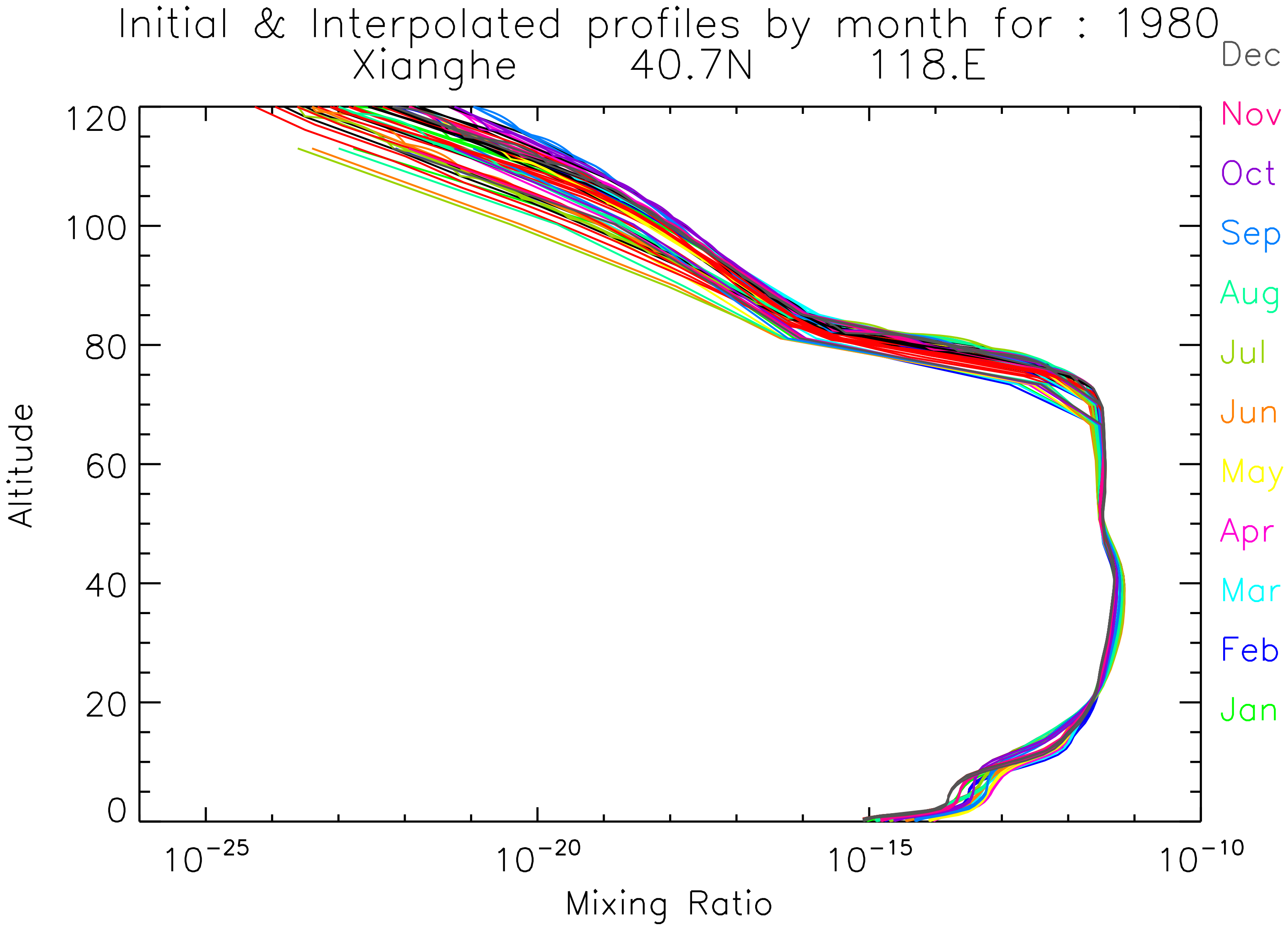
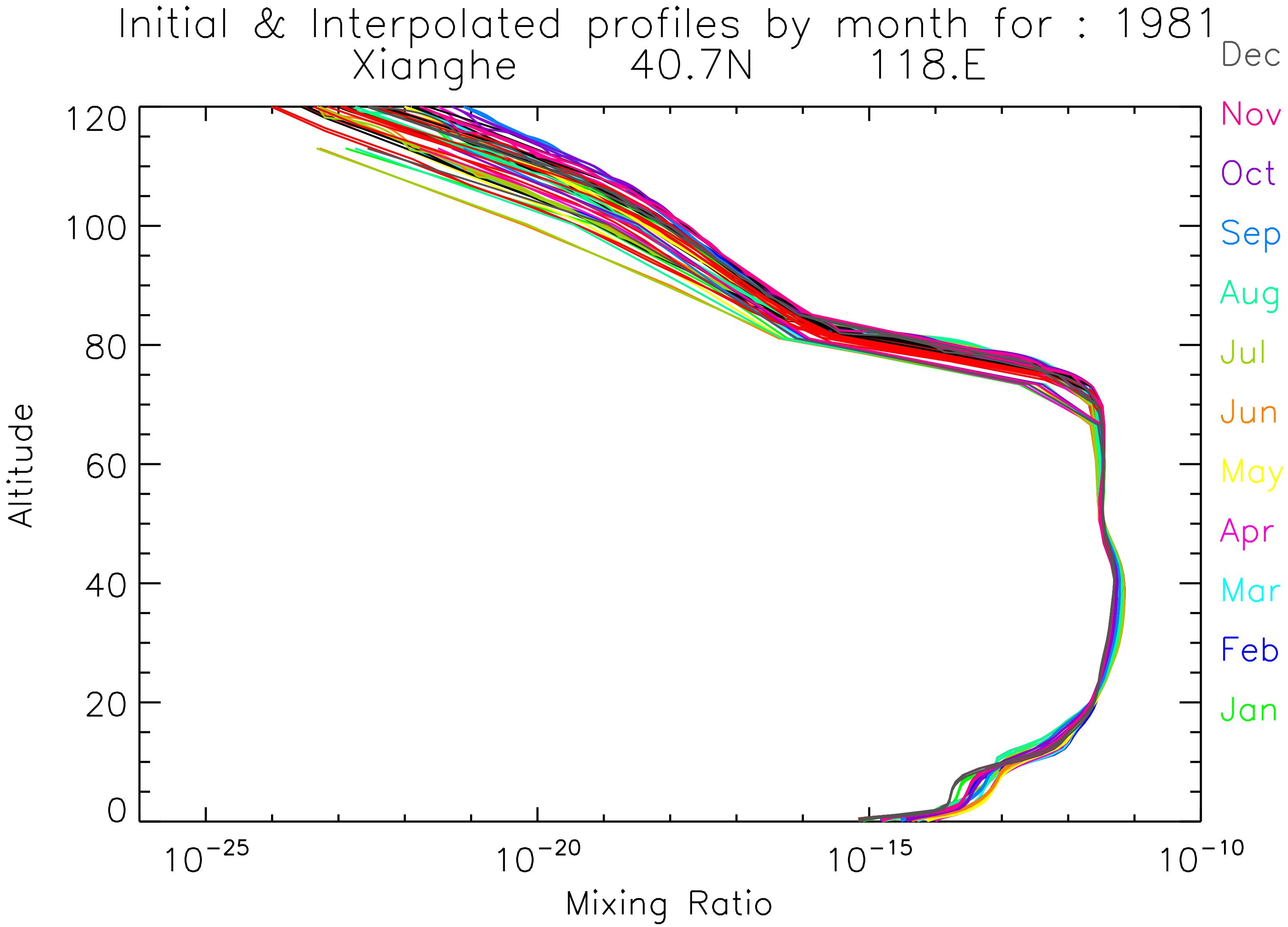
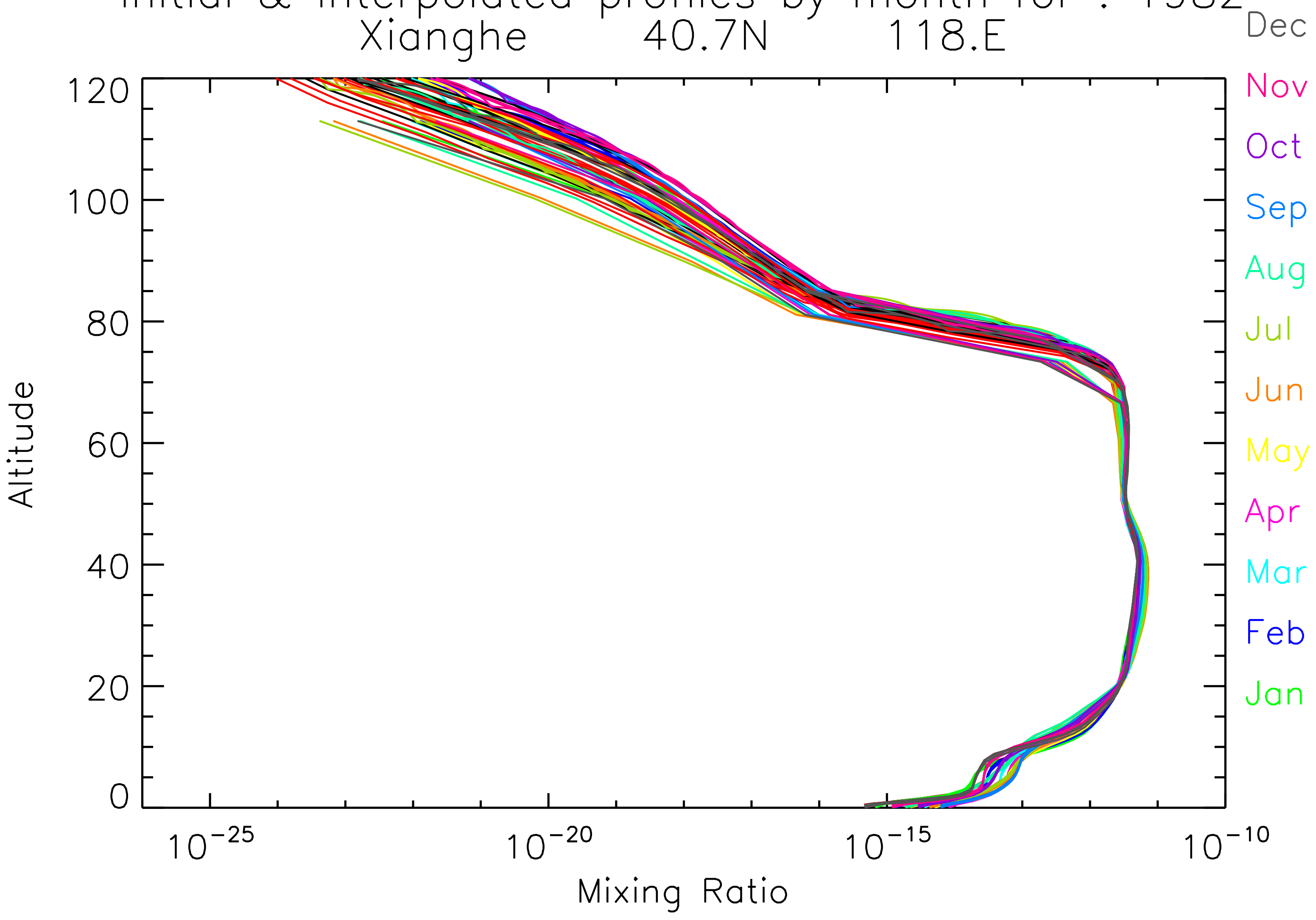
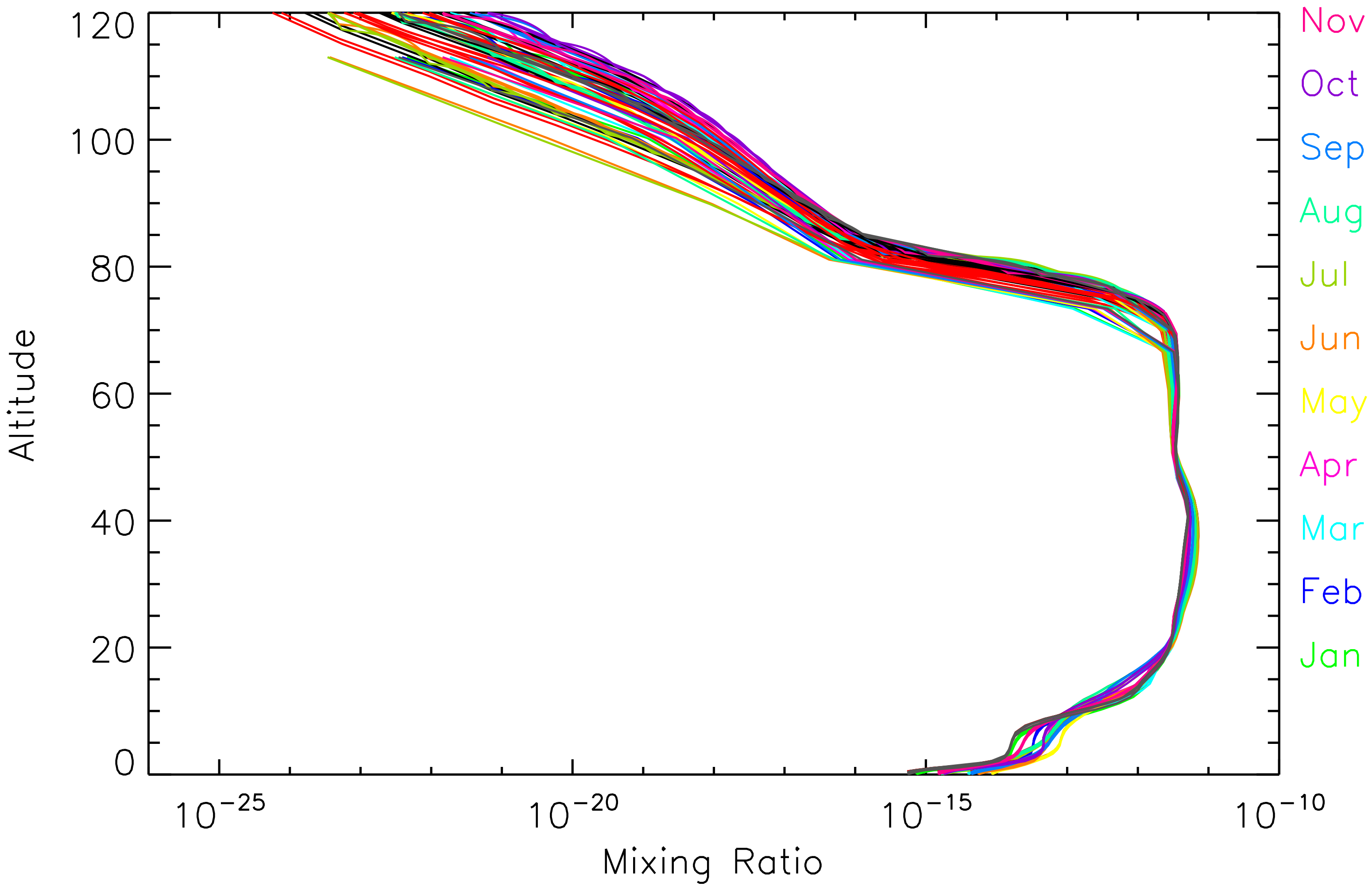

Initial & Interpolated profiles by month for : 1980
Xianghe 40.7N 118.E

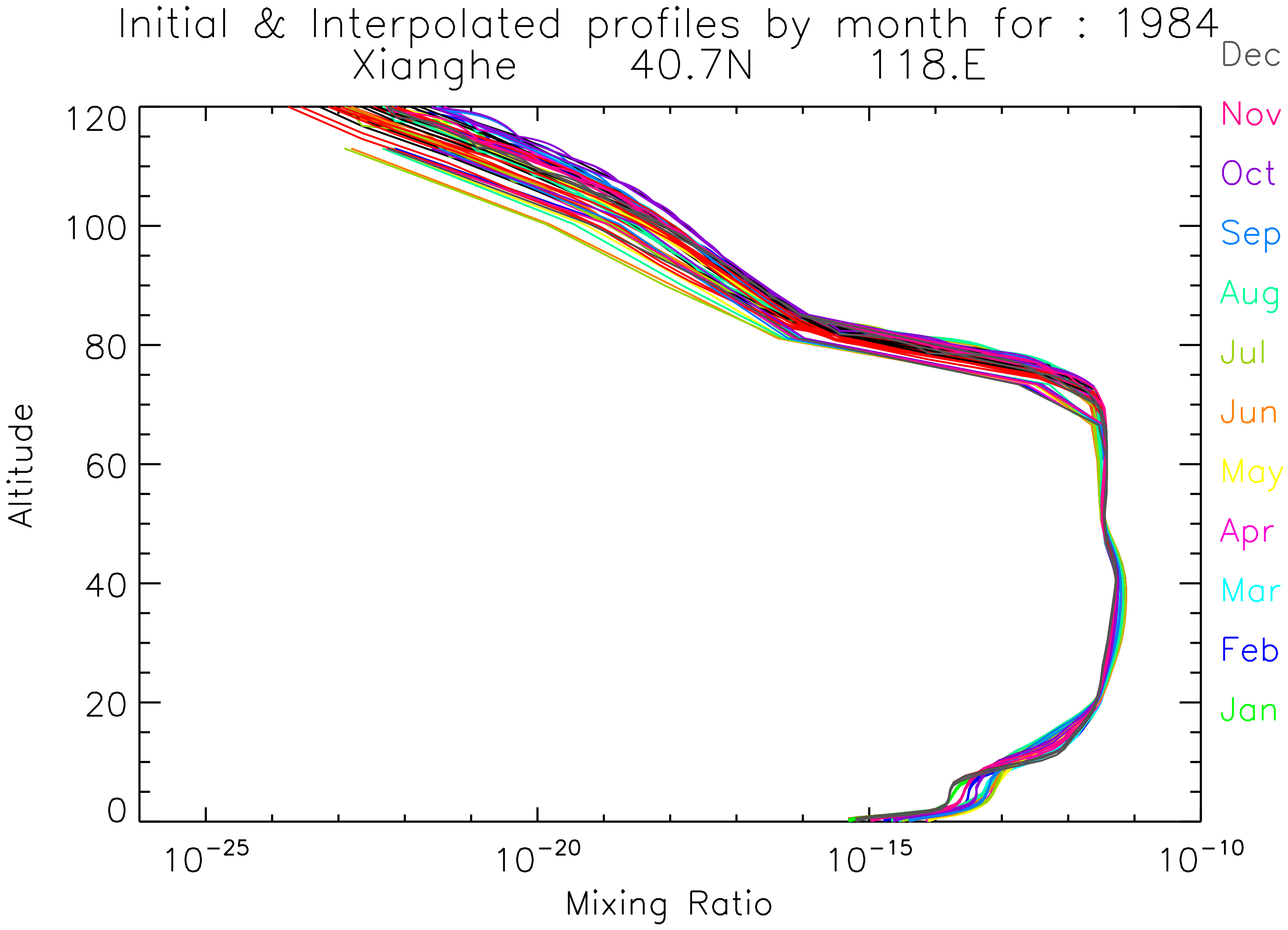

Initial & Interpolated profiles by month for : 1981
Xianghe 40.7N 118.E
Altitude
120
100
80
60
40
20
0
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

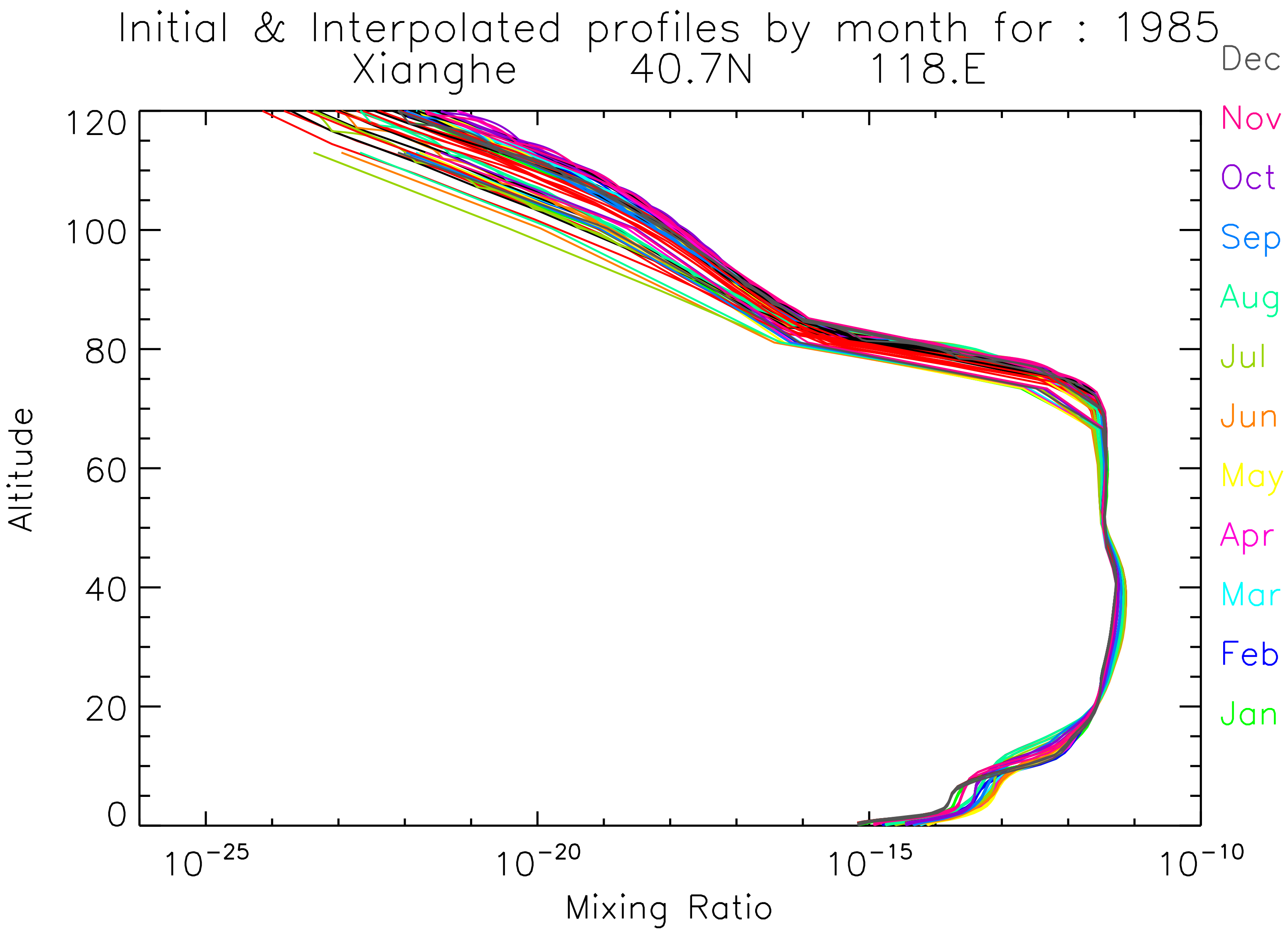
Initial & Interpolated profiles by month for : 1982
Xianghe 40.7N 118.E

