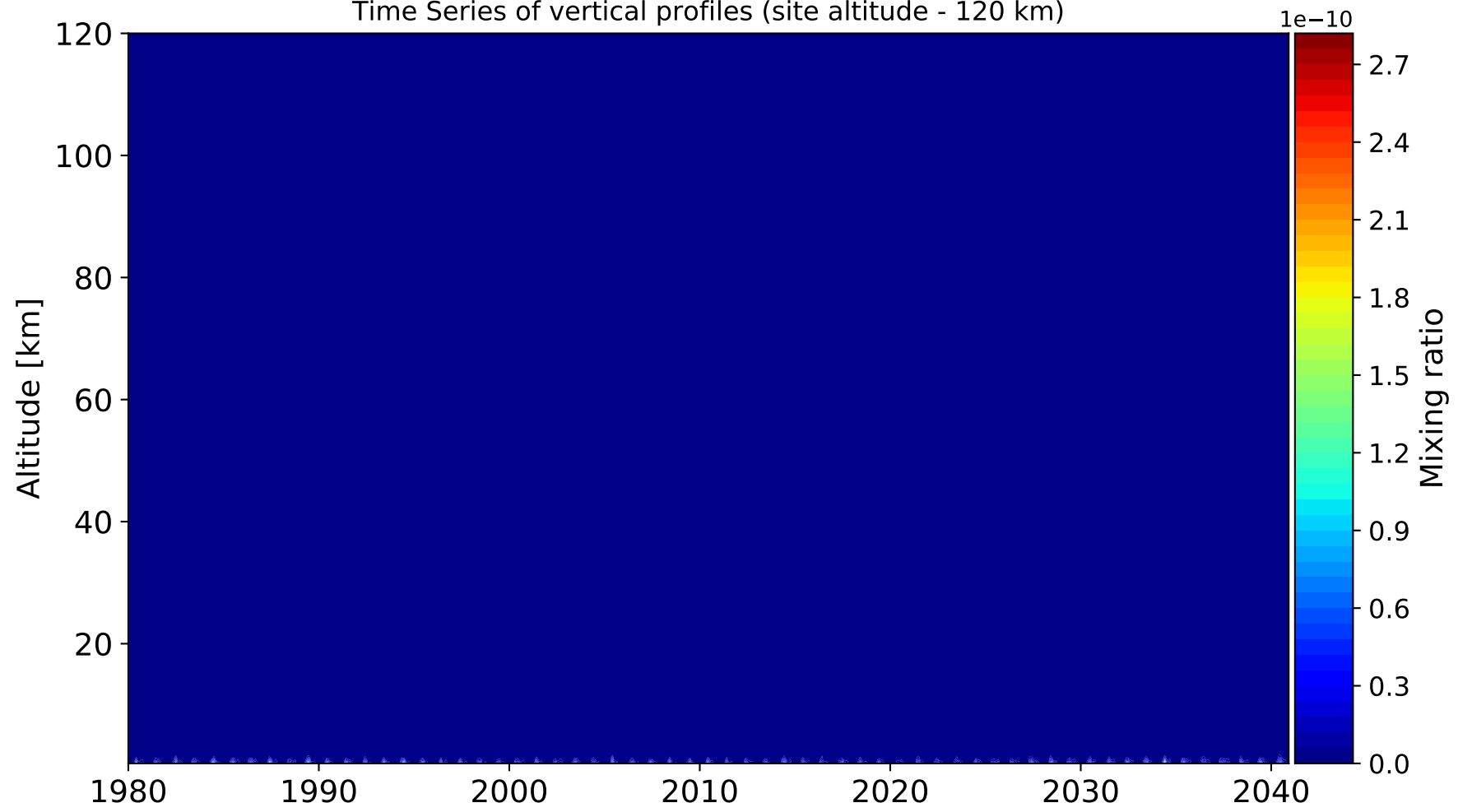


Time Series of vertical profiles (site altitude - 120 km)

