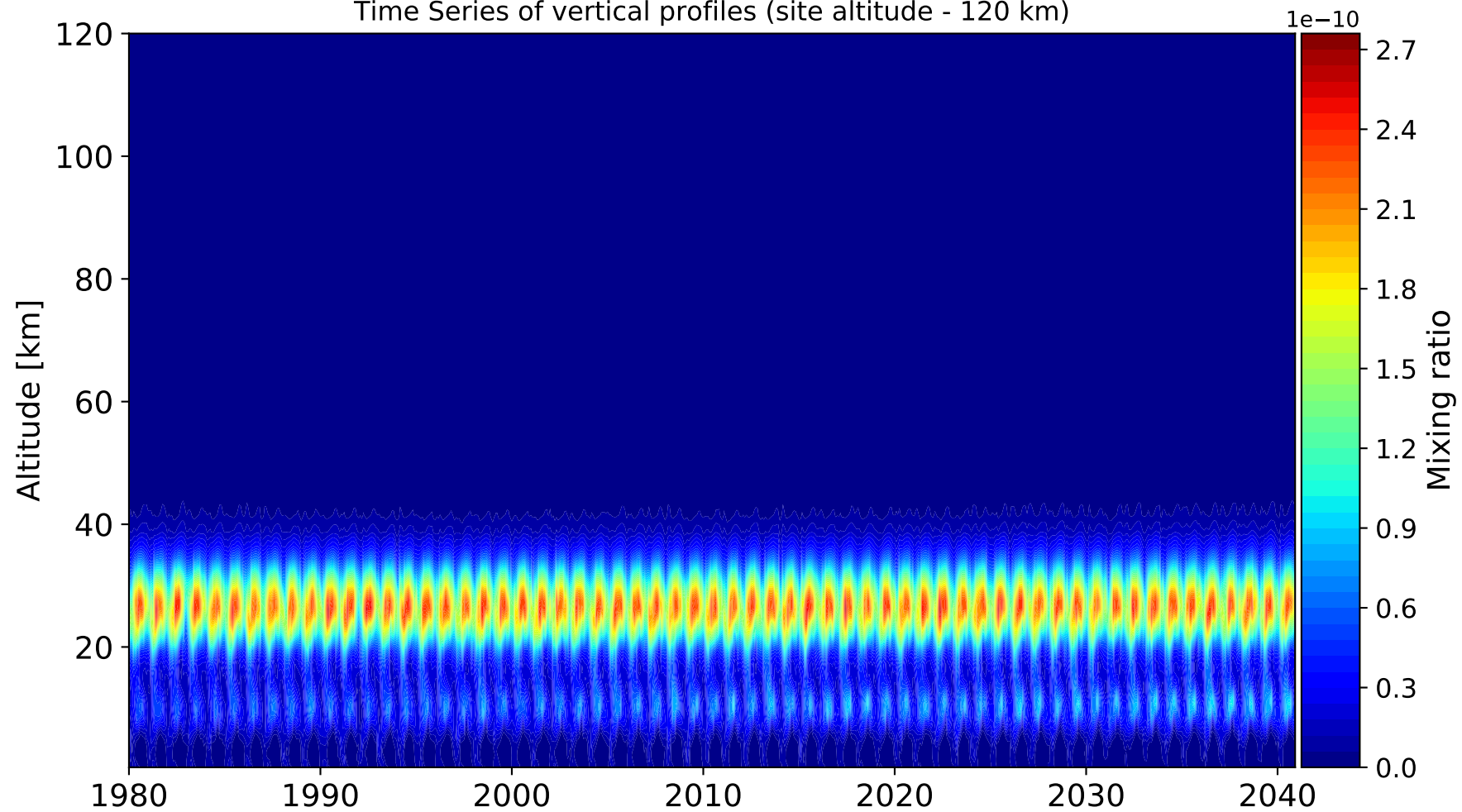
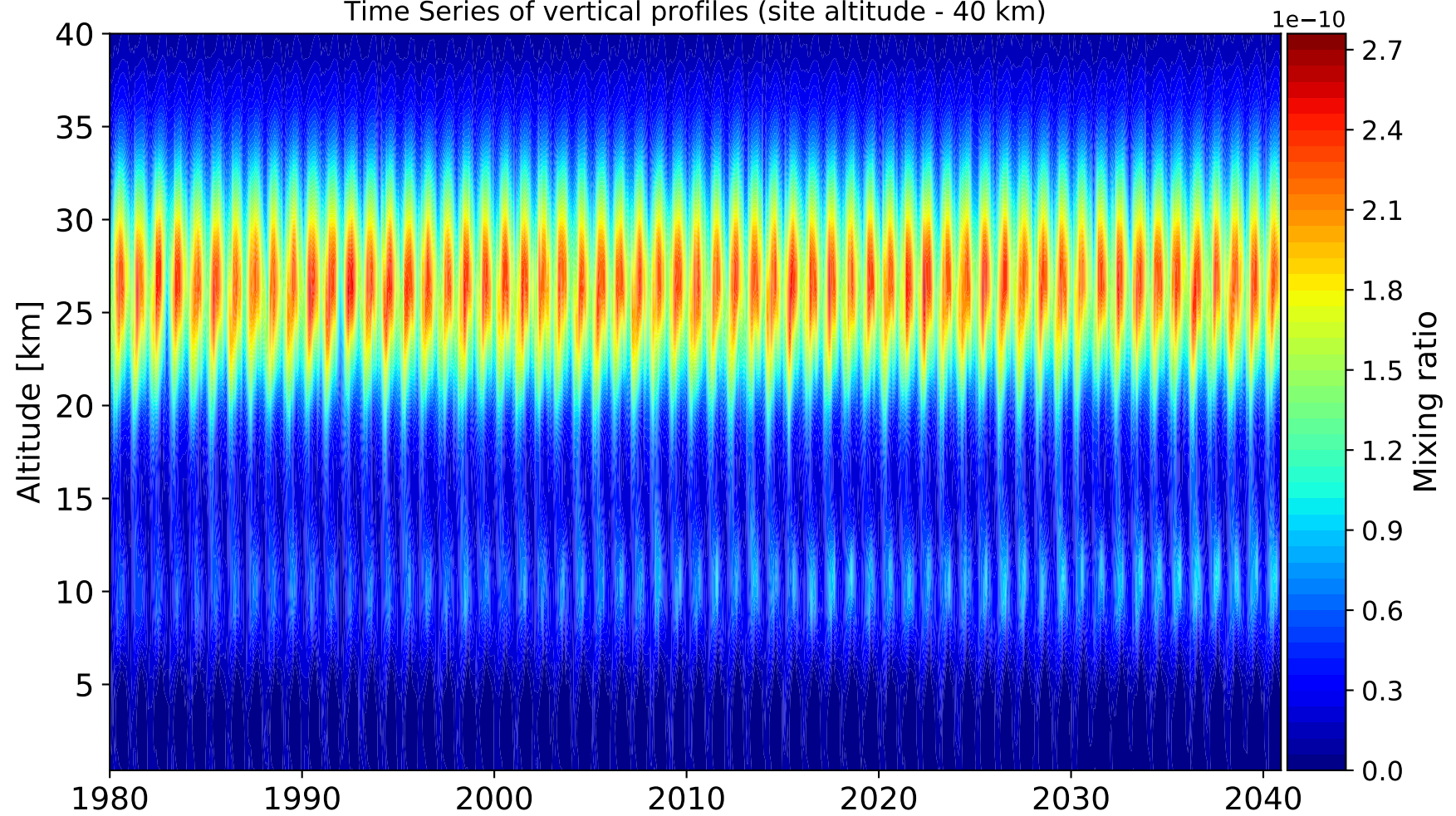


