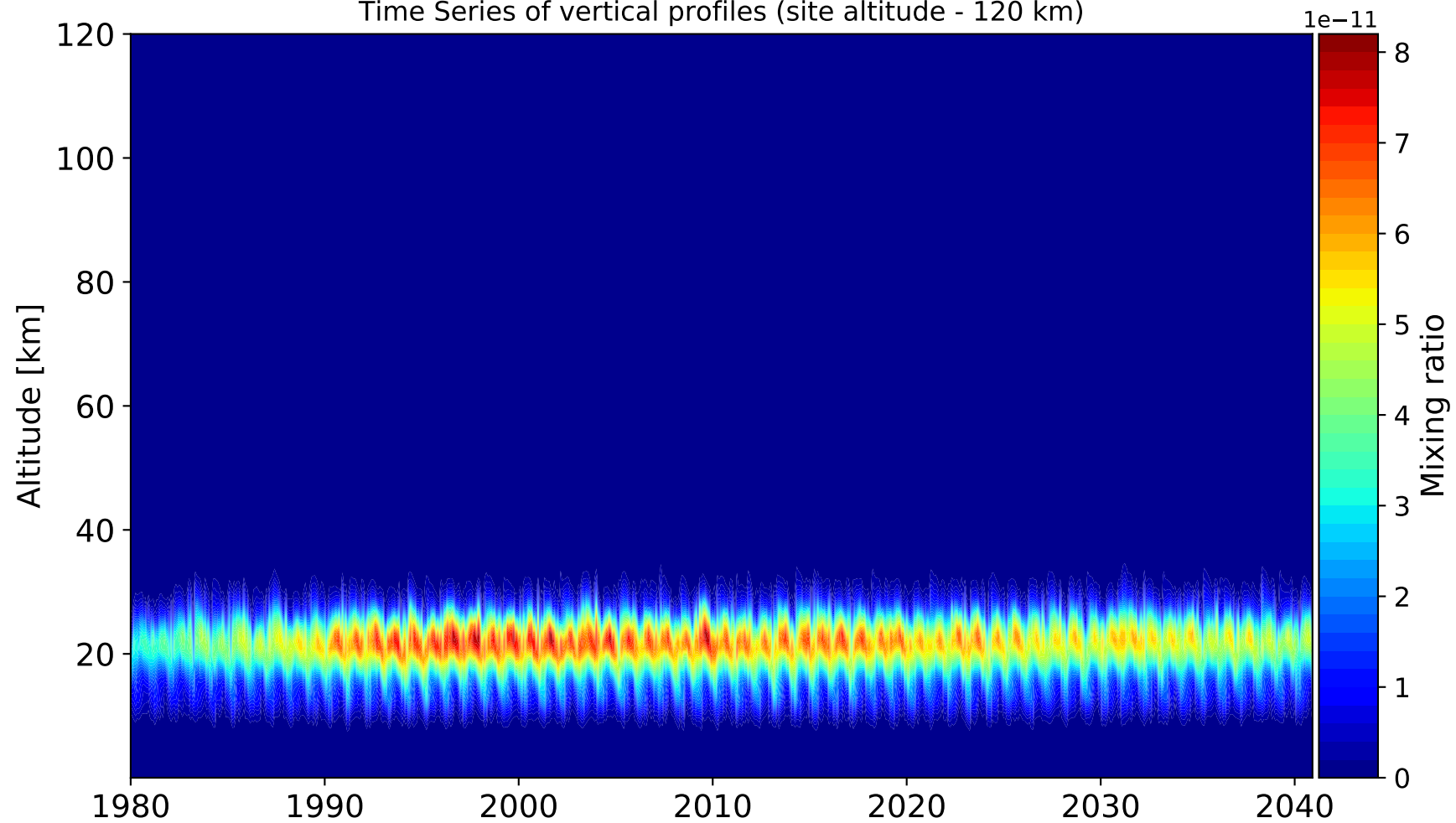
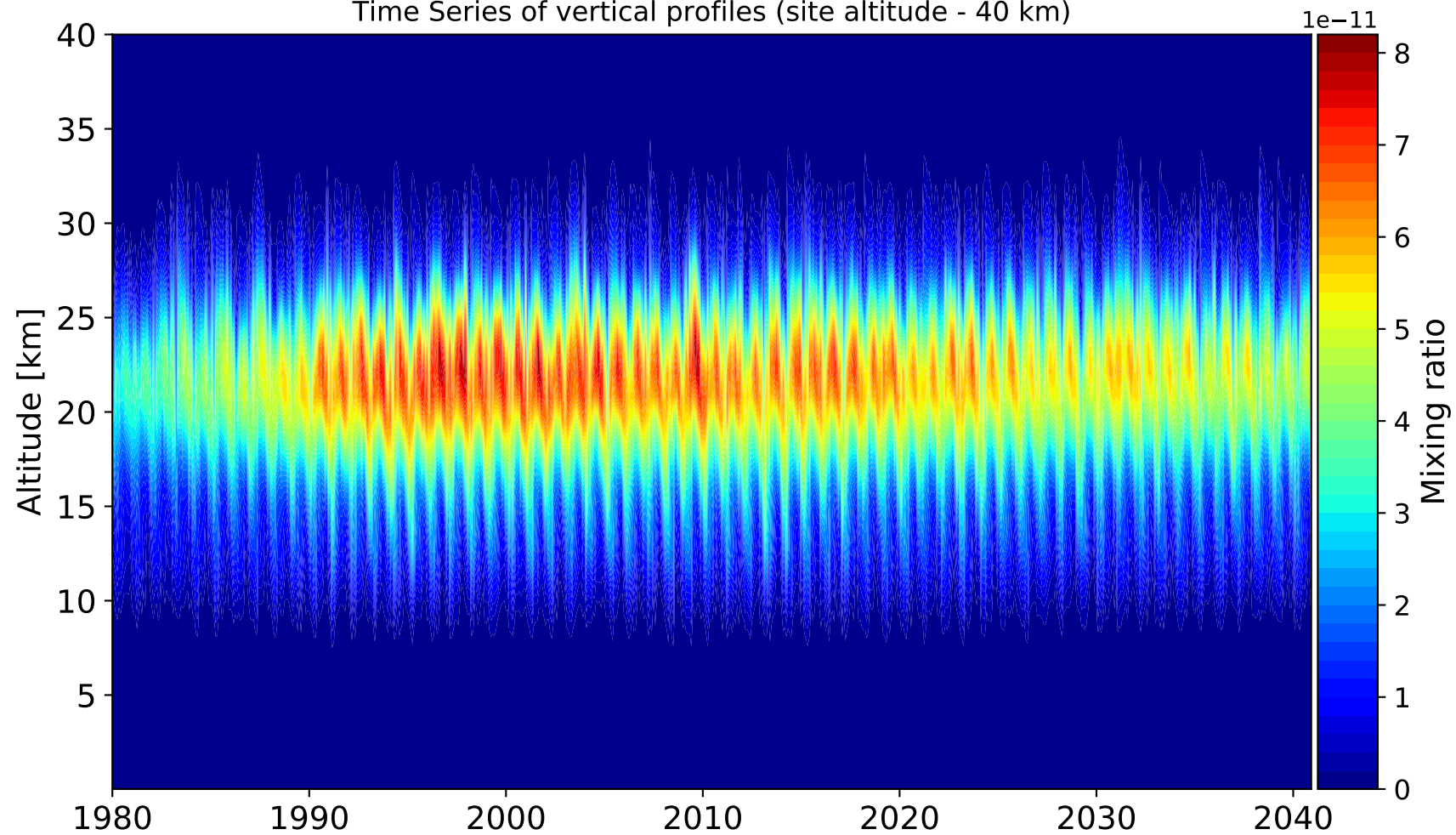