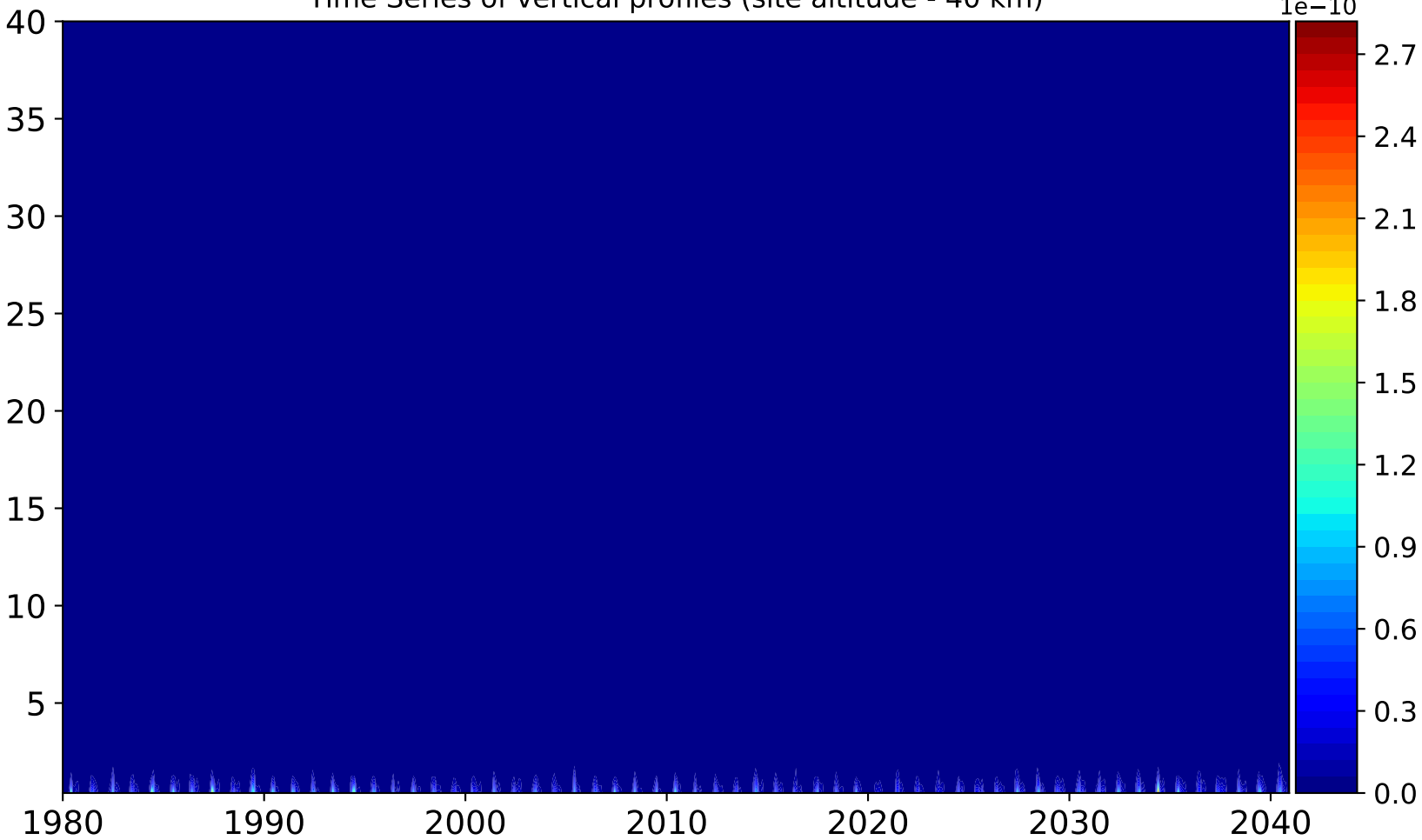


Time Series of vertical profiles (site altitude - 40 km)

