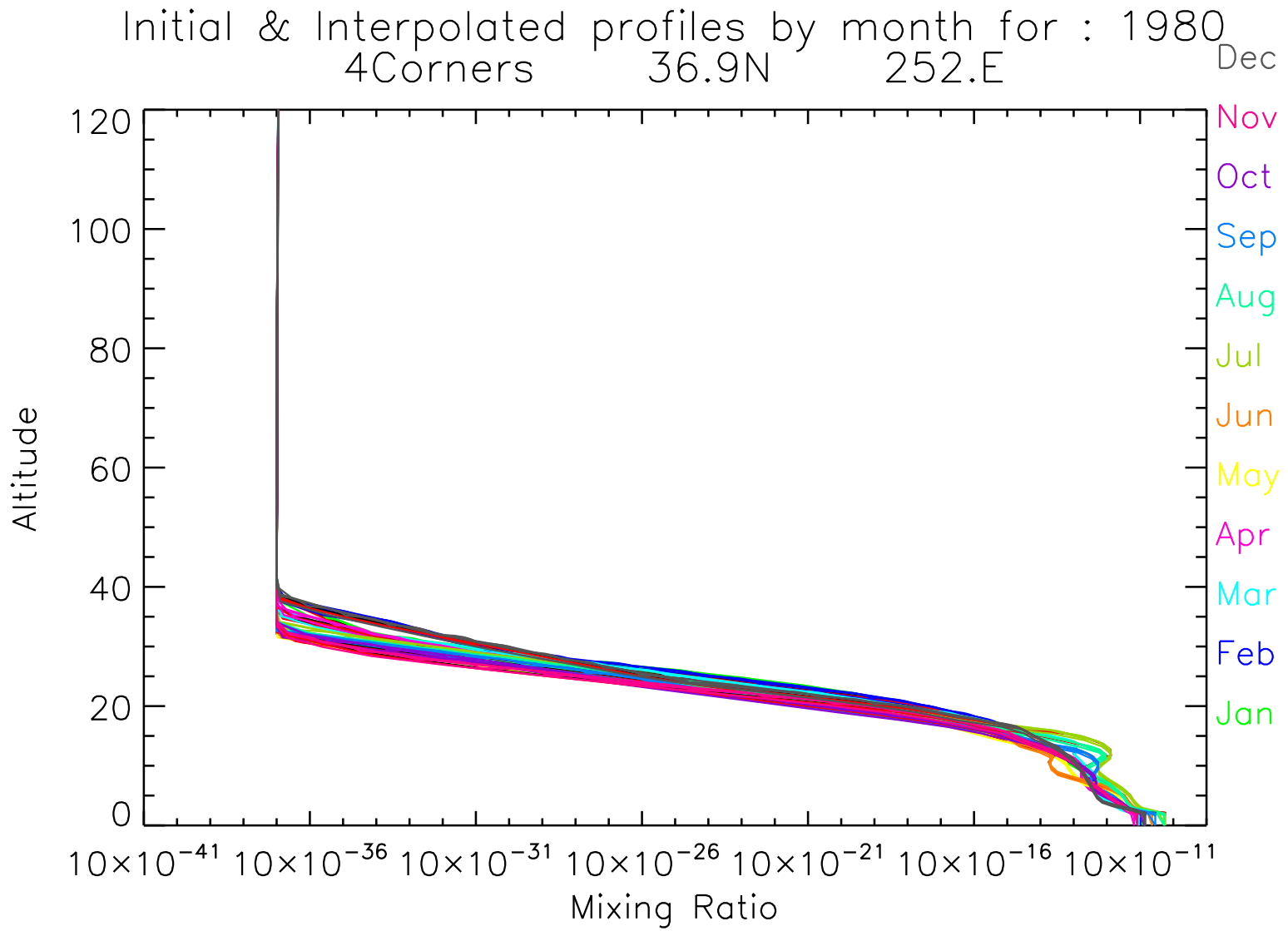
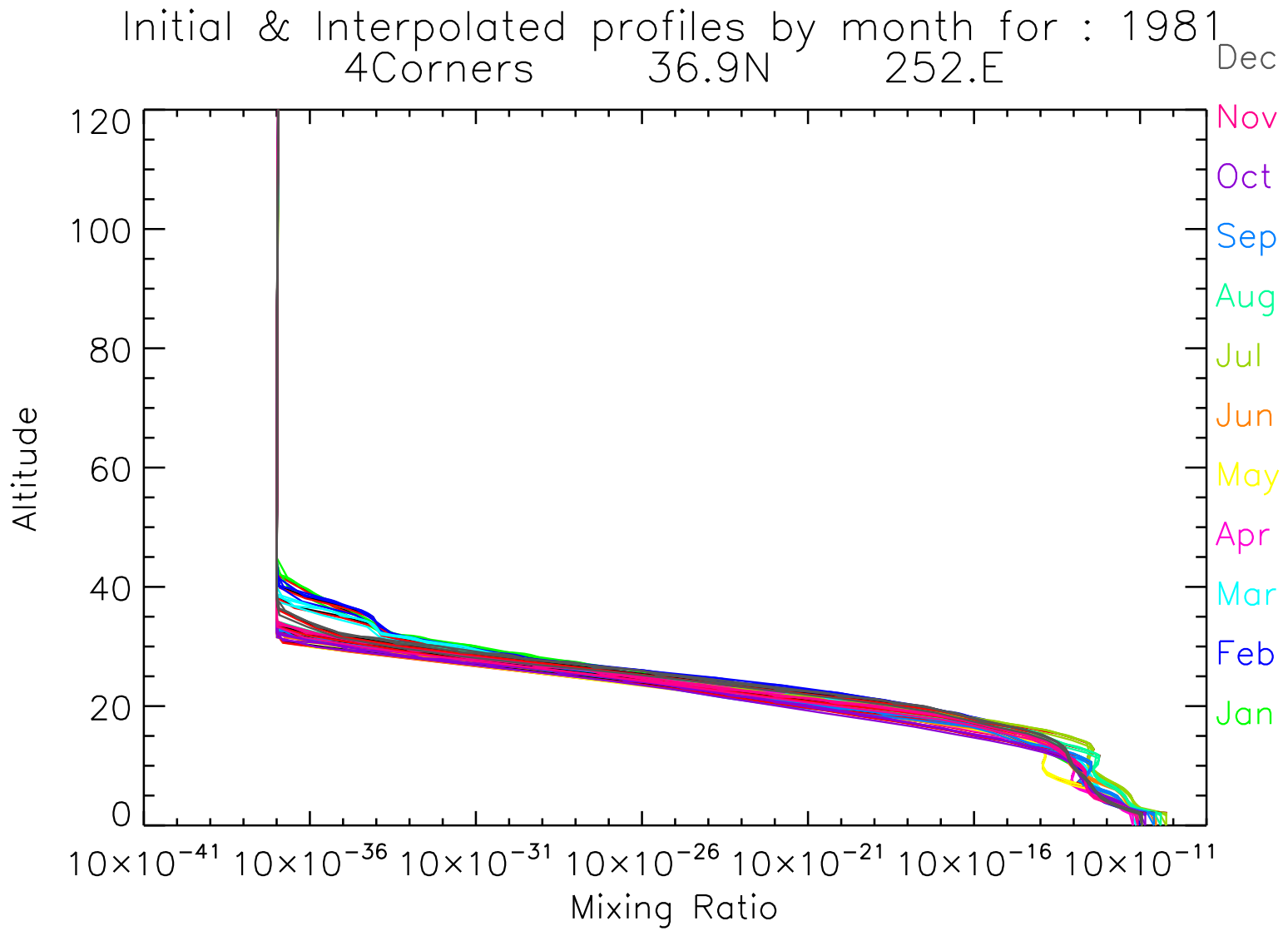
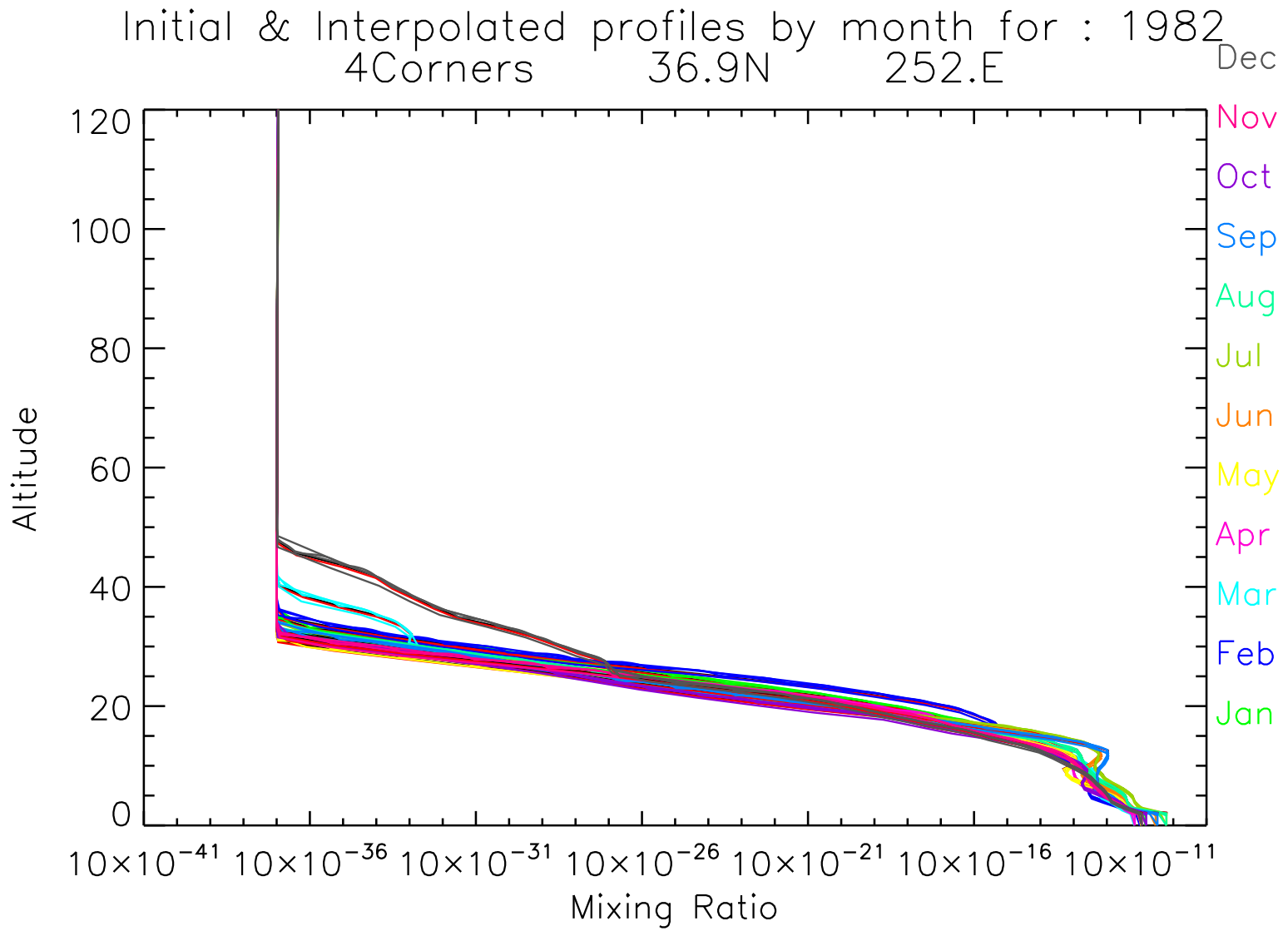
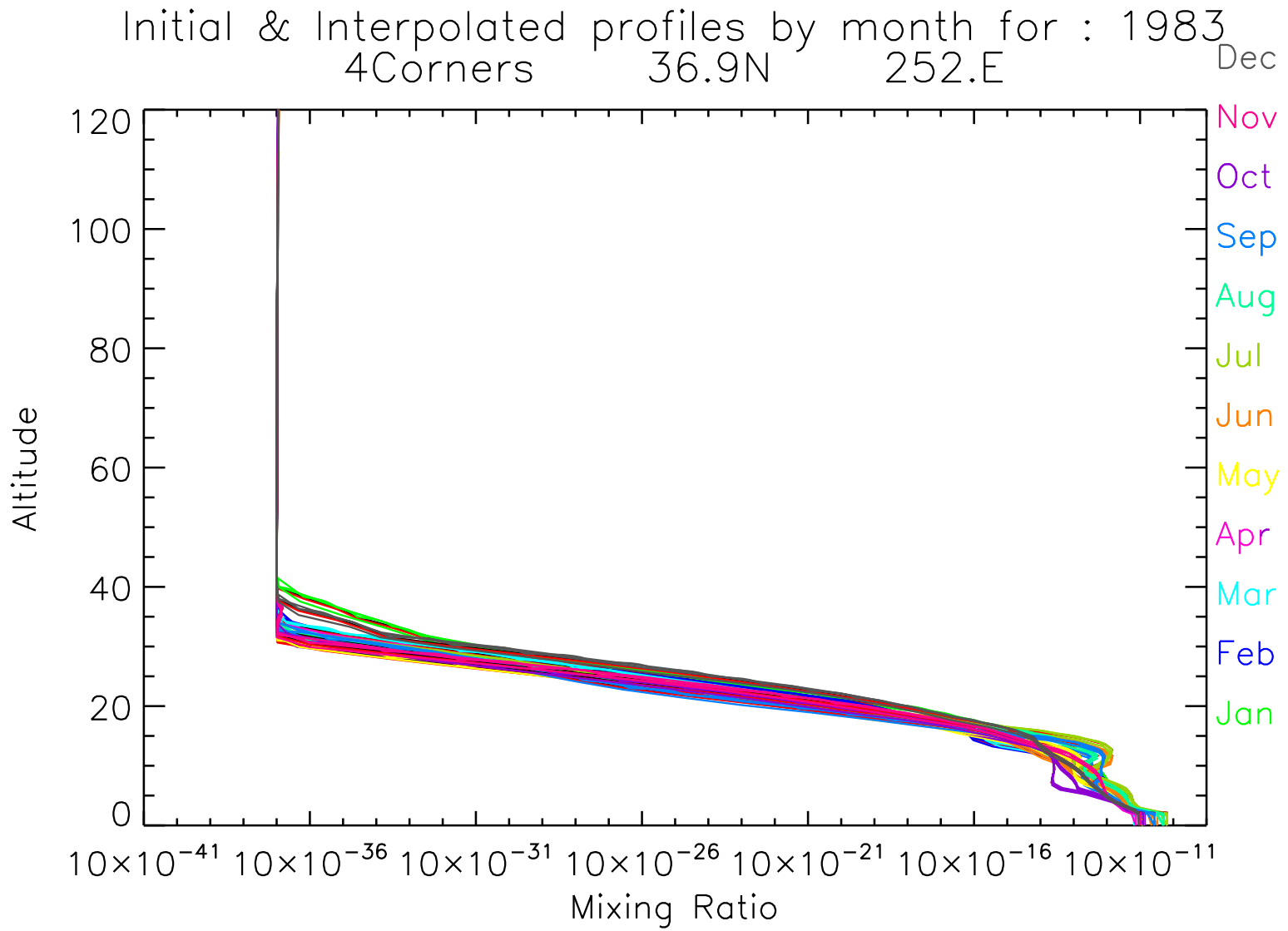
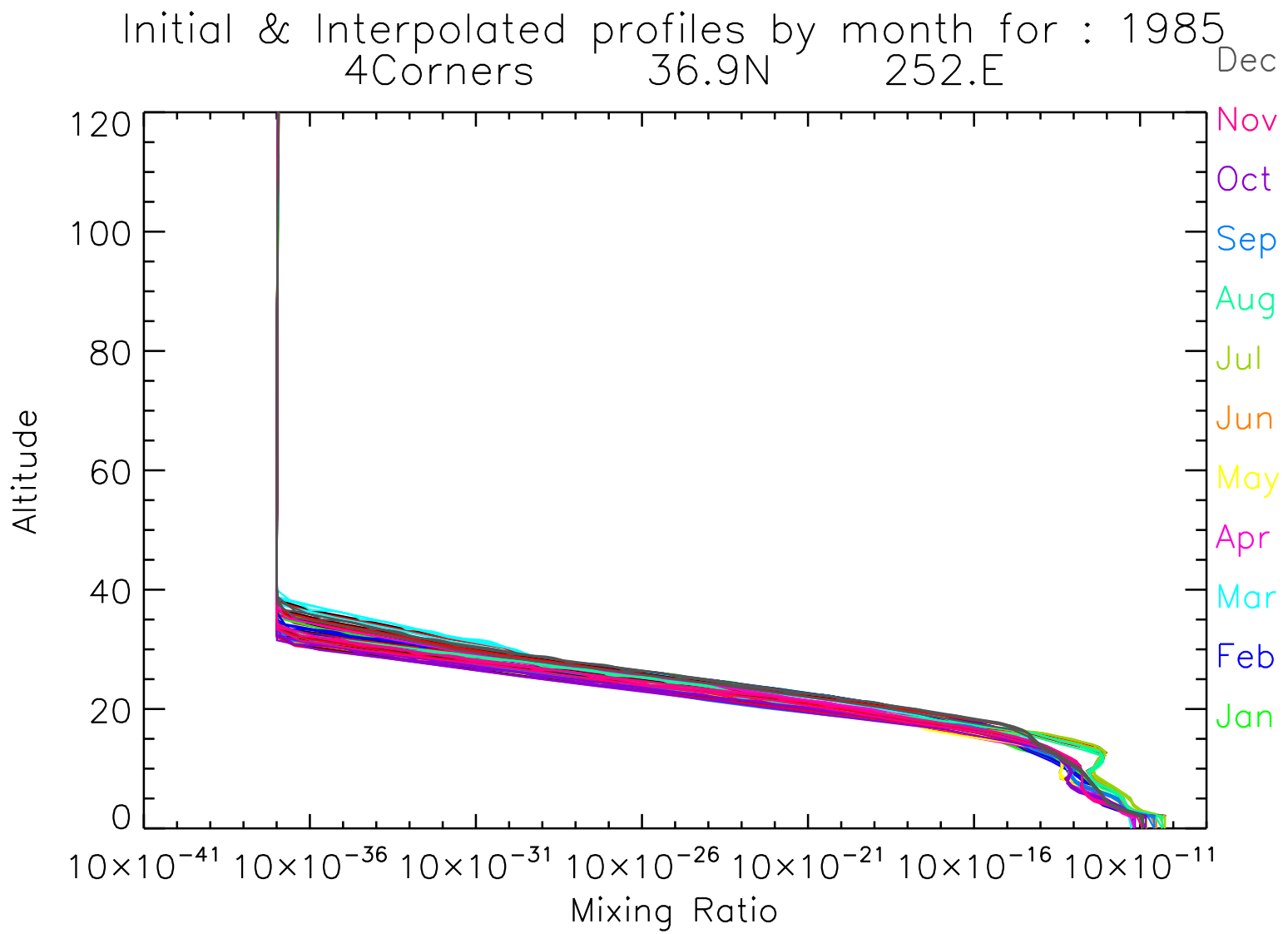
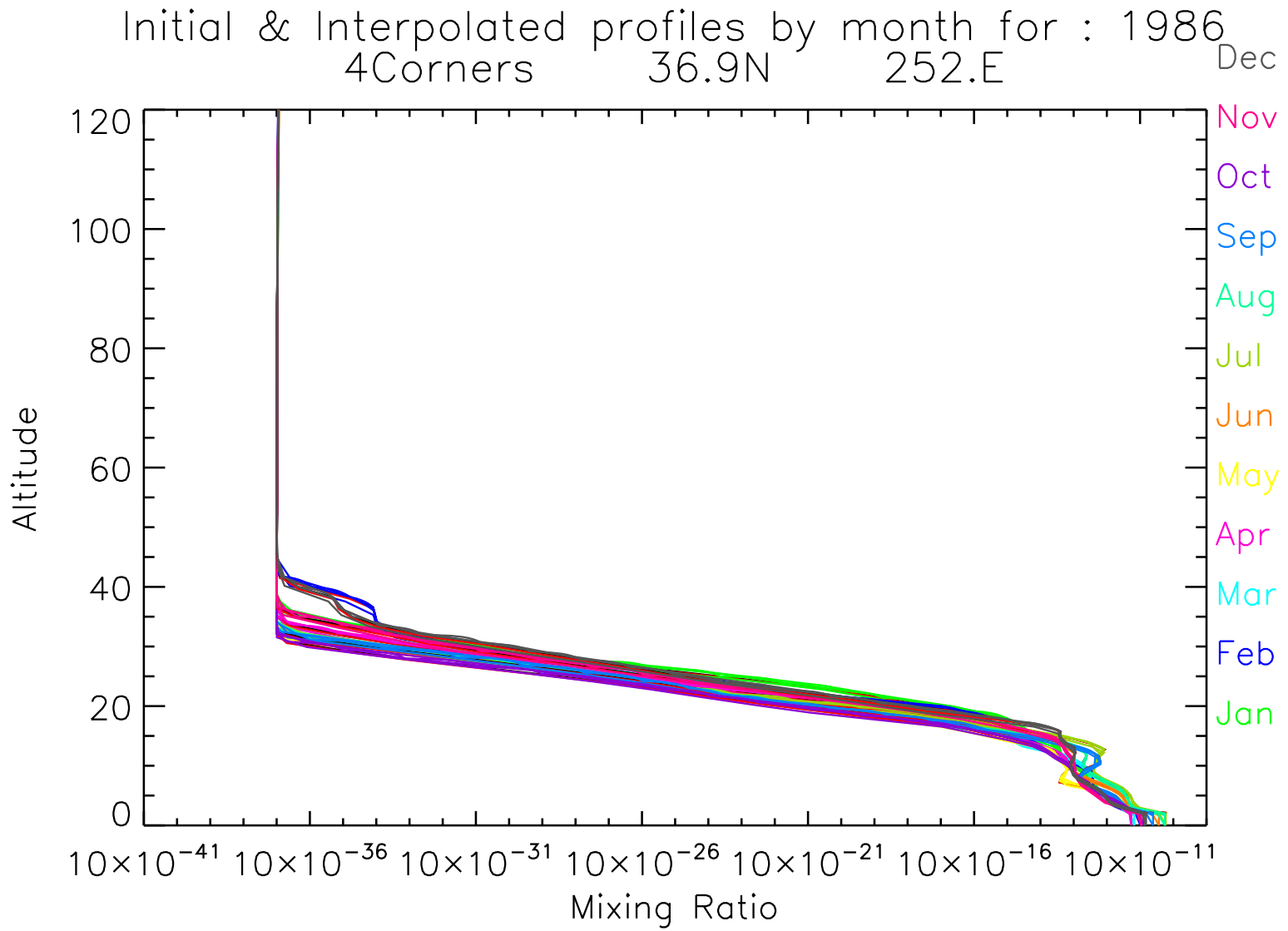