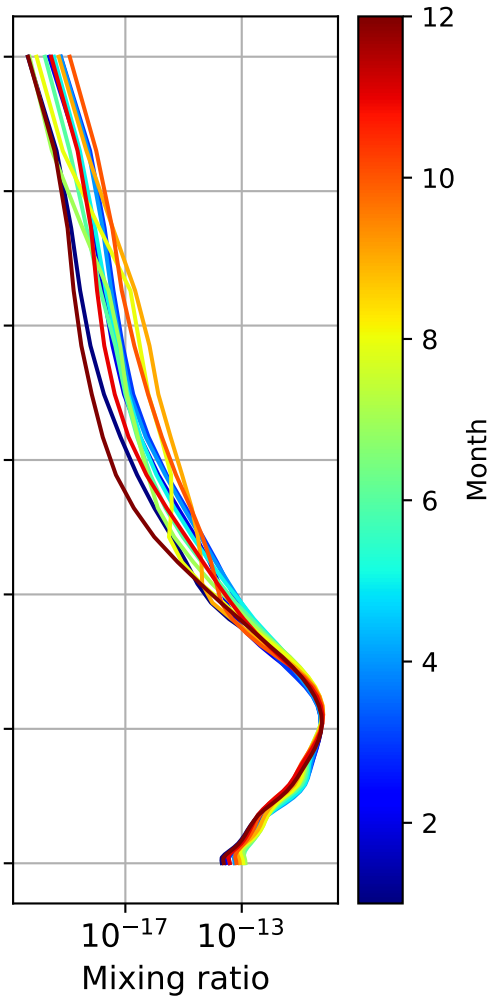
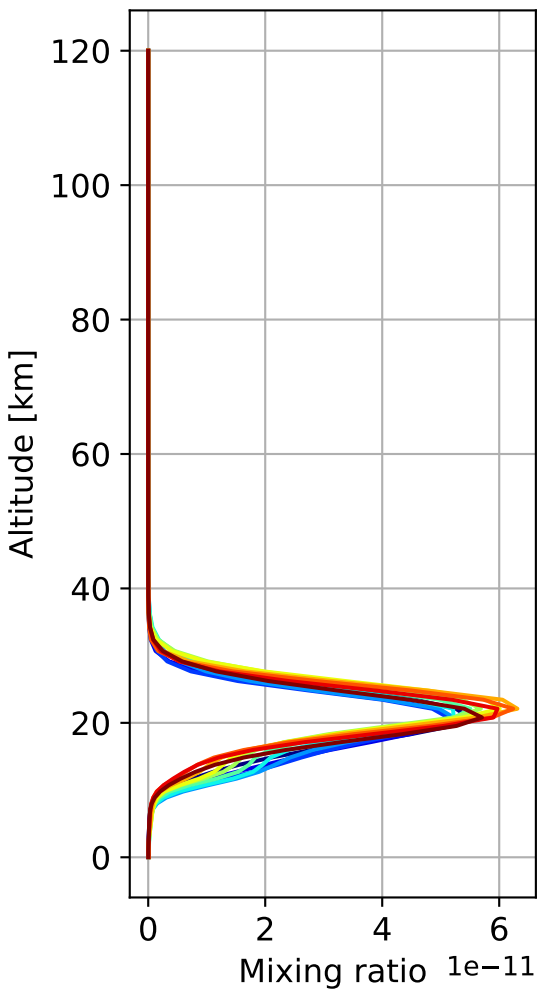
Time Series of vertical profiles (site altitude - 120 km)