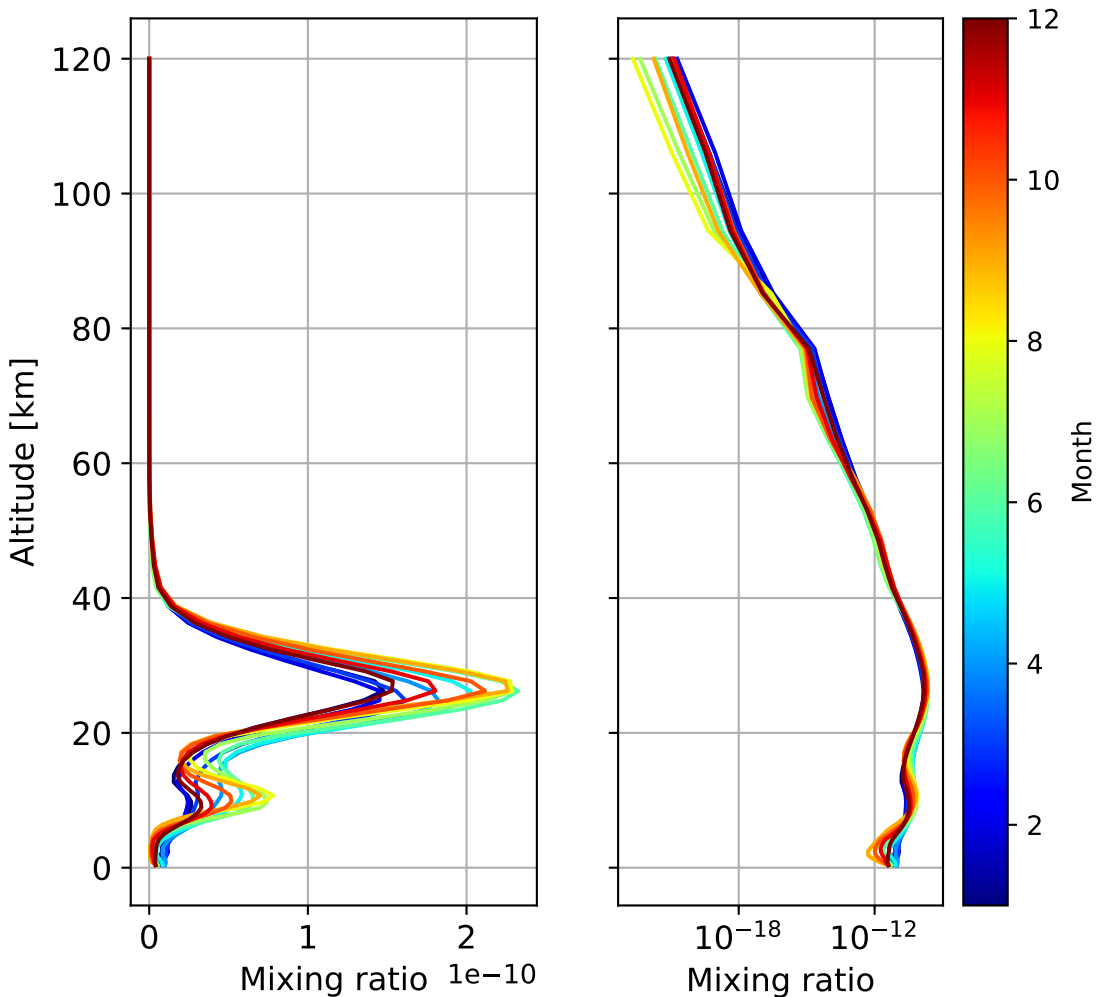
Time Series of vertical profiles (site altitude - 120 km)



