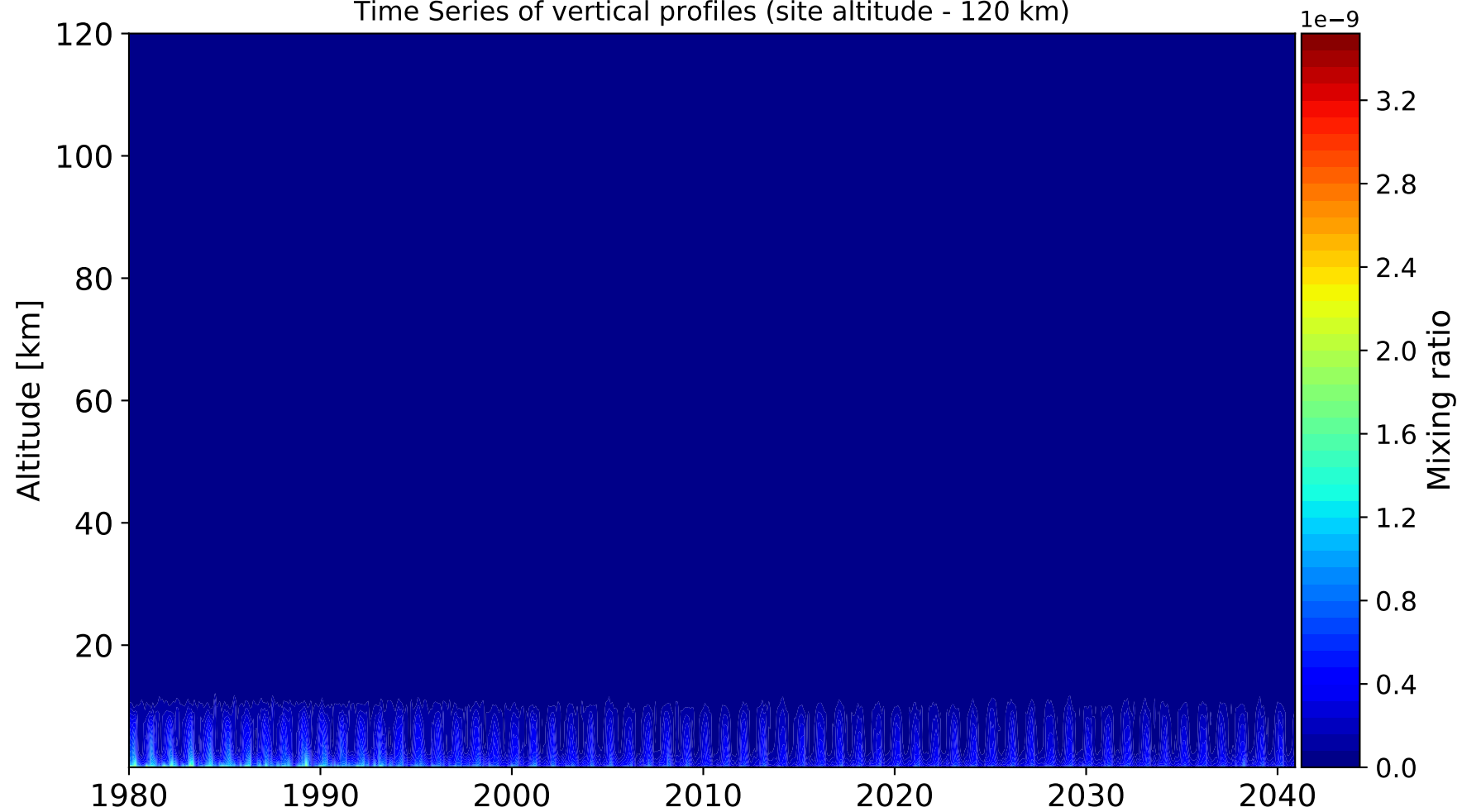
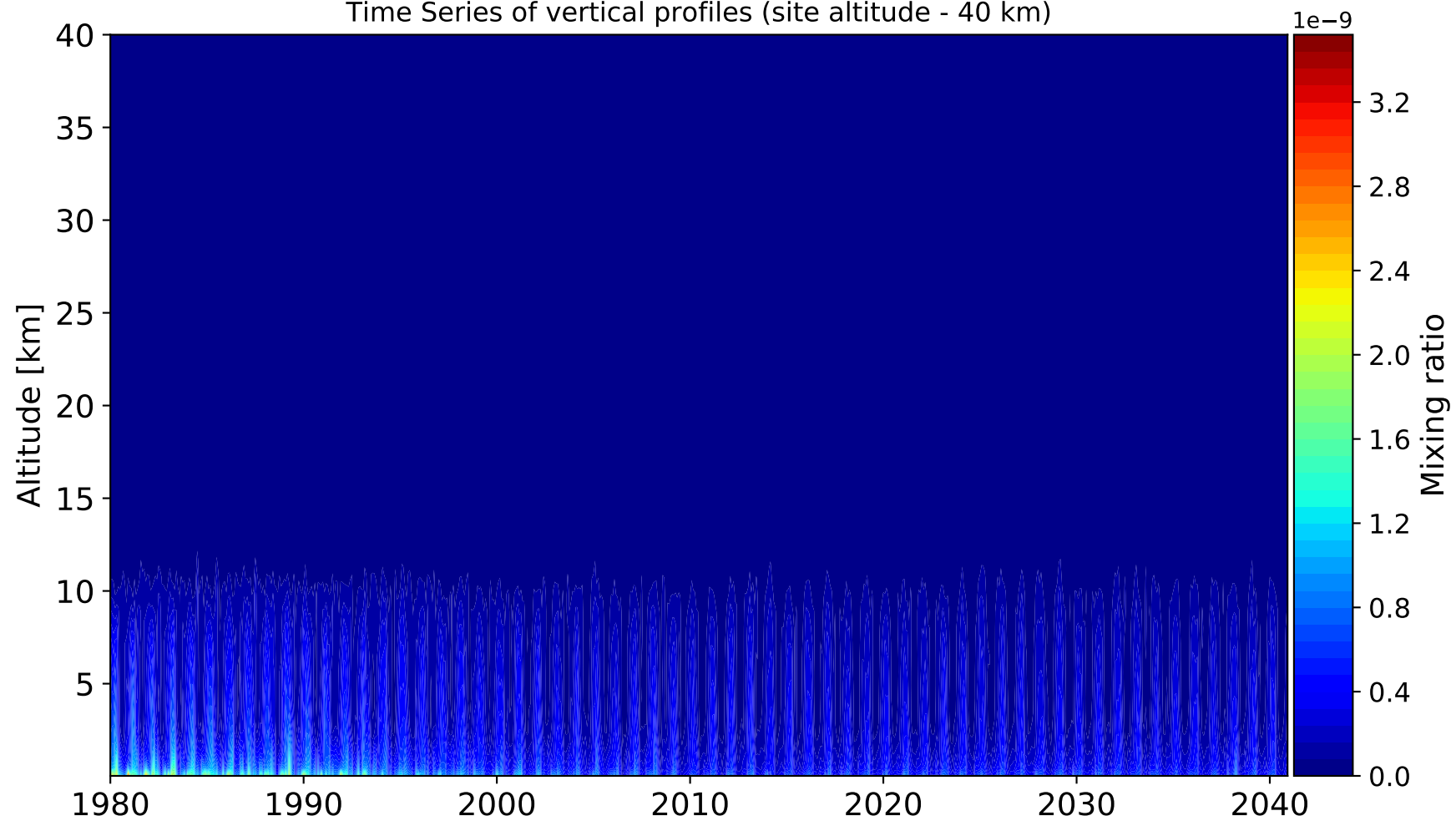