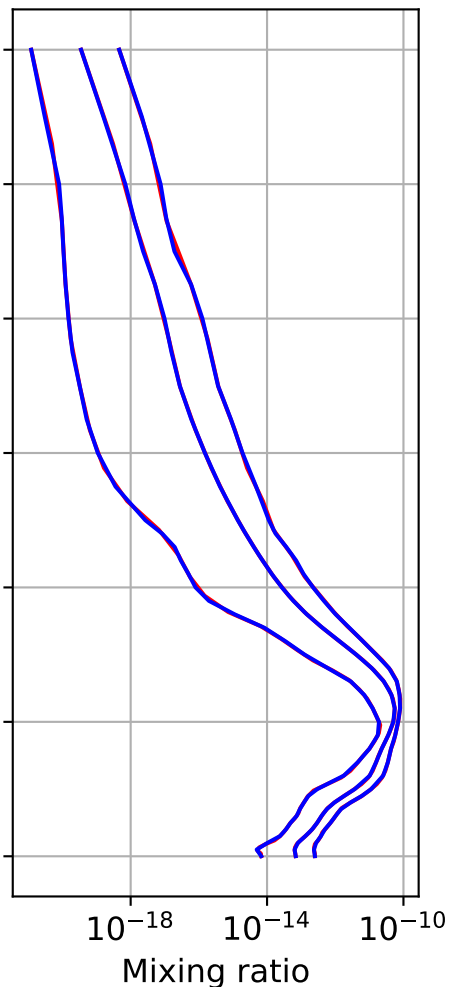
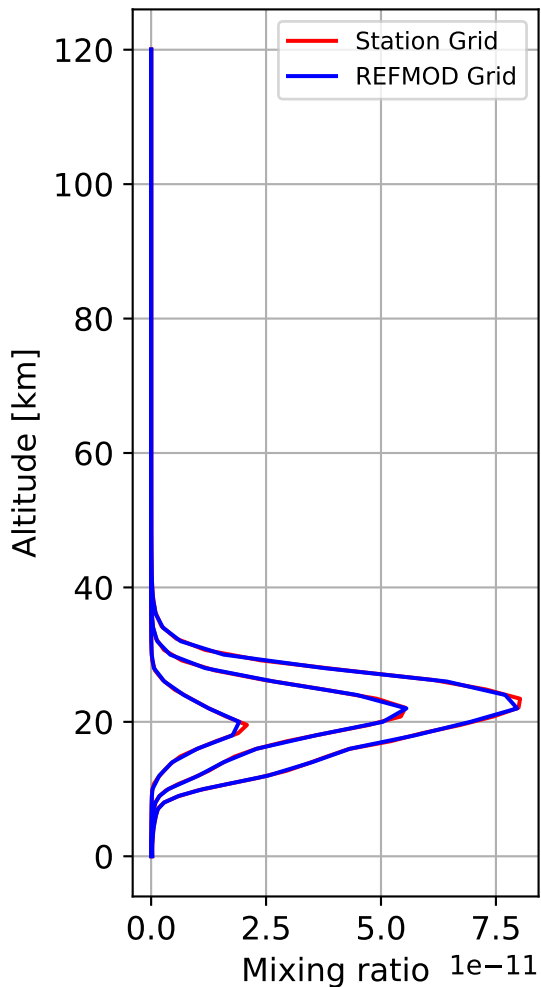
Time Series of vertical profiles (site altitude - 40 km)