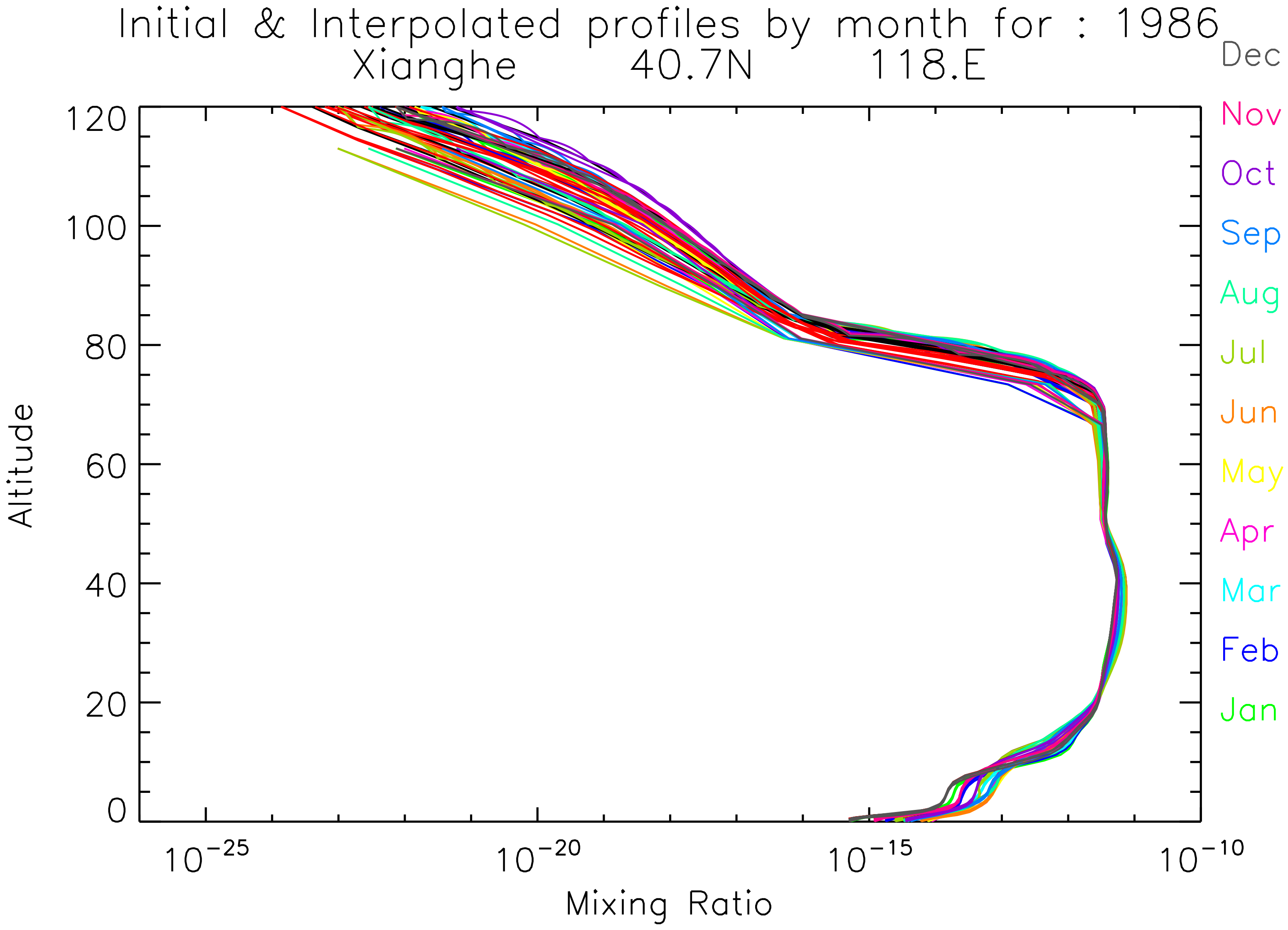


Initial & Interpolated profiles by month for : 1983
Xianghe 40.7N 118.E

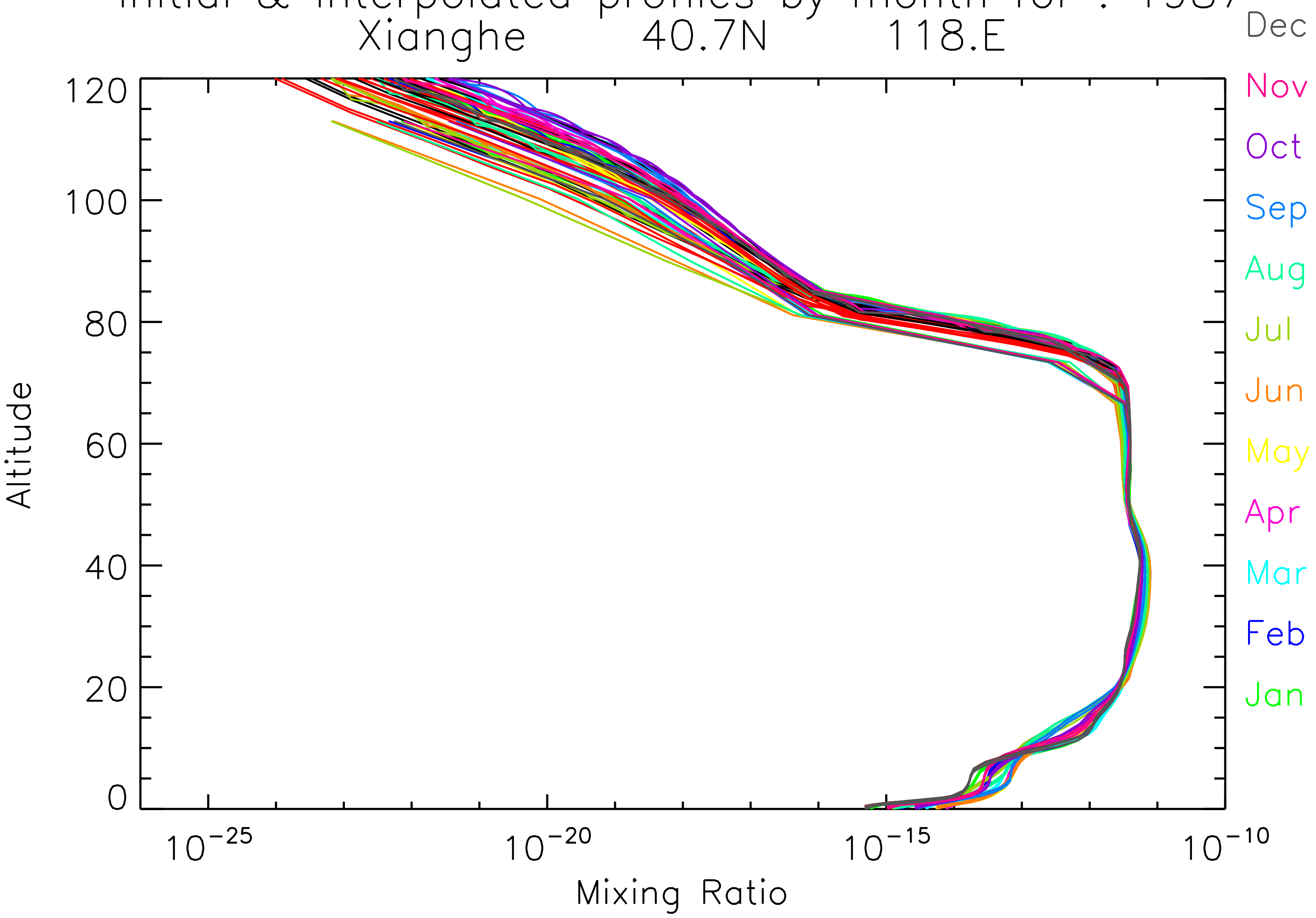


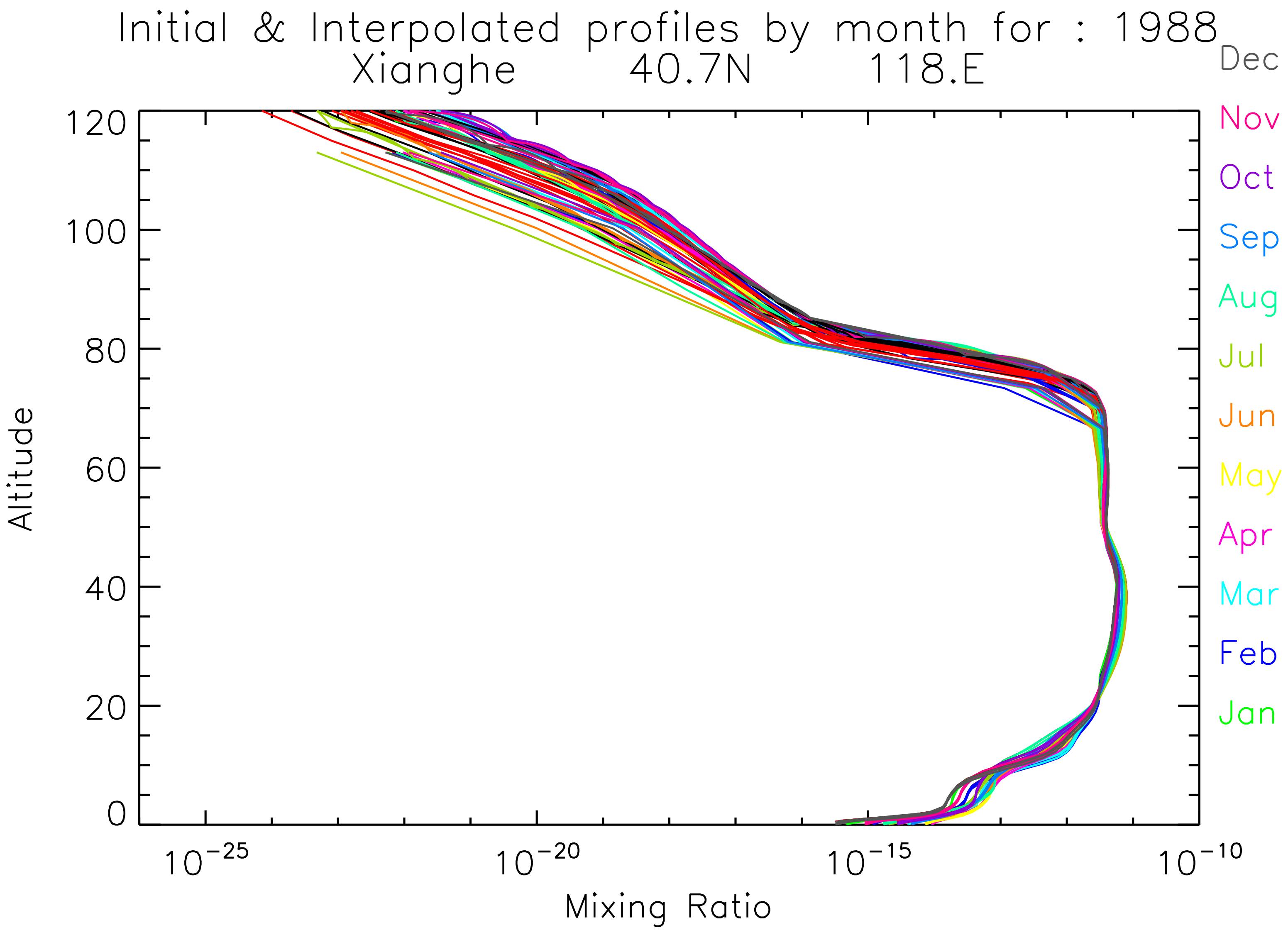

Initial & Interpolated profiles by month for : 1984
Xianghe 40.7N 118.E
Altitude
0
20
40
60
80
100
120
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan


Initial & Interpolated profiles by month for : 1985
Xianghe 40.7N 118.E

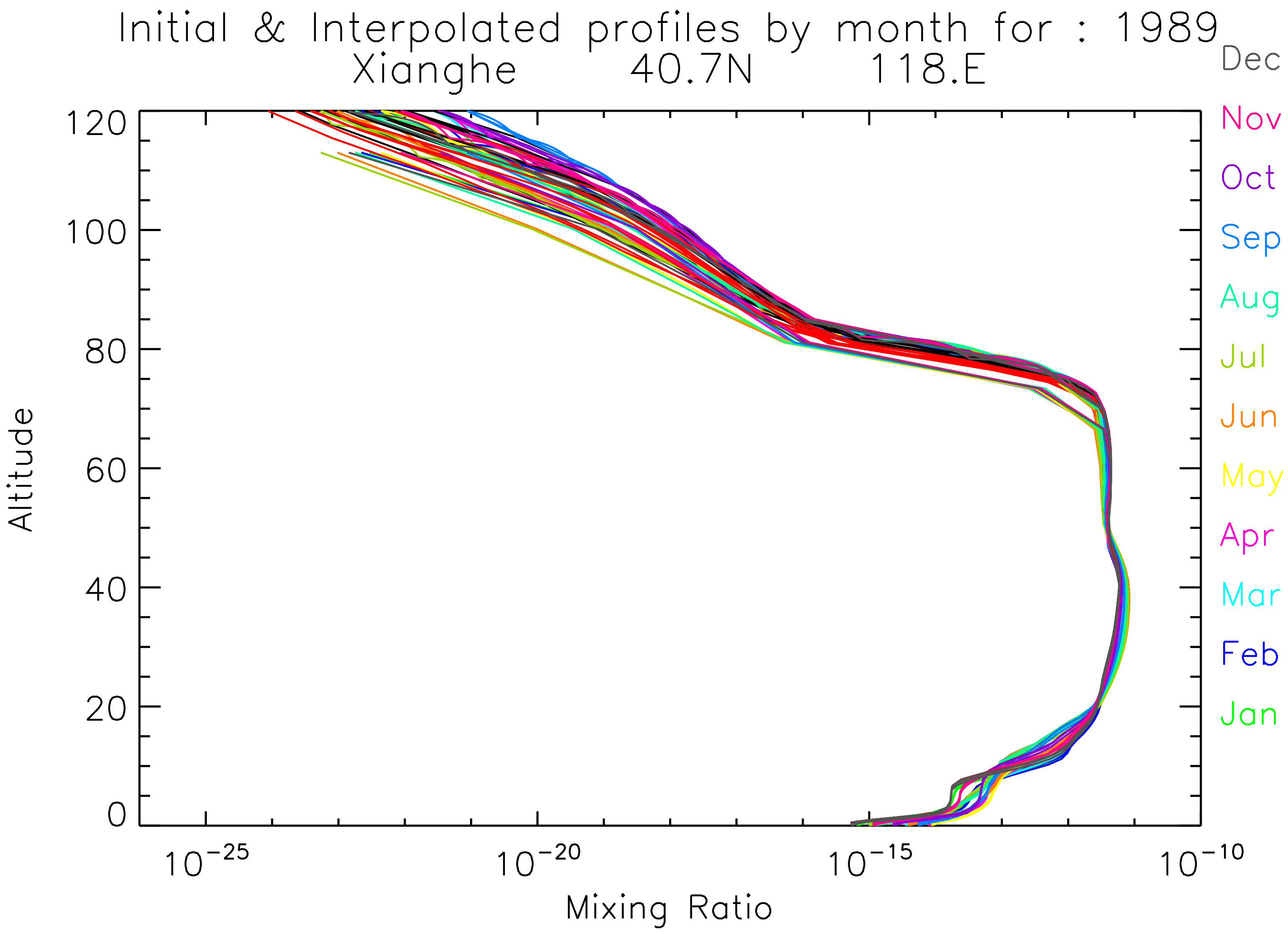

Initial & Interpolated profiles by month for : 1986
Xianghe 40.7N 118.E
Altitude
0
20
40
60
80
100
120
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