Initial & Interpolated profiles by month for : 1980
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

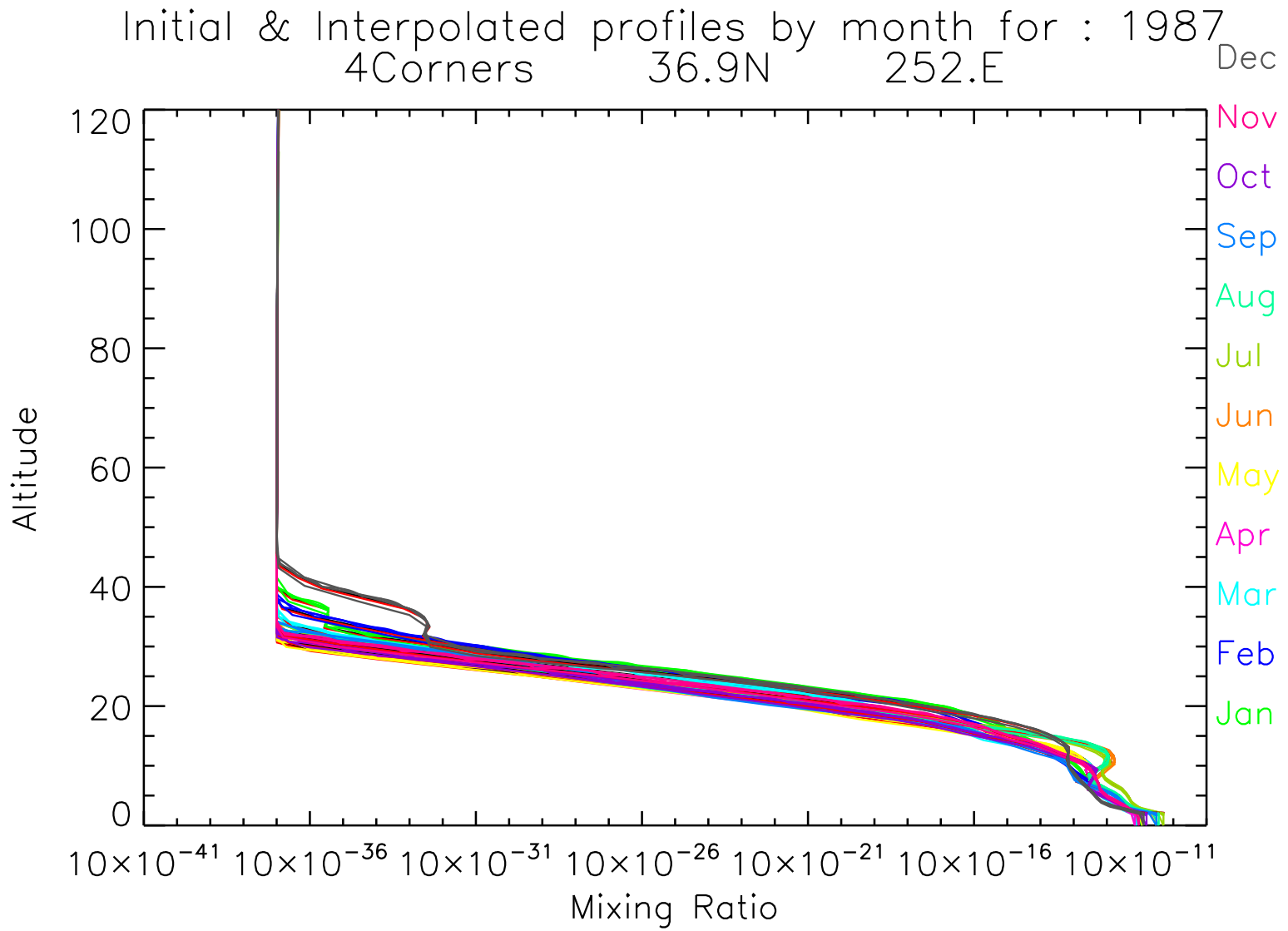

Initial & Interpolated profiles by month for : 1981
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

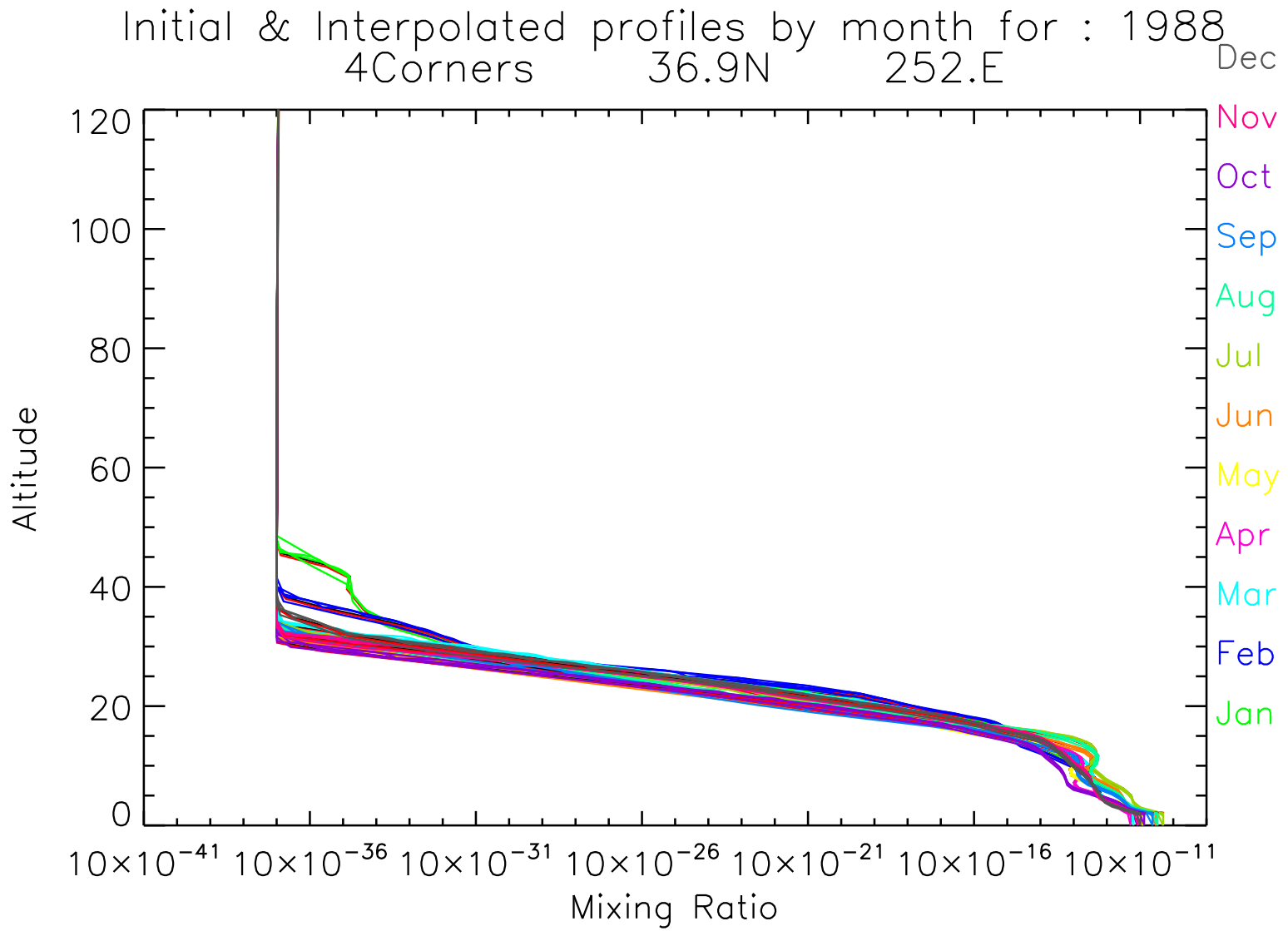

Initial & Interpolated profiles by month for : 1982
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

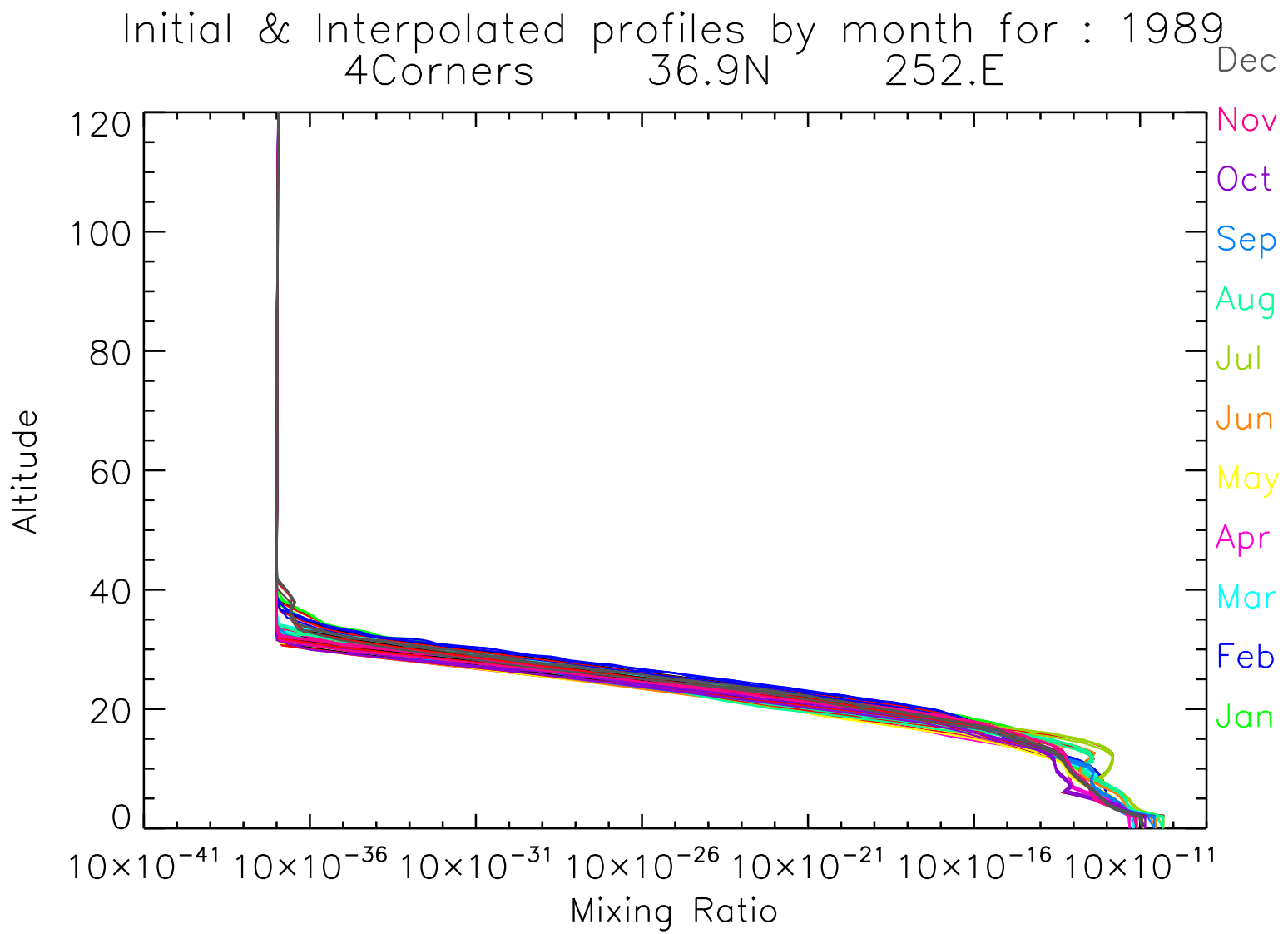

Initial & Interpolated profiles by month for : 1983
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

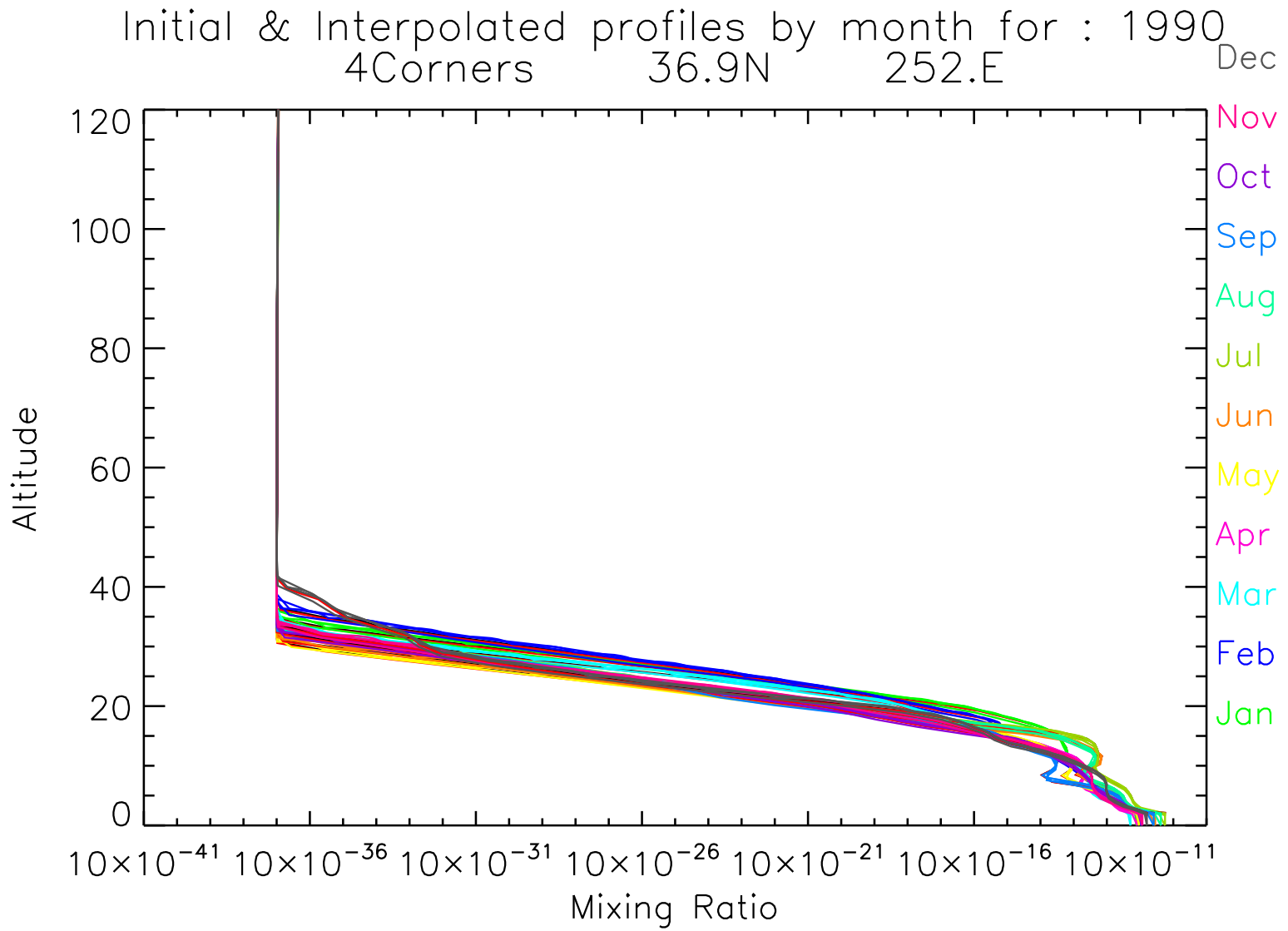

Initial & Interpolated profiles by month for : 1985
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

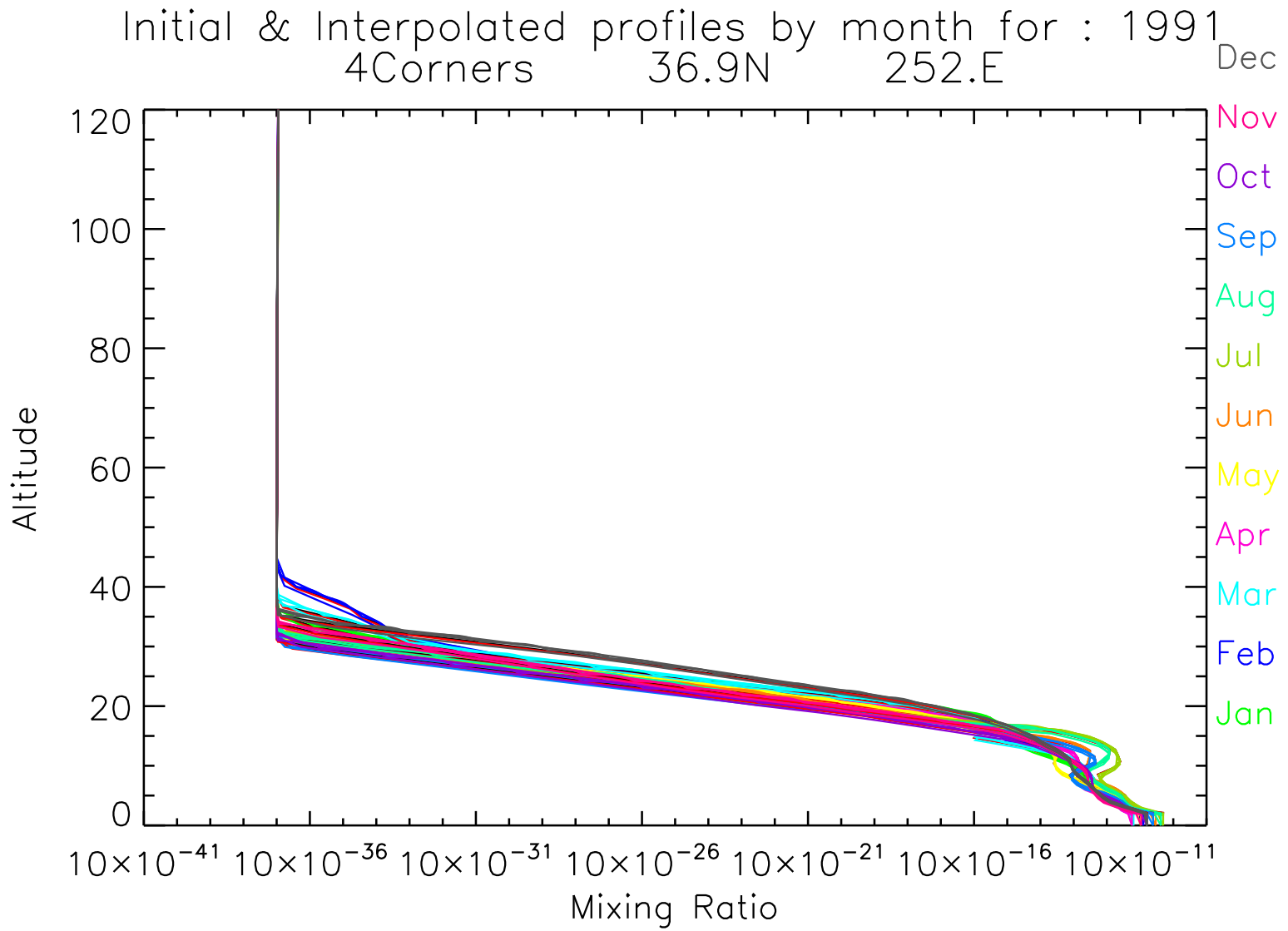

Initial & Interpolated profiles by month for : 1986
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