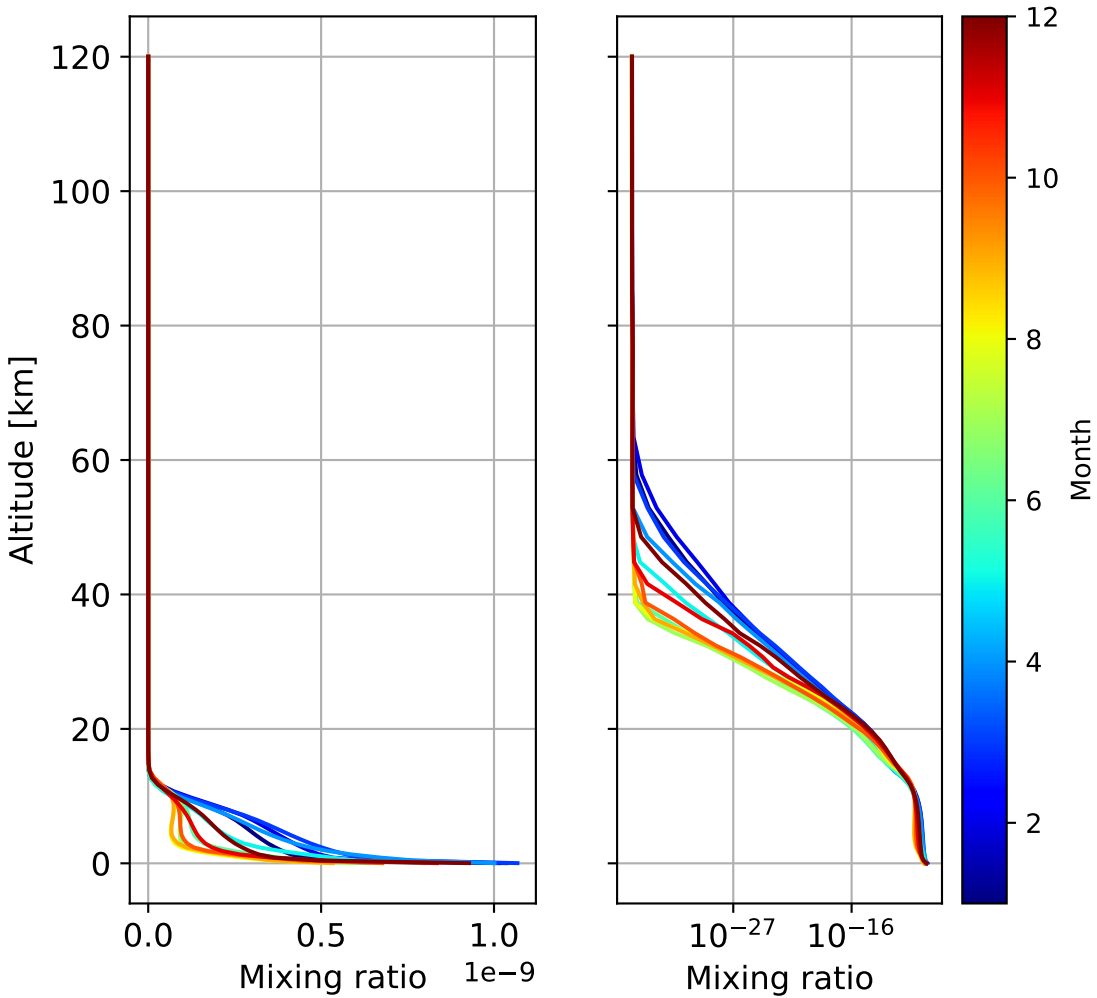
Time Series of vertical profiles (site altitude - 120 km)