Initial & Interpolated profiles by month for : 1987
Xianghe 40.7N 118.E

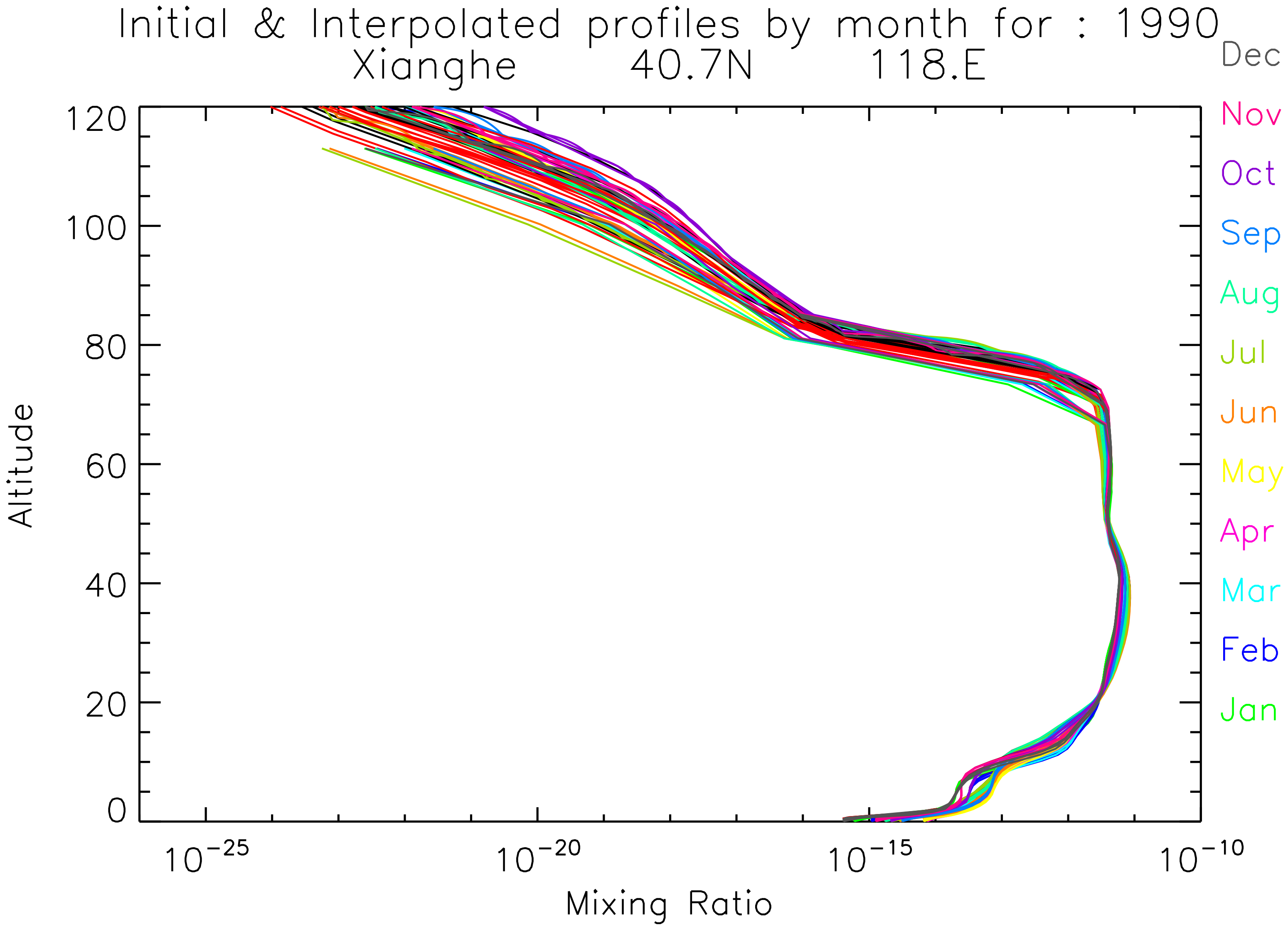


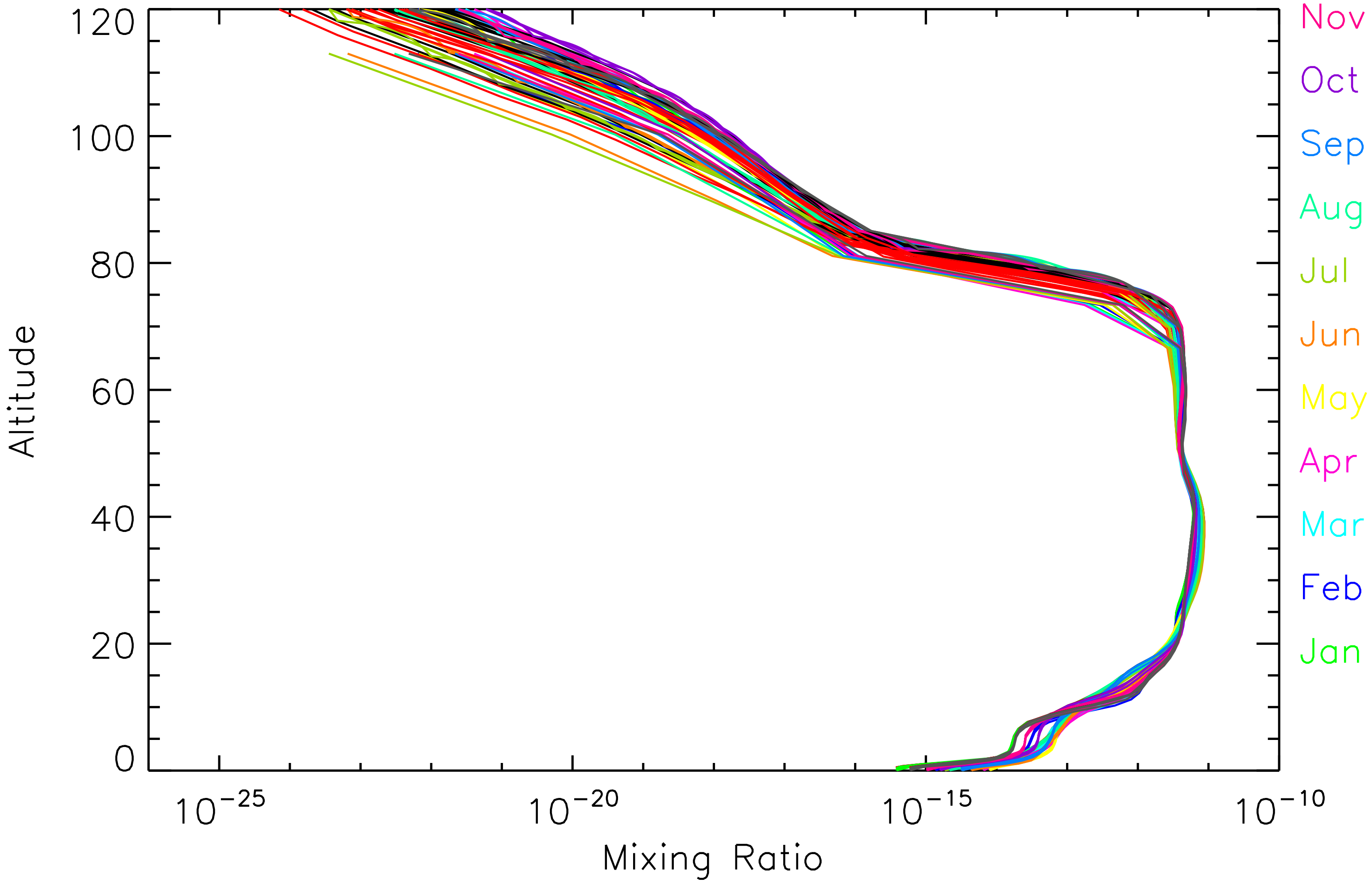


Initial & Interpolated profiles by month for : 1988
Xianghe 40.7N 118.E

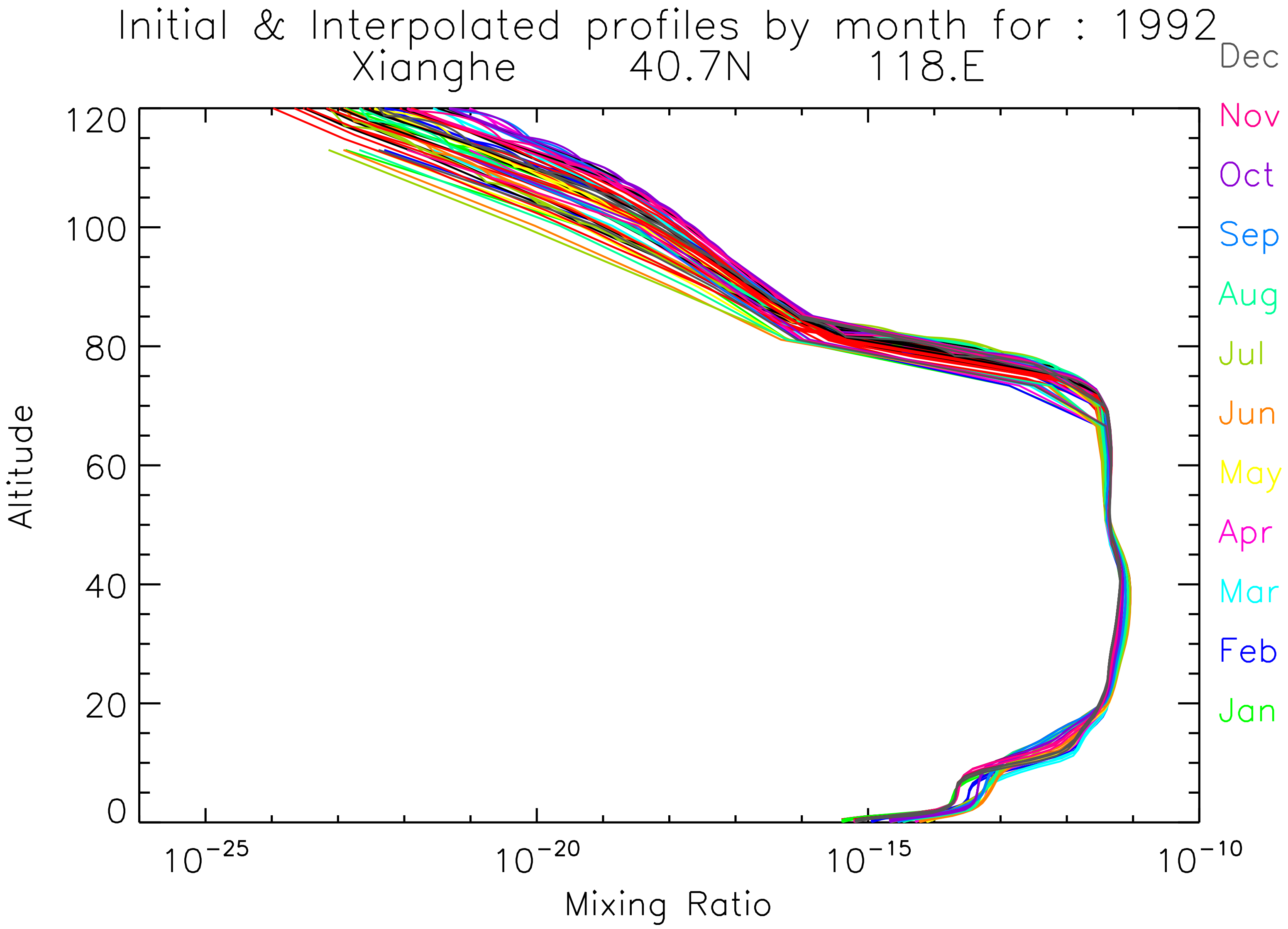


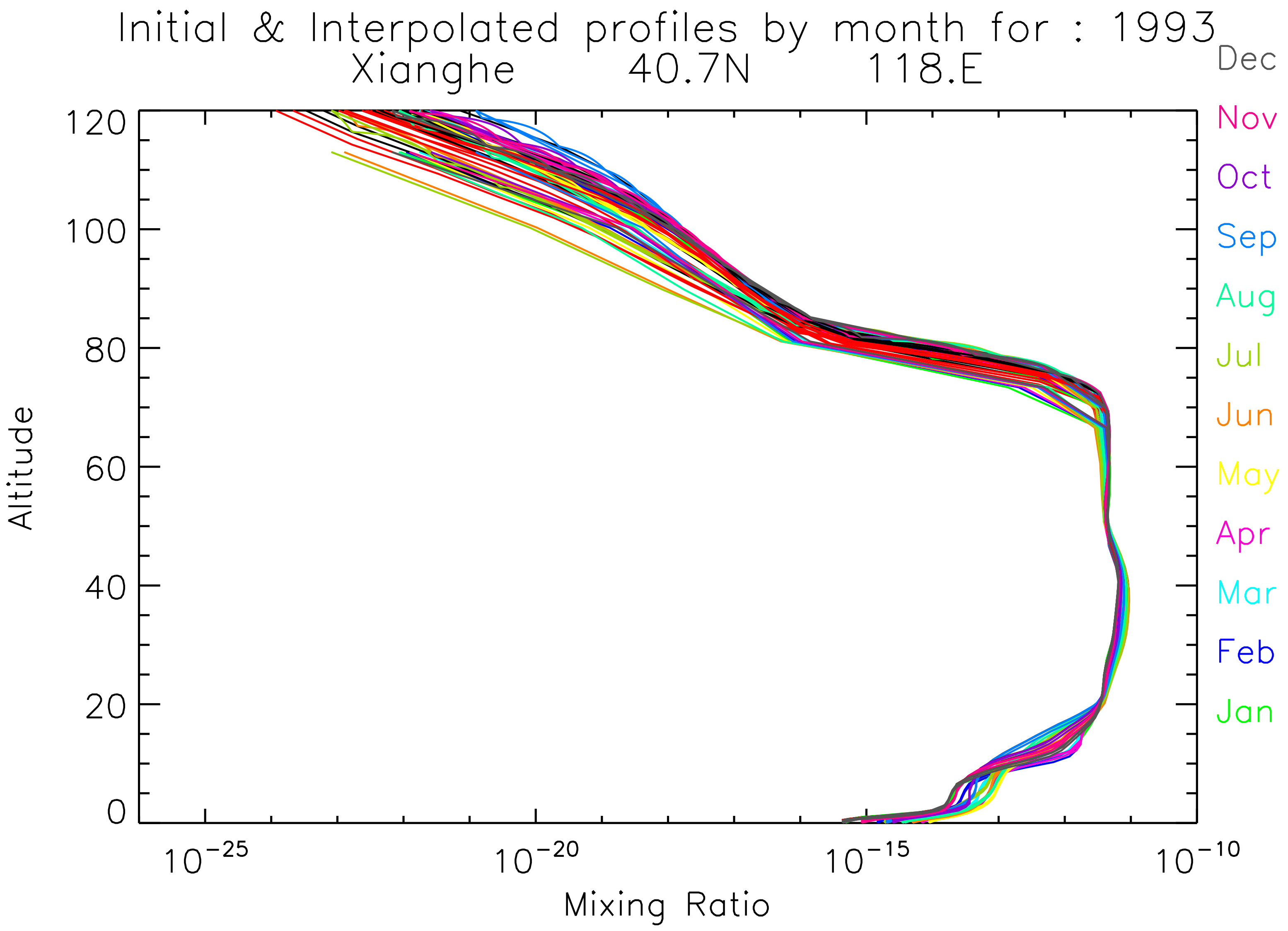
Initial & Interpolated profiles by month for : 1989
Xianghe 40.7N 118.E

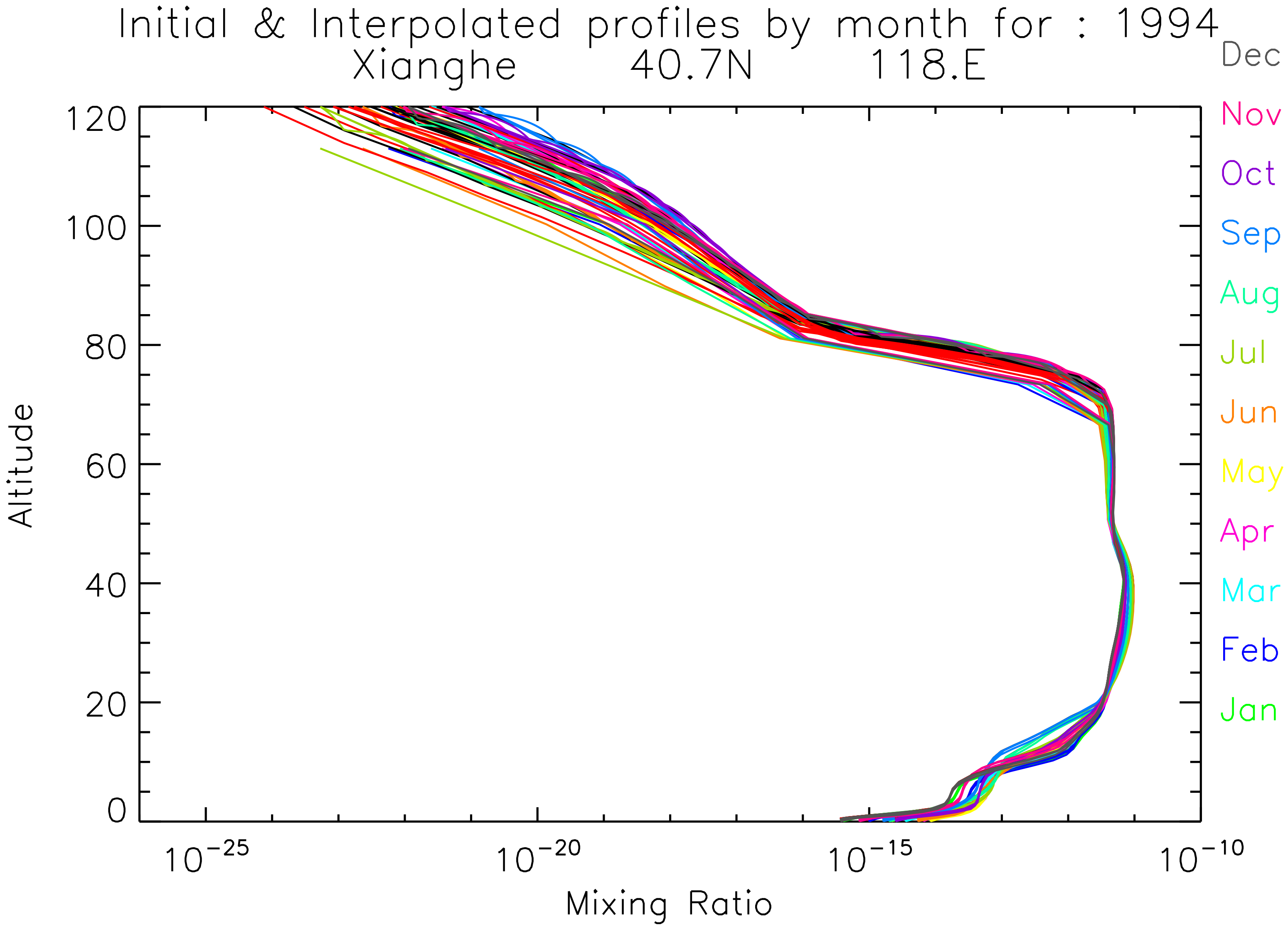

Initial & Interpolated profiles by month for : 1990
Xianghe 40.7N 118.E
Altitude
0
20
40
60
80
100
120
Mixing Ratio
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan



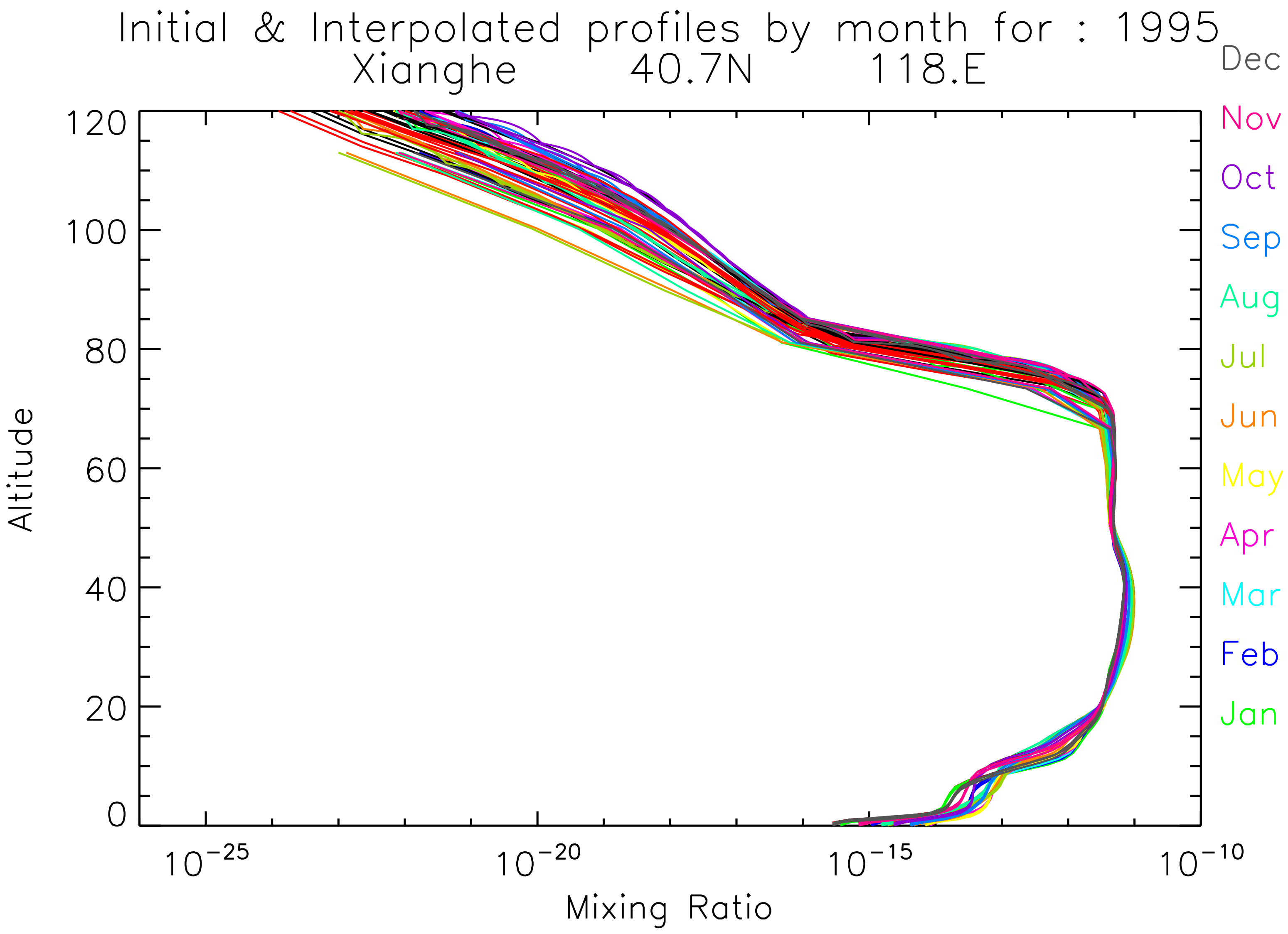
Initial & Interpolated profiles by month for : 1991
Xianghe 40.7N 118.E

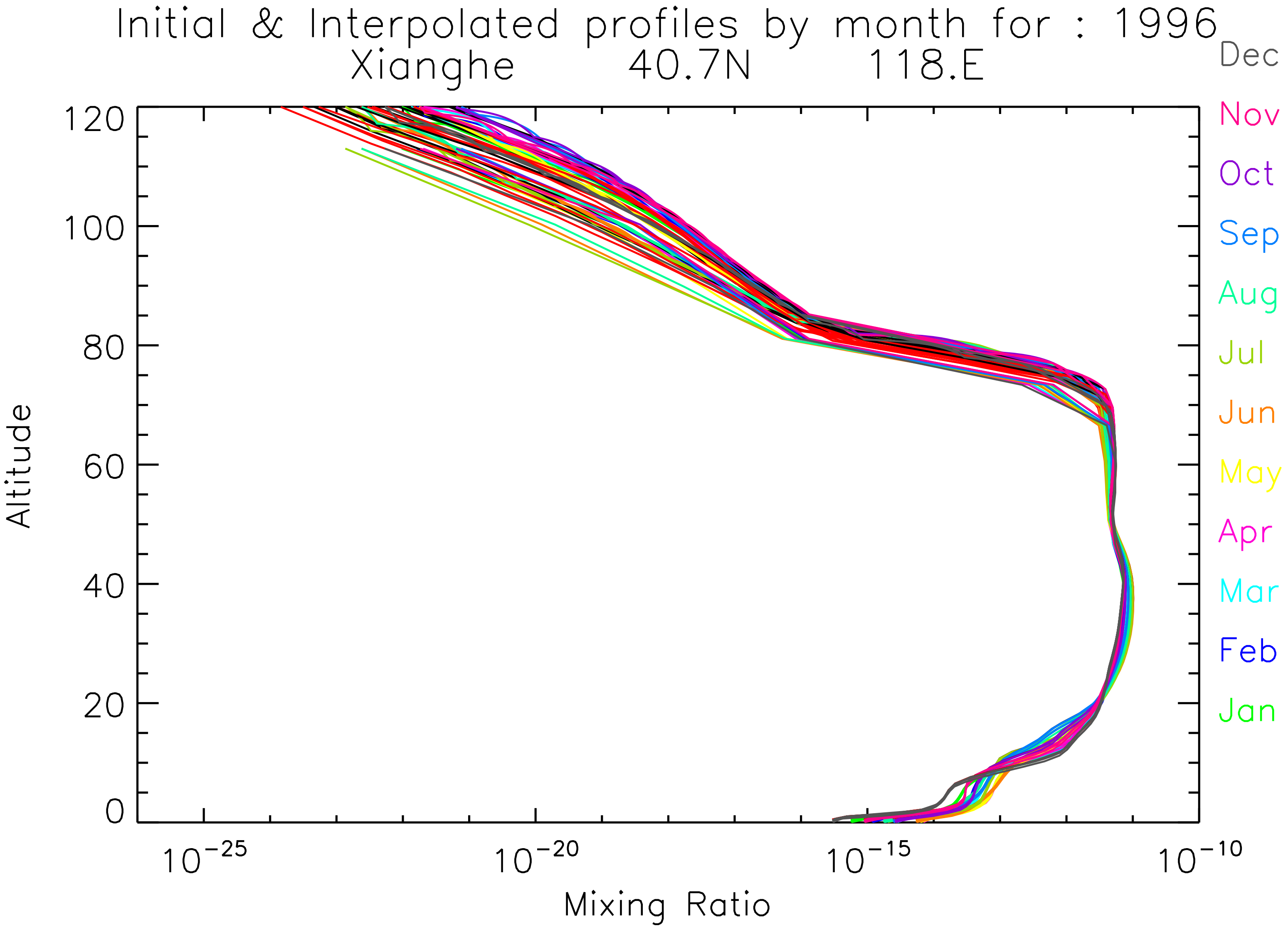

Initial & Interpolated profiles by month for : 1992
Xianghe 40.7N 118.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
0
20
40
60
80
100
120
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

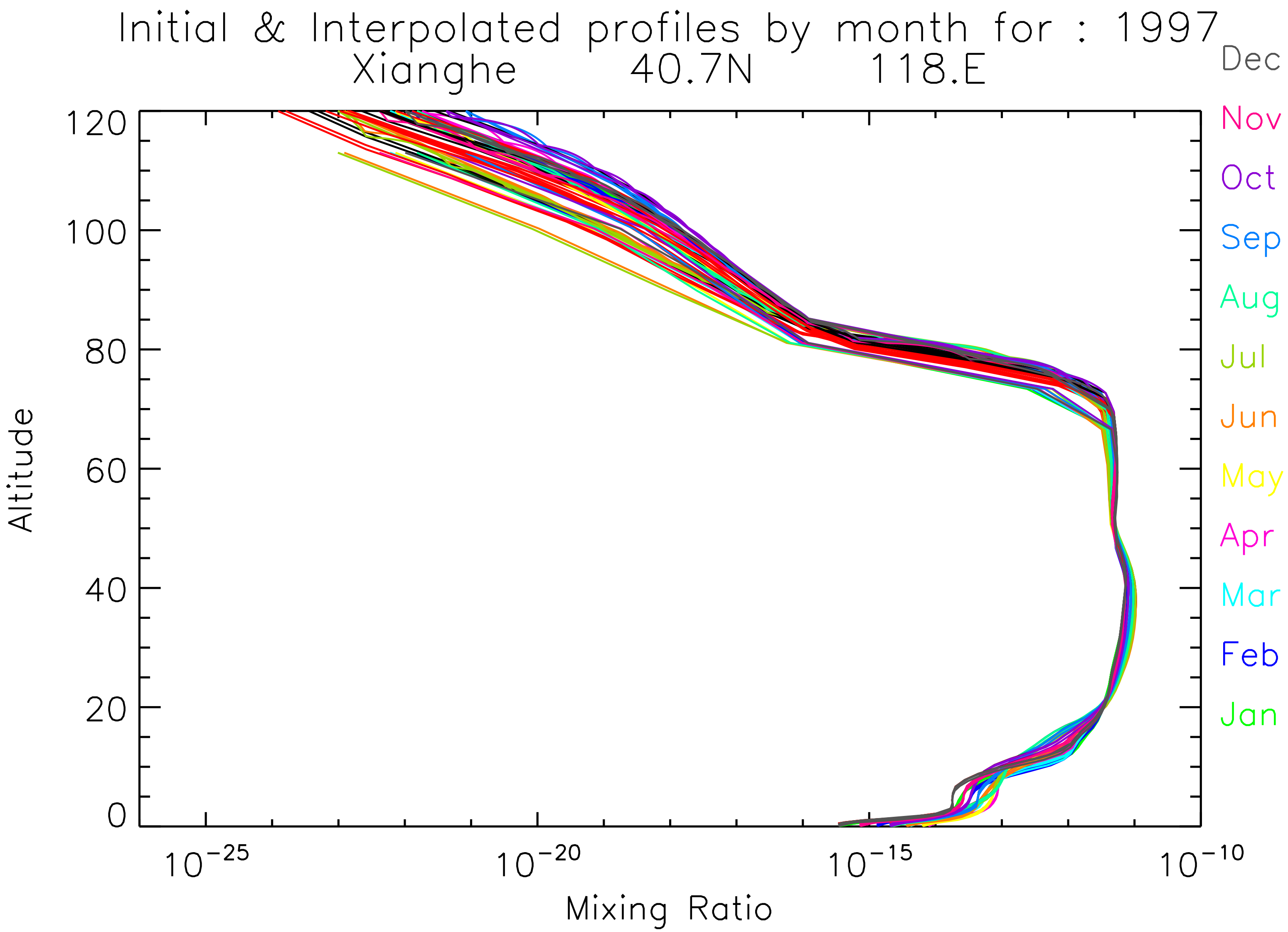

Initial & Interpolated profiles by month for : 1993
Xianghe 40.7N 118.E
Altitude
120
100
80
60
40
20
0
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