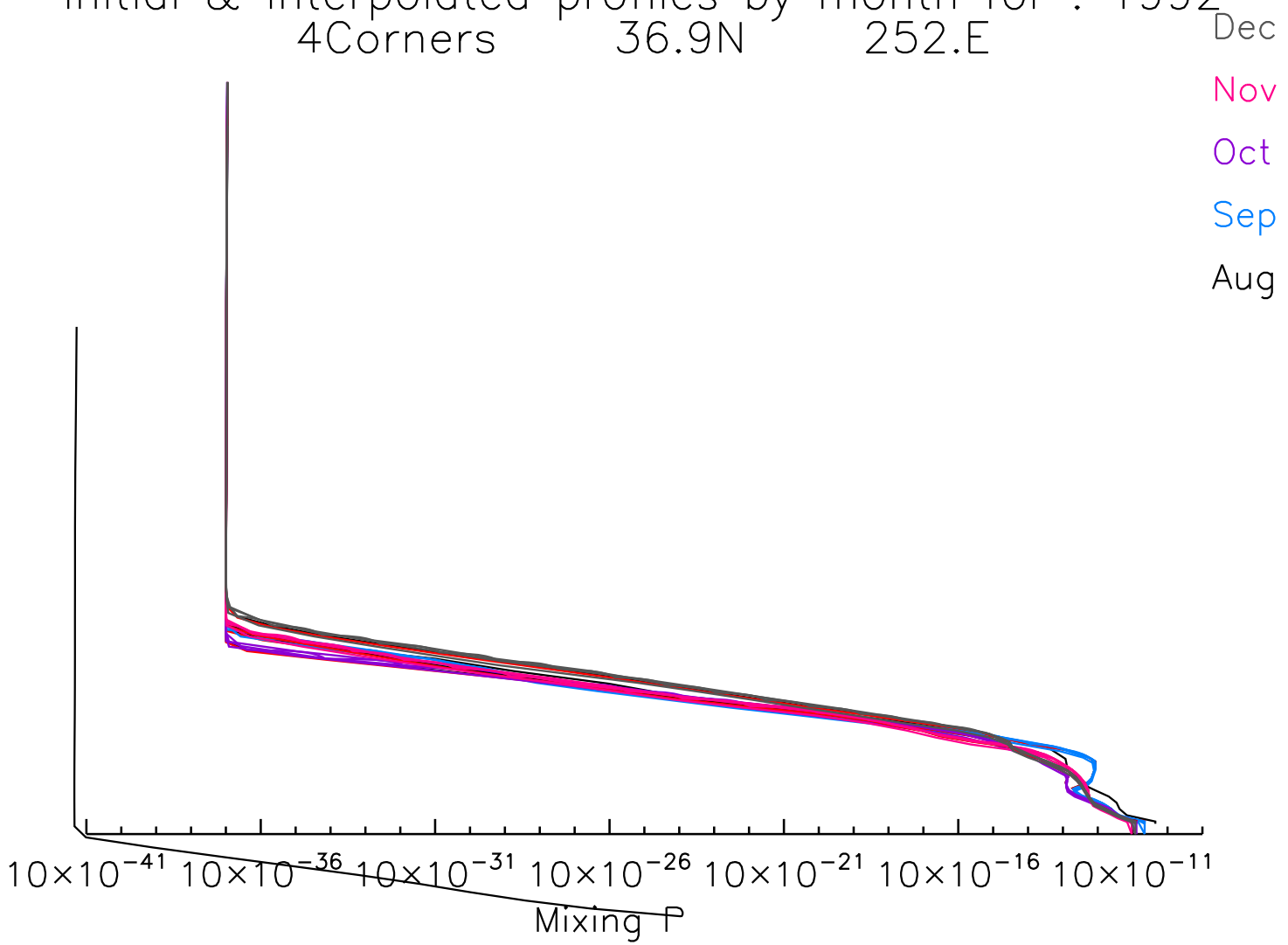

Initial & Interpolated profiles by month for : 1987
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

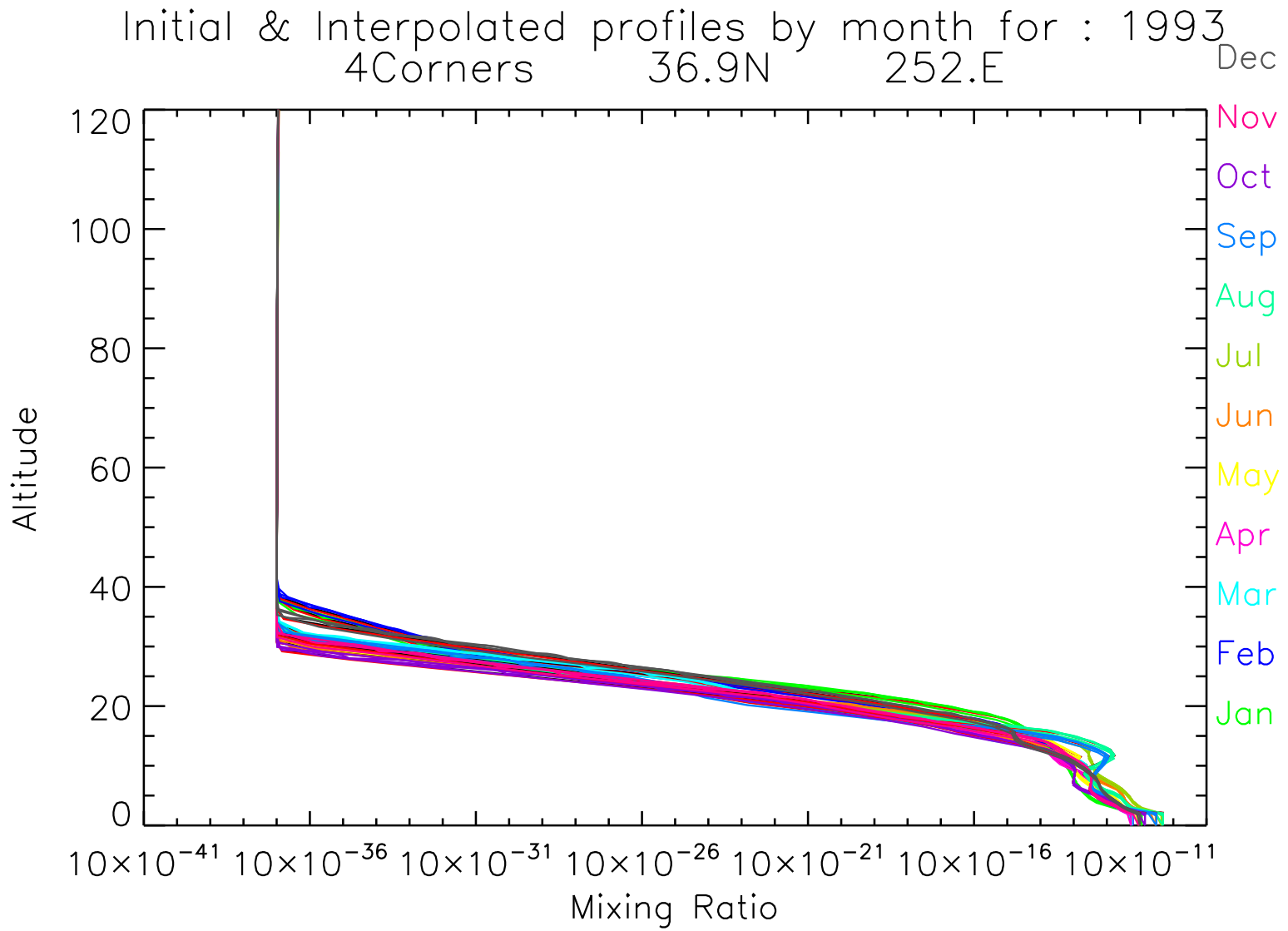

Initial & Interpolated profiles by month for : 1988
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

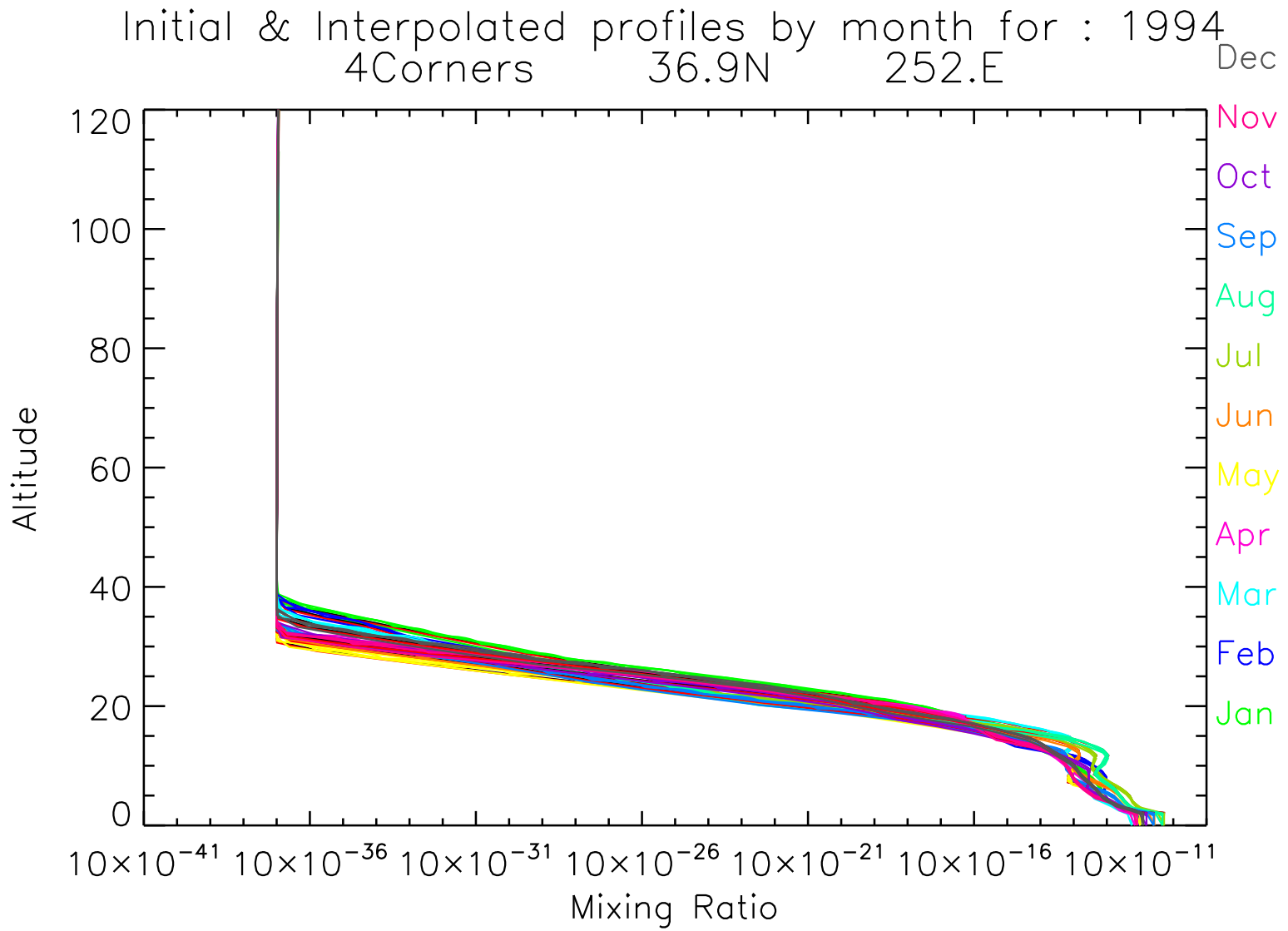

Initial & Interpolated profiles by month for : 1989
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

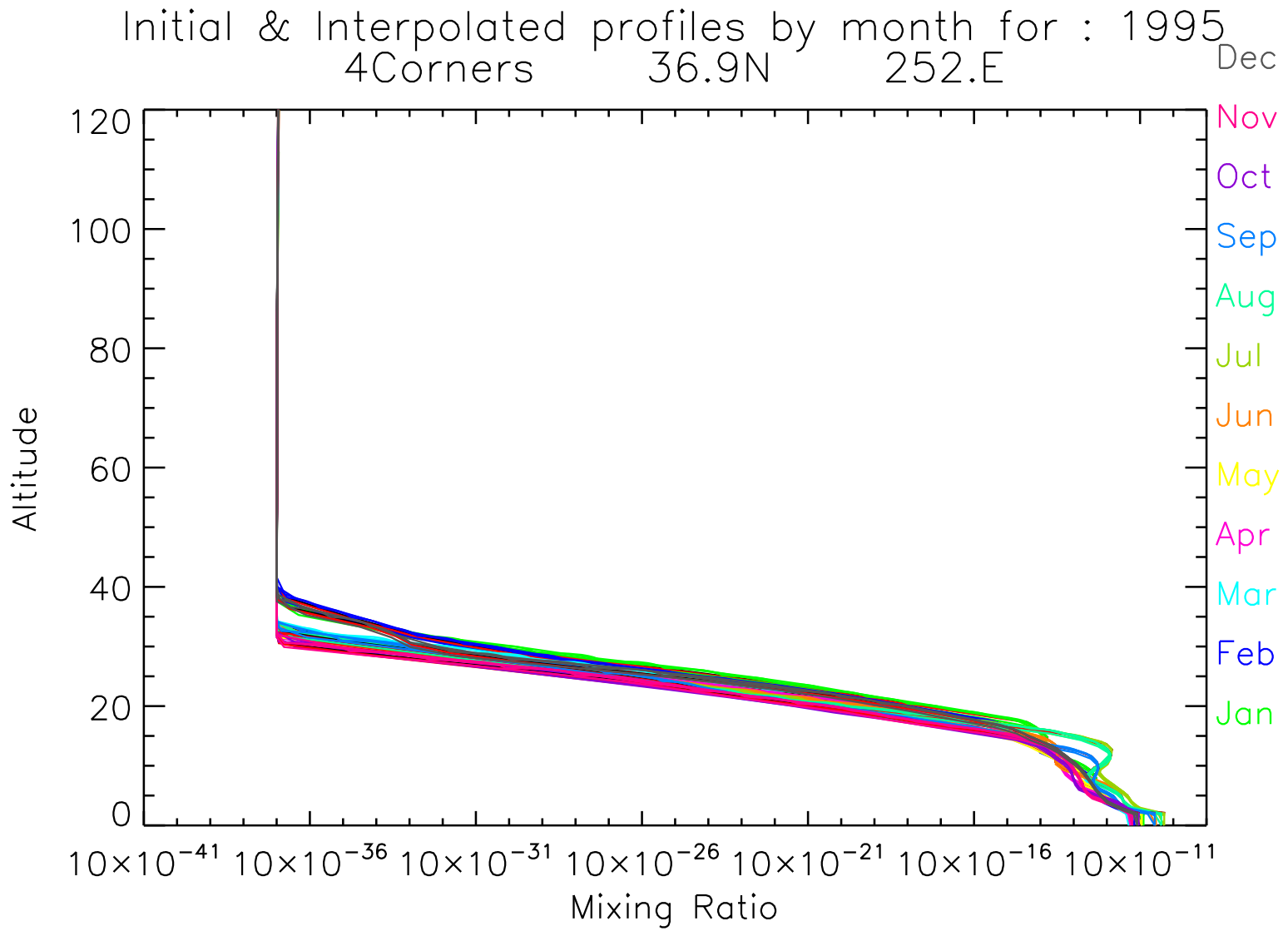

Initial & Interpolated profiles by month for : 1990
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

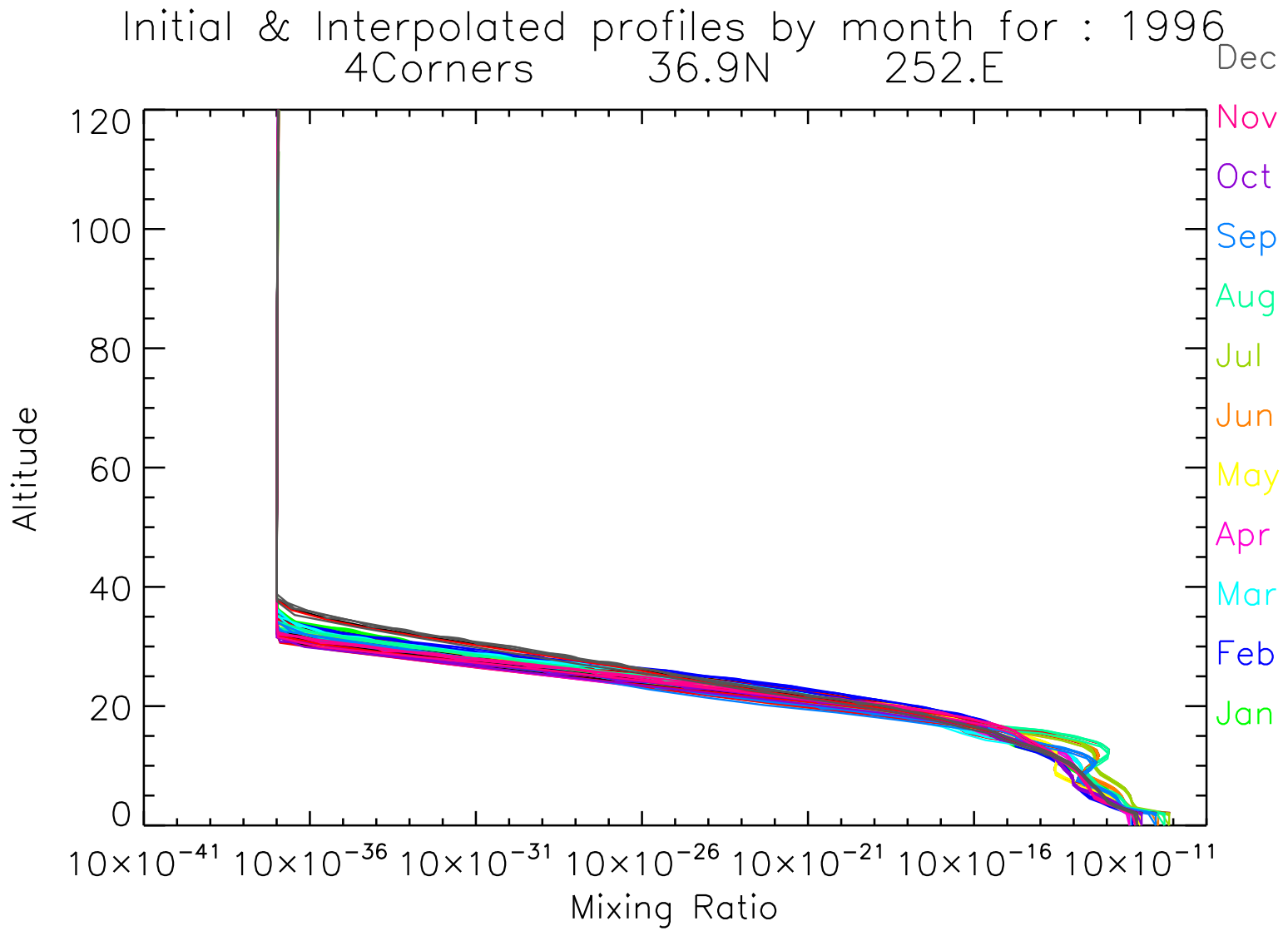

Initial & Interpolated profiles by month for : 1991
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

