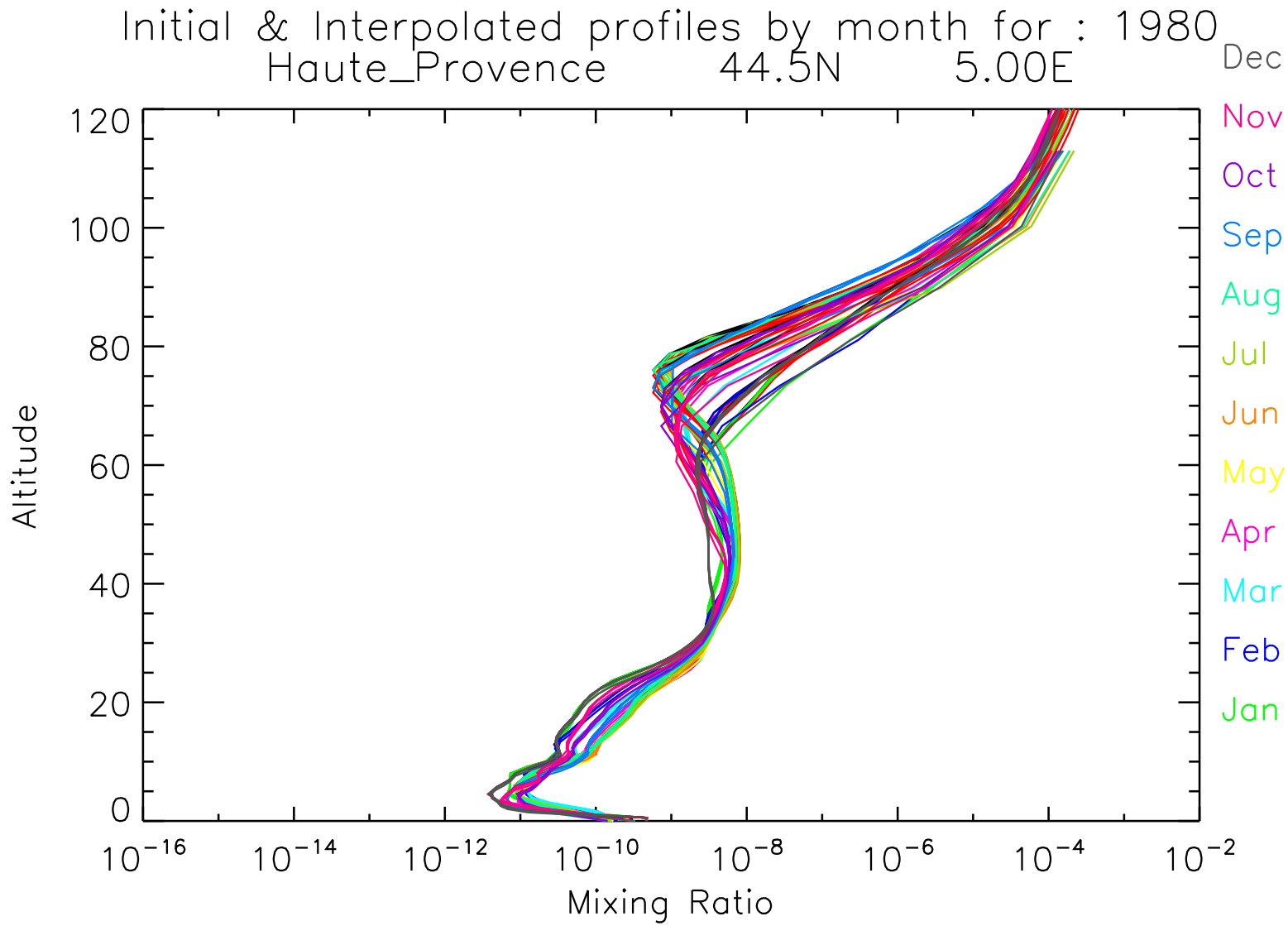
Initial & Interpolated profiles by month for : 1980
Haute_Provence 44.5N 5.00E
Dec
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Altitude
120
100
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