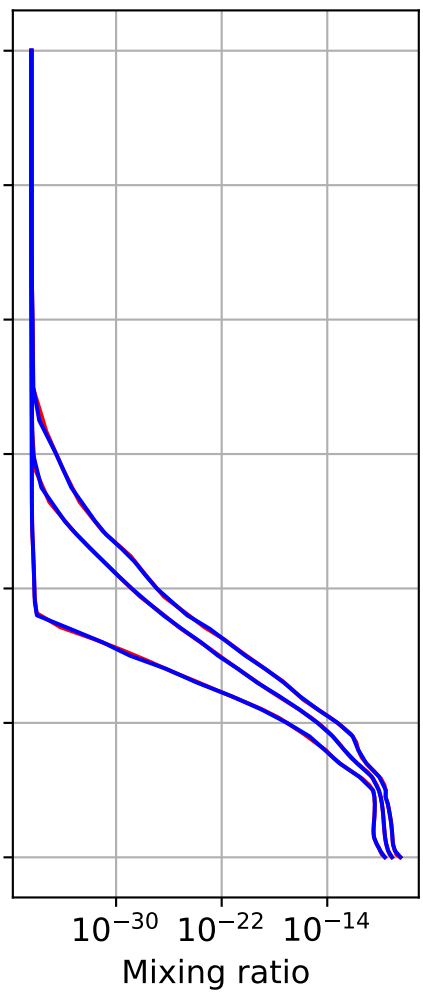
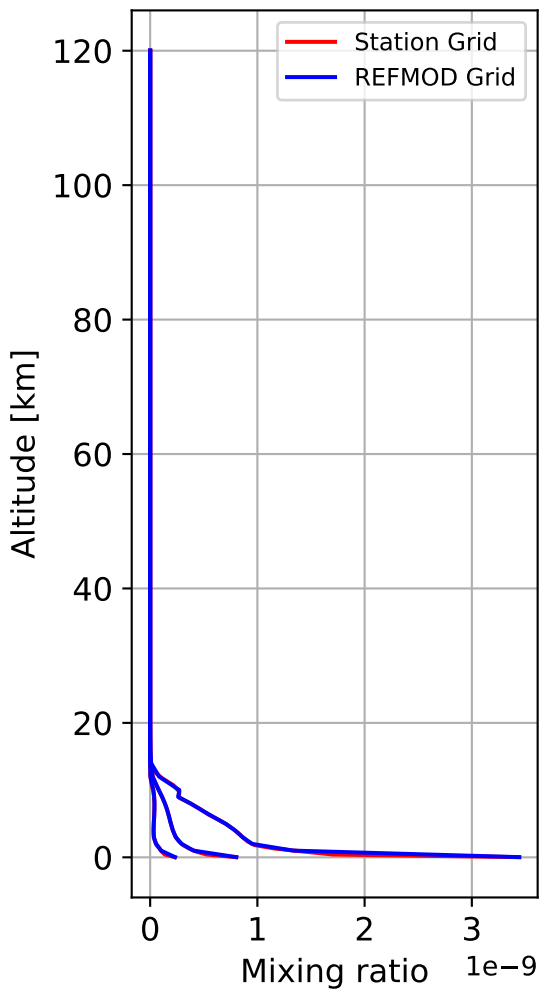
Time Series of vertical profiles (site altitude - 40 km)