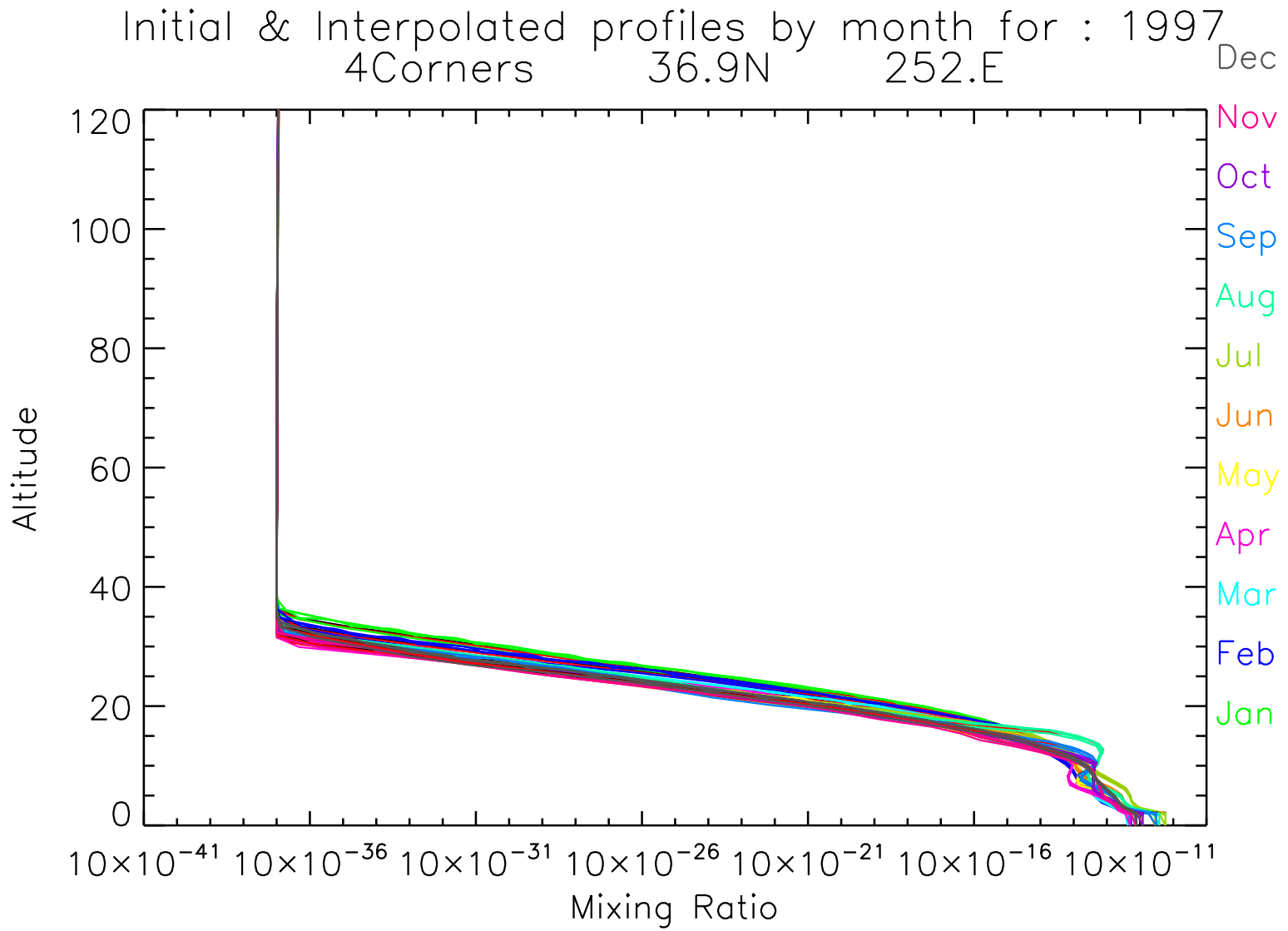

Initial & Interpolated profiles by month for : 1992
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing P

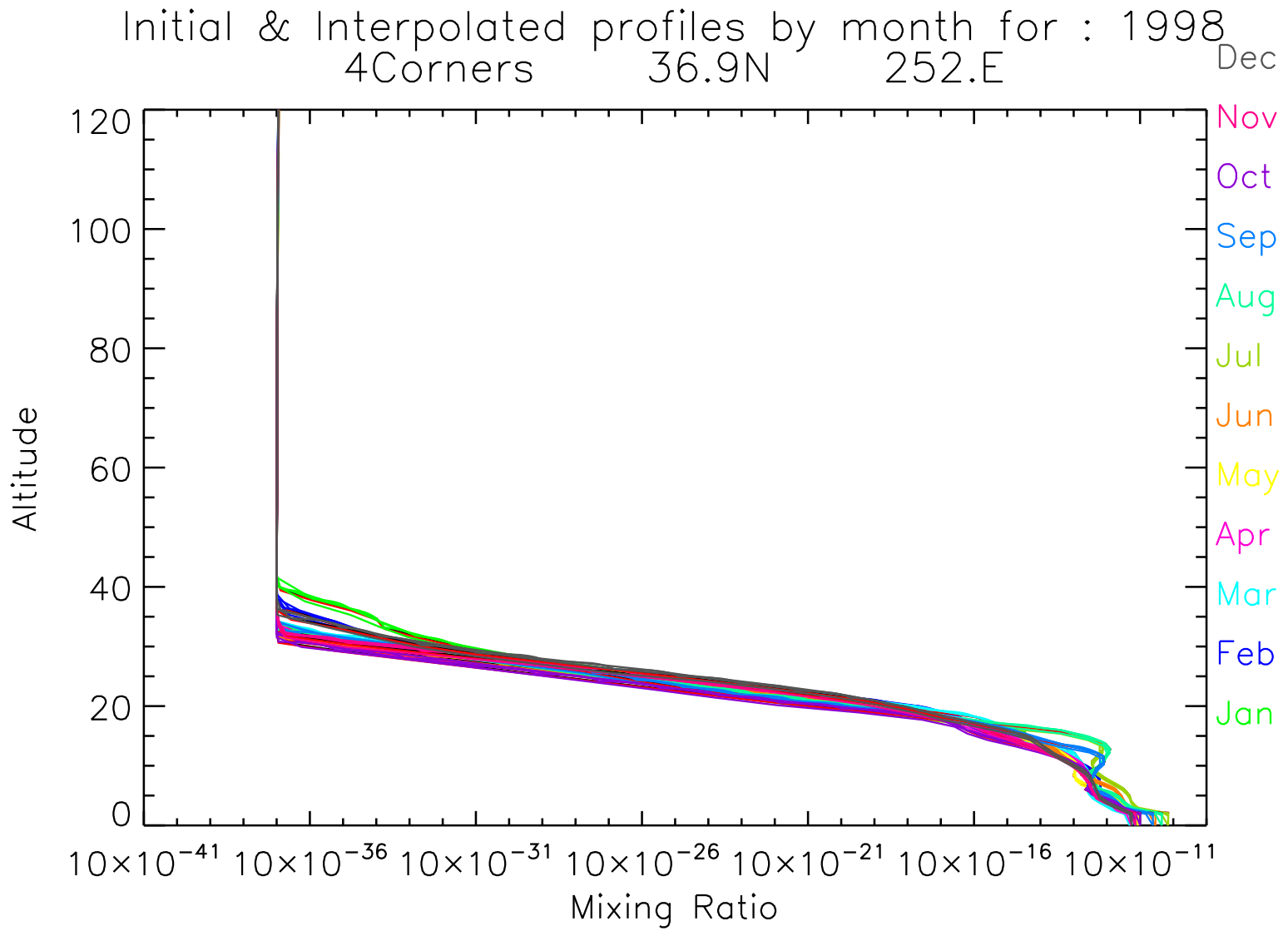

Initial & Interpolated profiles by month for : 1993
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

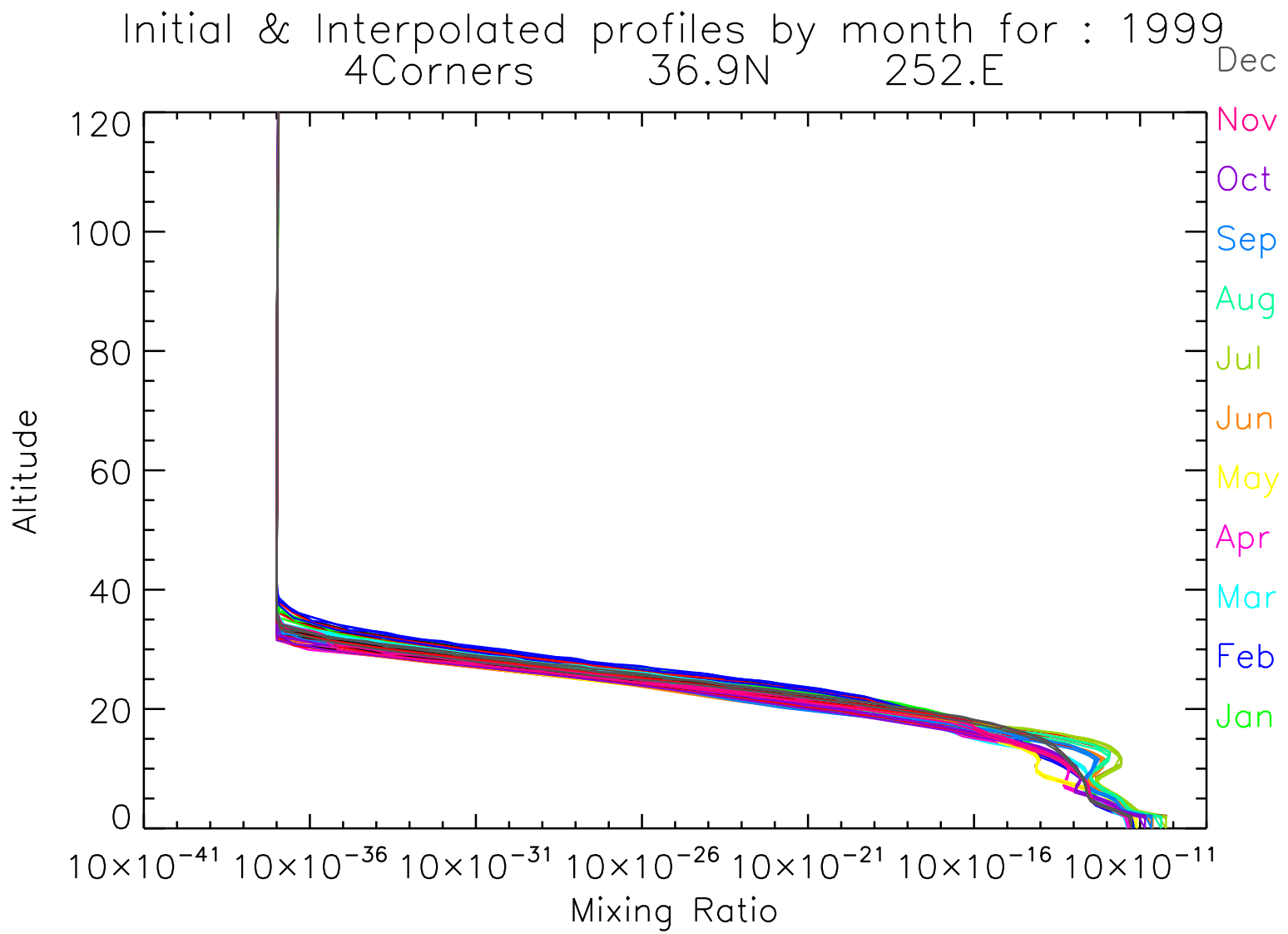

Initial & Interpolated profiles by month for : 1994
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

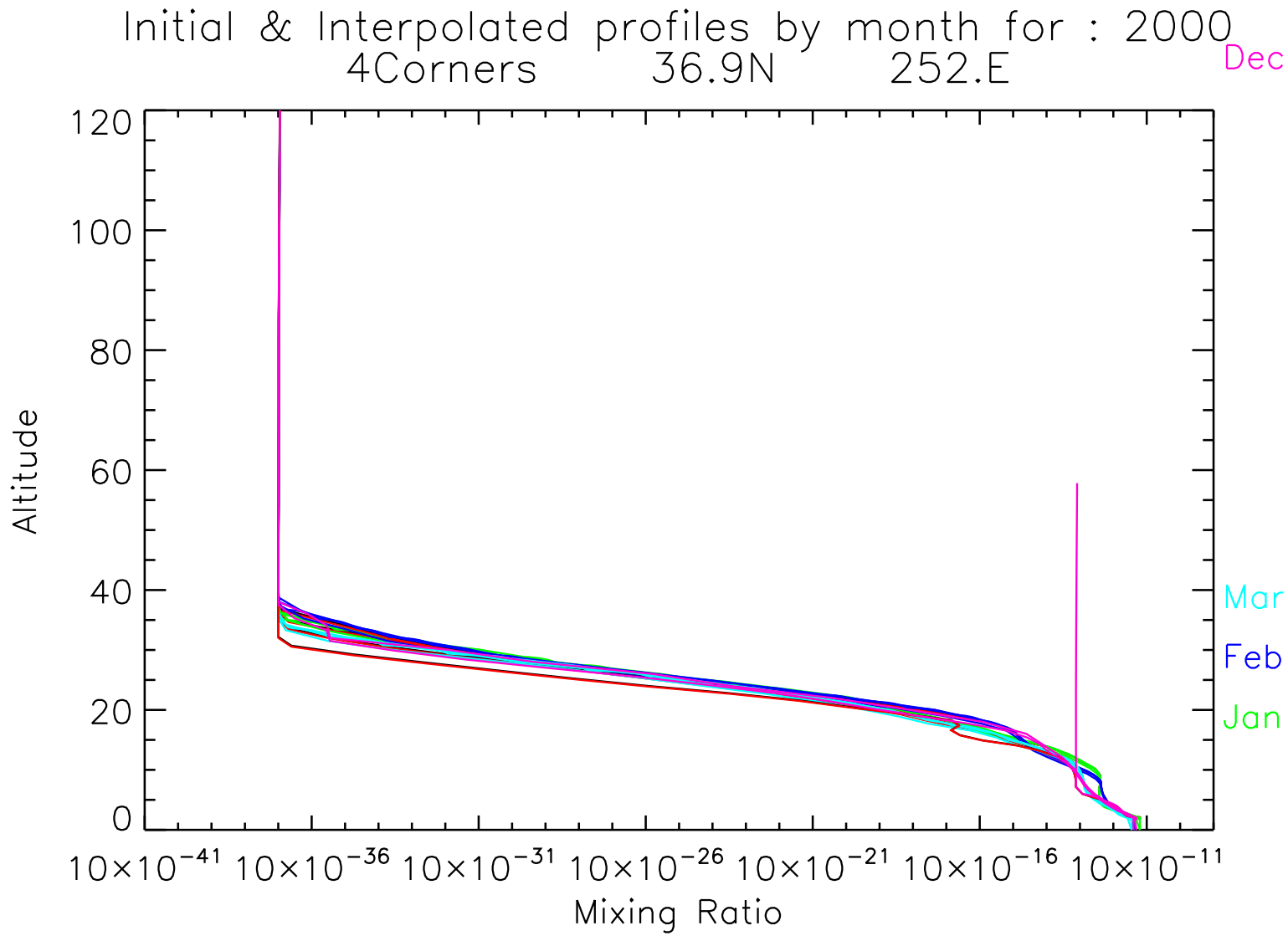

Initial & Interpolated profiles by month for : 1995
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

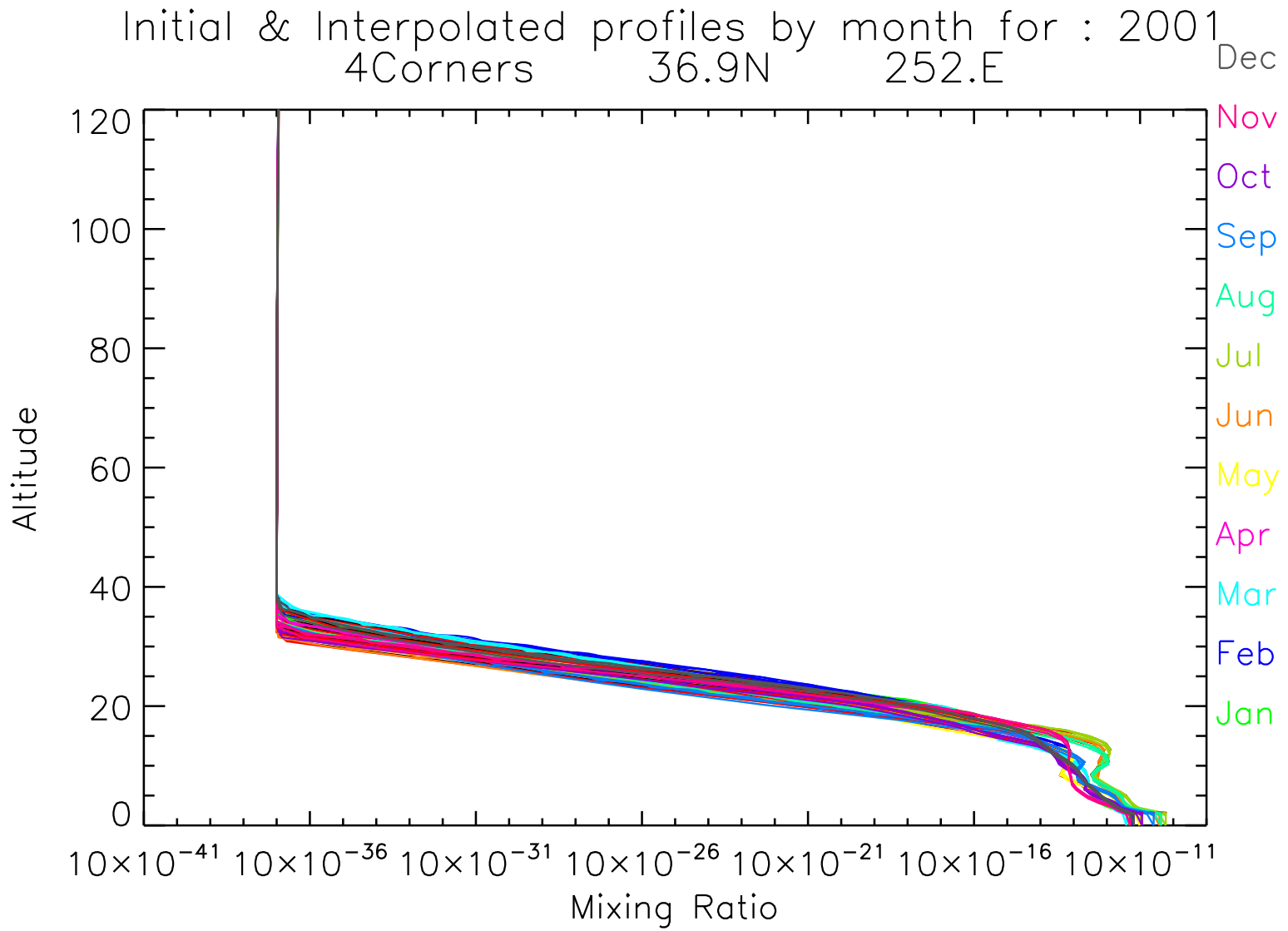

Initial & Interpolated profiles by month for : 1996
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