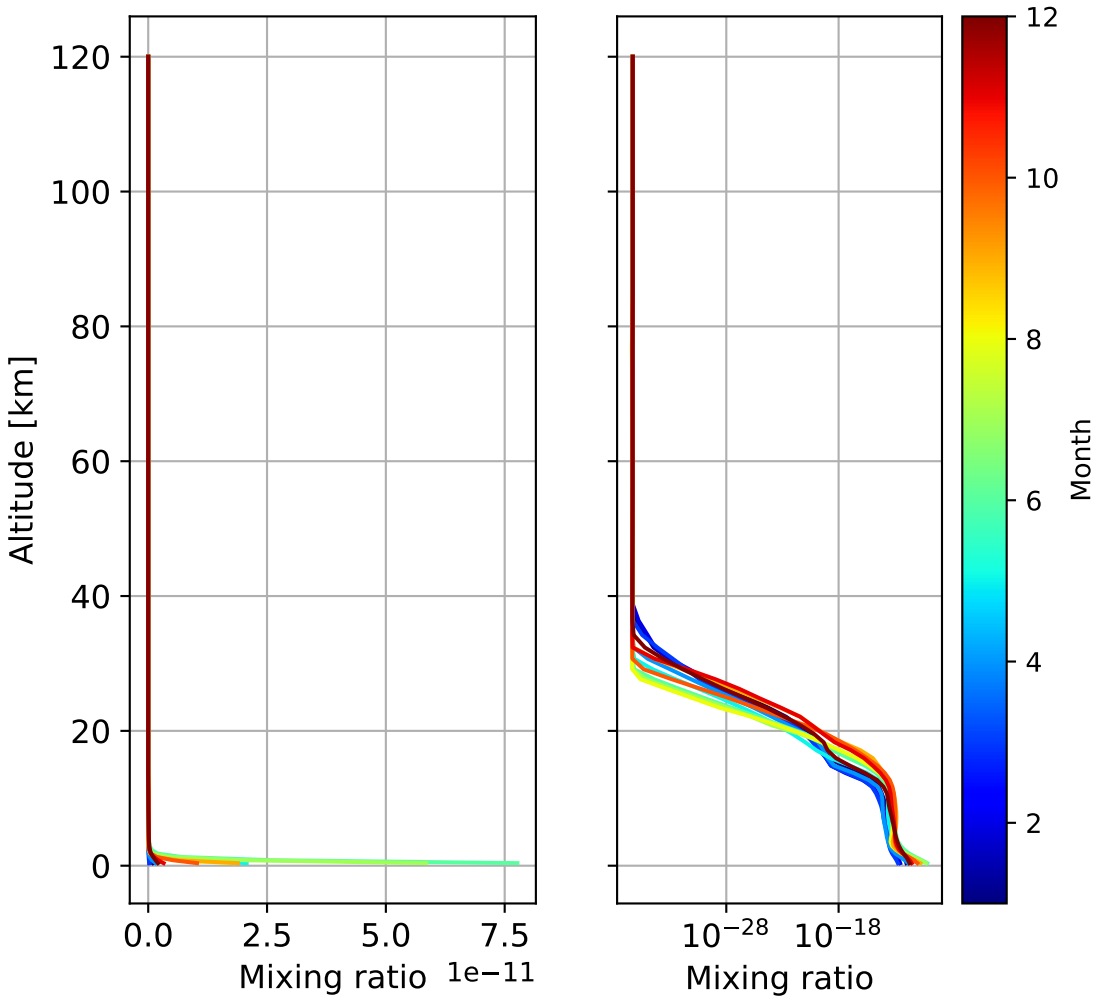
1e-10

Altitude [km]