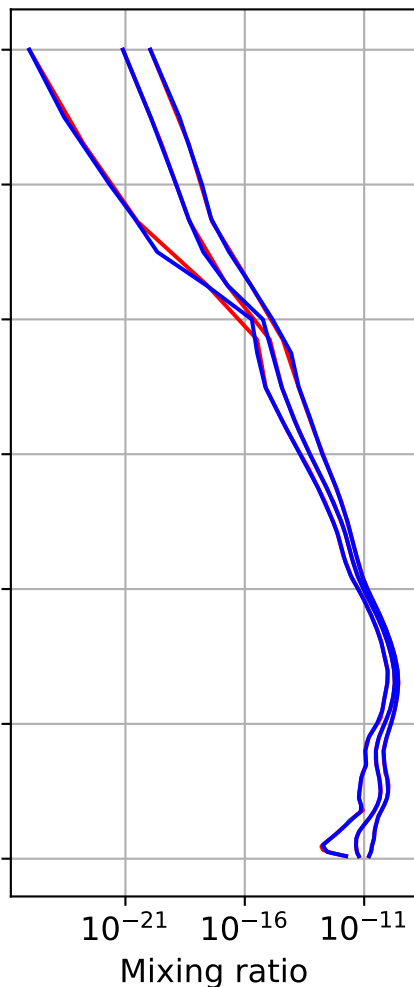
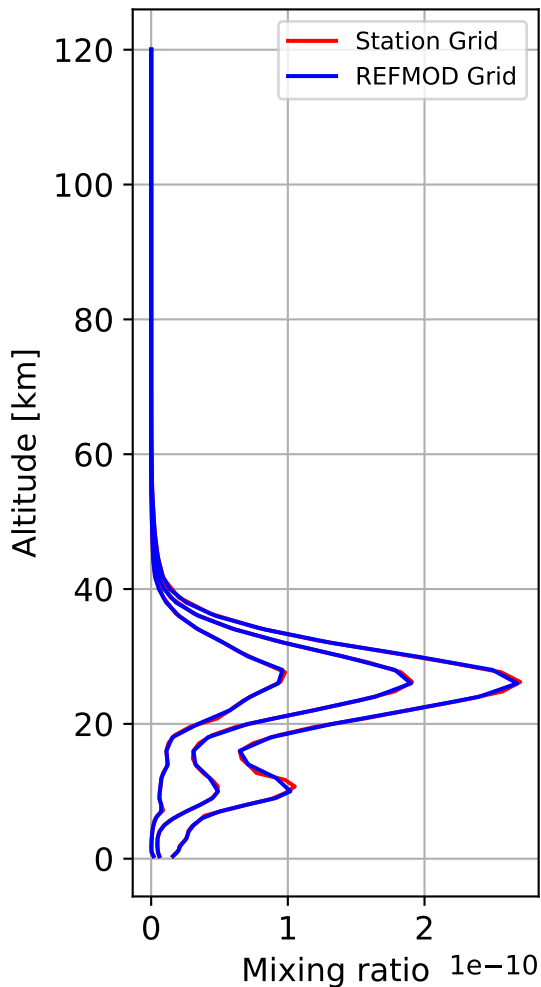
Time Series of vertical profiles (site altitude - 40 km)