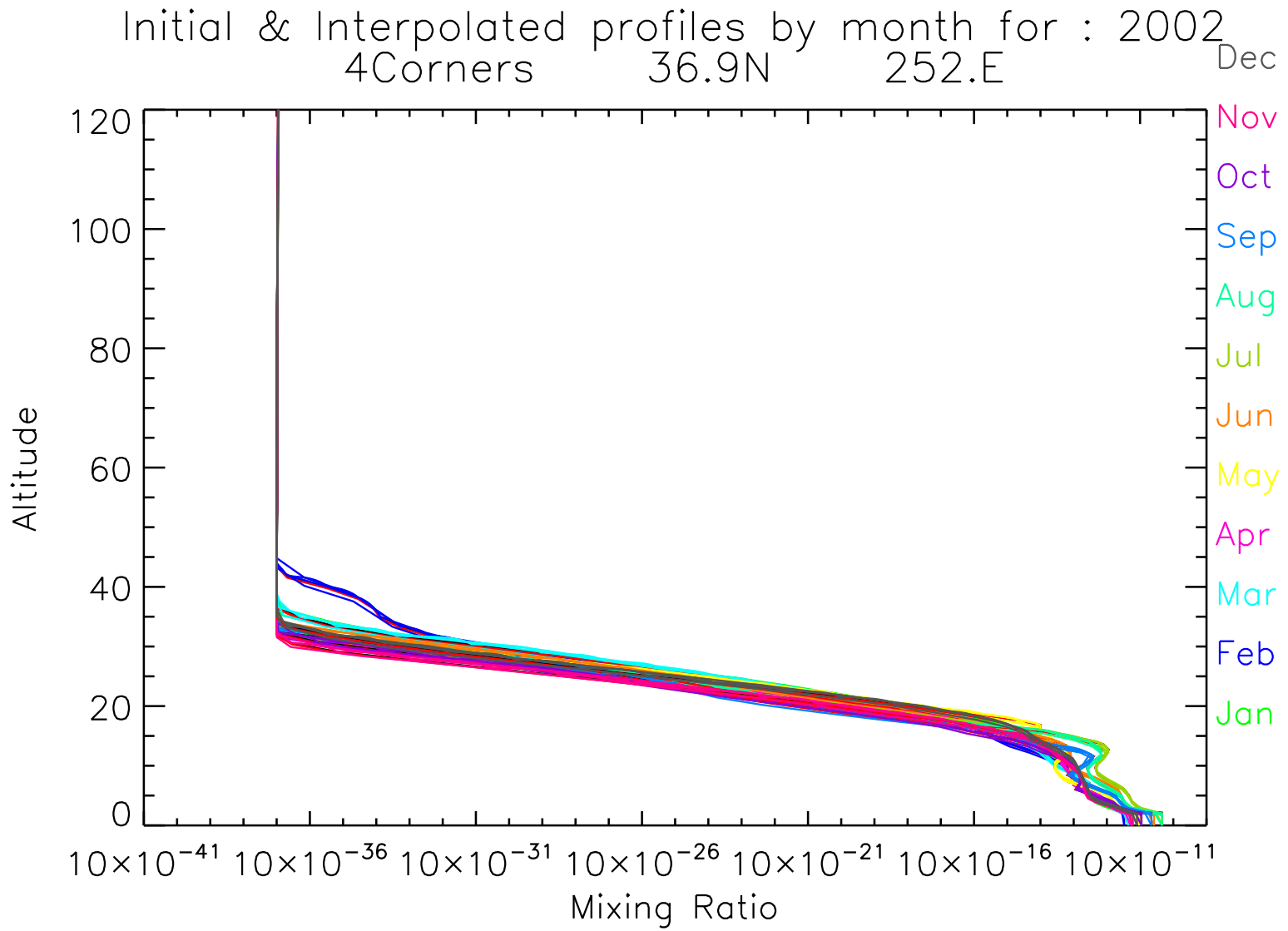

Initial & Interpolated profiles by month for : 1997
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

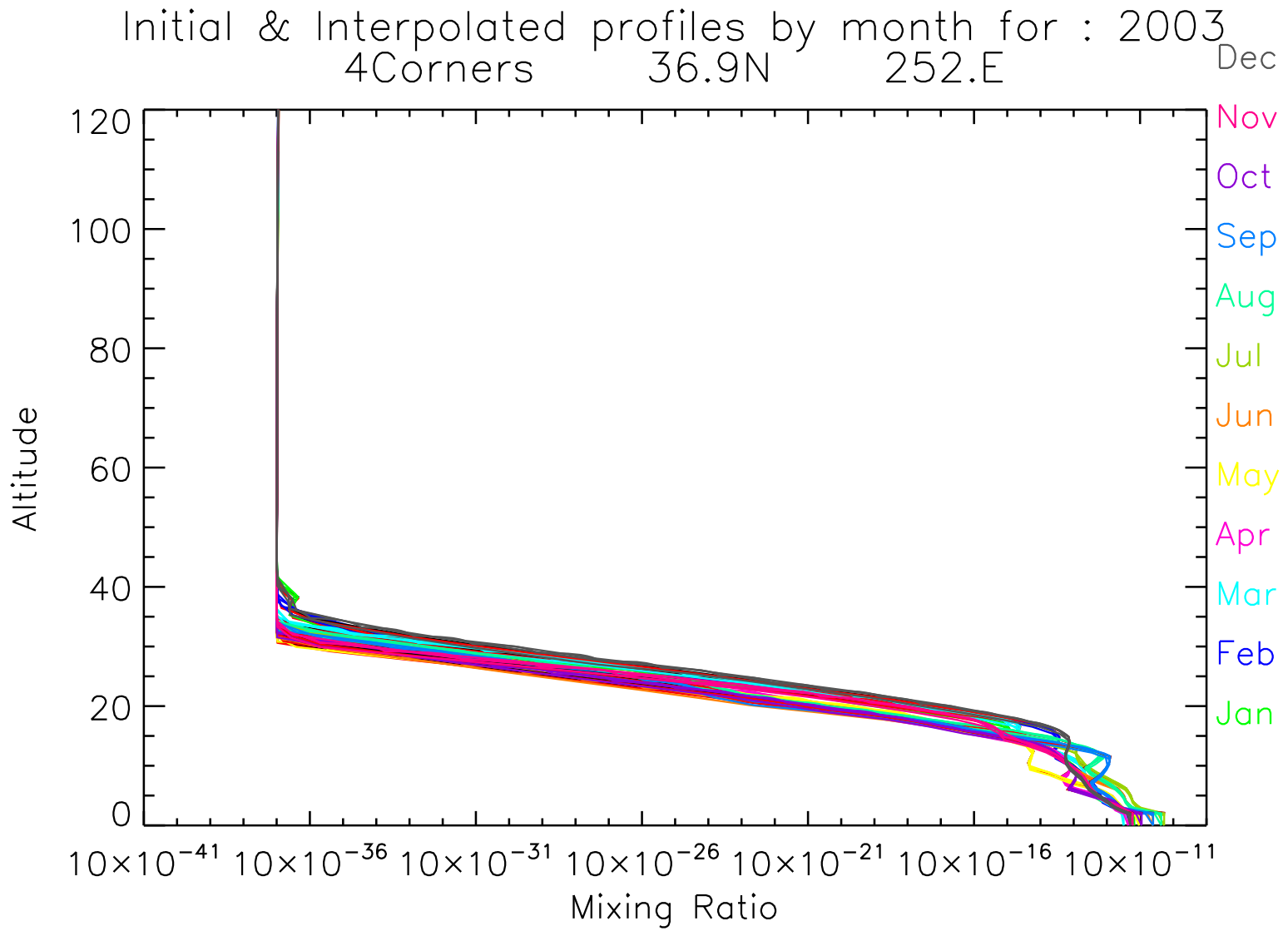

Initial & Interpolated profiles by month for : 1998
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

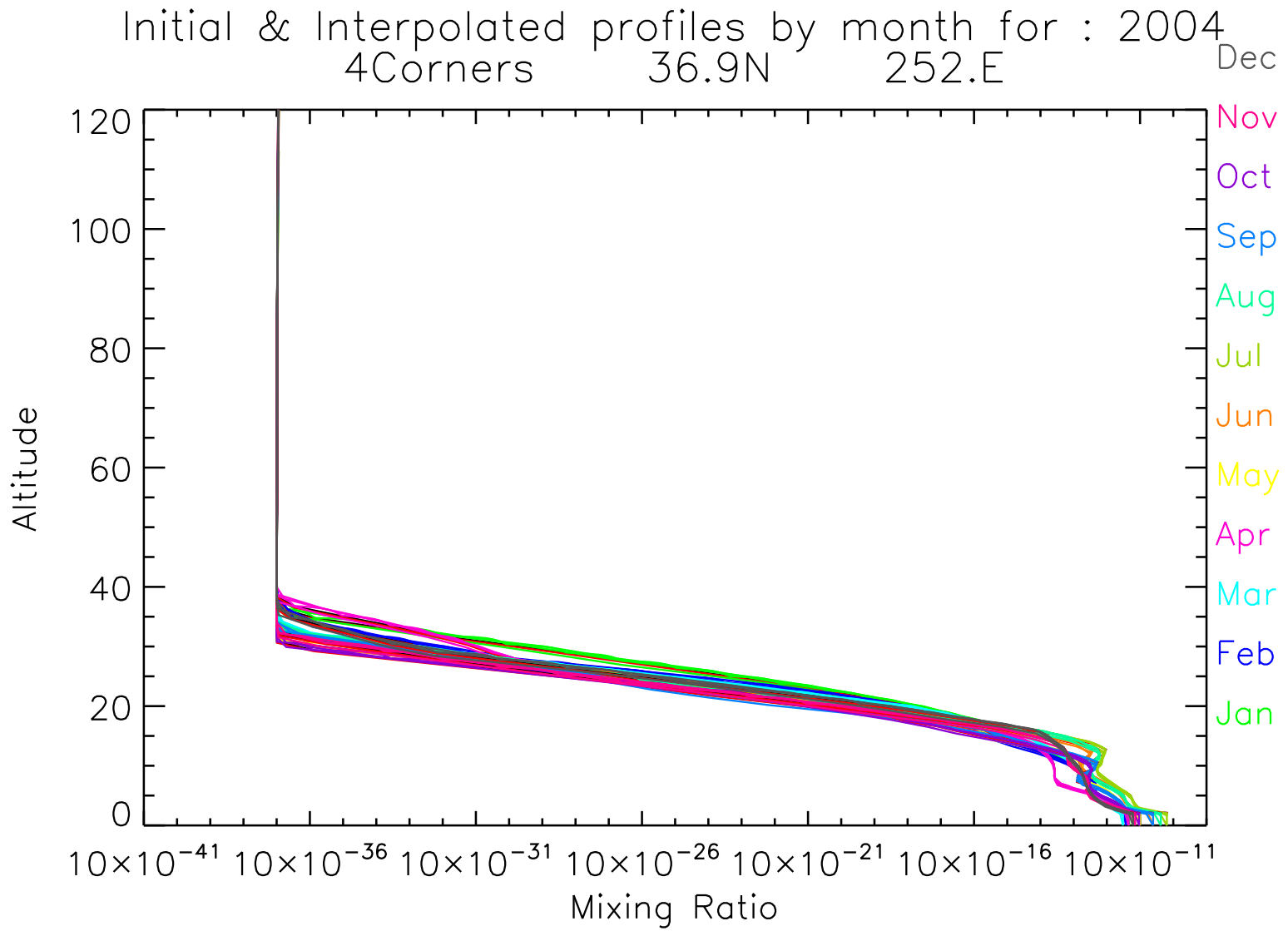

Initial & Interpolated profiles by month for : 1999
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

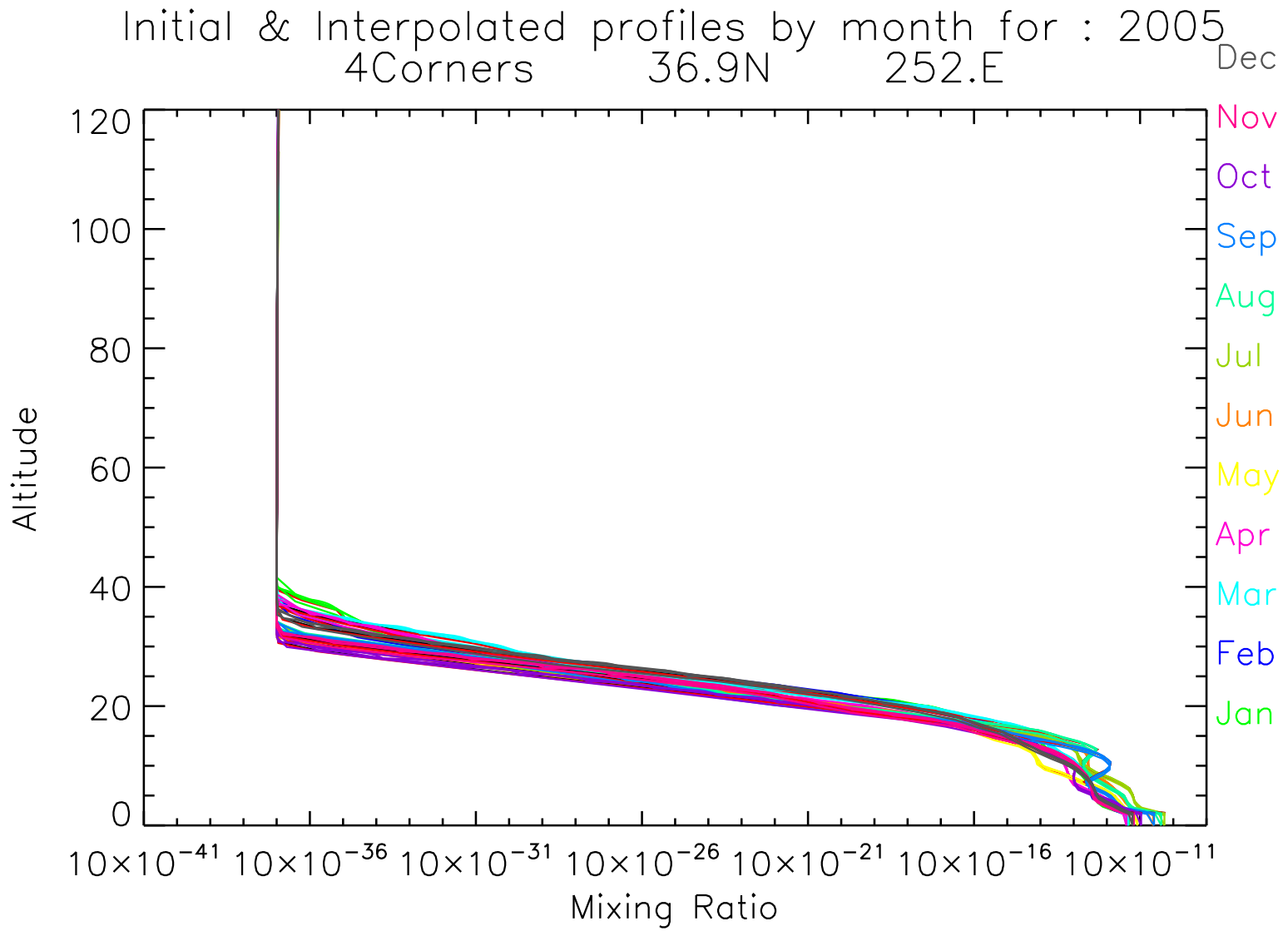

Initial & Interpolated profiles by month for : 2000
4Corners 36.9N 252.E
Dec
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

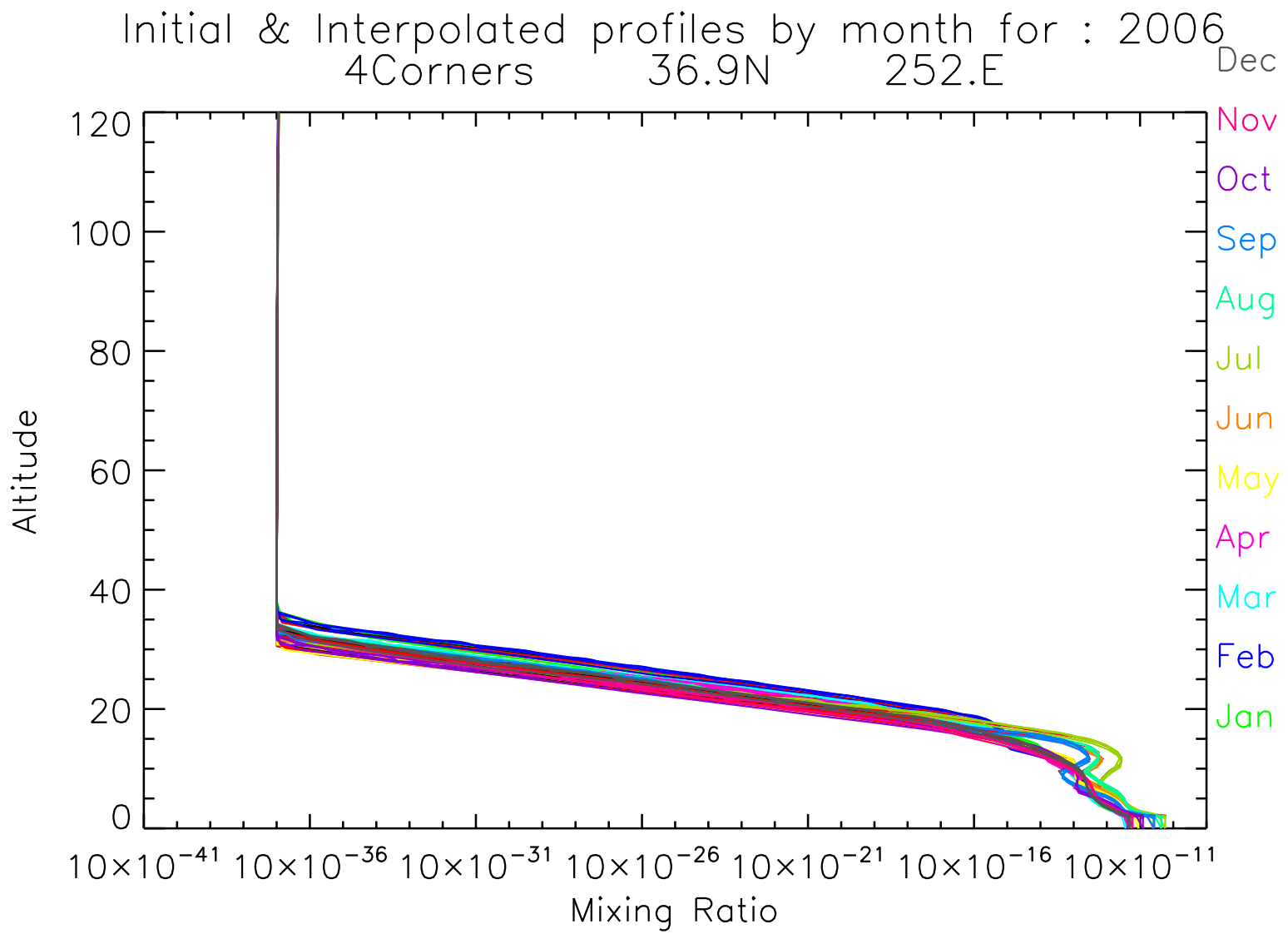

Initial & Interpolated profiles by month for : 2001
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

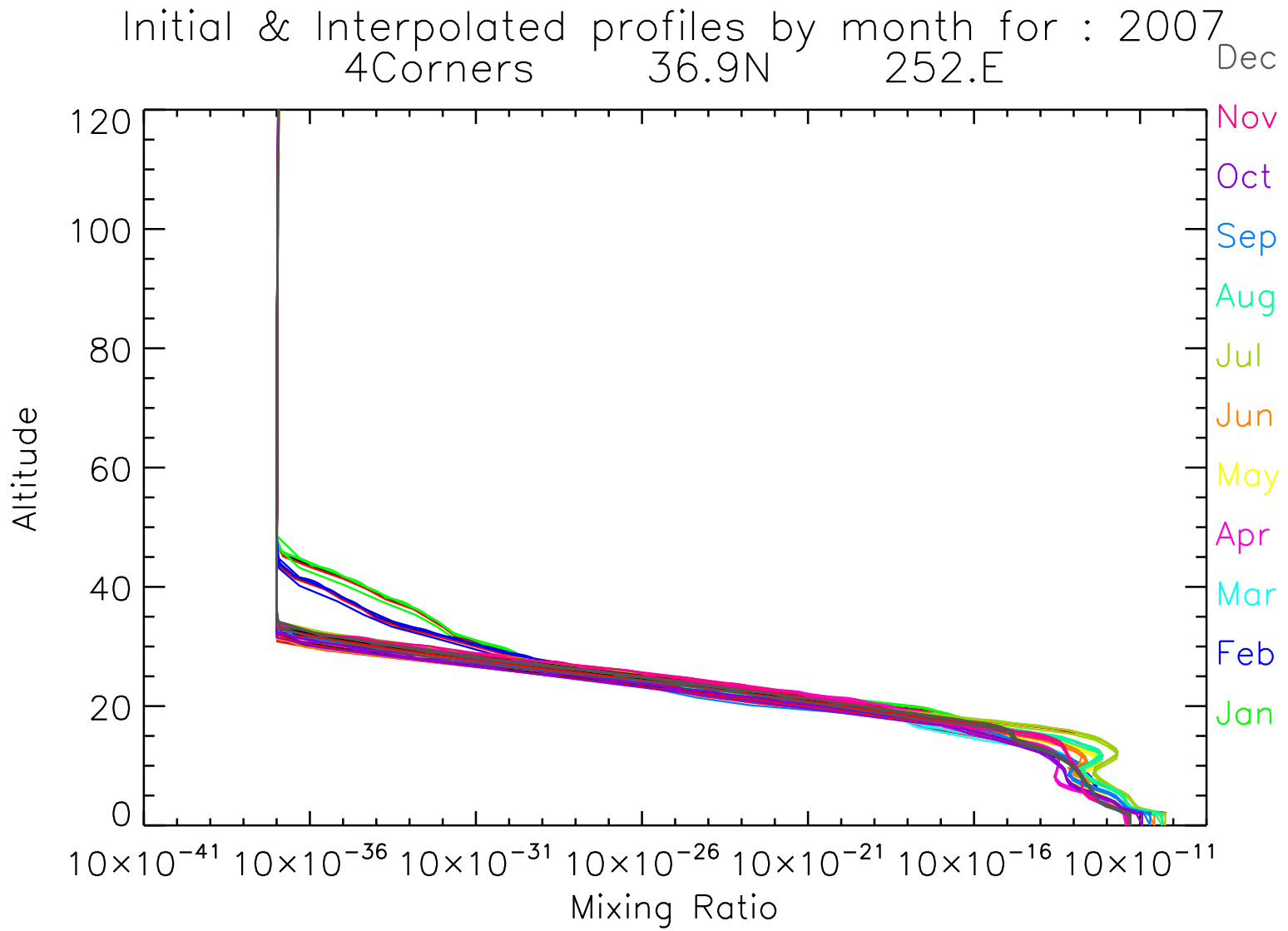

Initial & Interpolated profiles by month for : 2002
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

