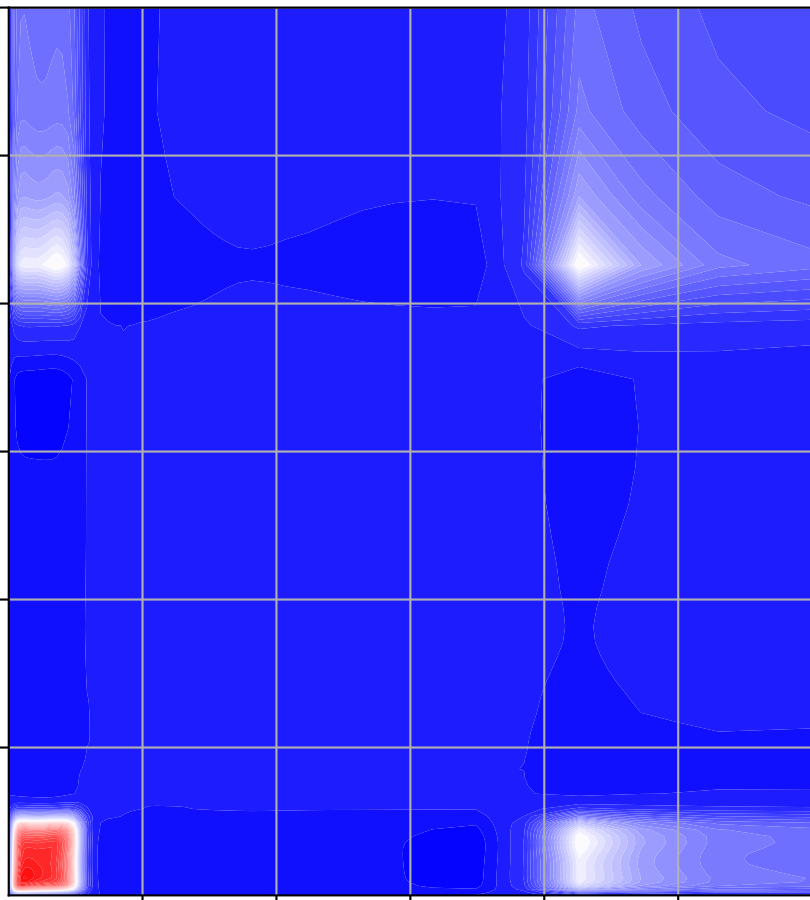


# Level covariance matrix

1e-20

Altitude [km]

120  
100  
80  
60  
40  
20



6.00  
5.25  
4.50  
3.75  
3.00  
2.25  
1.50  
0.75  
0.00

Mixing ratio[ $\sim 2$ ]

20 40 60 80 100 120

Altitude [km]