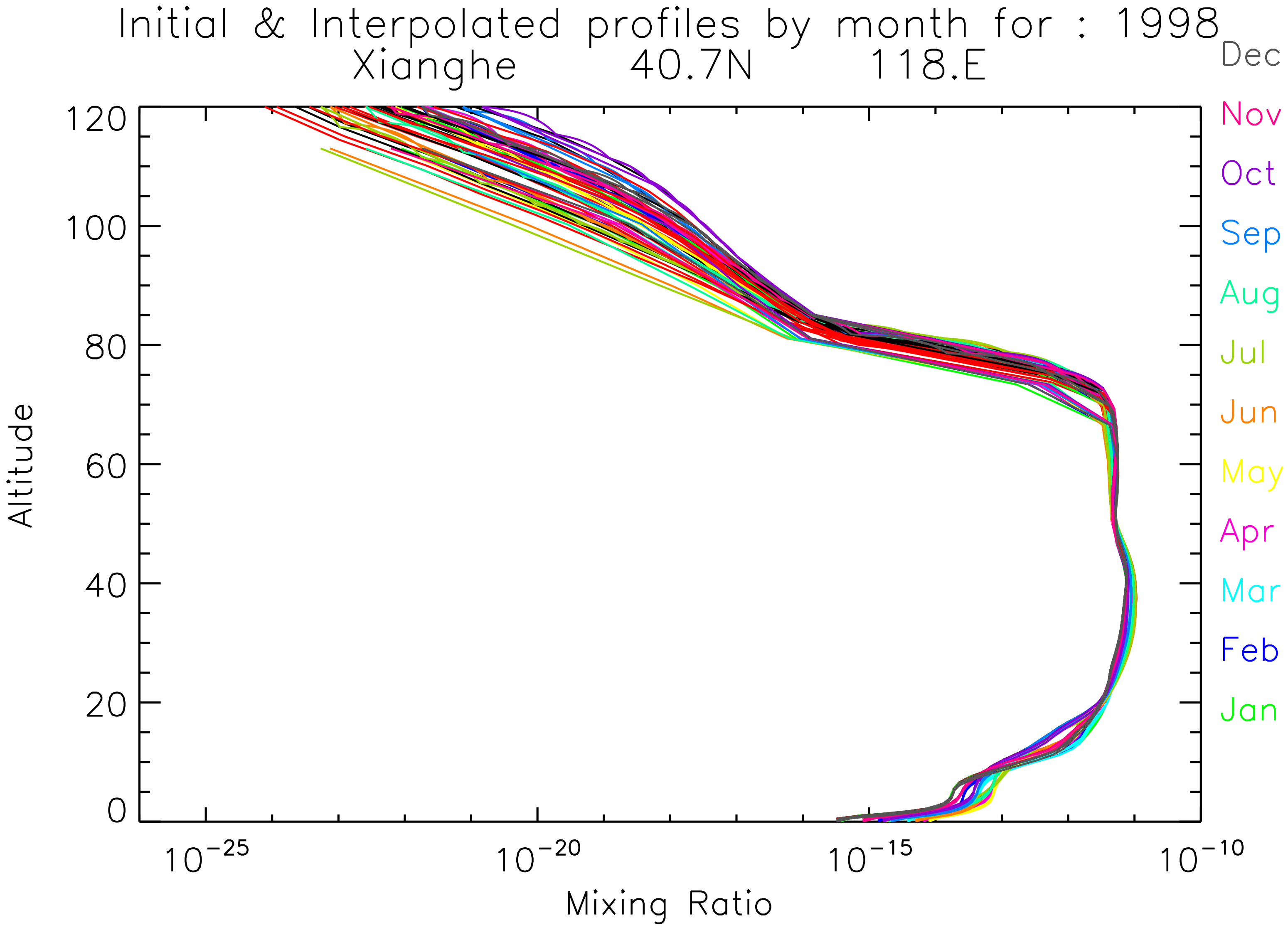


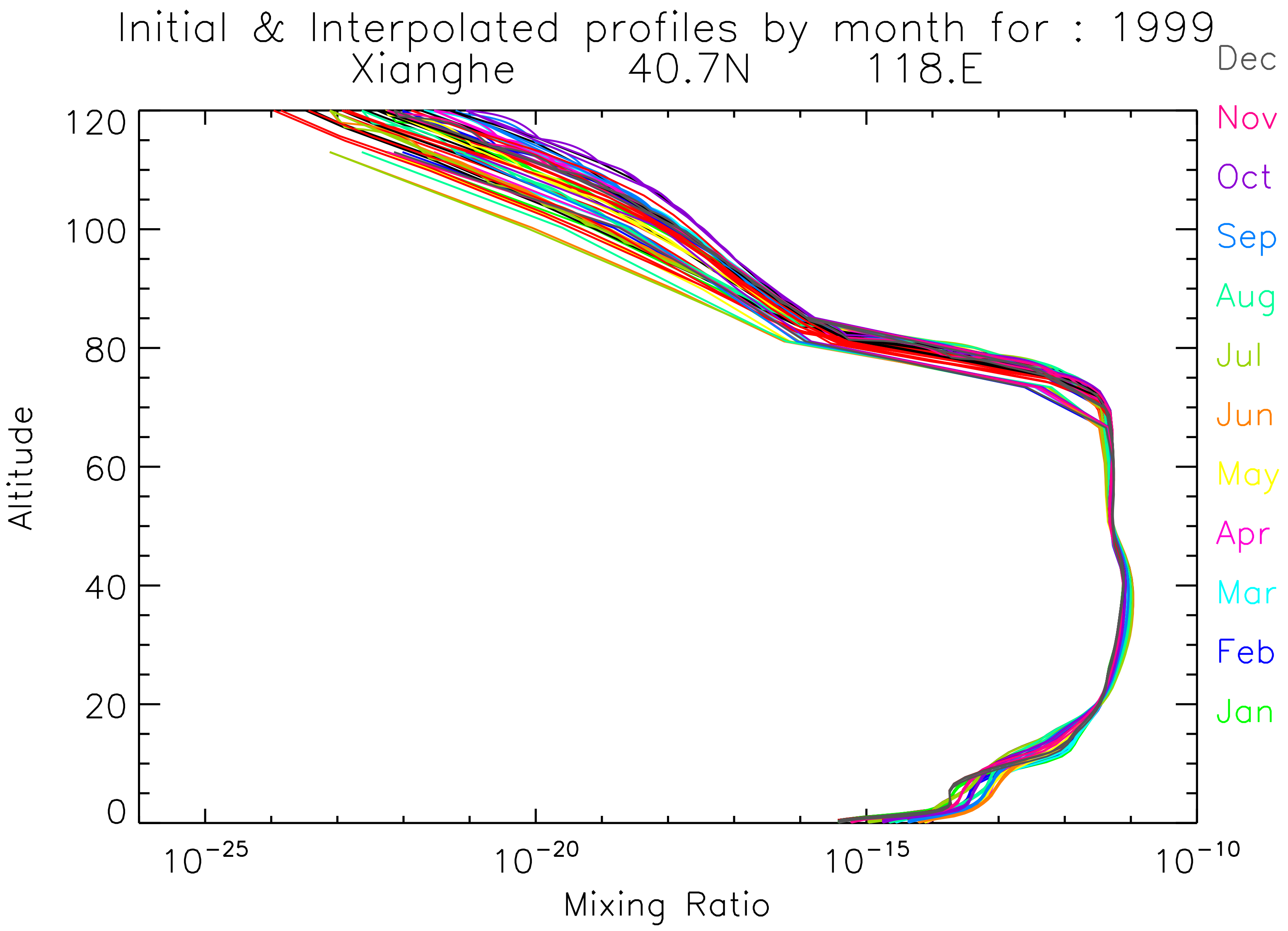
Initial & Interpolated profiles by month for : 1994
Xianghe 40.7N 118.E


Initial & Interpolated profiles by month for : 1995
Xianghe 40.7N 118.E
Altitude
0
20
40
60
80
100
120
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan


Initial & Interpolated profiles by month for : 1996
Xianghe 40.7N 118.E
Altitude
0
20
40
60
80
100
120
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

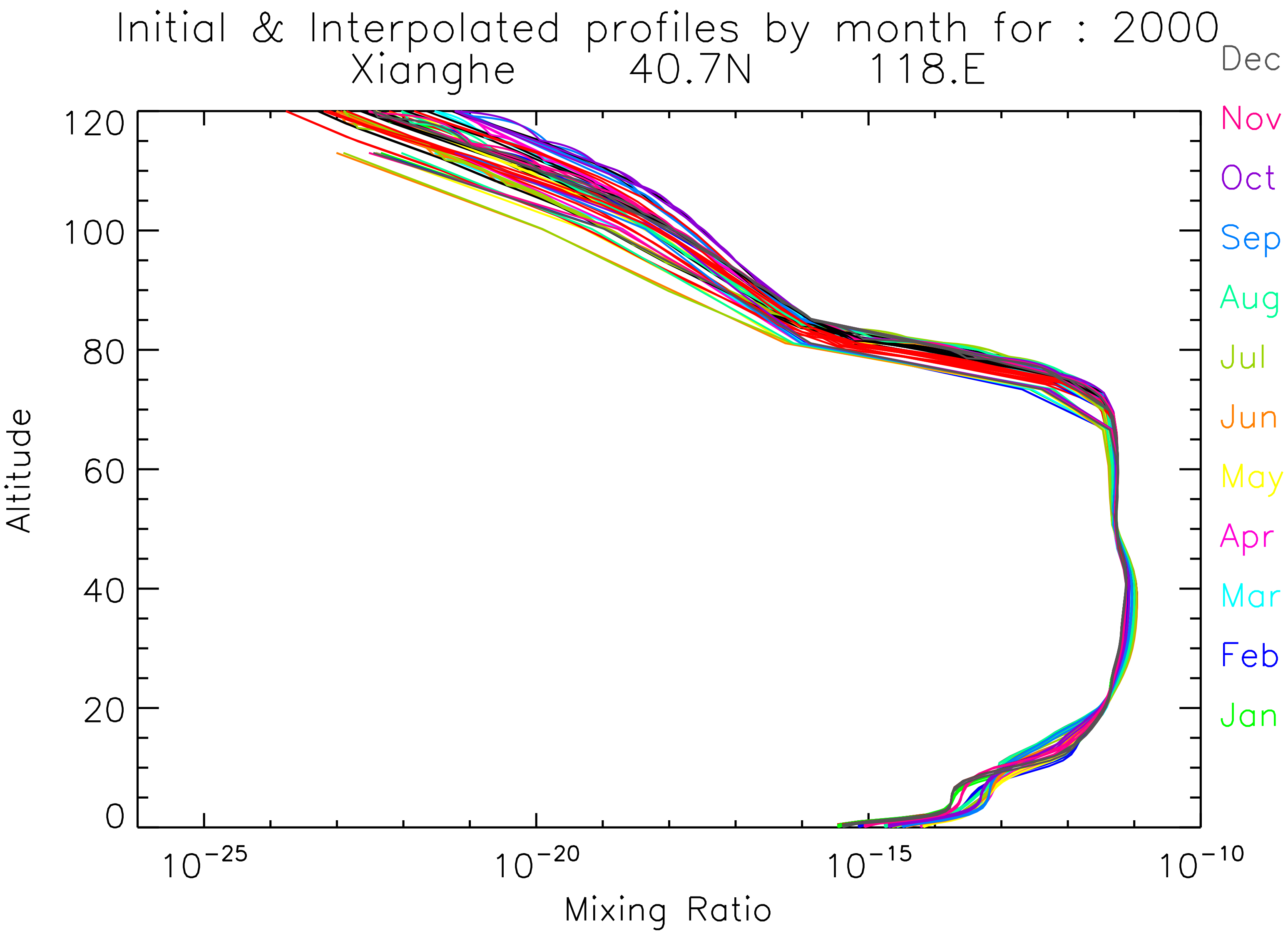

Initial & Interpolated profiles by month for : 1997
Xianghe 40.7N 118.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1998
Xianghe 40.7N 118.E
Altitude
0
20
40
60
80
100
120
Mixing Ratio
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

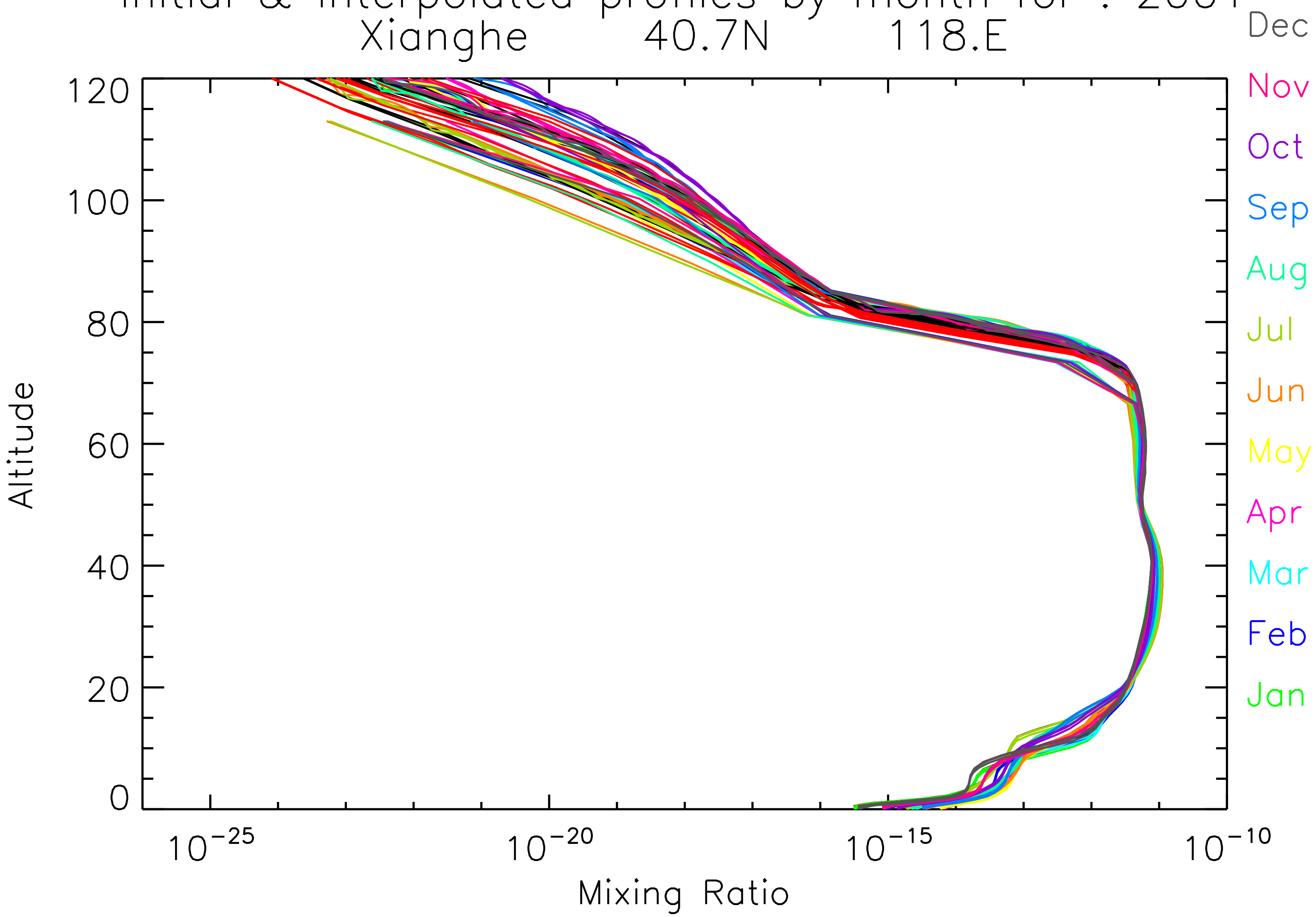


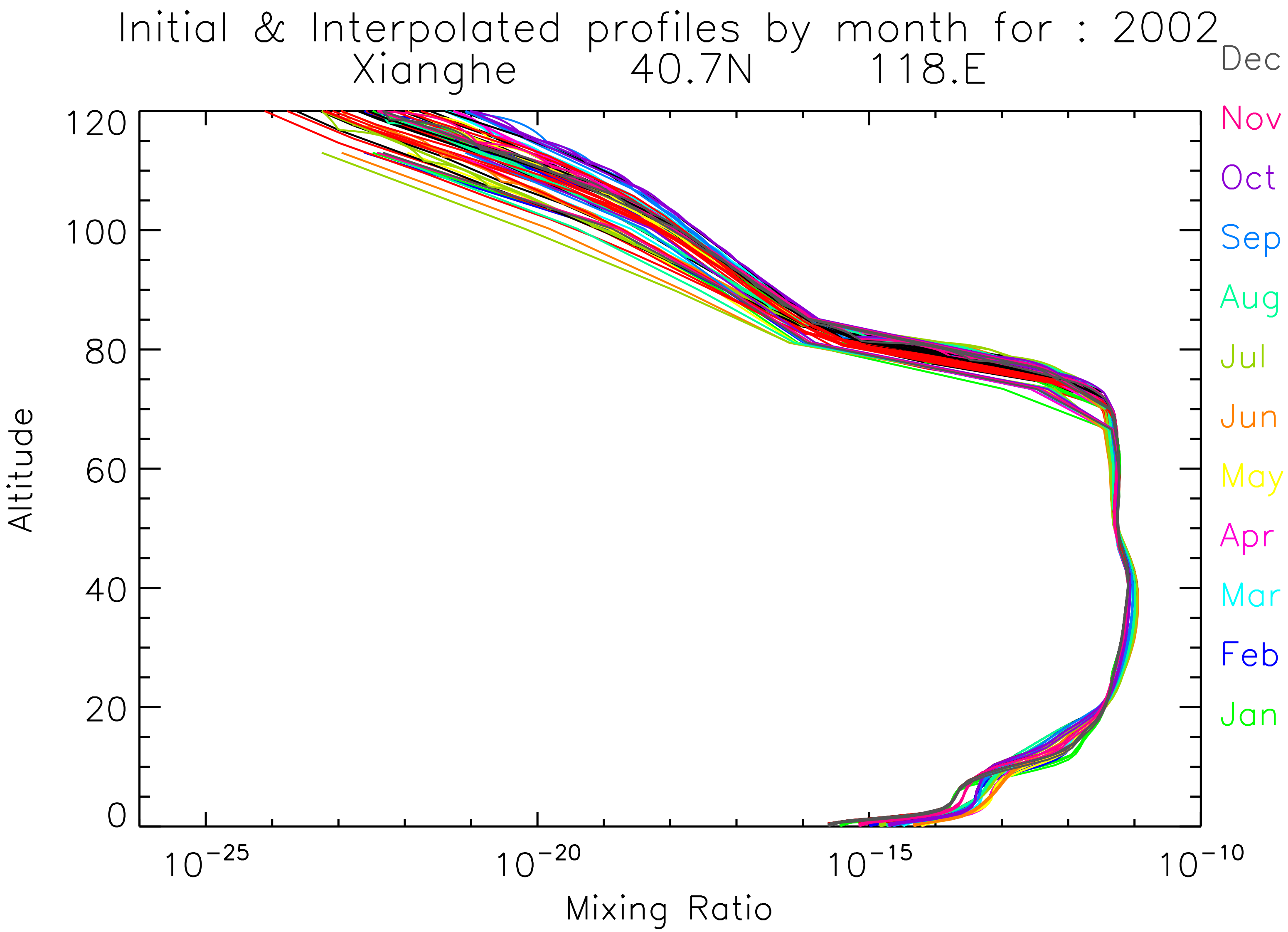
Initial & Interpolated profiles by month for : 1999

Xianghe 40.7N 118.E

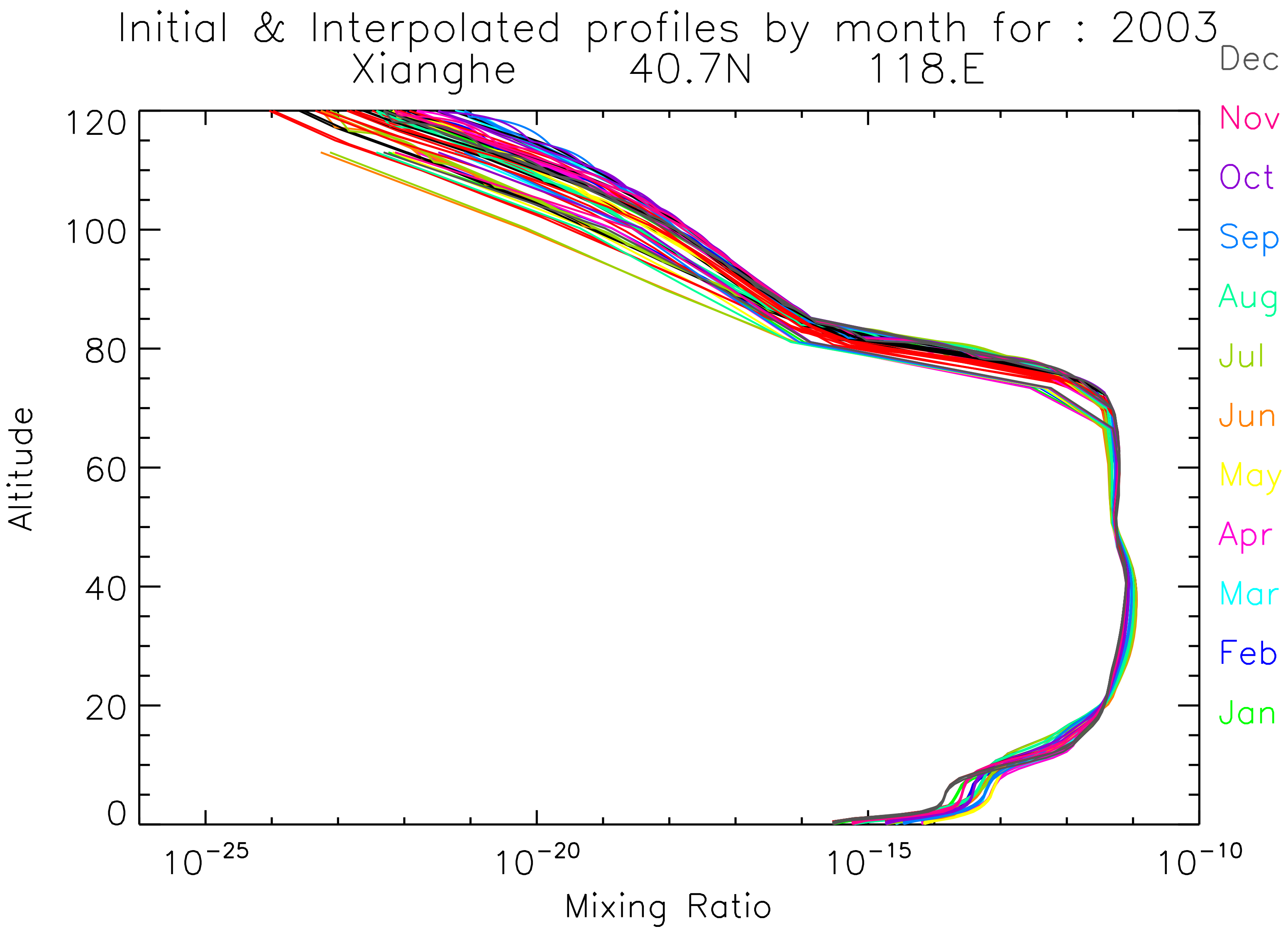

Initial & Interpolated profiles by month for : 2000
Xianghe 40.7N 118.E
Altitude
0
20
40
60
80
100
120
Mixing Ratio
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