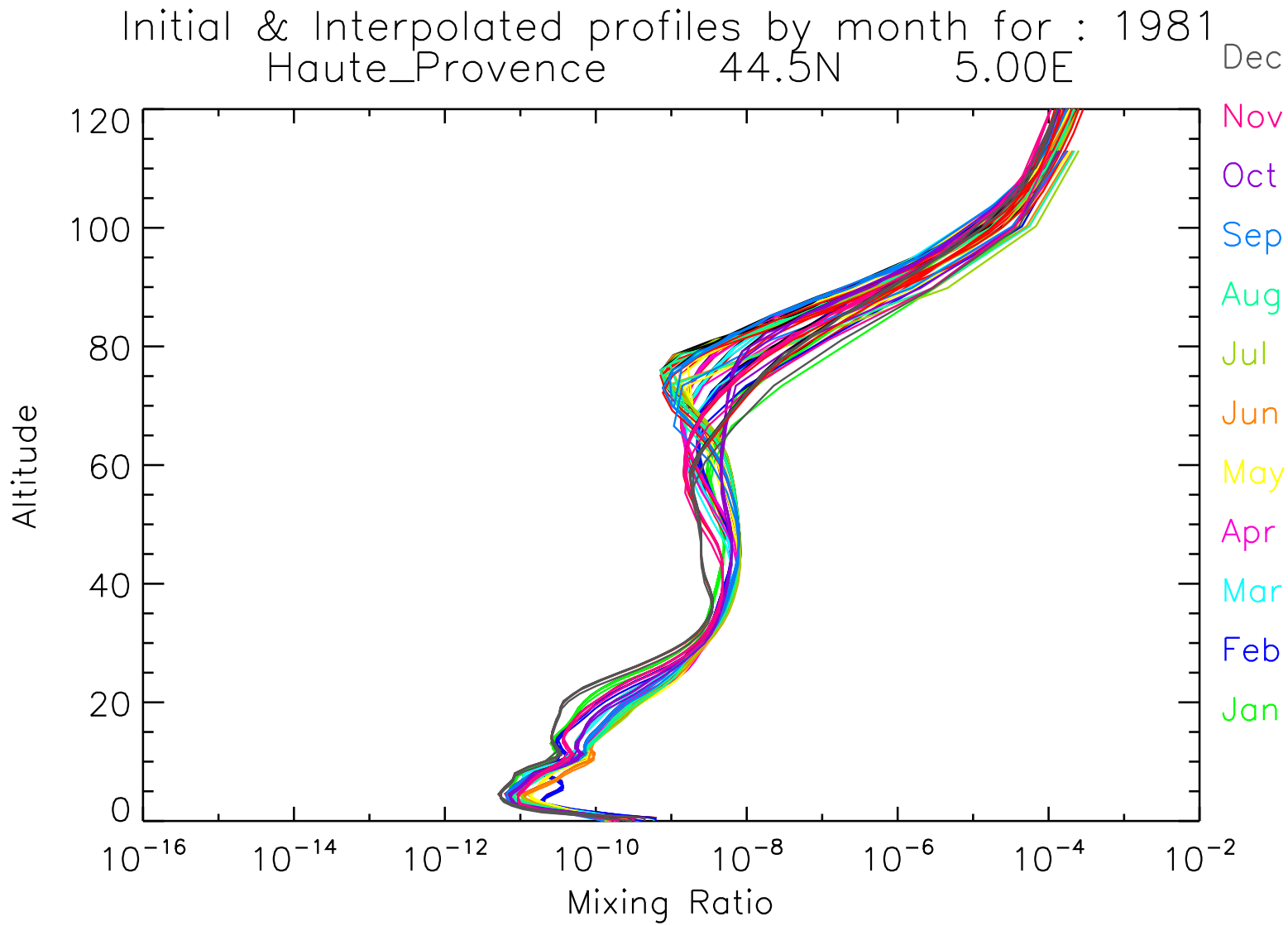
Mixing Ratio


Initial & Interpolated profiles by month for : 1981
Haute_Provence 44.5N 5.00E
Altitude
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Mixing Ratio
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