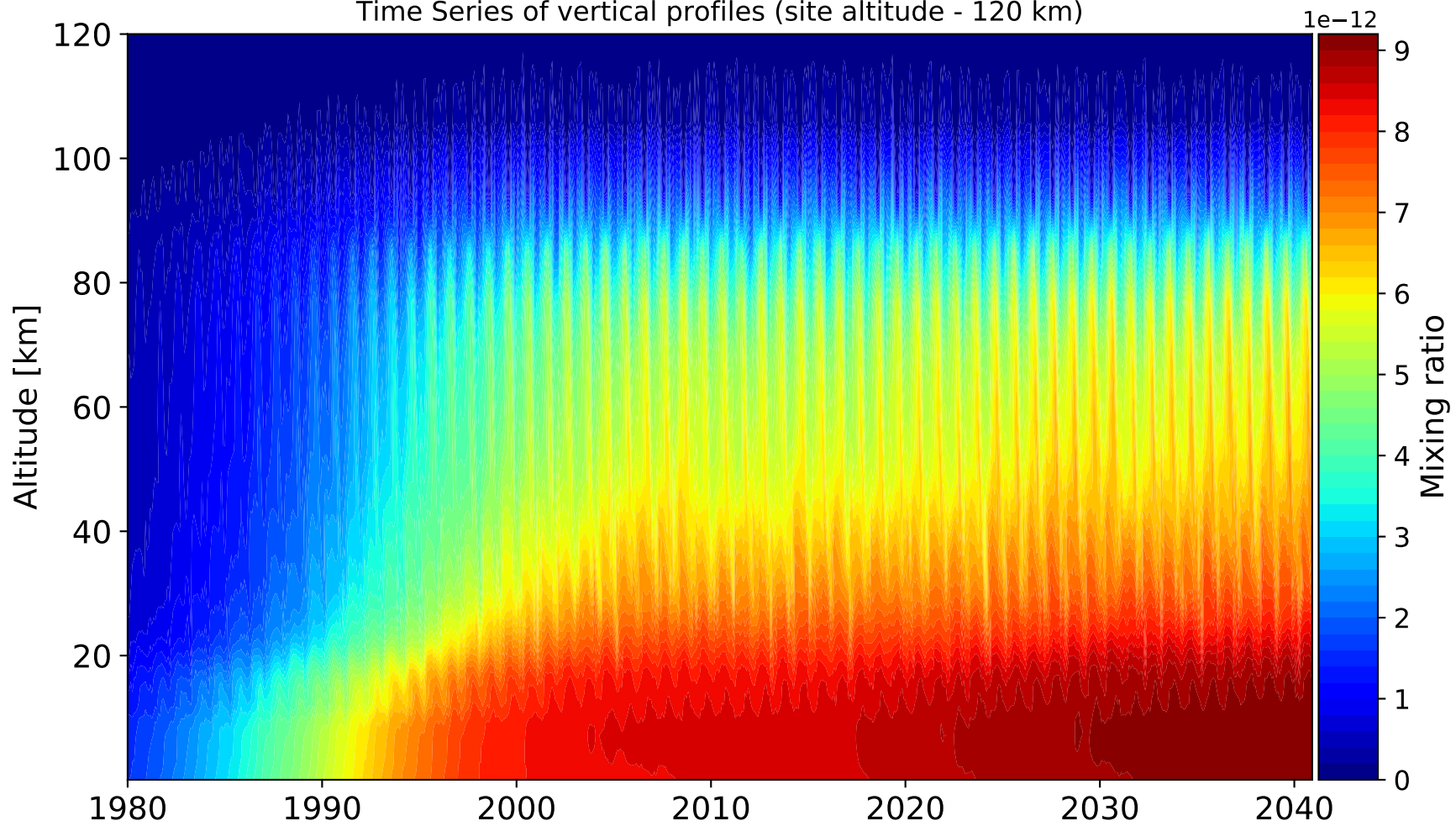
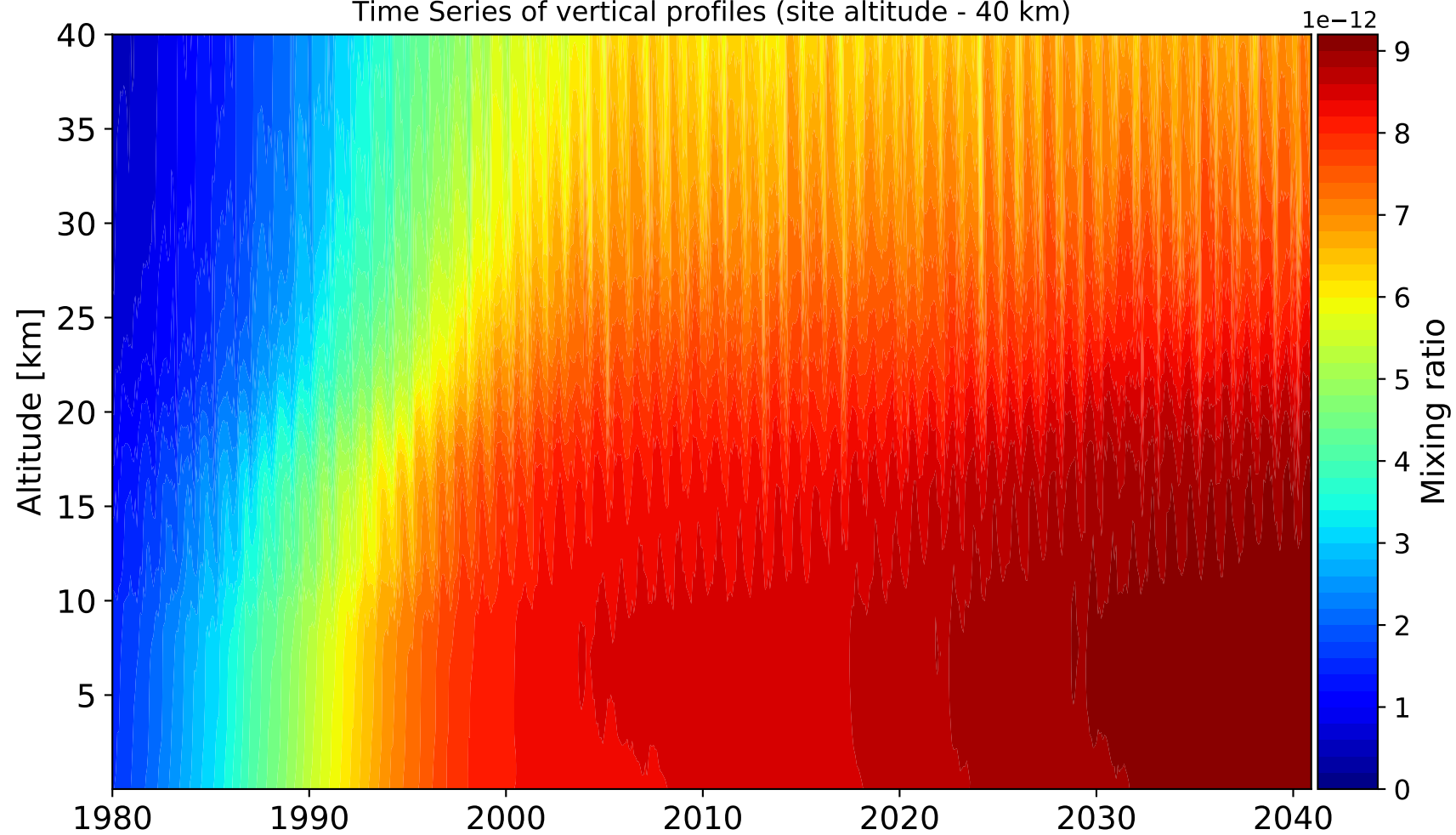