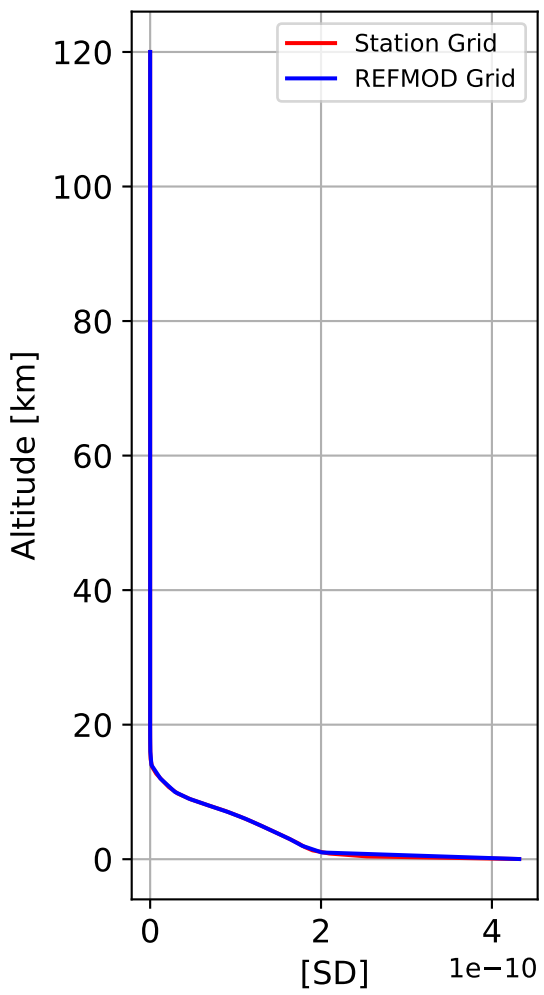
Monthly mean WACCM profile (interpolated to station grid) Bremen, 53.1N, 8.9E, 0.027kmasl