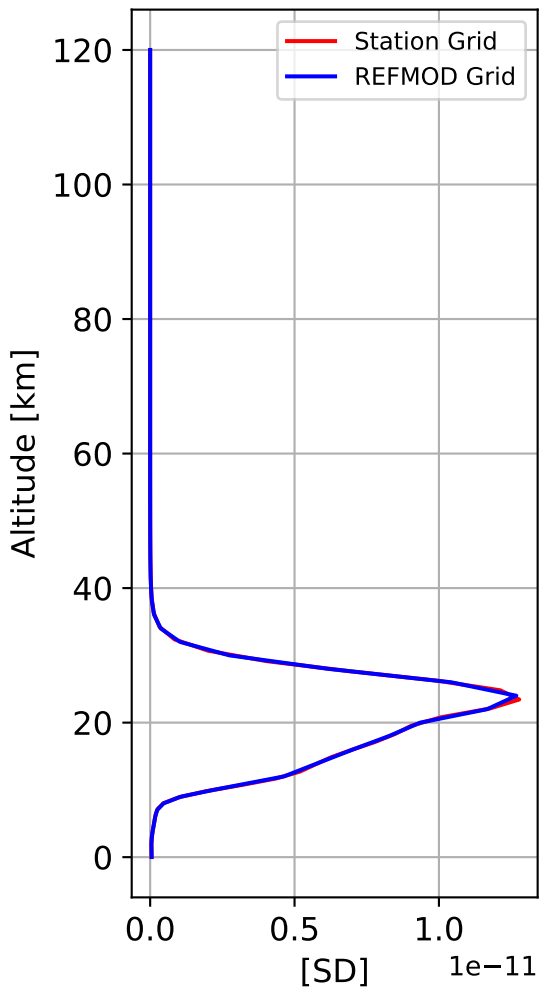
# Monthly mean WACCM profile (interpolated to station grid) St\_Petersburg, 59.88N, 29.83E, 0.02kmasl