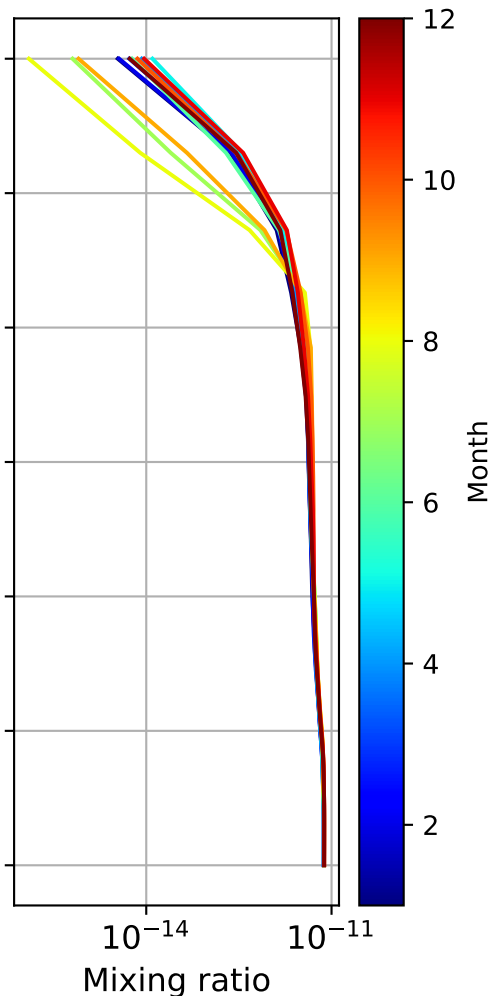
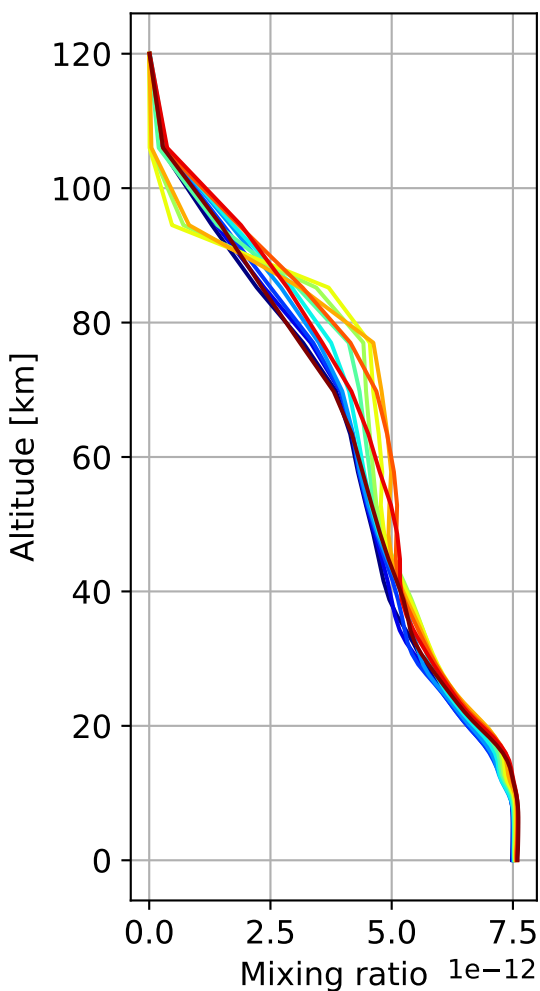
Time Series of vertical profiles (site altitude - 120 km)