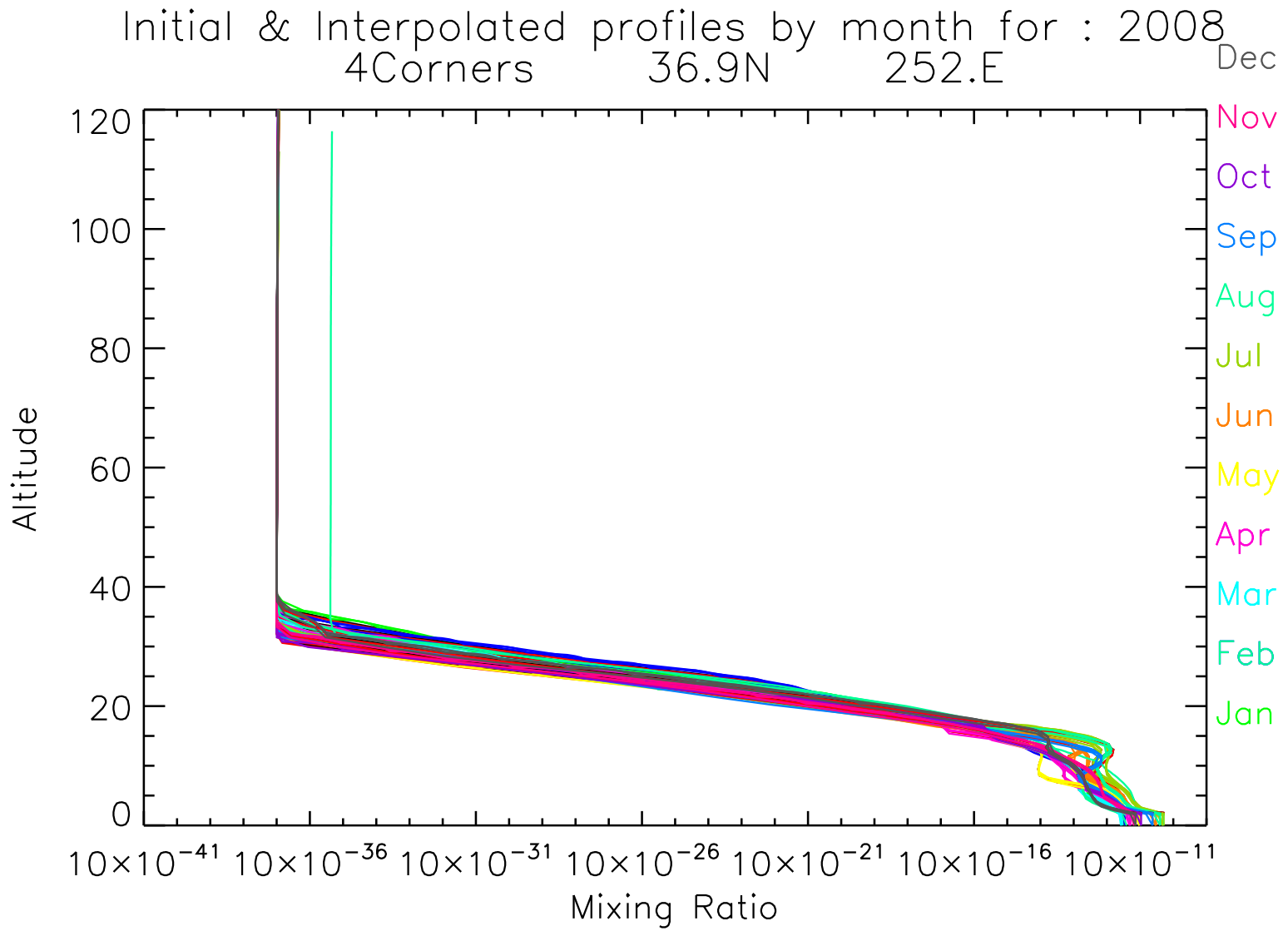

Initial & Interpolated profiles by month for : 2003
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

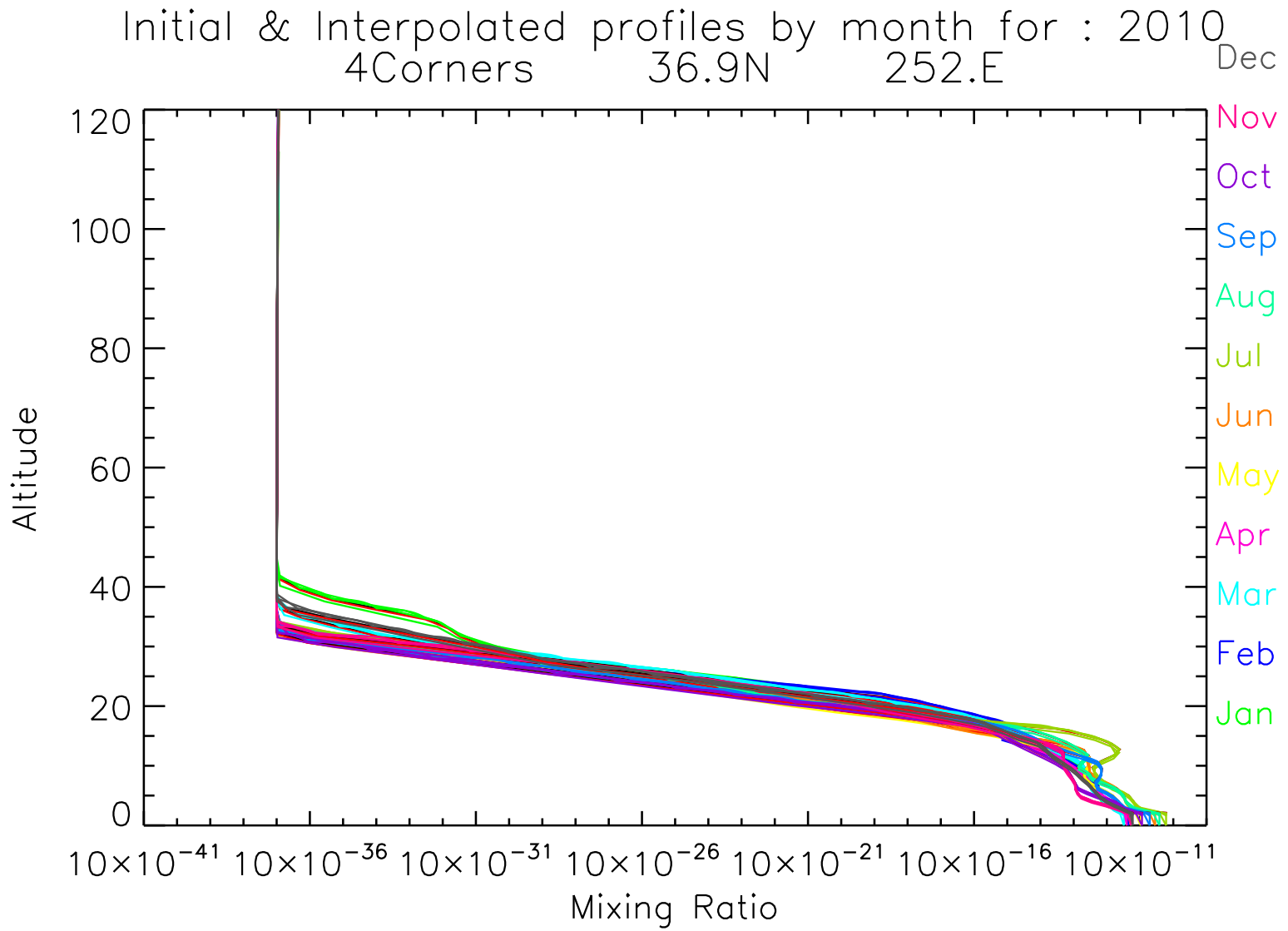

Initial & Interpolated profiles by month for : 2004
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

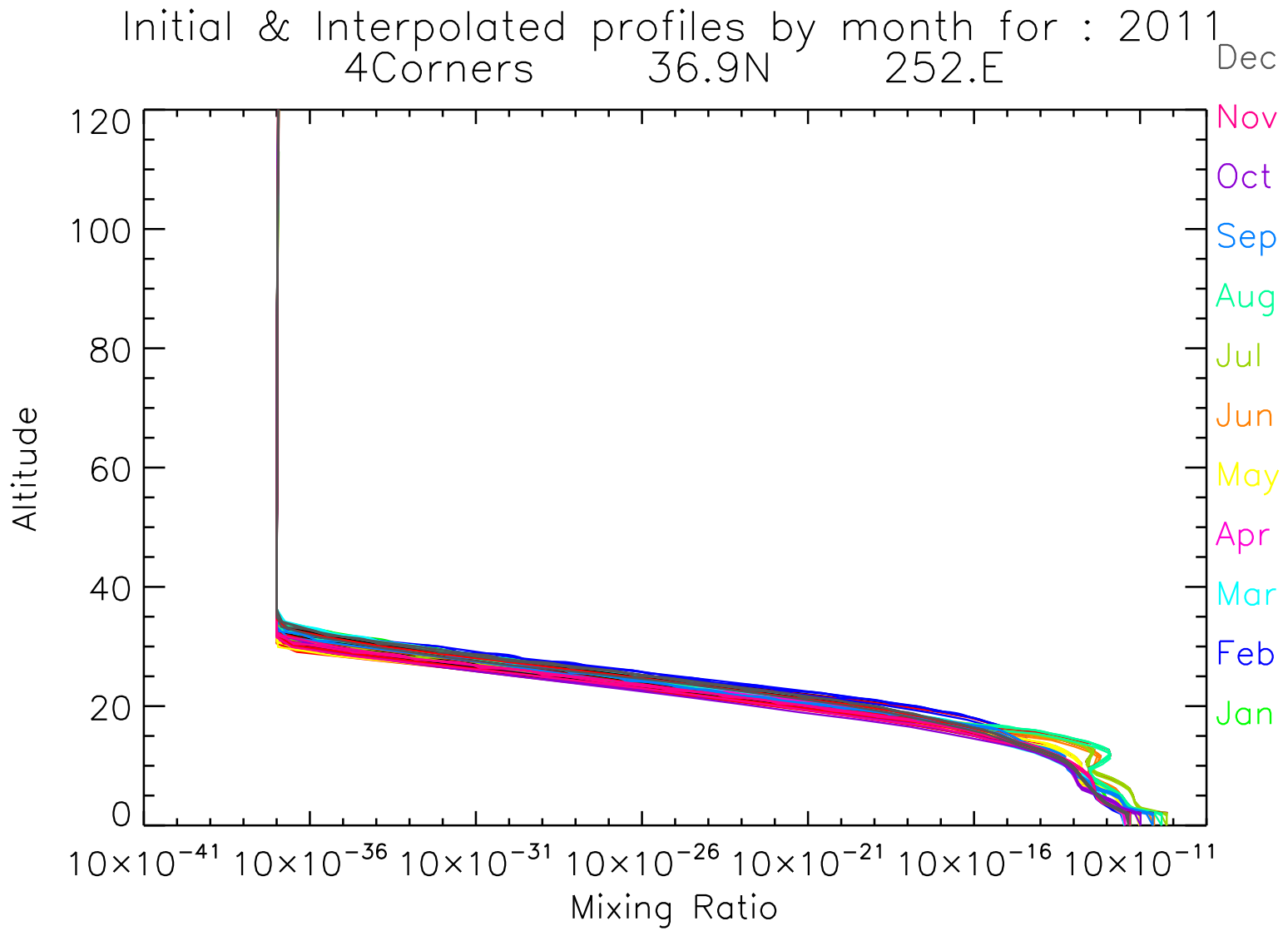

Initial & Interpolated profiles by month for : 2005
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

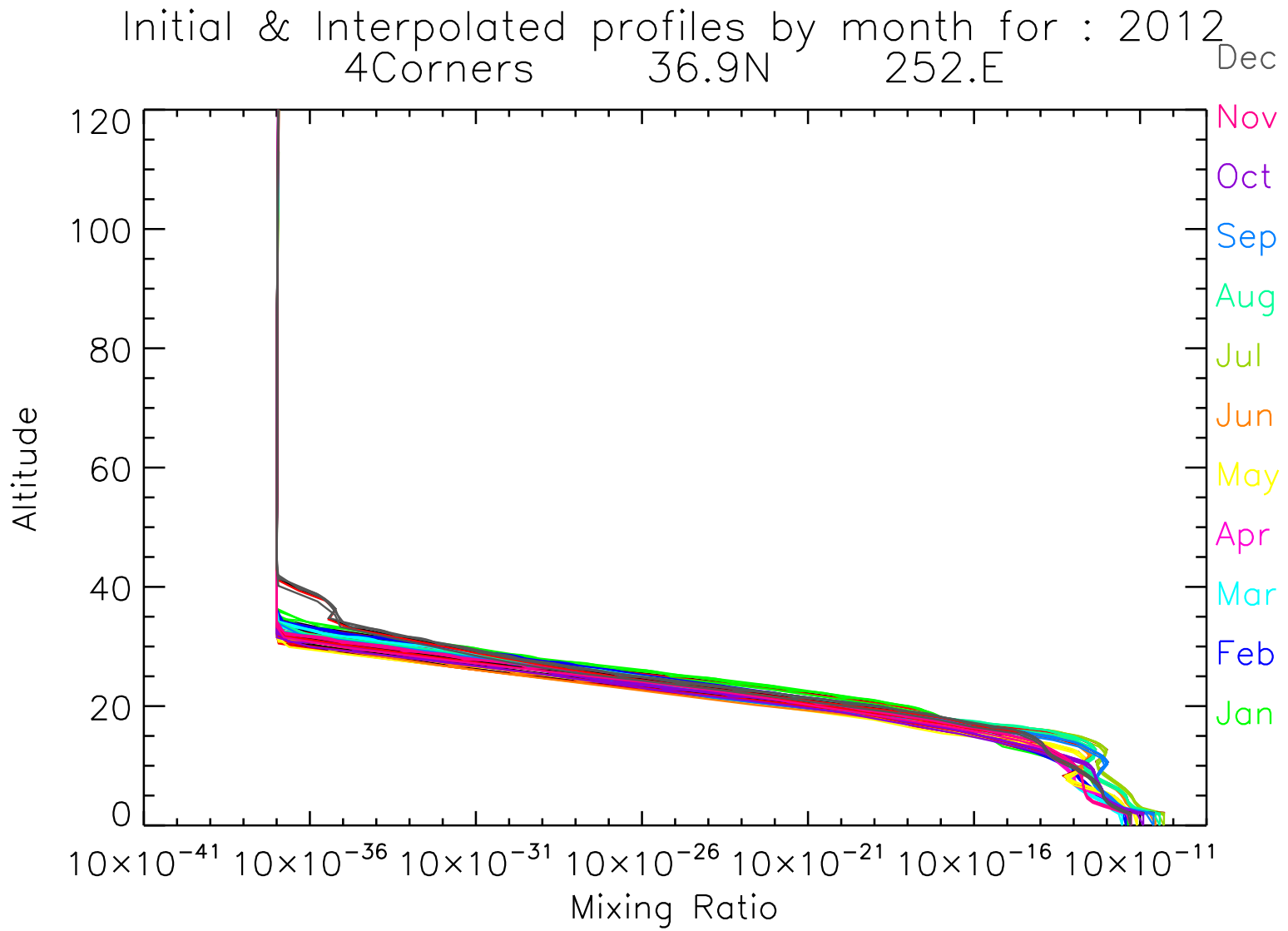

Initial & Interpolated profiles by month for : 2006
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

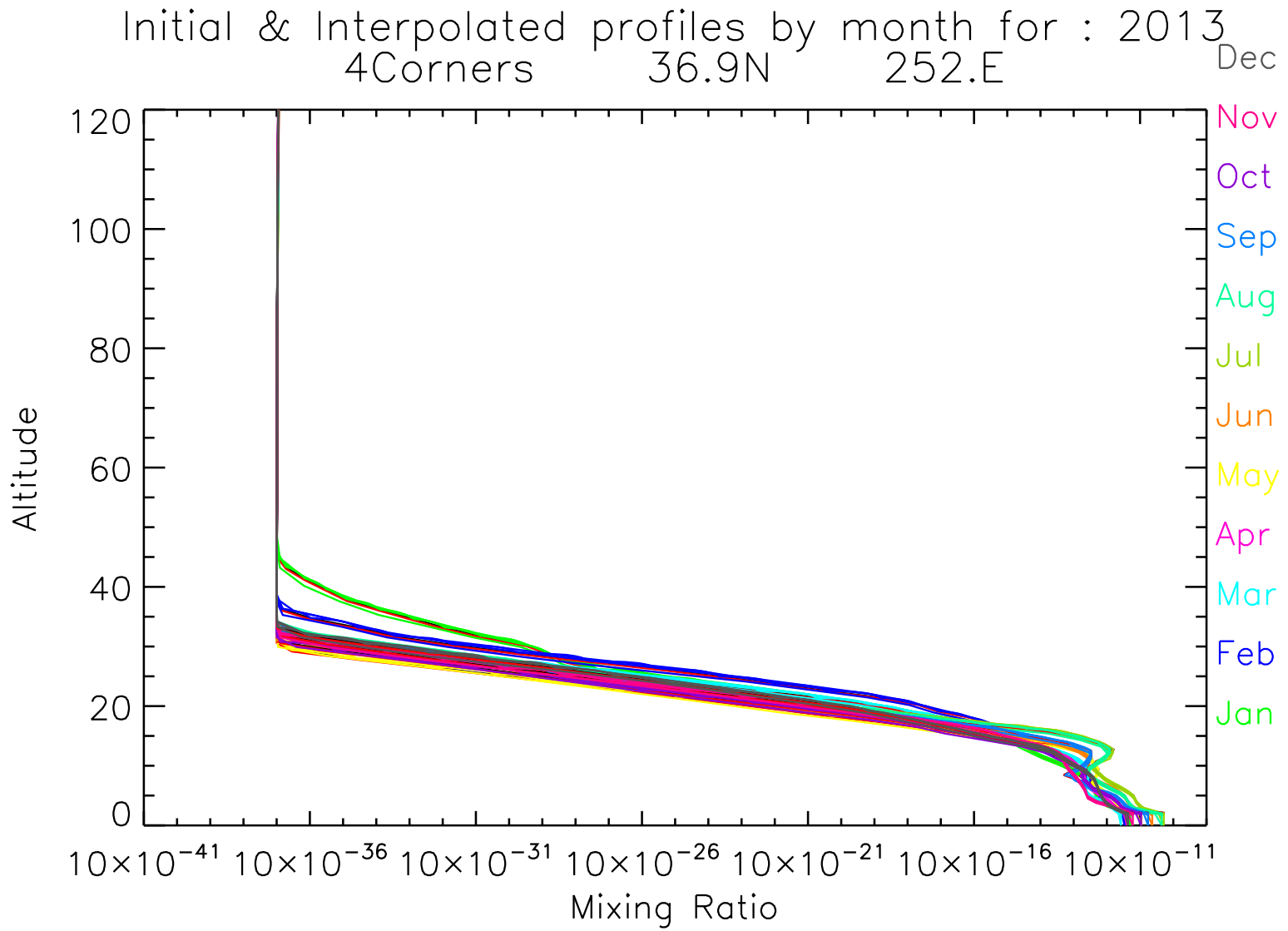

Initial & Interpolated profiles by month for : 2007
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