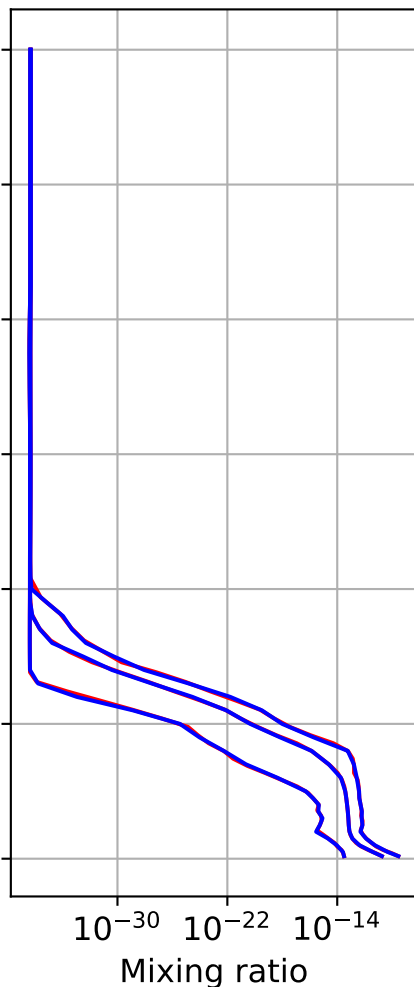
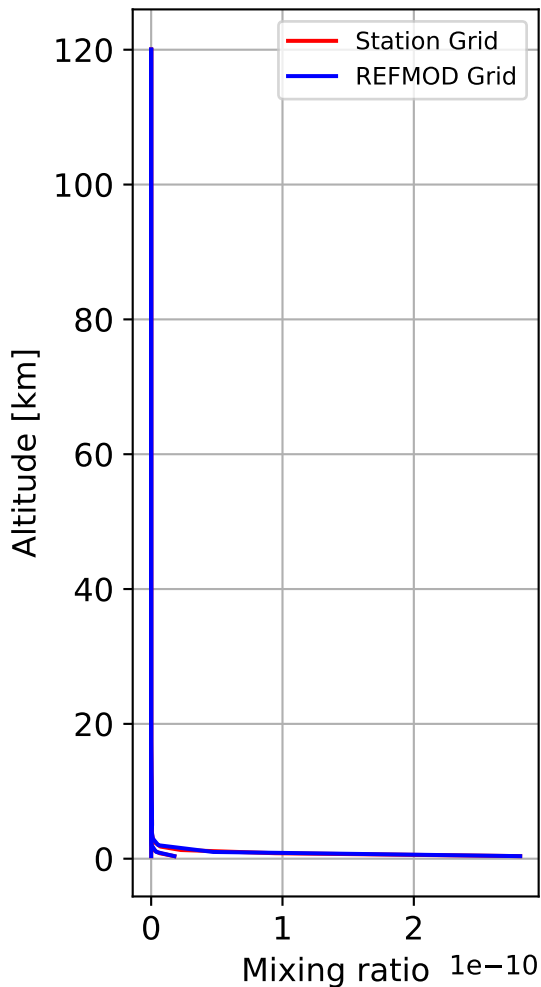
Mixing ratio



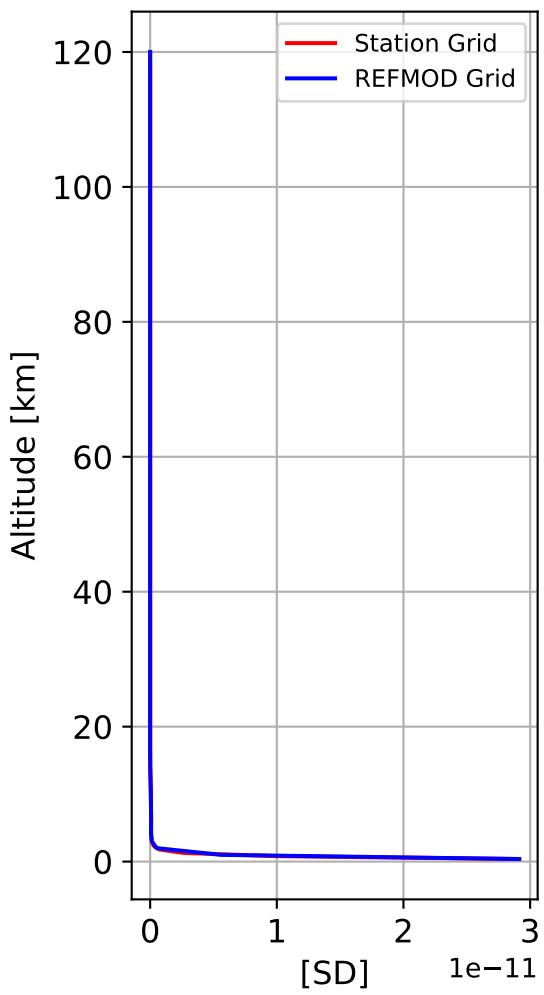
Monthly mean WACCM profile (interpolated to station grid)  
Rikubetsu, 43.46N, 143.77E, 0.38kmasl