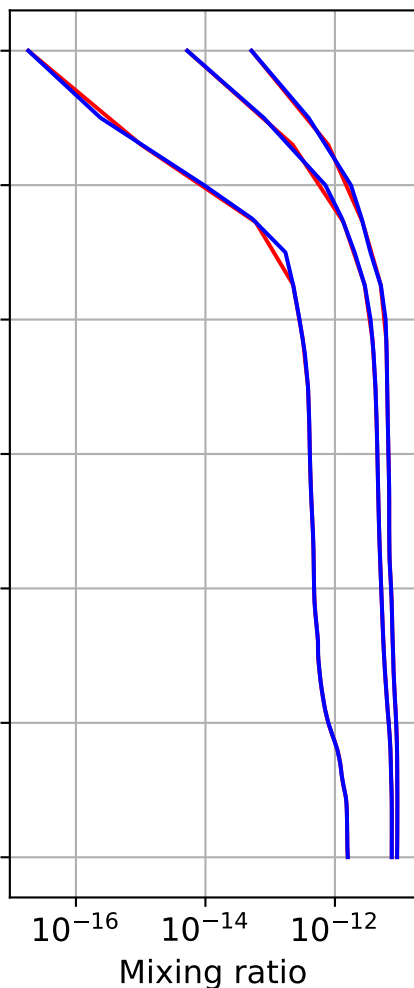
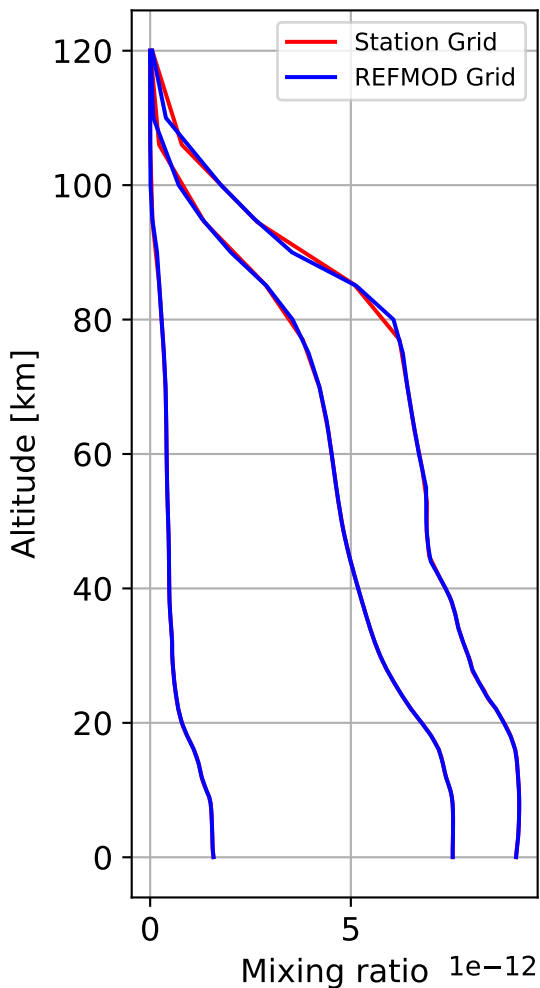
Time Series of vertical profiles (site altitude - 40 km)