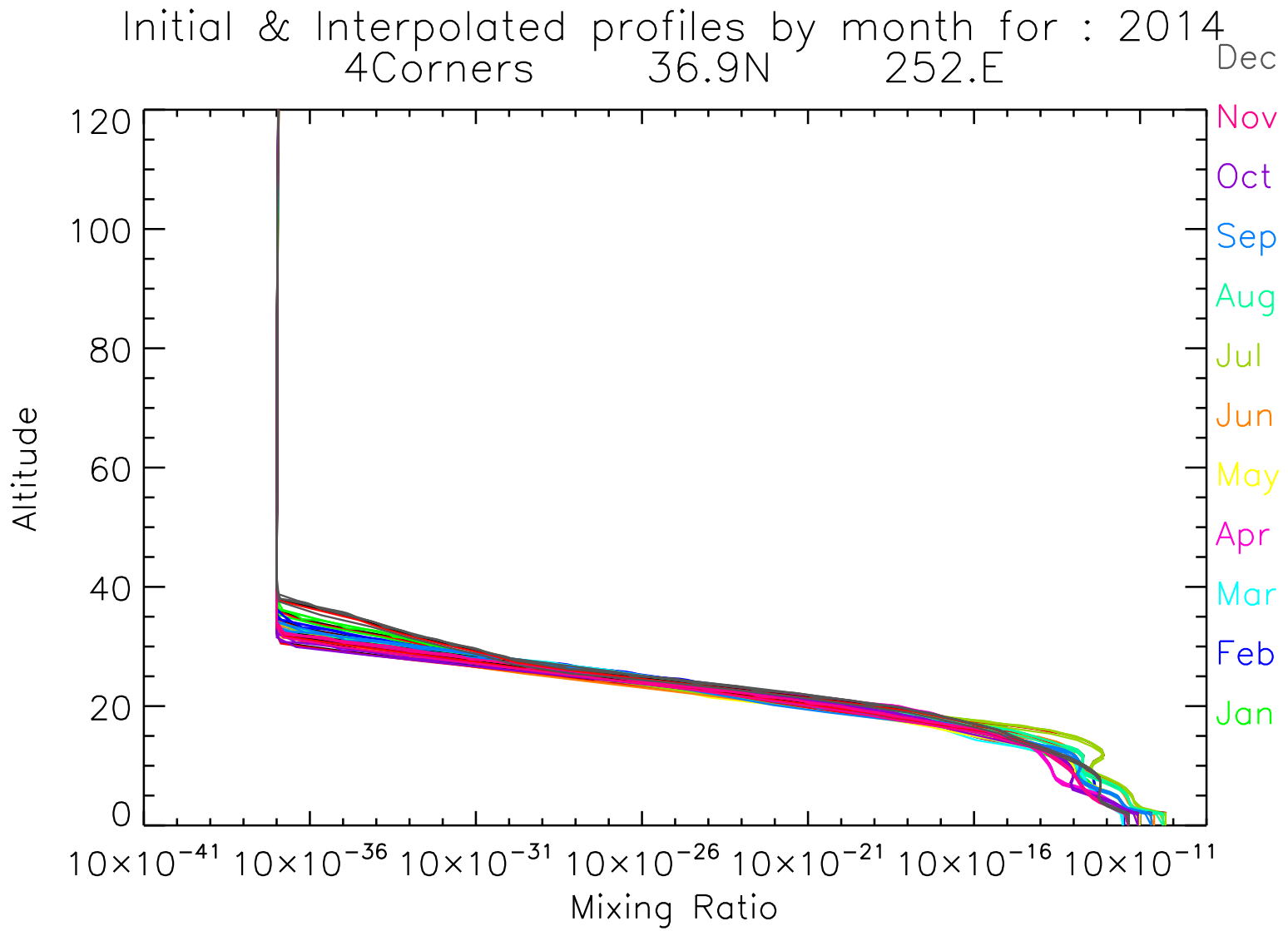

Initial & Interpolated profiles by month for : 2008
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

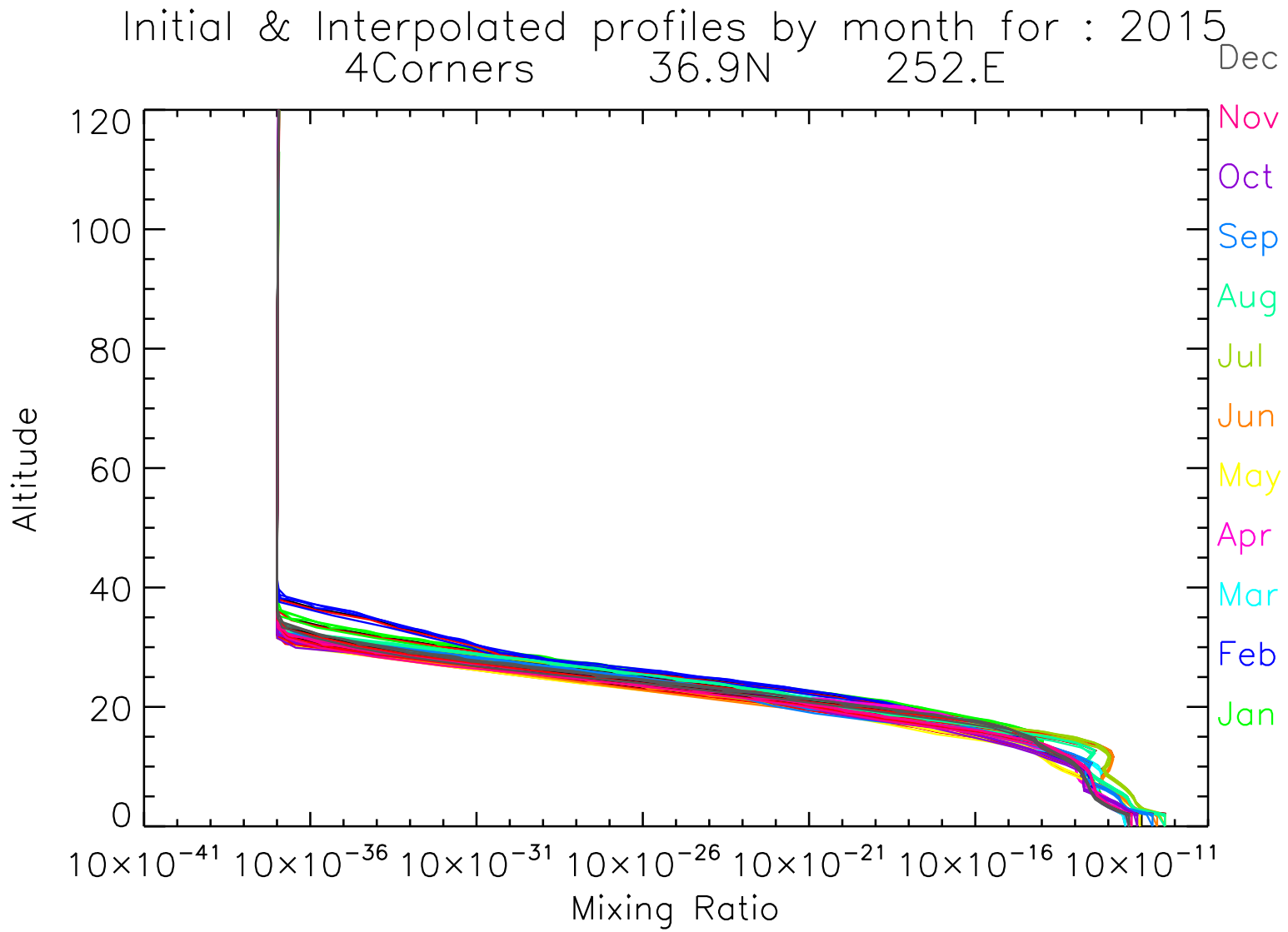

Initial & Interpolated profiles by month for : 2010
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

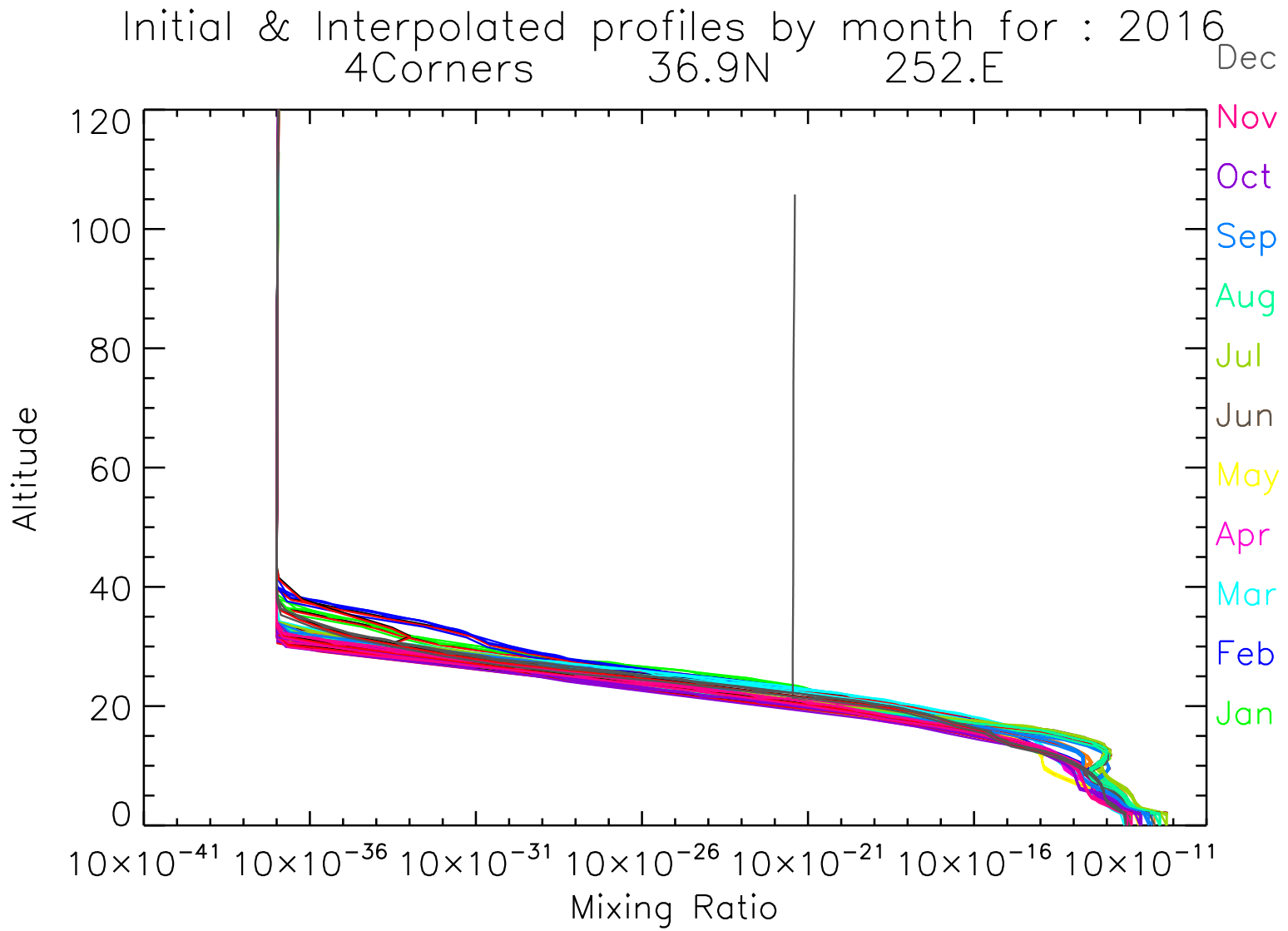

Initial & Interpolated profiles by month for : 2011
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

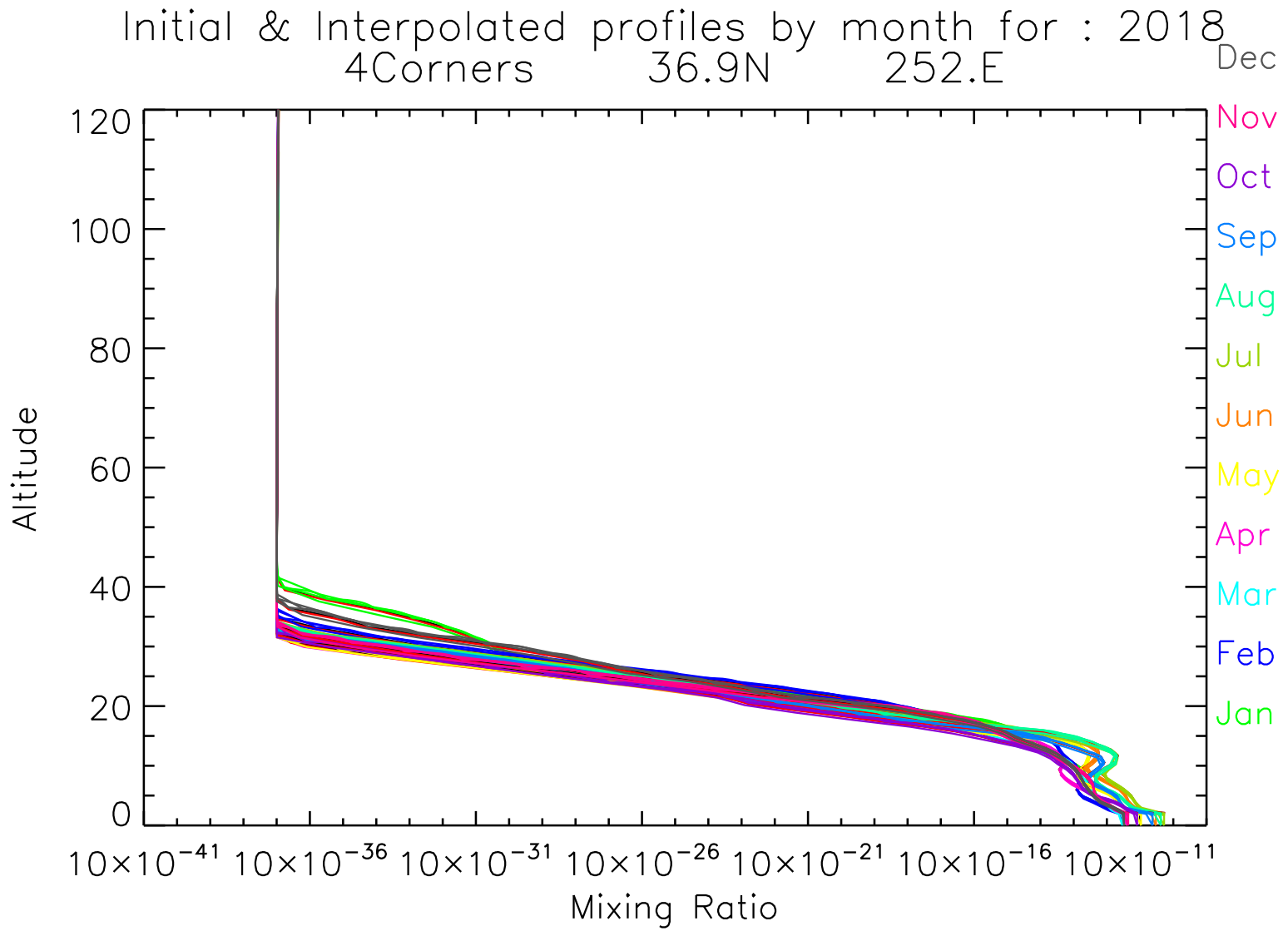

Initial & Interpolated profiles by month for : 2012
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

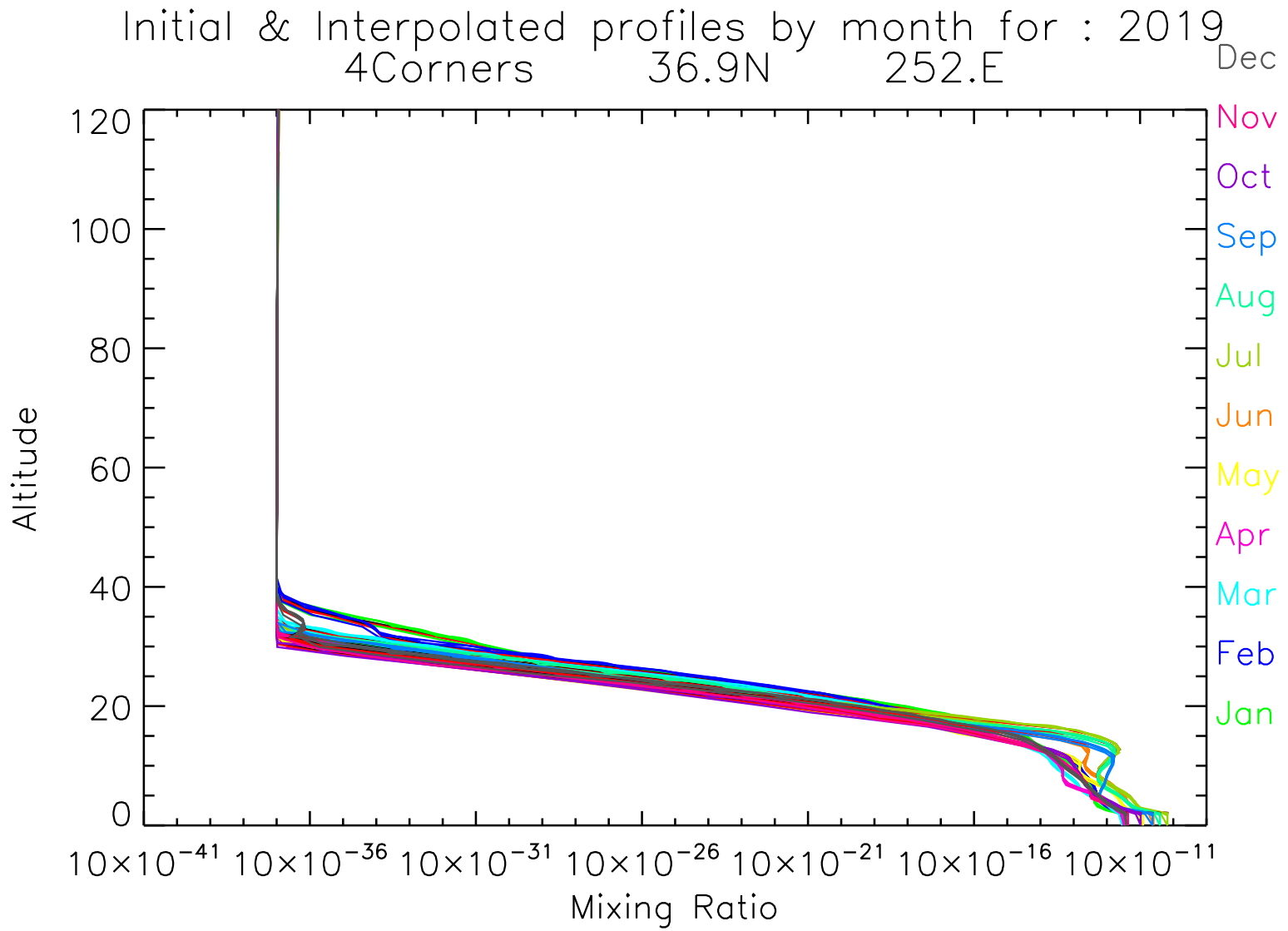

Initial & Interpolated profiles by month for : 2013
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