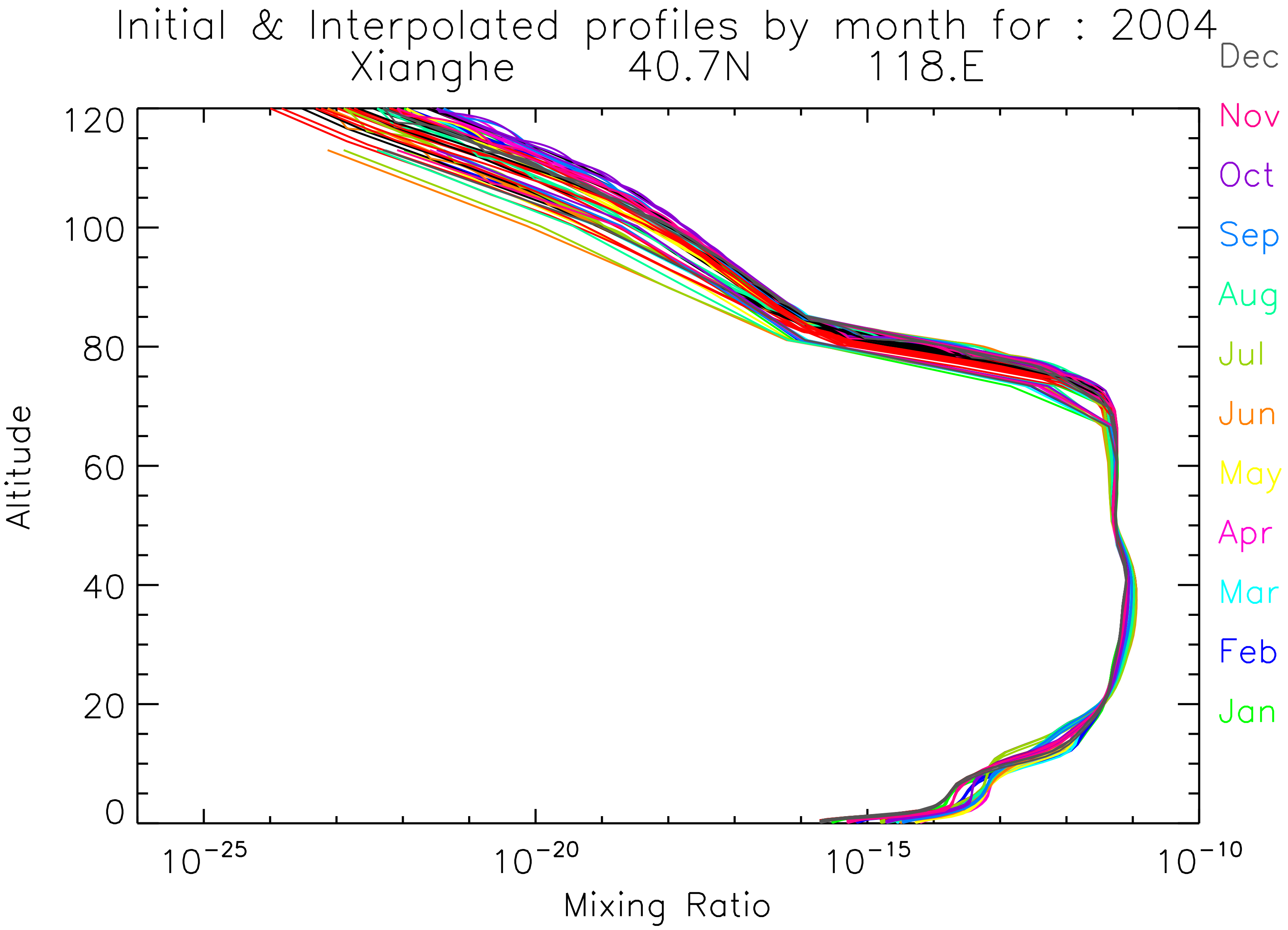
Initial & Interpolated profiles by month for : 2001
Xianghe 40.7N 118.E



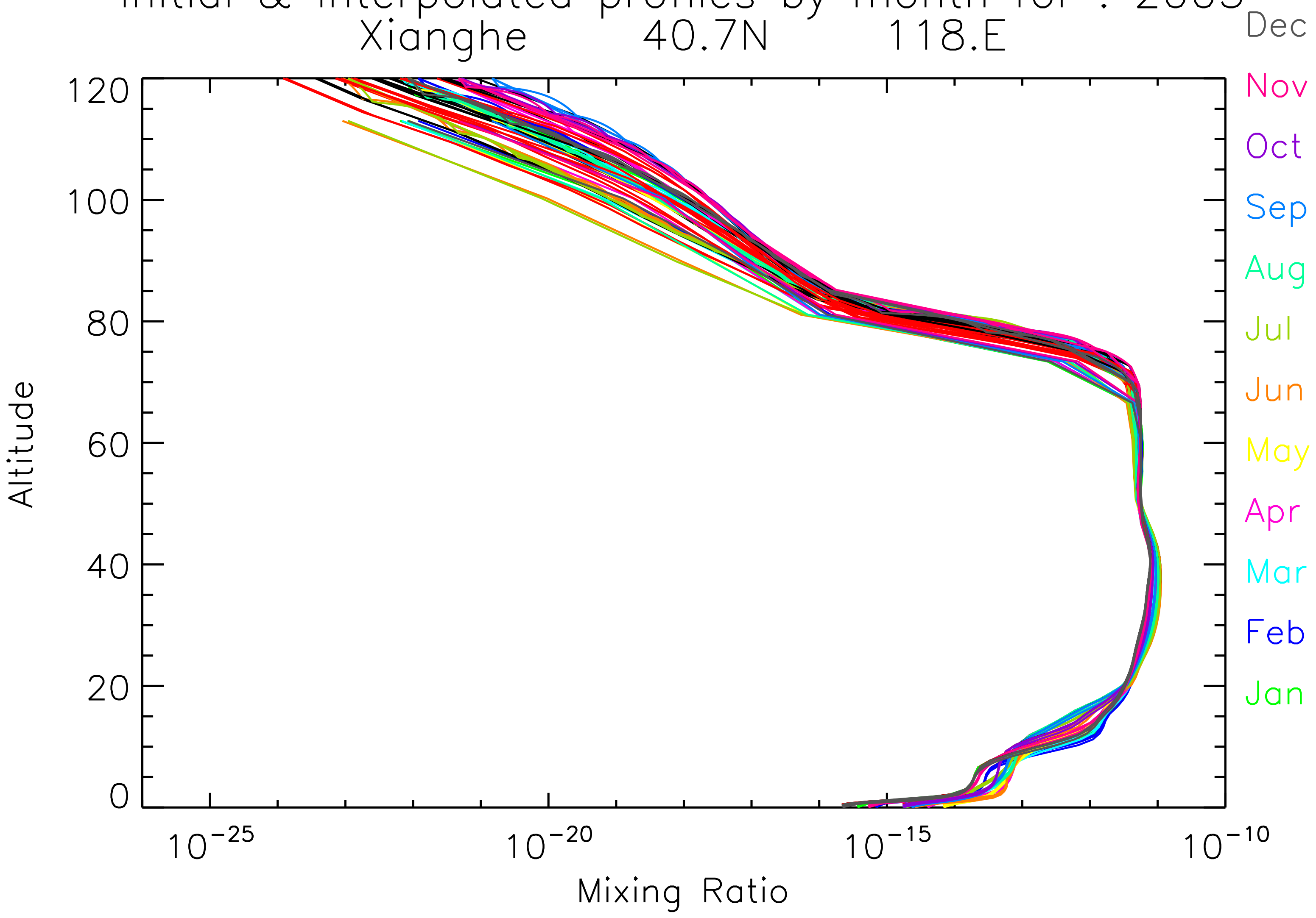


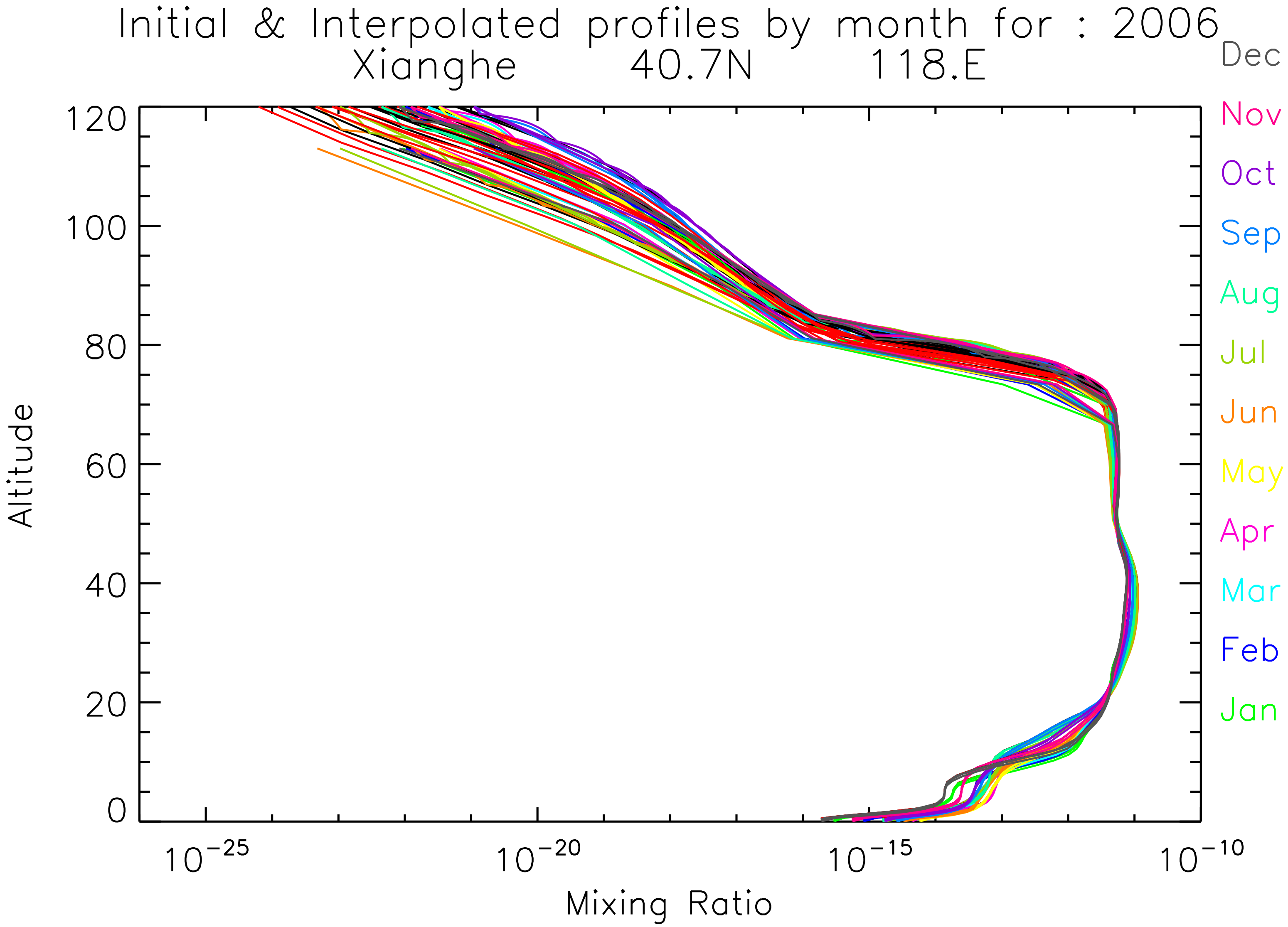
Initial & Interpolated profiles by month for : 2002
Xianghe 40.7N 118.E

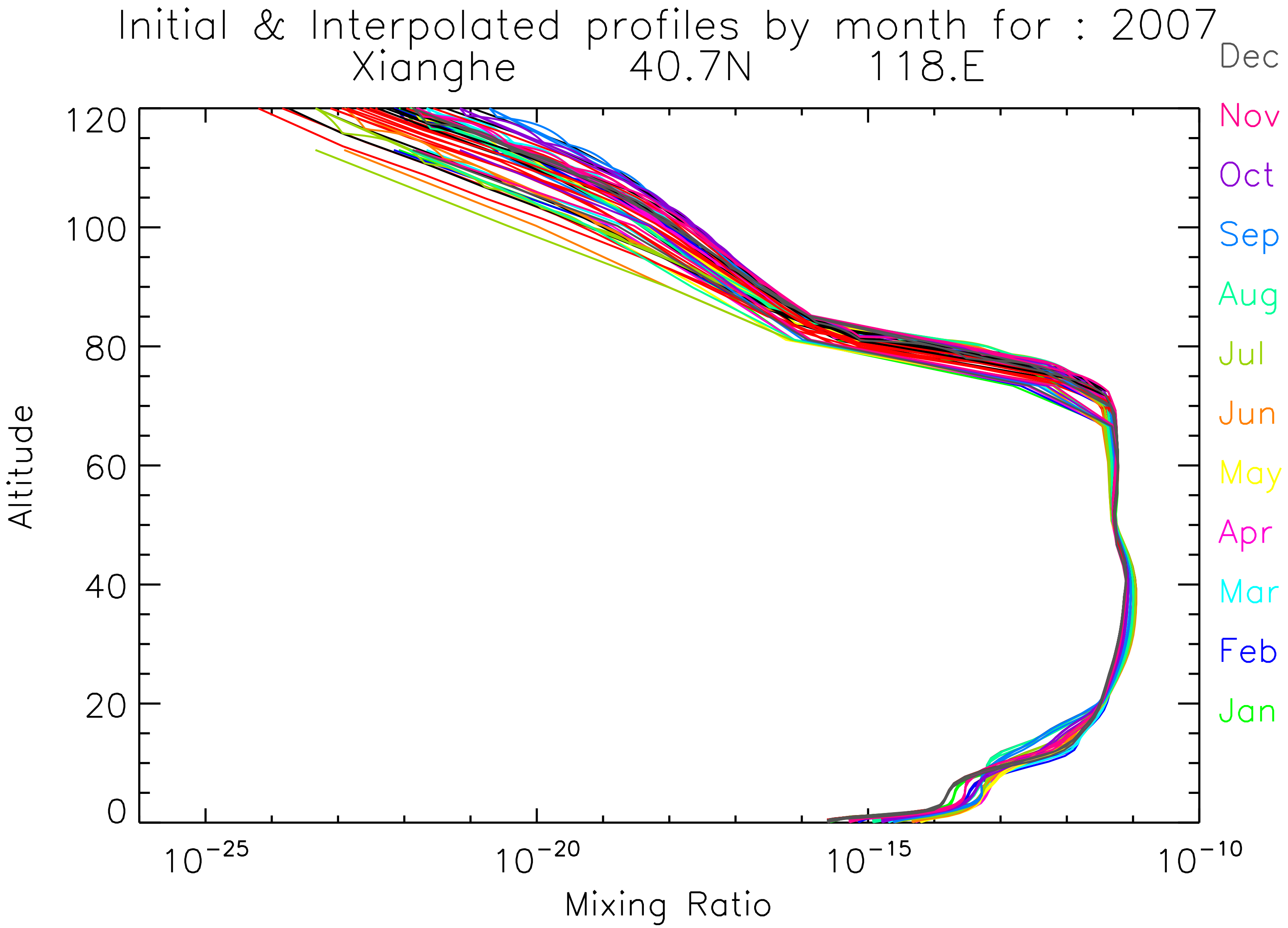

Initial & Interpolated profiles by month for : 2003
Xianghe 40.7N 118.E
Altitude
0
20
40
60
80
100
120
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

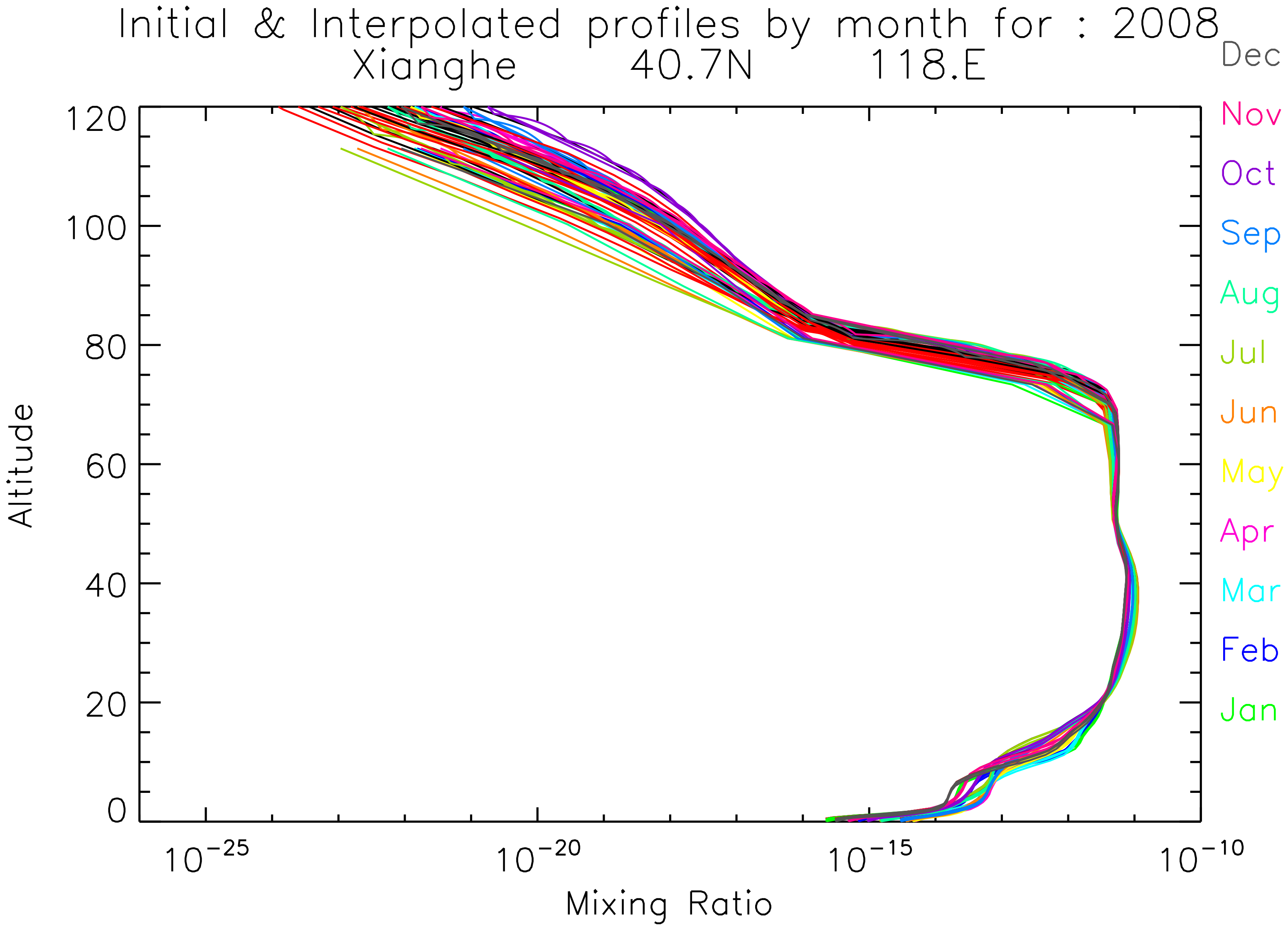

Initial & Interpolated profiles by month for : 2004
Xianghe 40.7N 118.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
0
20
40
60
80
100
120
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

Initial & Interpolated profiles by month for : 2005
Xianghe 40.7N 118.E



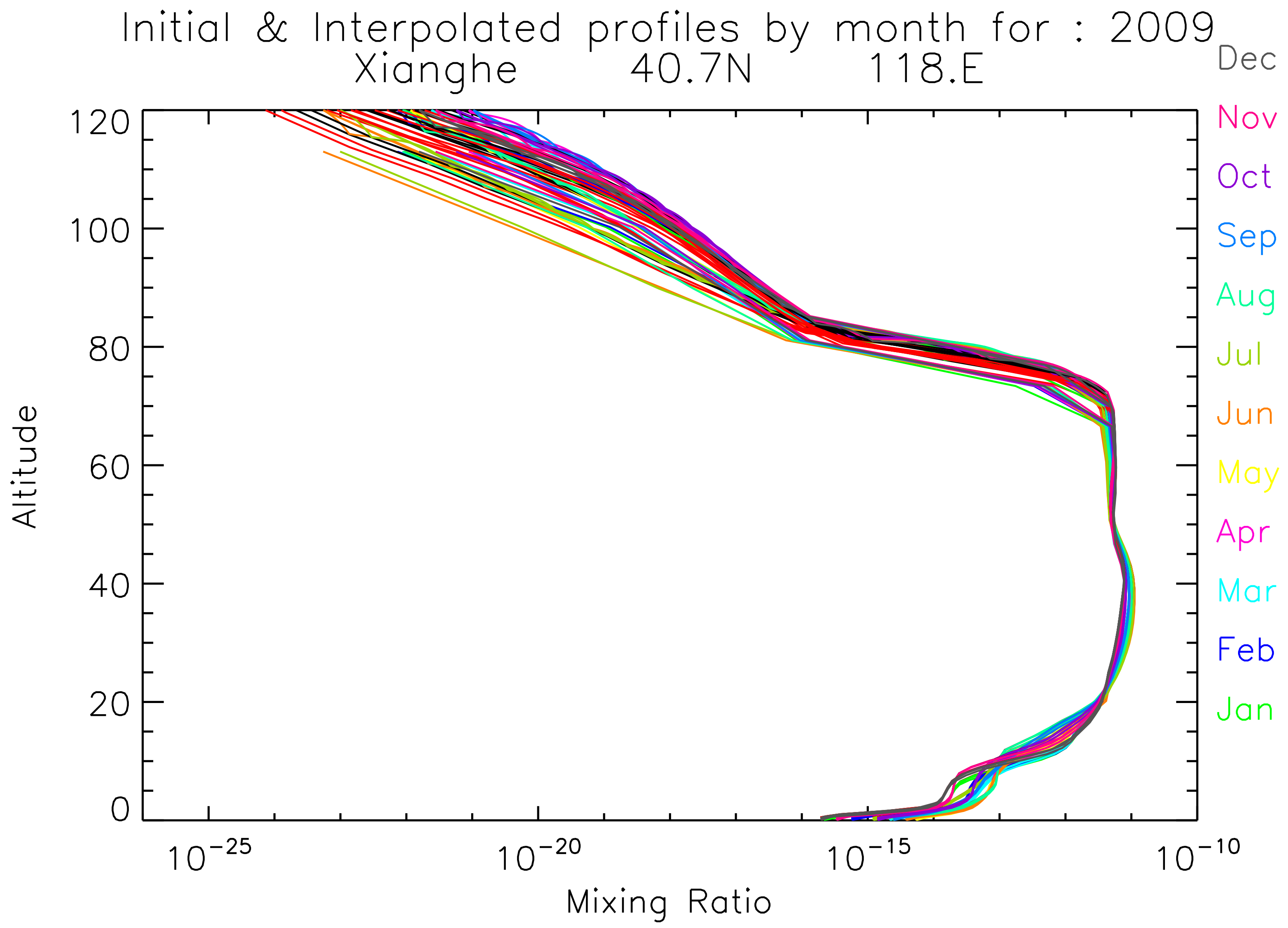

Initial & Interpolated profiles by month for : 2006
Xianghe 40.7N 118.E
Altitude
0
20
40
60
80
100
120
Mixing Ratio
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan