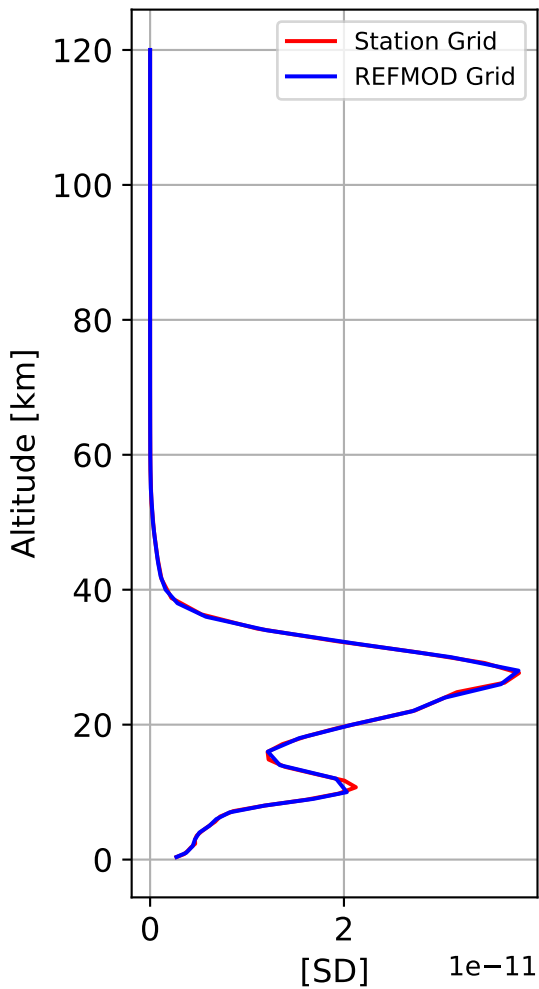
Monthly mean WACCM profile (interpolated to station grid)  
Rikubetsu, 43.46N, 143.77E, 0.38kmasl