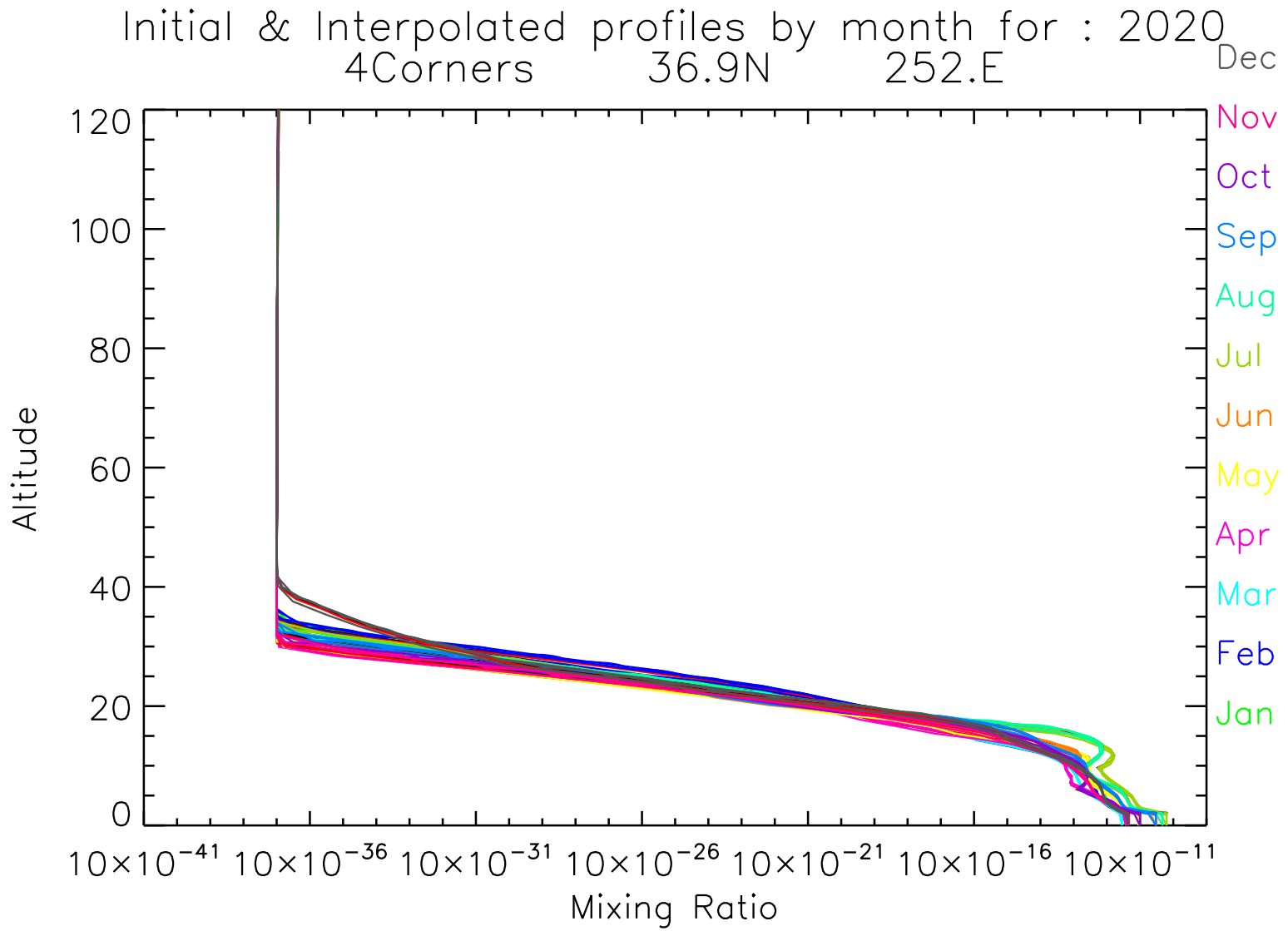

Initial & Interpolated profiles by month for : 2014
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

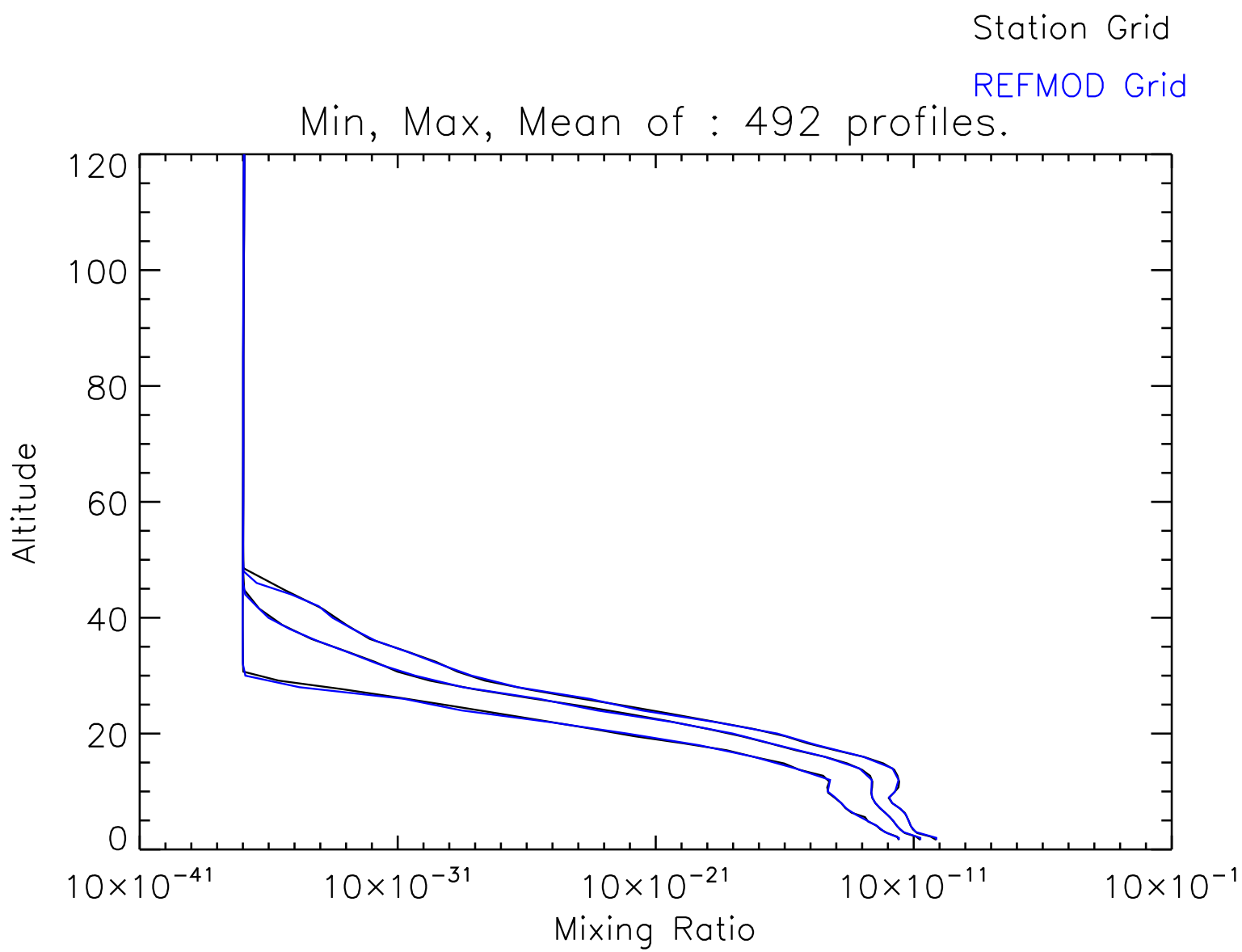

Initial & Interpolated profiles by month for : 2015
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

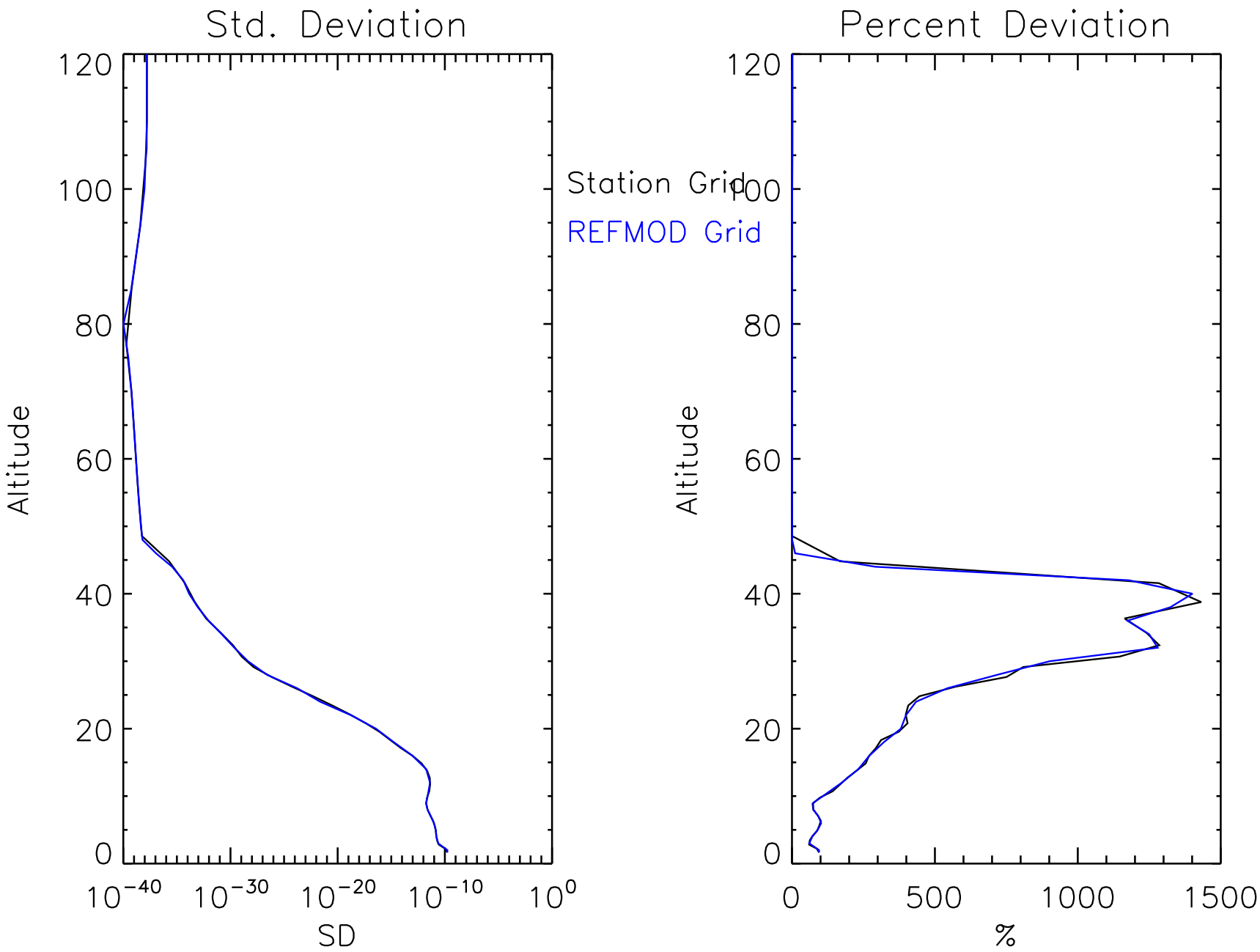

Initial & Interpolated profiles by month for : 2016
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

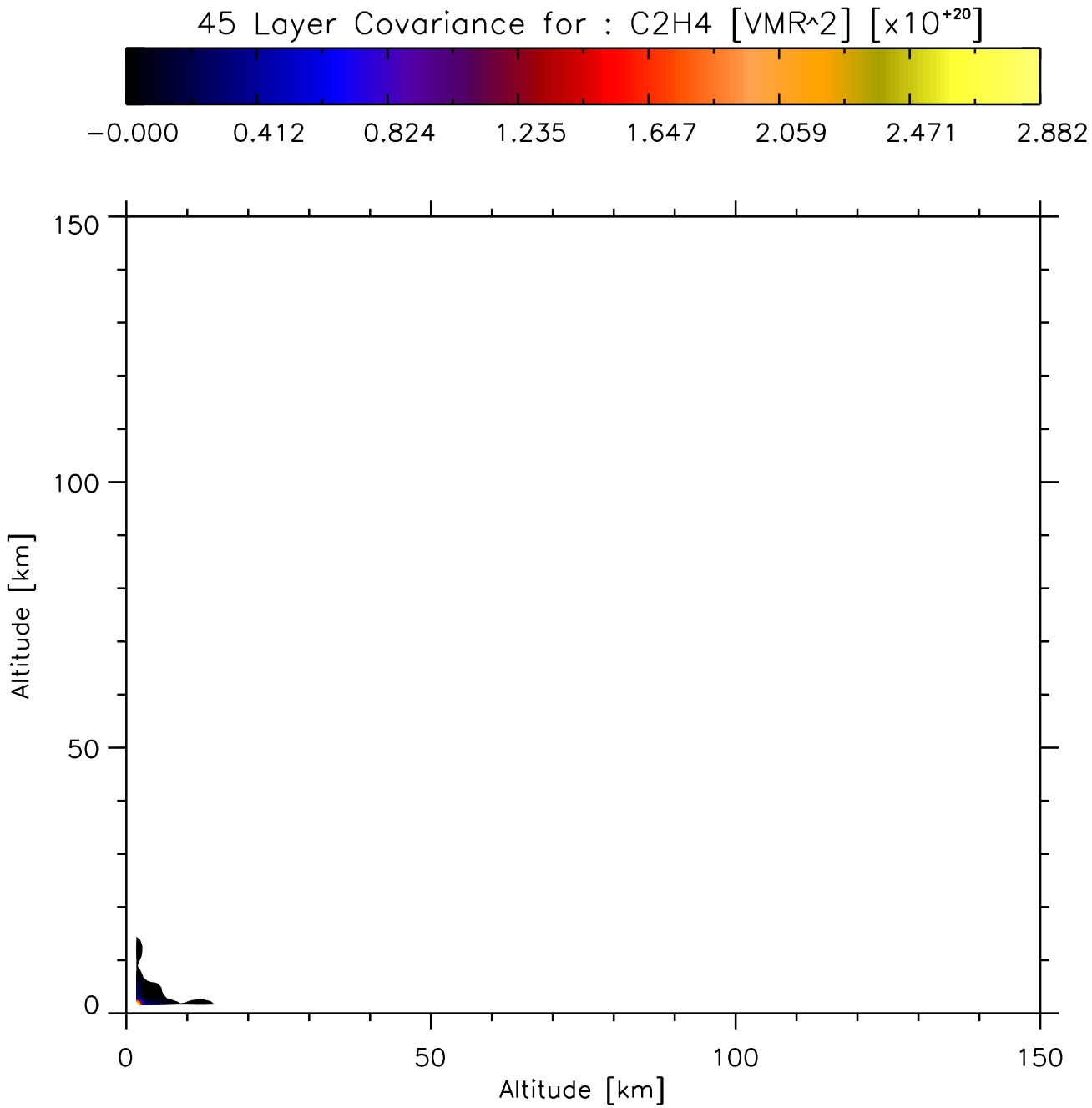

Initial & Interpolated profiles by month for : 2018
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 2019
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

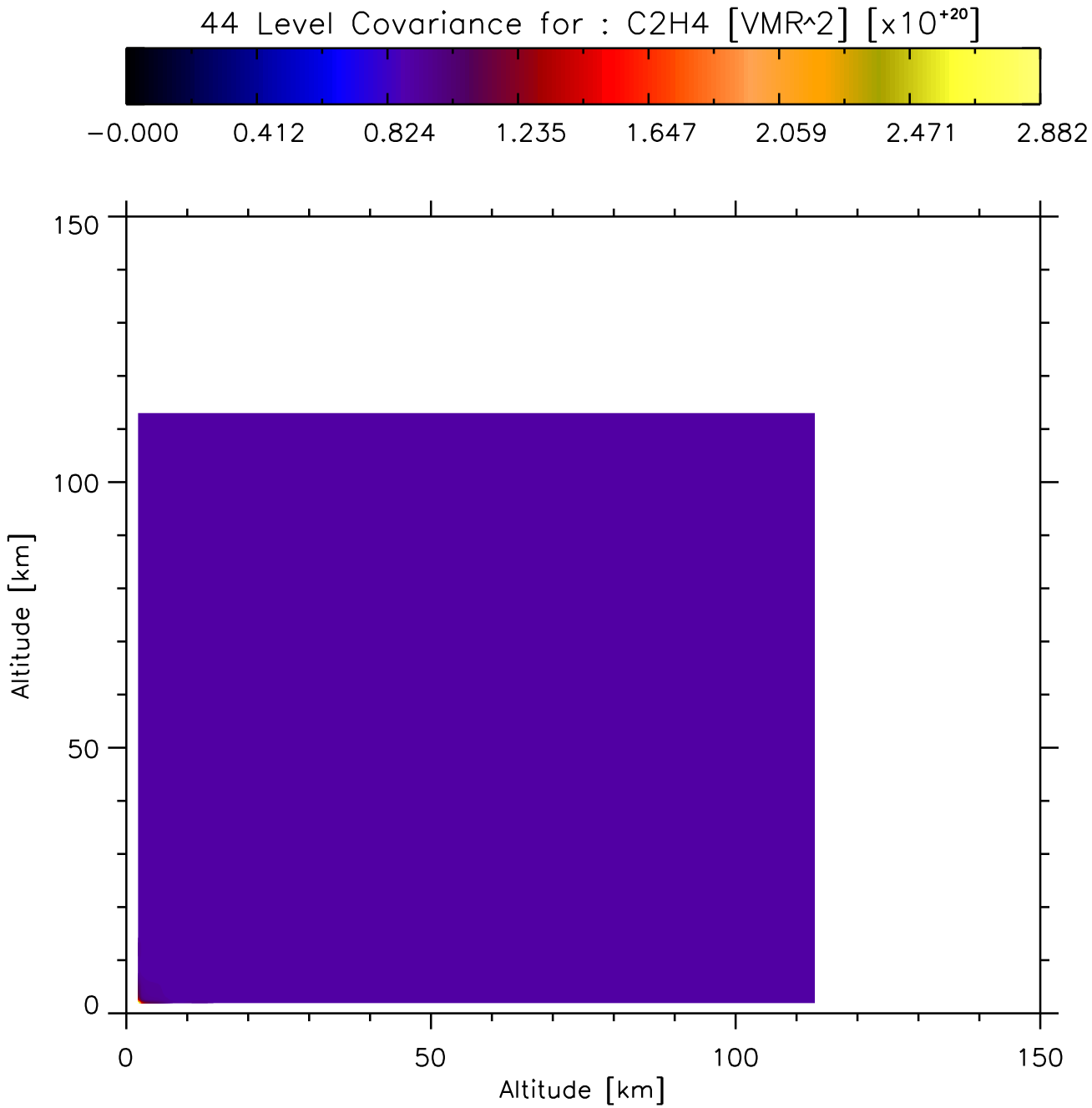
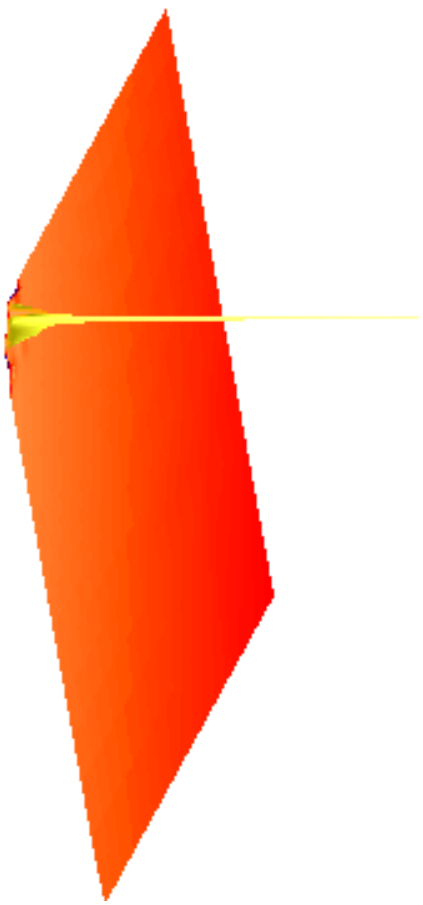

Initial & Interpolated profiles by month for : 2020
4Corners 36.9N 252.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Station Grid
REFMOD Grid
Min, Max, Mean of : 492 profiles.
120
100
80
60
40
20
0
Altitude
10×10^-41
10×10^-31
10×10^-21
10×10^-11
10×10^-1
Mixing Ratio


Std. Deviation
Percent Deviation
Station Grid
REFMOD Grid
Altitude
Altitude
120
100
80
60
40
20
0
10^{-40}
10^{-30}
10^{-20}
10^{-10}
10^{0}
SD
0
500
1000
1500
%


45 Layer Covariance for : C2H4 [VMR^2] [x10^+20]
−0.000
0.412
0.824
1.235
1.647
2.059
2.471
2.882
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]

45 Layer Covariance for : C2H4 [VMR^2] [x10^+20]
-0.0000033
0.999997
1.999997
2.999997
Y Altitude
0
50
100
0
50
X Altitude
100


44 Level Covariance for : C2H4 [VMR^2] [x10^+20]
−0.000
0.412
0.824
1.235
1.647
2.059
2.471
2.882
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]