Initial & Interpolated profiles by month for : 2007
Xianghe 40.7N 118.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
0
20
40
60
80
100
120
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio



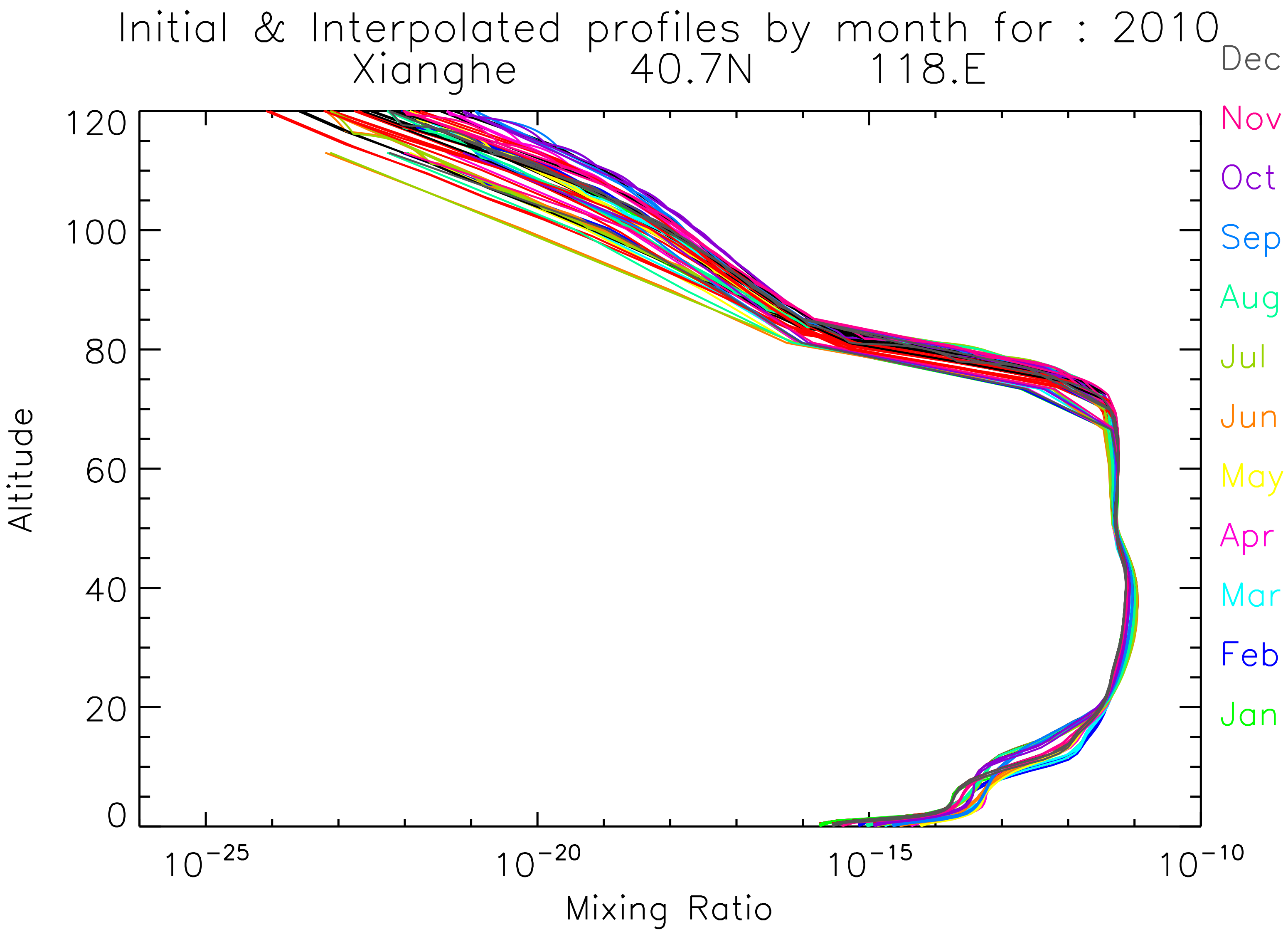
Initial & Interpolated profiles by month for : 2008

Xianghe 40.7N 118.E

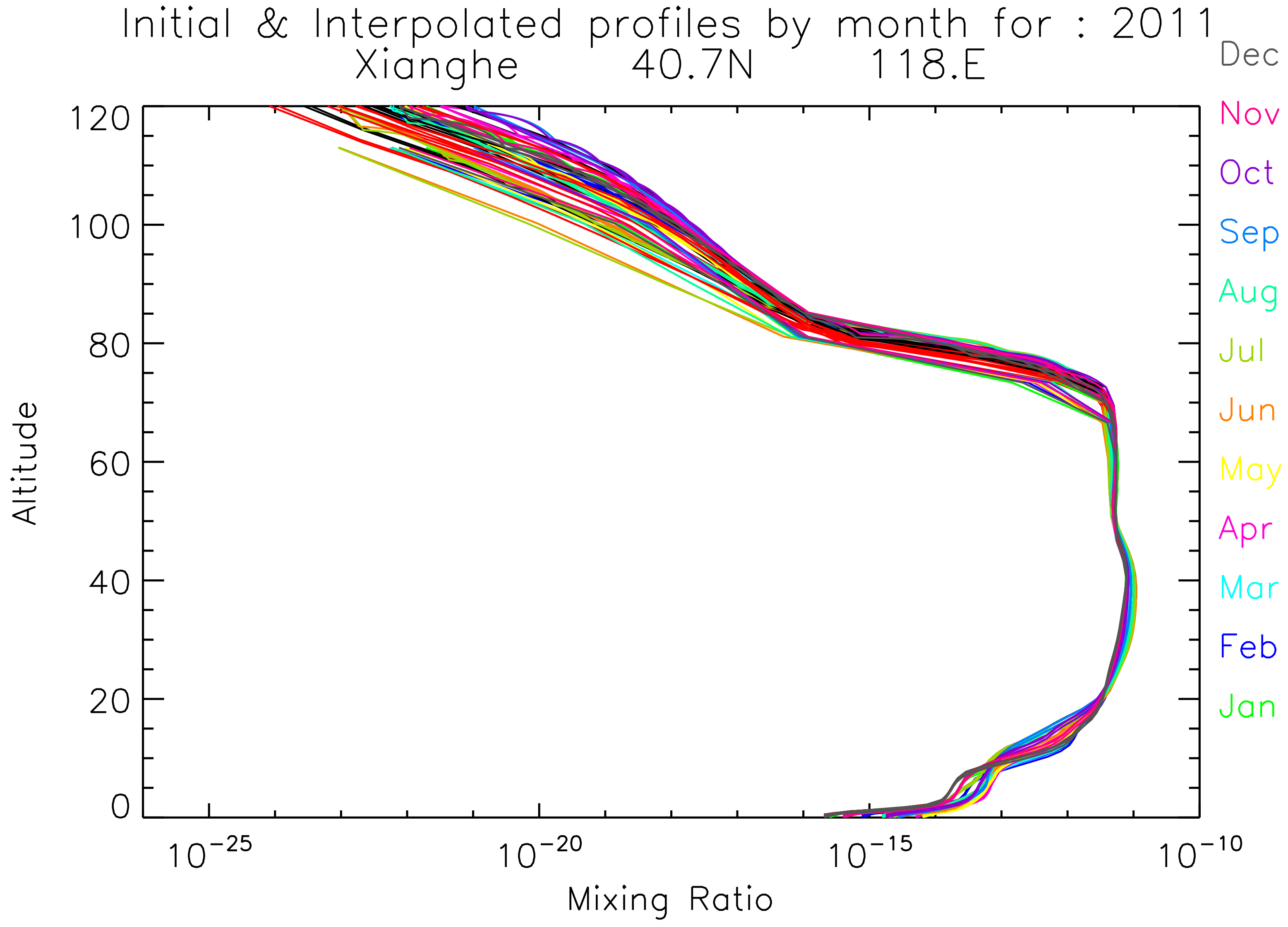


Initial & Interpolated profiles by month for : 2009

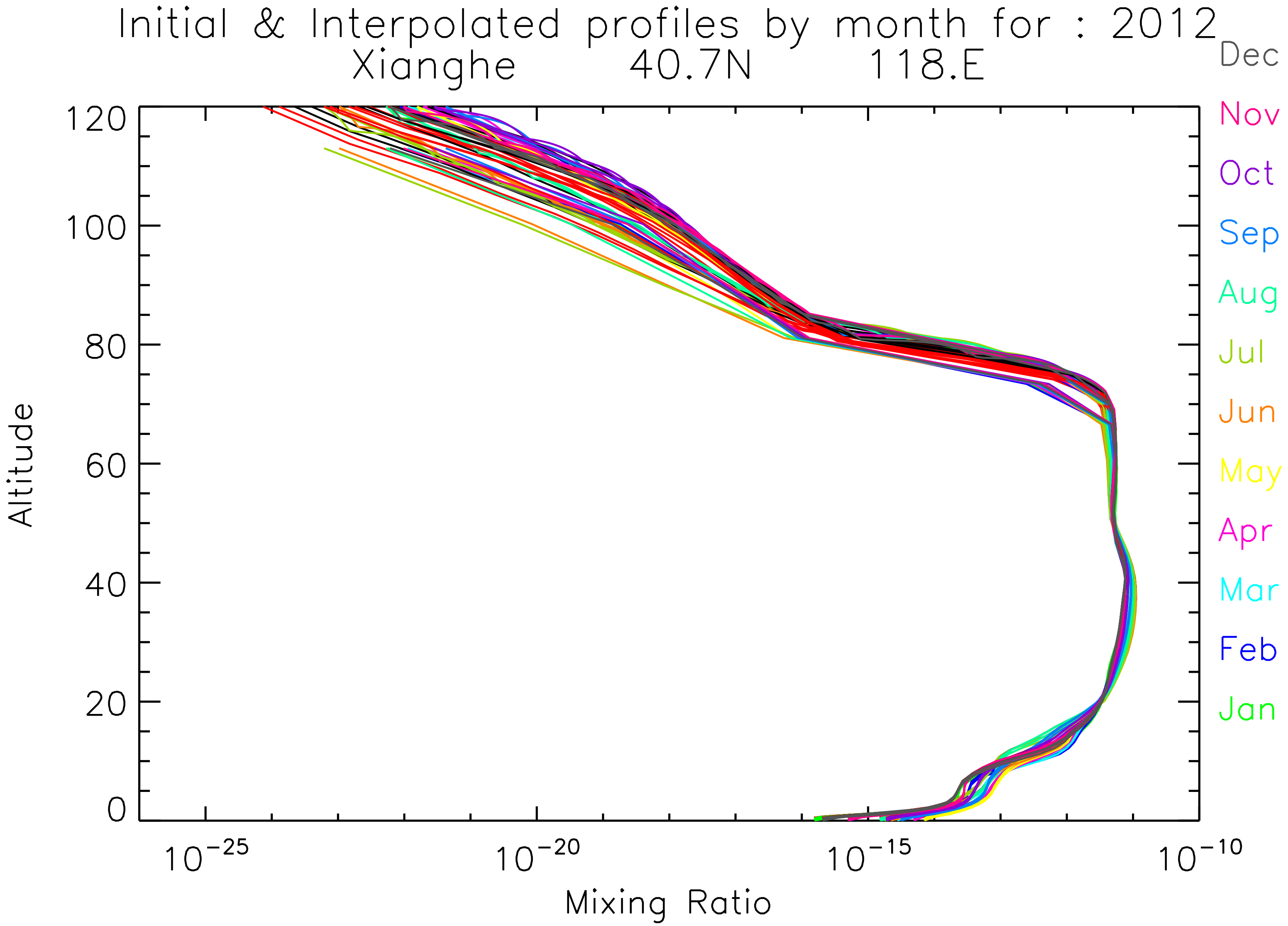
Xianghe 40.7N 118.E


Initial & Interpolated profiles by month for : 2010

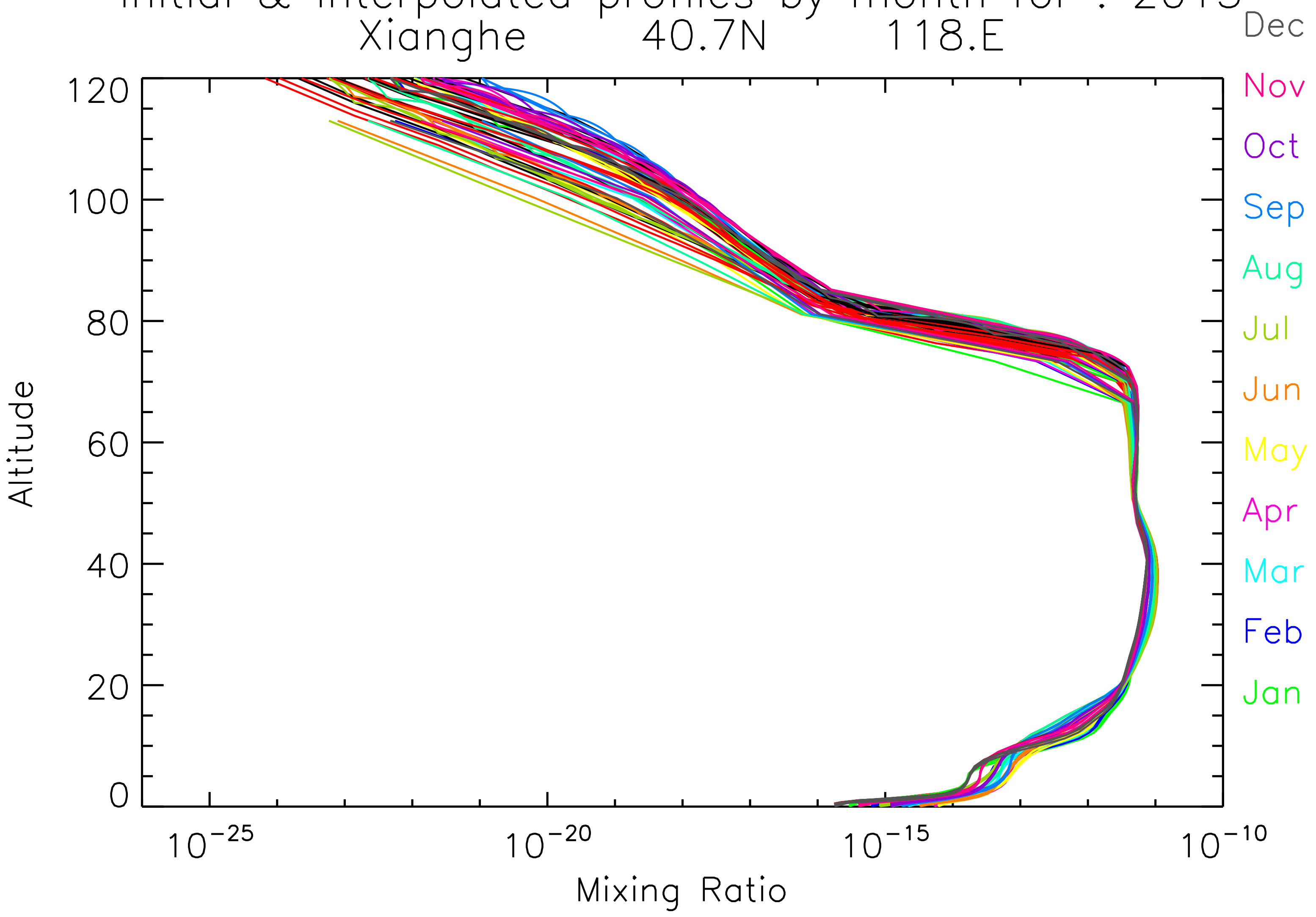
Xianghe 40.7N 118.E

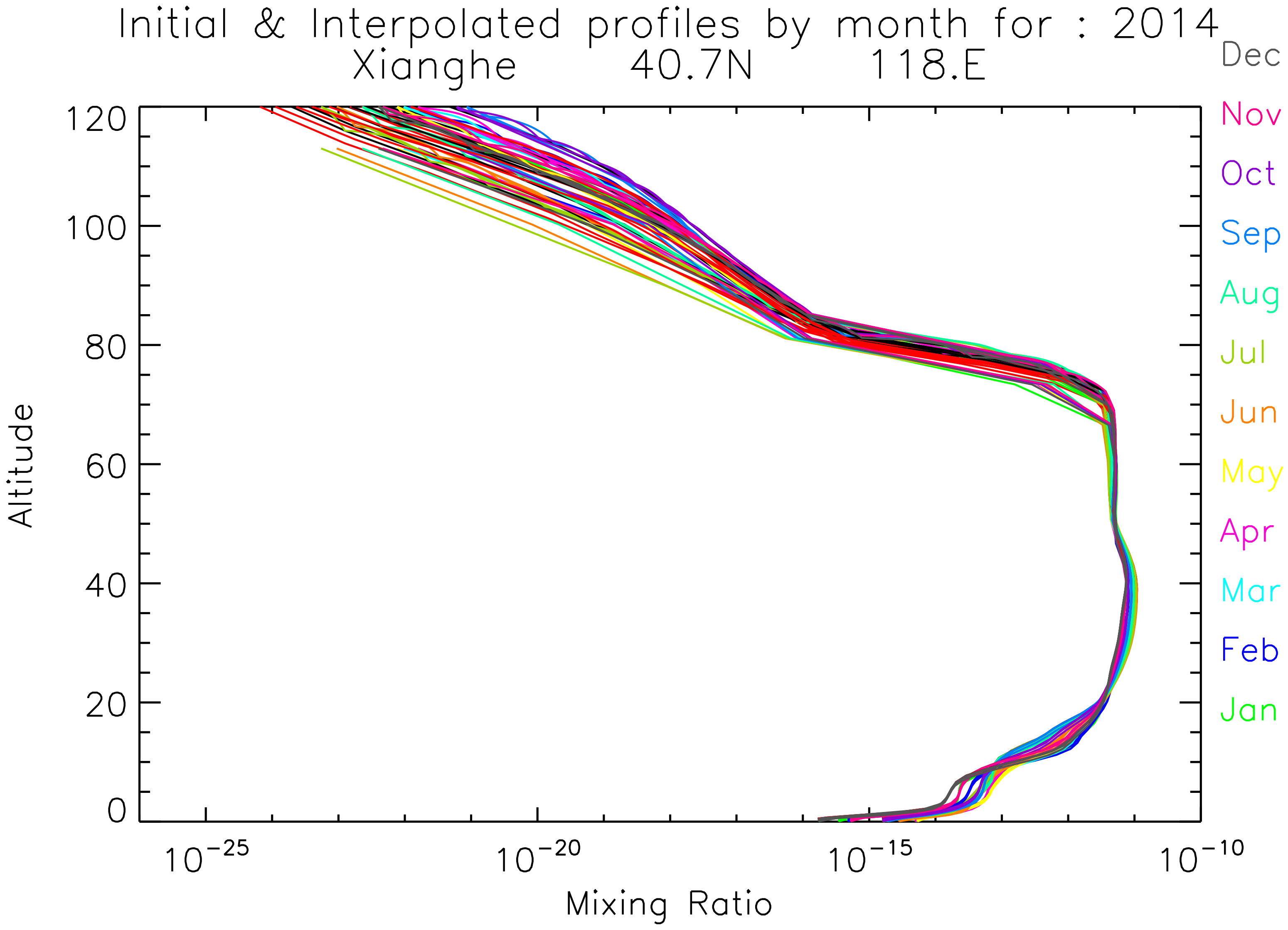


Initial & Interpolated profiles by month for : 2011
Xianghe 40.7N 118.E

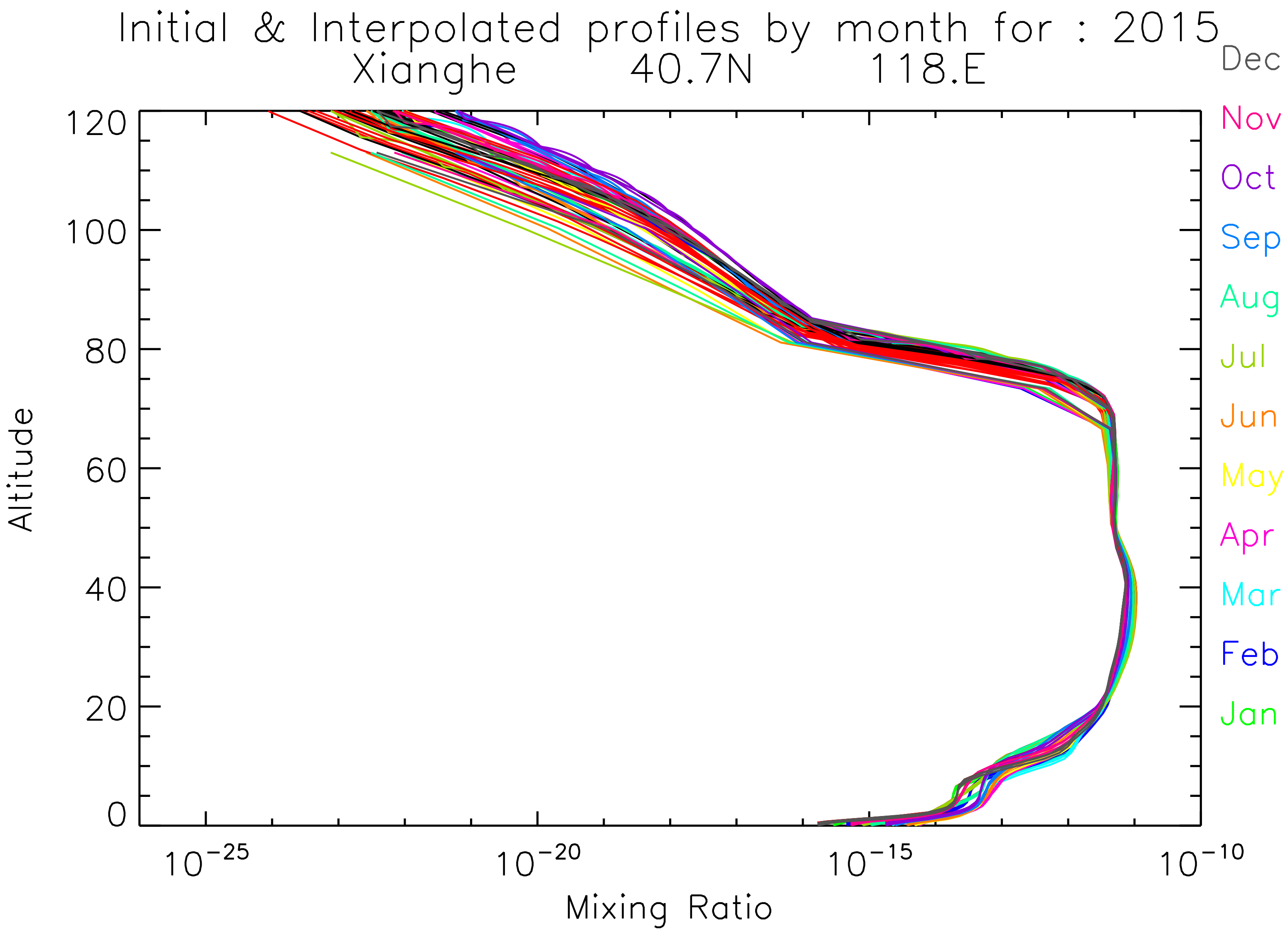

Initial & Interpolated profiles by month for : 2012
Xianghe 40.7N 118.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
0
20
40
60
80
100
120
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