Min, Max, Mean of 732 profiles  
Rikubetsu, 43.46N, 143.77E, 0.38kmasl



Std. Deviation



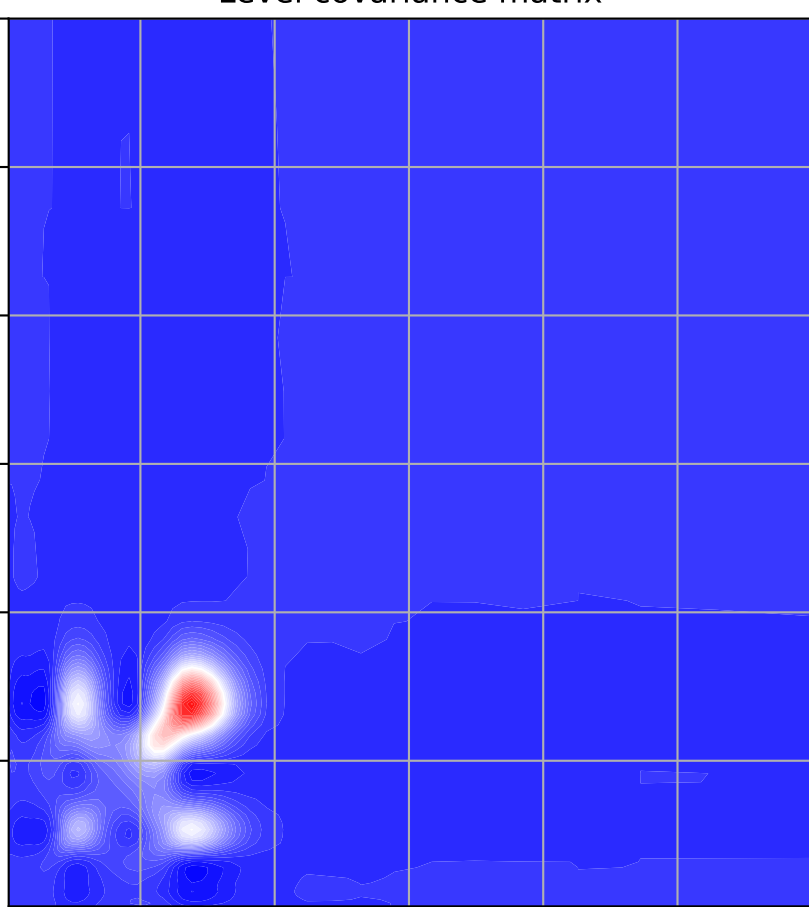
Percent Deviation



Level covariance matrix

 $1e-21$ 

Altitude [km]

120  
100  
80  
60  
40  
20

Altitude [km]

Mixing ratio<sup>2</sup>1.4  
1.2  
1.0  
0.8  
0.6  
0.4  
0.2  
0.0