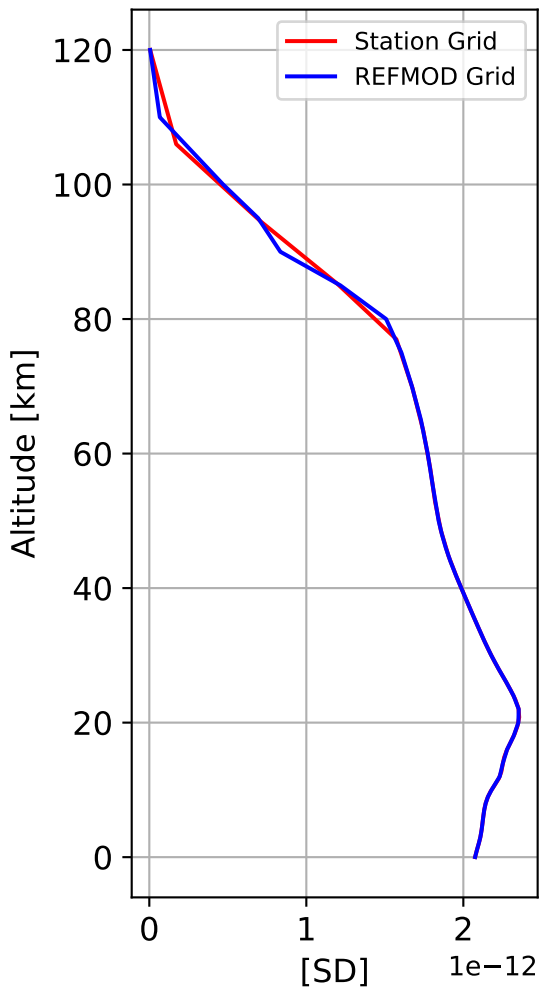
Monthly mean WACCM profile (interpolated to station grid)
St_Petersburg, 59.88N, 29.83E, 0.02kmasl



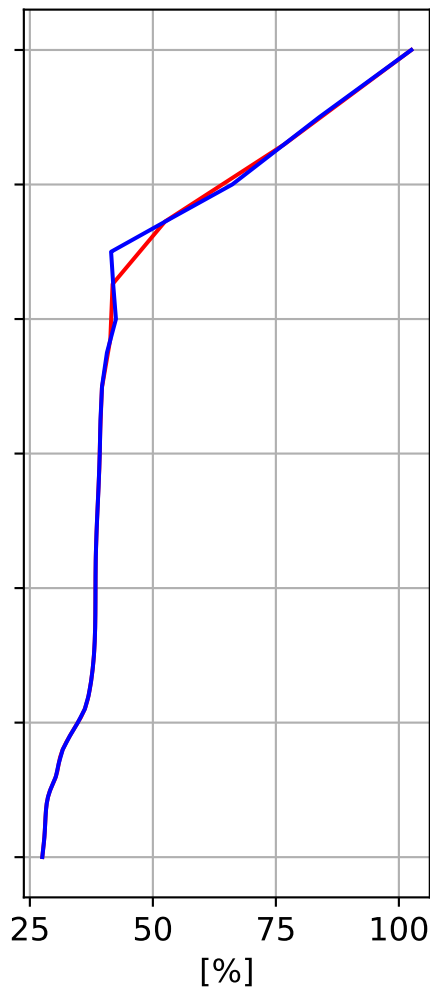
Min, Max, Mean of 732 profiles
St_Petersburg, 59.88N, 29.83E, 0.02kmasl



Std. Deviation



Percent Deviation



Level covariance matrix

 $1e-24$

Altitude [km]

120
100
80
60
40
20

20

40

60

80

100

120

Altitude [km]

5.4
4.8
4.2
3.6
3.0
2.4
1.8
1.2
0.6
0.0Mixing ratio[~ 2]