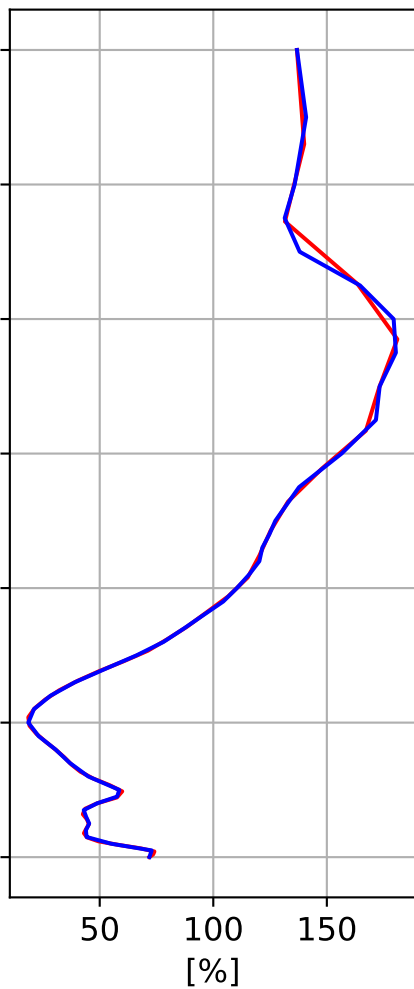
Min, Max, Mean of 732 profiles  
St\_Petersburg, 59.88N, 29.83E, 0.02kmasl



### Std. Deviation



### Percent Deviation

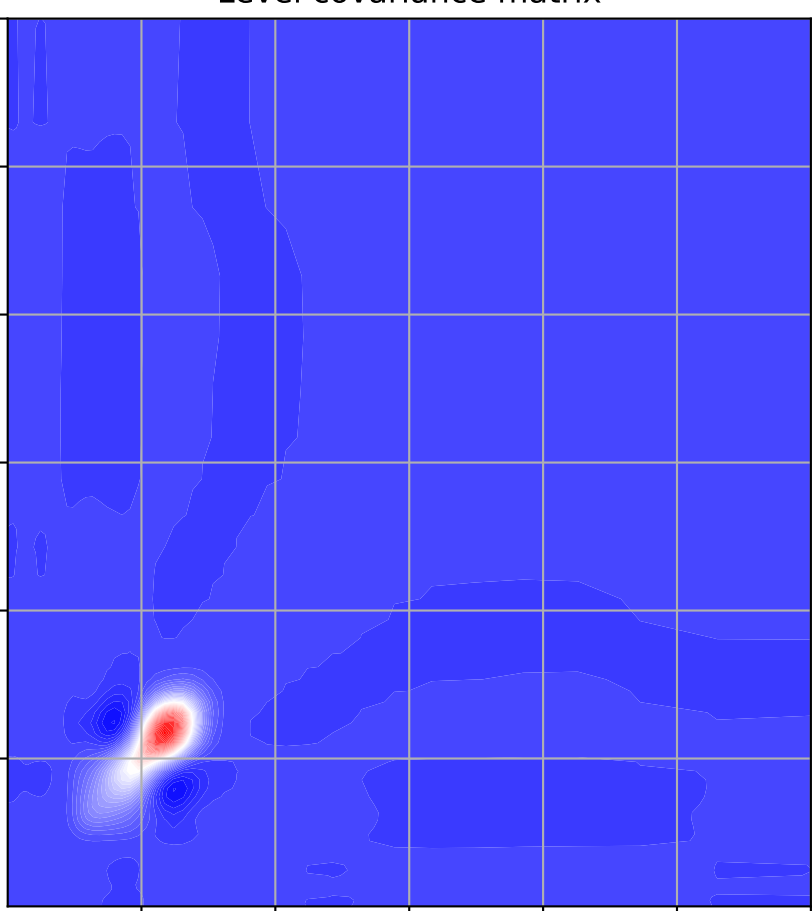


Level covariance matrix

$1e-22$

Altitude [km]

120  
100  
80  
60  
40  
20



Mixing ratio[<sup>2</sup>]

1.6  
1.4  
1.2  
1.0  
0.8  
0.6  
0.4  
0.2  
0.0  
-0.2

20 40 60 80 100 120

Altitude [km]