Min, Max, Mean of 732 profiles Bremen, 53.1N, 8.9E, 0.027kmasl



Std. Deviation



Percent Deviation

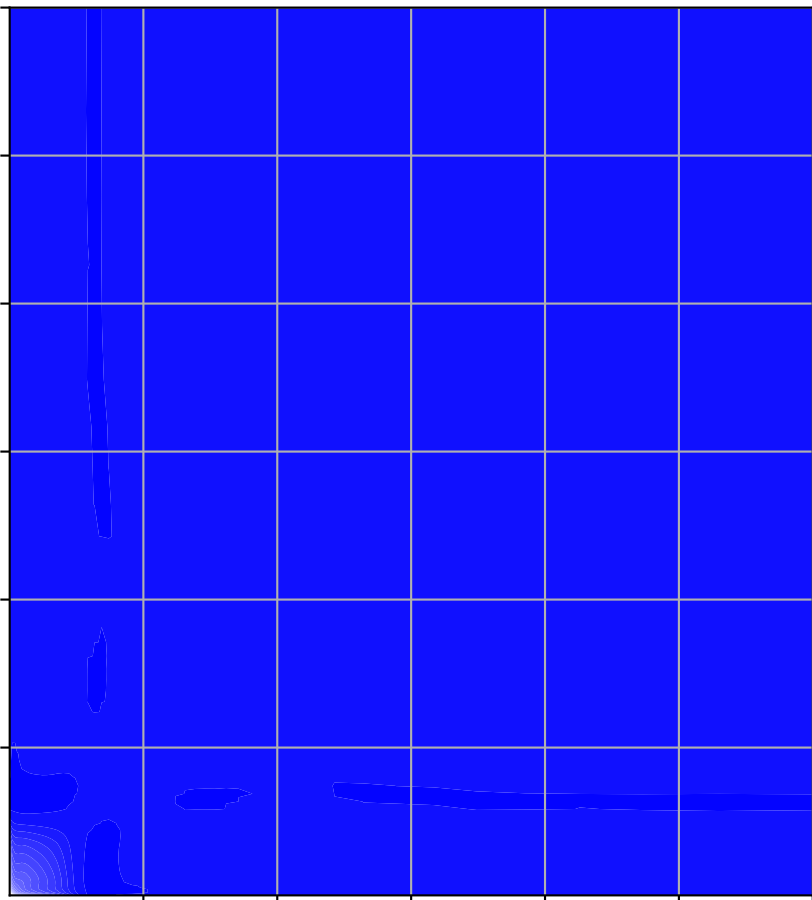


Level covariance matrix

1e-19

Altitude [km]

120
100
80
60
40
20



Altitude [km]

Mixing ratio[²]

1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0