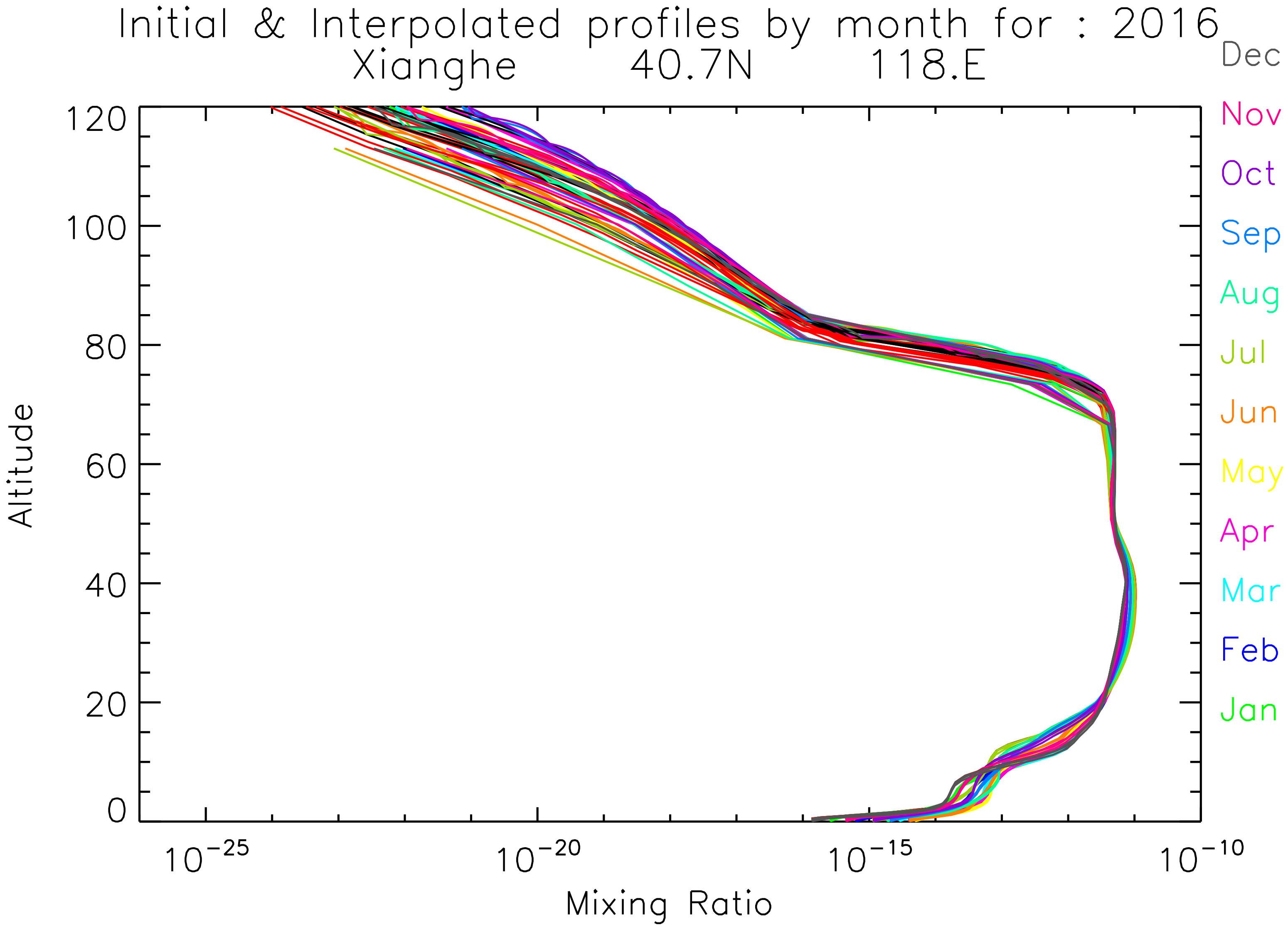
Initial & Interpolated profiles by month for : 2013
Xianghe 40.7N 118.E

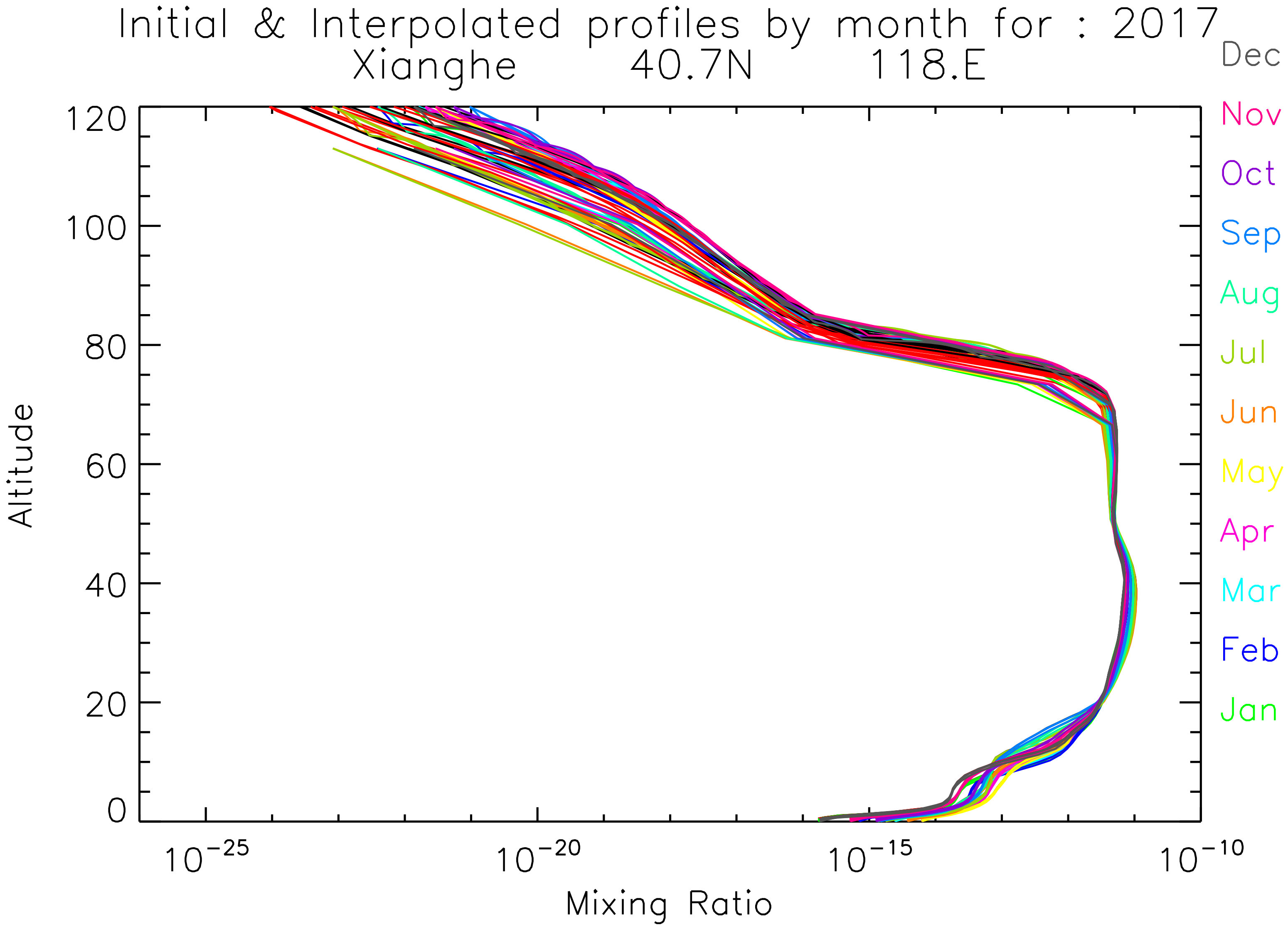


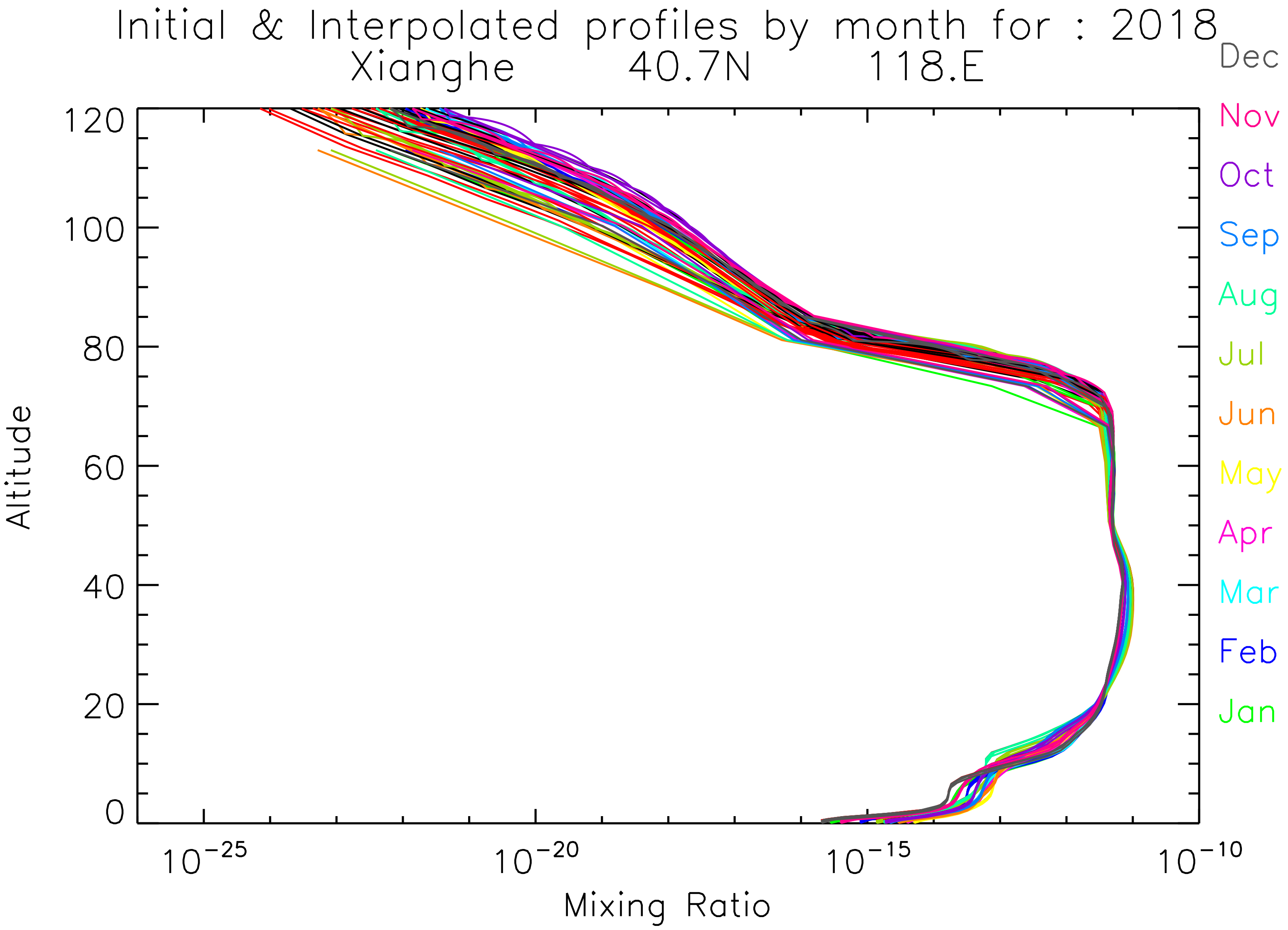


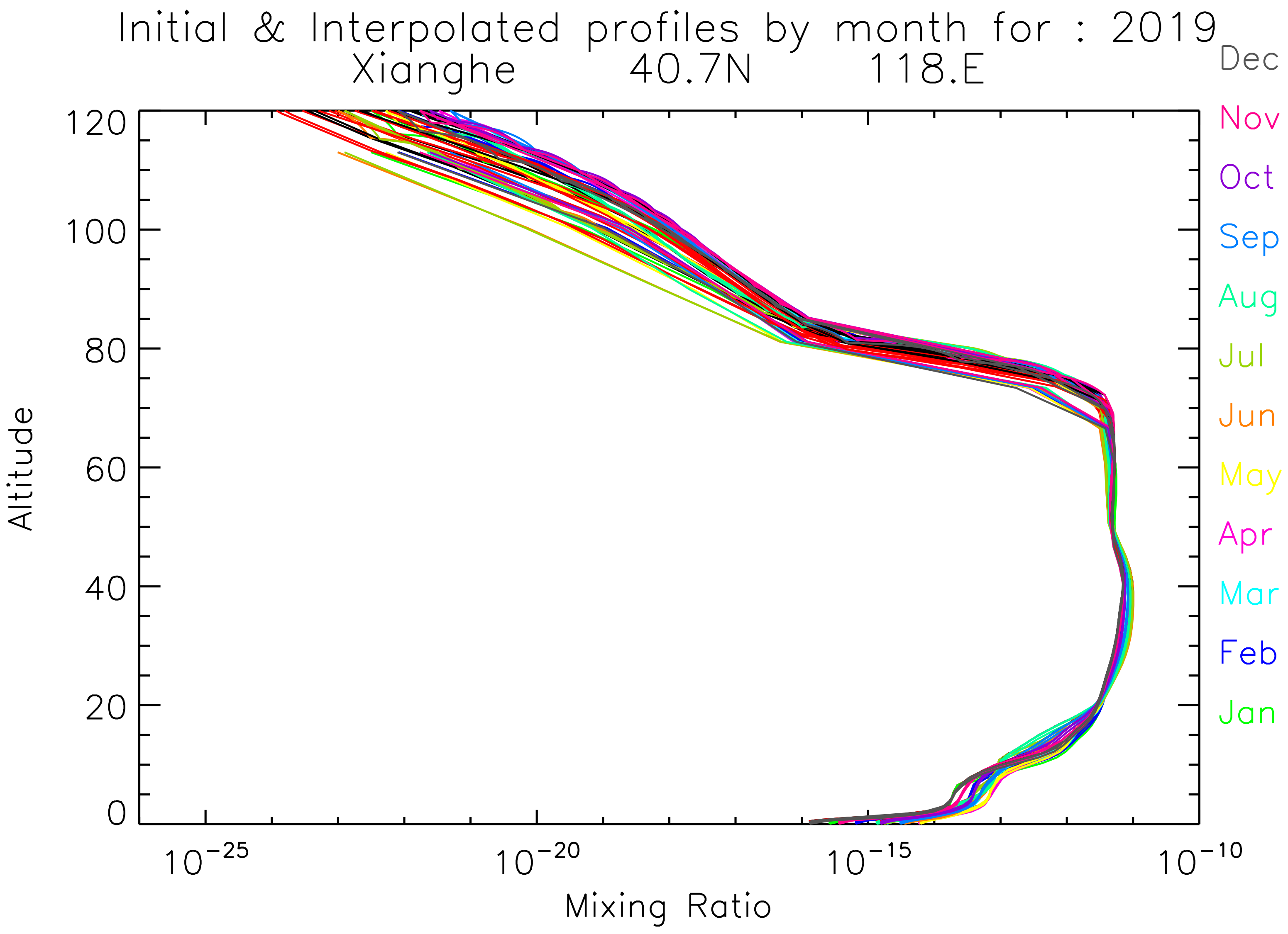
Initial & Interpolated profiles by month for : 2014
Xianghe 40.7N 118.E


Initial & Interpolated profiles by month for : 2015
Xianghe 40.7N 118.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
0
20
40
60
80
100
120
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

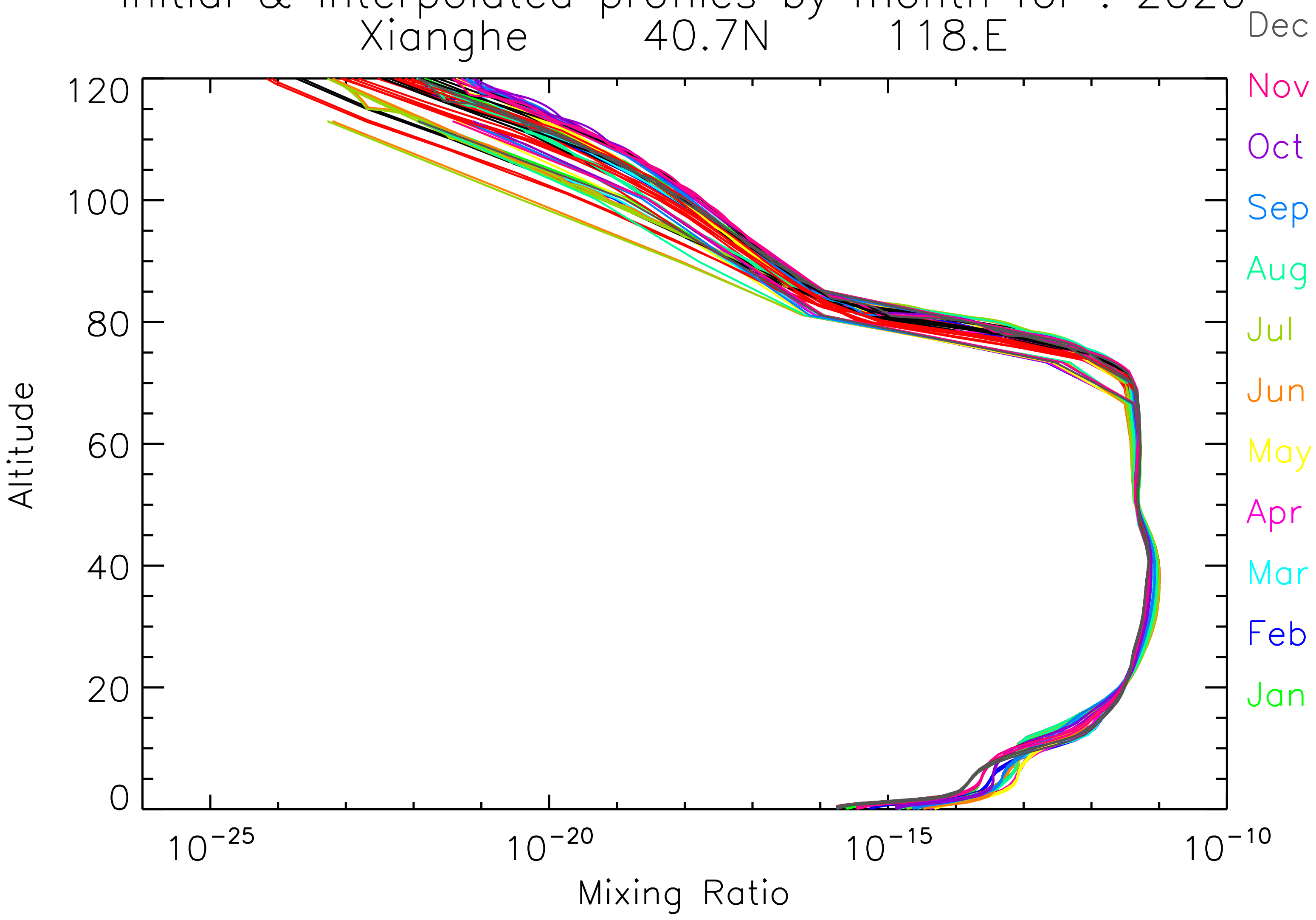

Initial & Interpolated profiles by month for : 2016
Xianghe 40.7N 118.E
Altitude
0
20
40
60
80
100
120
Mixing Ratio
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