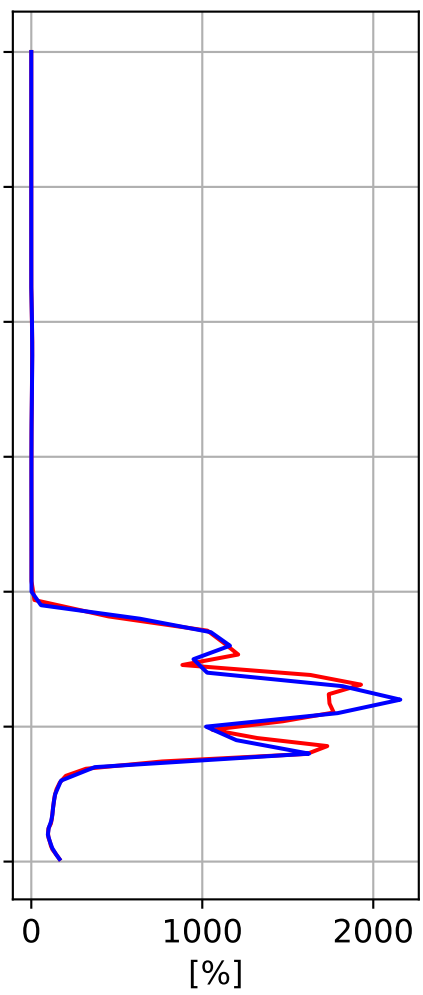
Min, Max, Mean of 732 profiles  
Rikubetsu, 43.46N, 143.77E, 0.38kmasl



### Std. Deviation



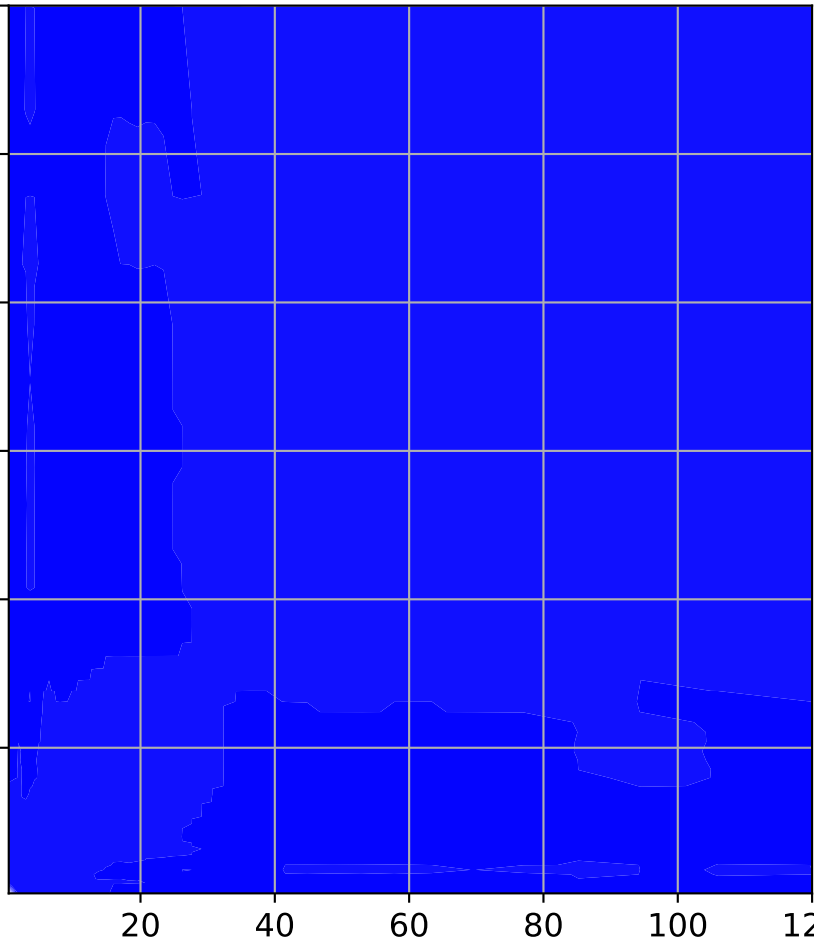
### Percent Deviation



Level covariance matrix

1e-22

Altitude [km]

120  
100  
80  
60  
40  
20

Altitude [km]

Mixing ratio<sup>2</sup>

0

1

2

3

4

5

6

7

8