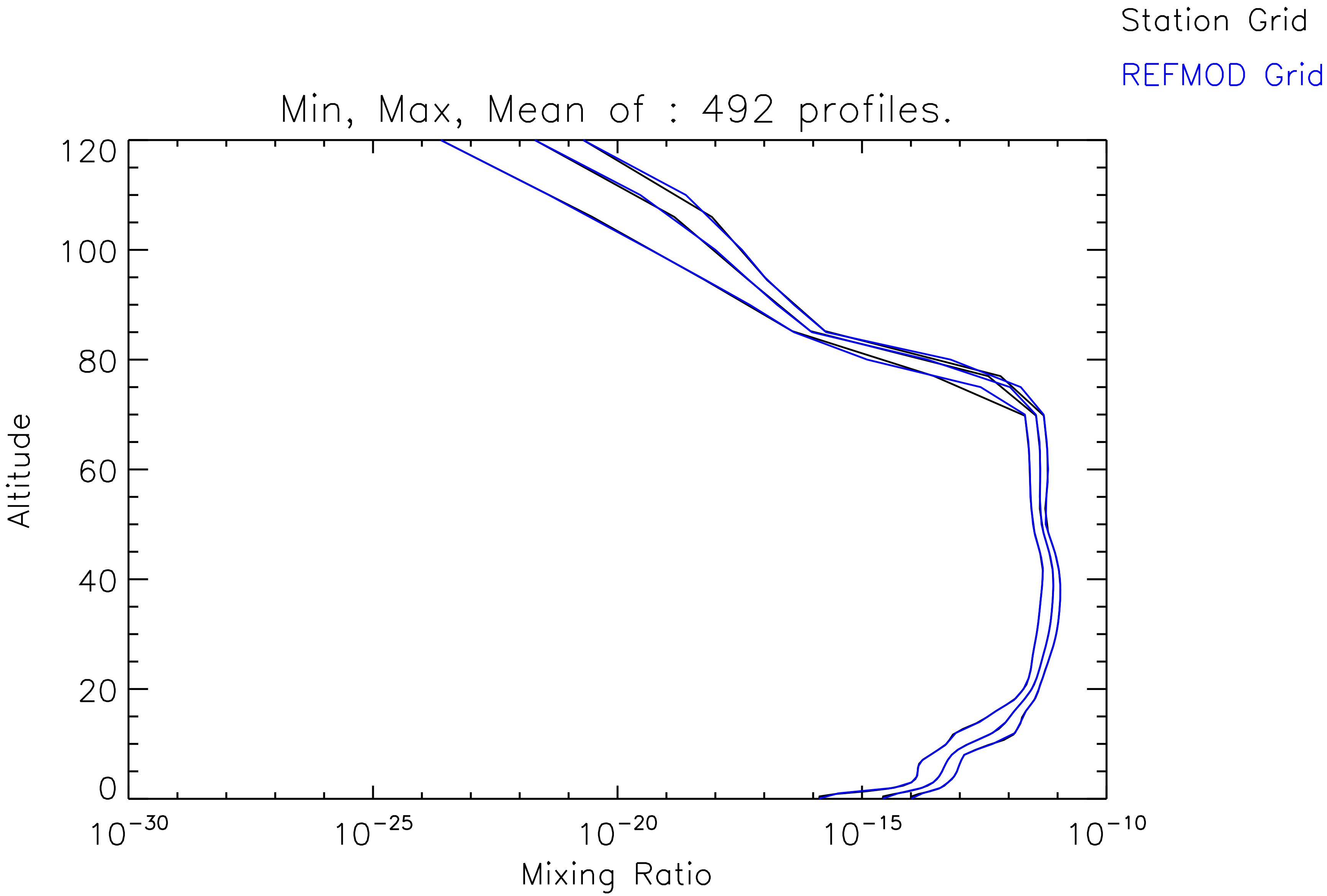

Initial & Interpolated profiles by month for : 2017
Xianghe 40.7N 118.E
Altitude
0
20
40
60
80
100
120
Mixing Ratio
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

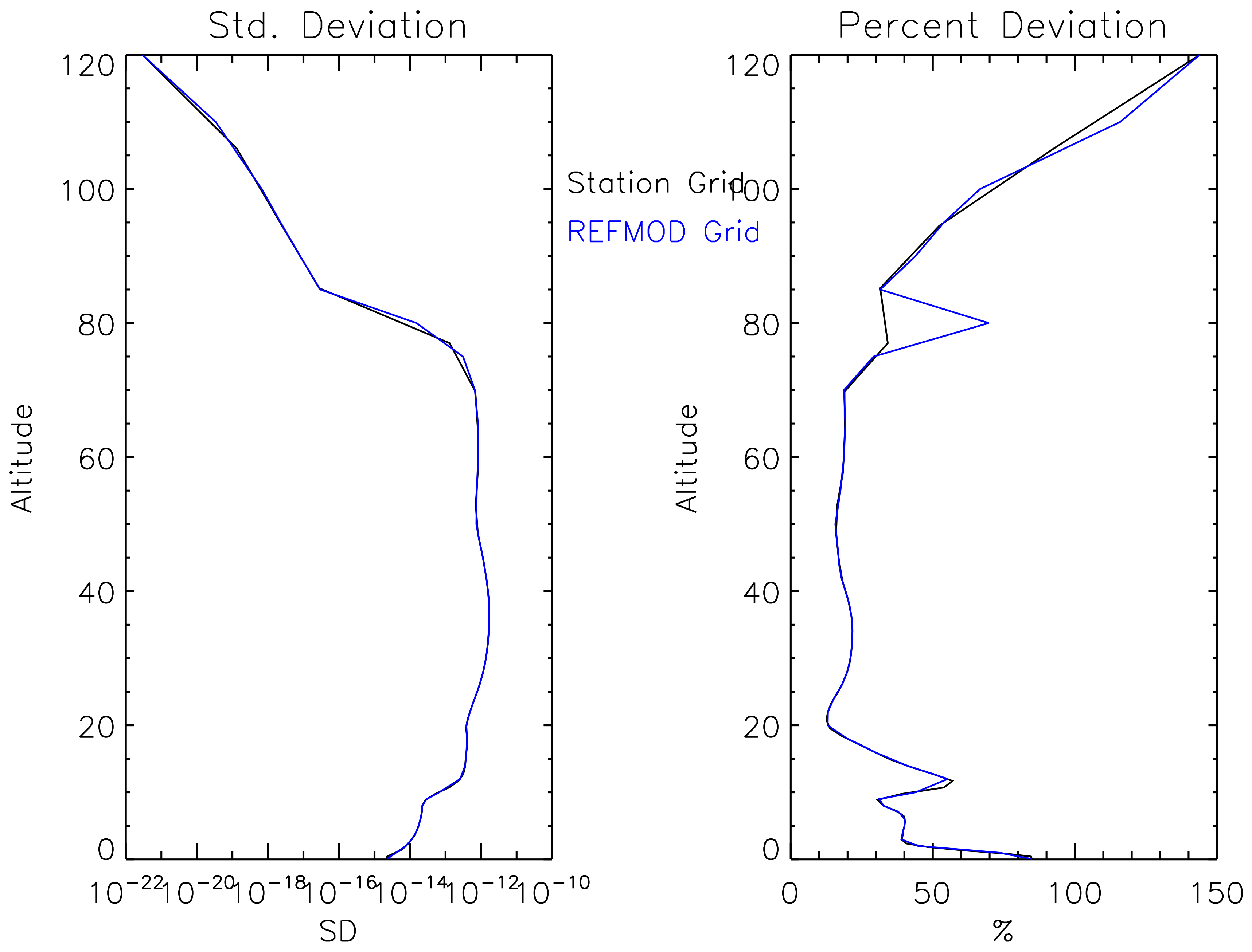

Initial & Interpolated profiles by month for : 2018
Xianghe 40.7N 118.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
0
20
40
60
80
100
120
Mixing Ratio
10^{-25}
10^{-20}
10^{-15}
10^{-10}

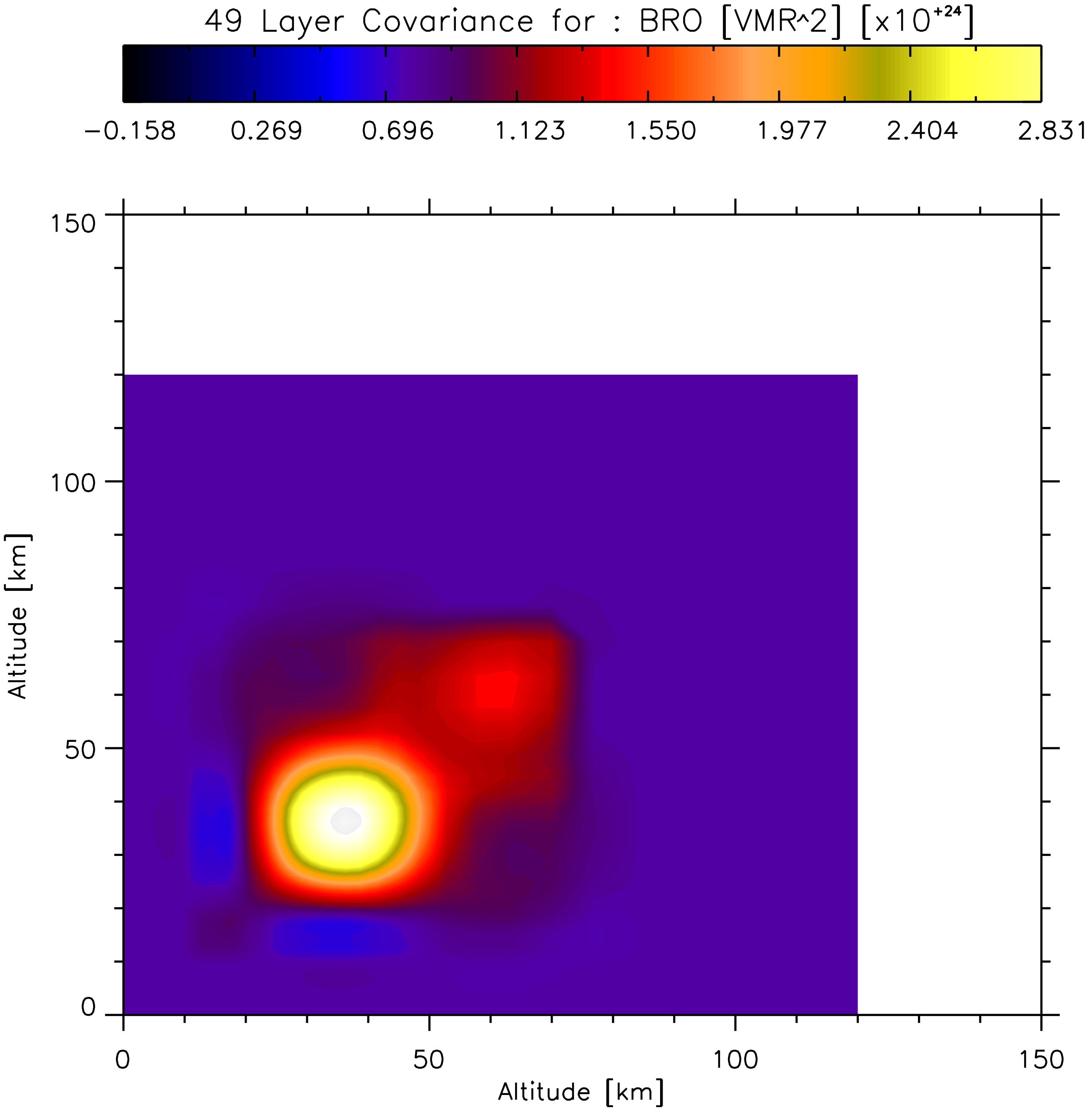

Initial & Interpolated profiles by month for : 2019
Xianghe 40.7N 118.E

Initial & Interpolated profiles by month for : 2020
Xianghe 40.7N 118.E

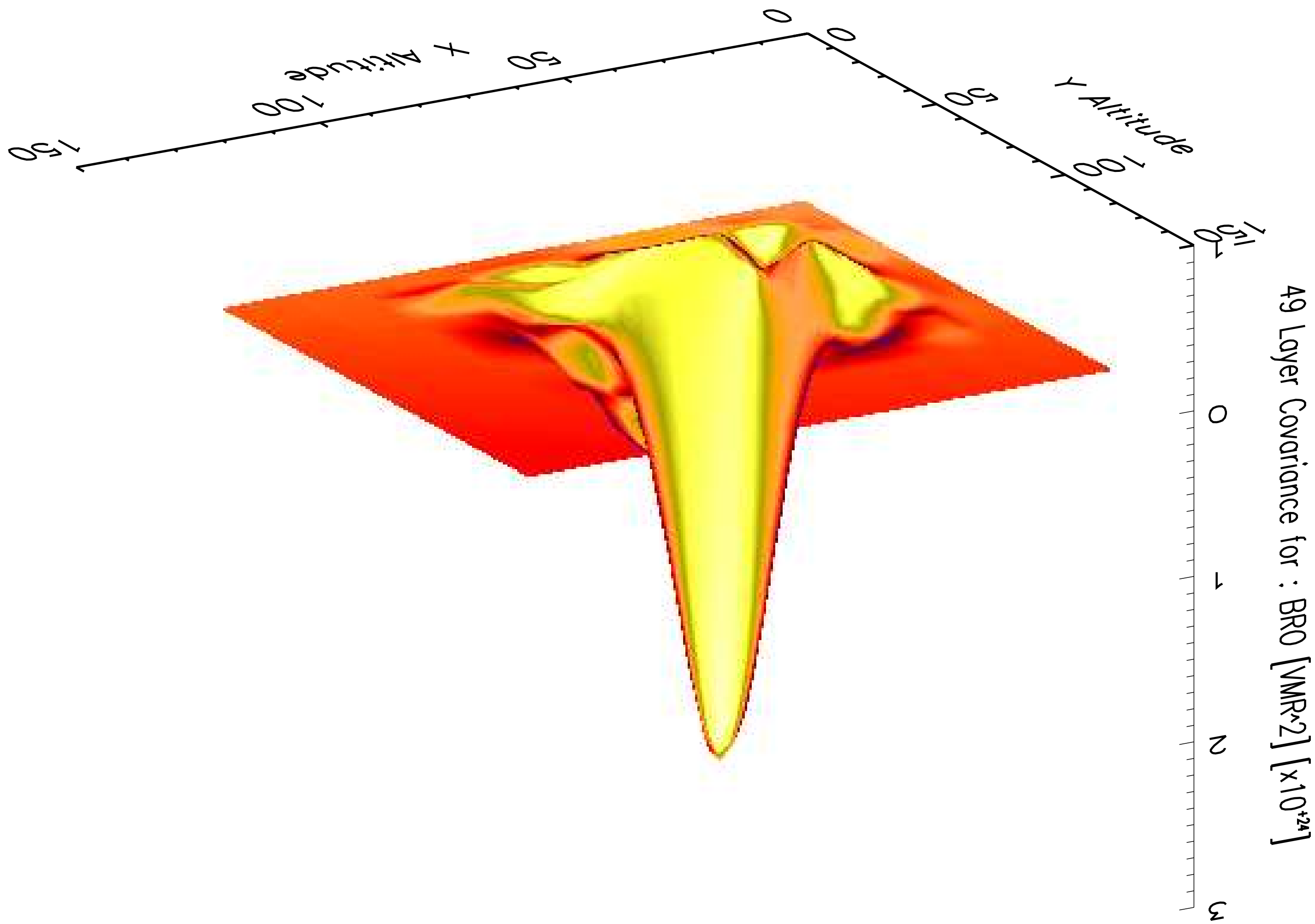


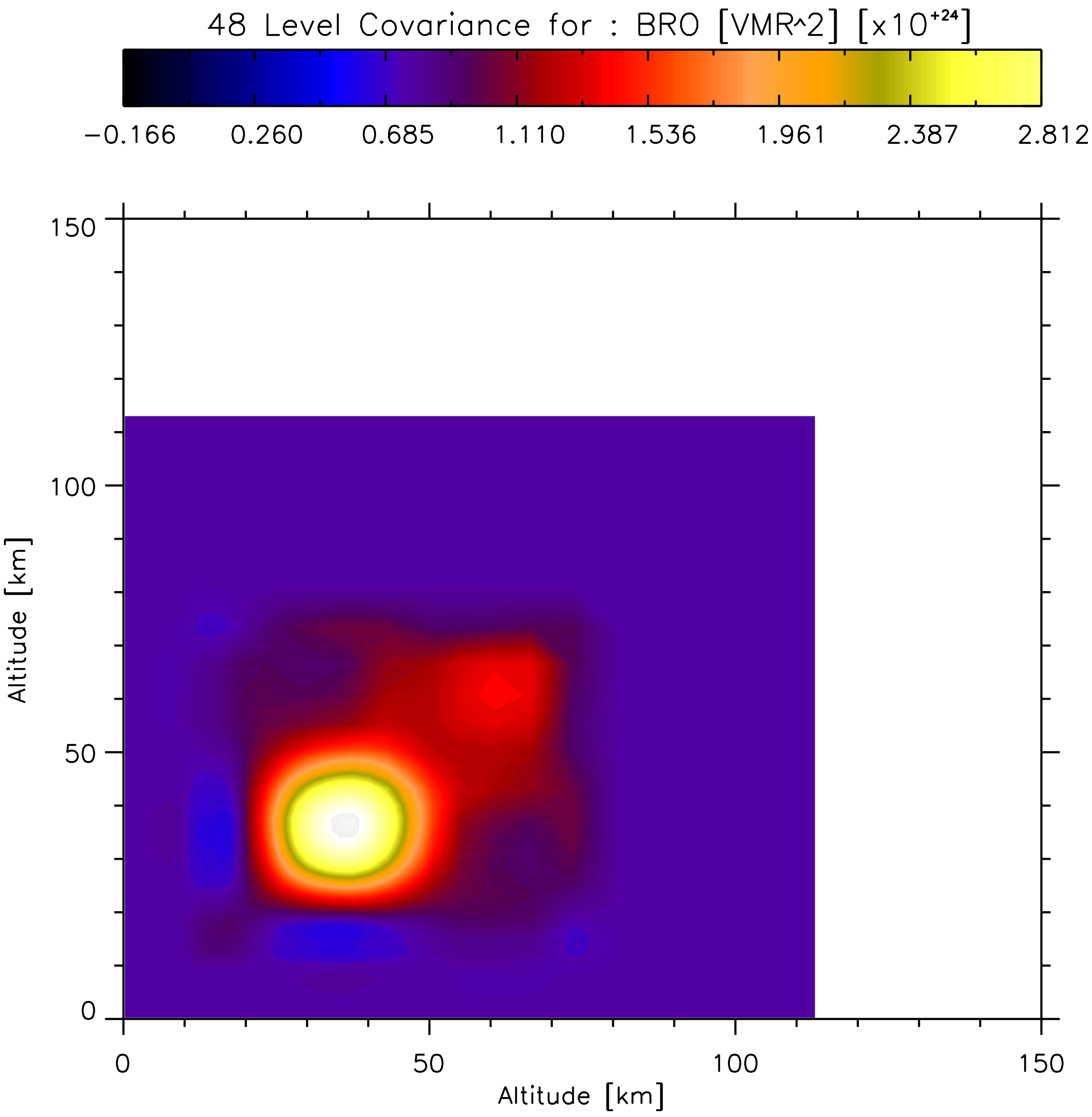

Station Grid
REFMOD Grid
Min, Max, Mean of : 492 profiles.
Altitude
120
100
80
60
40
20
0
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

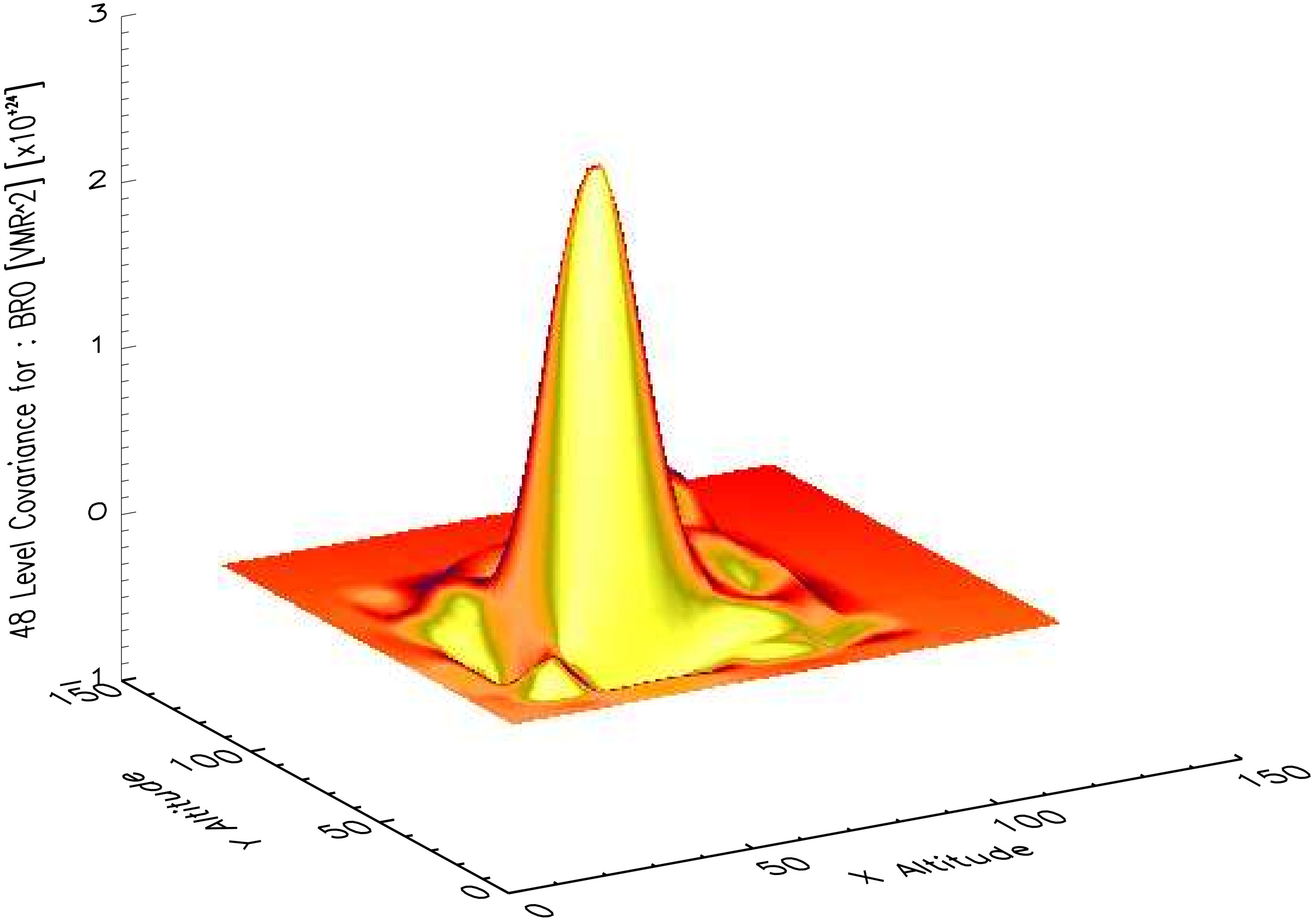

Std. Deviation
Percent Deviation
Altitude
Altitude
120
100
80
60
40
20
0
120
100
80
60
40
20
0
10^{-22}
10^{-20}
10^{-18}
10^{-16}
10^{-14}
10^{-12}
10^{-10}
SD
0
50
100
150
%
Station Grid
REFMOD Grid



49 Layer Covariance for : BRO [VMR^2] [x10^{+24}]
−0.158
0.269
0.696
1.123
1.550
1.977
2.404
2.831
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]


49 Layer Covariance for : BRO [VMR^2] [x10^{+24}]
X Altitude
0
50
100
150
Y Altitude
0
50
100
150
0
1
2
3


48 Level Covariance for : BRO [VMR^2] [x10^{+24}]
-0.166
0.260
0.685
1.110
1.536
1.961
2.387
2.812
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]


48 Level Covariance for : BRO [VMR^2] [x10^+24]
3
2
1
0
-1
Y Altitude
150
100
50
0
X Altitude
0
50
100
150