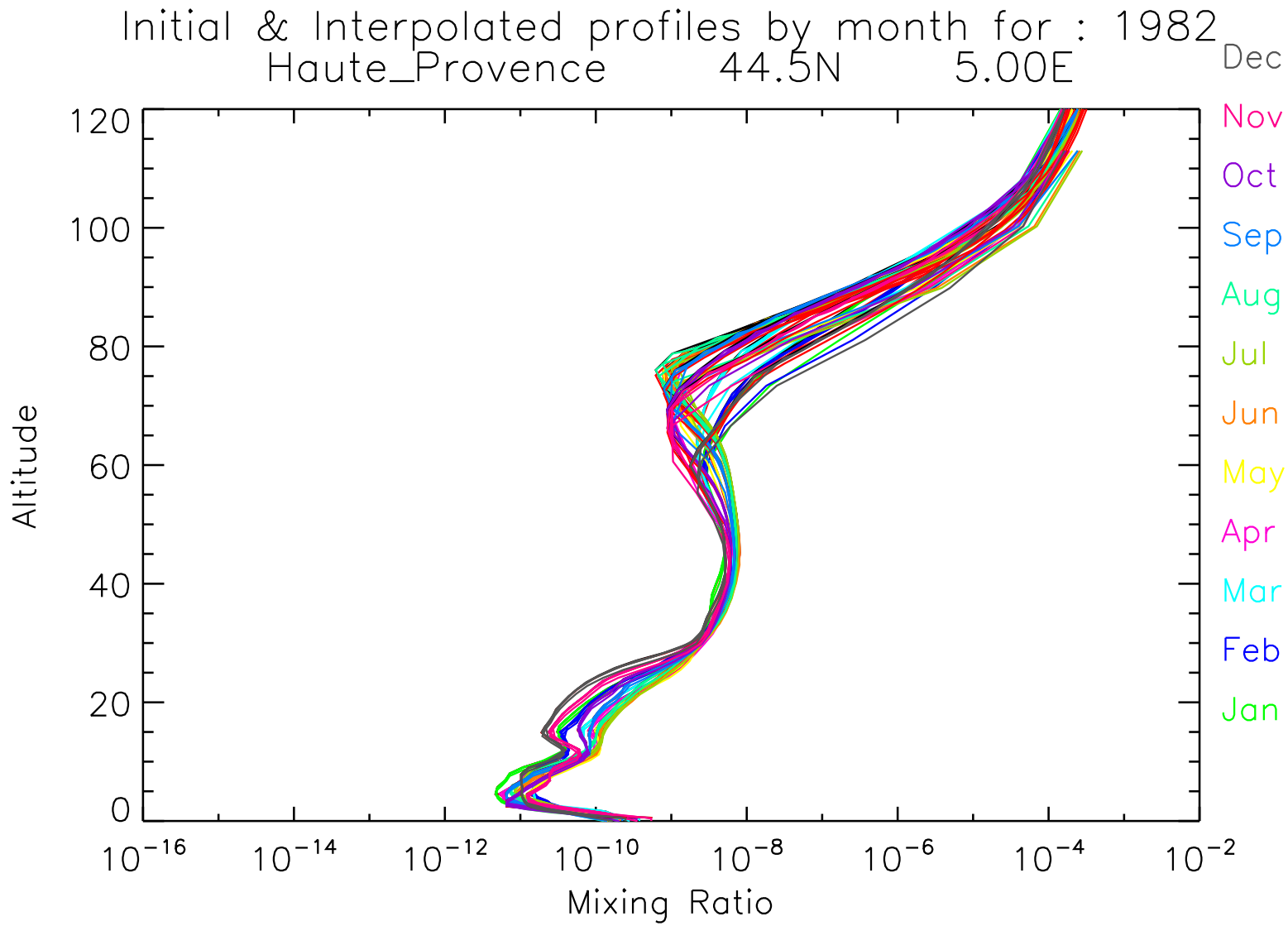
Initial & Interpolated profiles by month for : 1982
Haute_Provence 44.5N 5.00E
Dec
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Altitude
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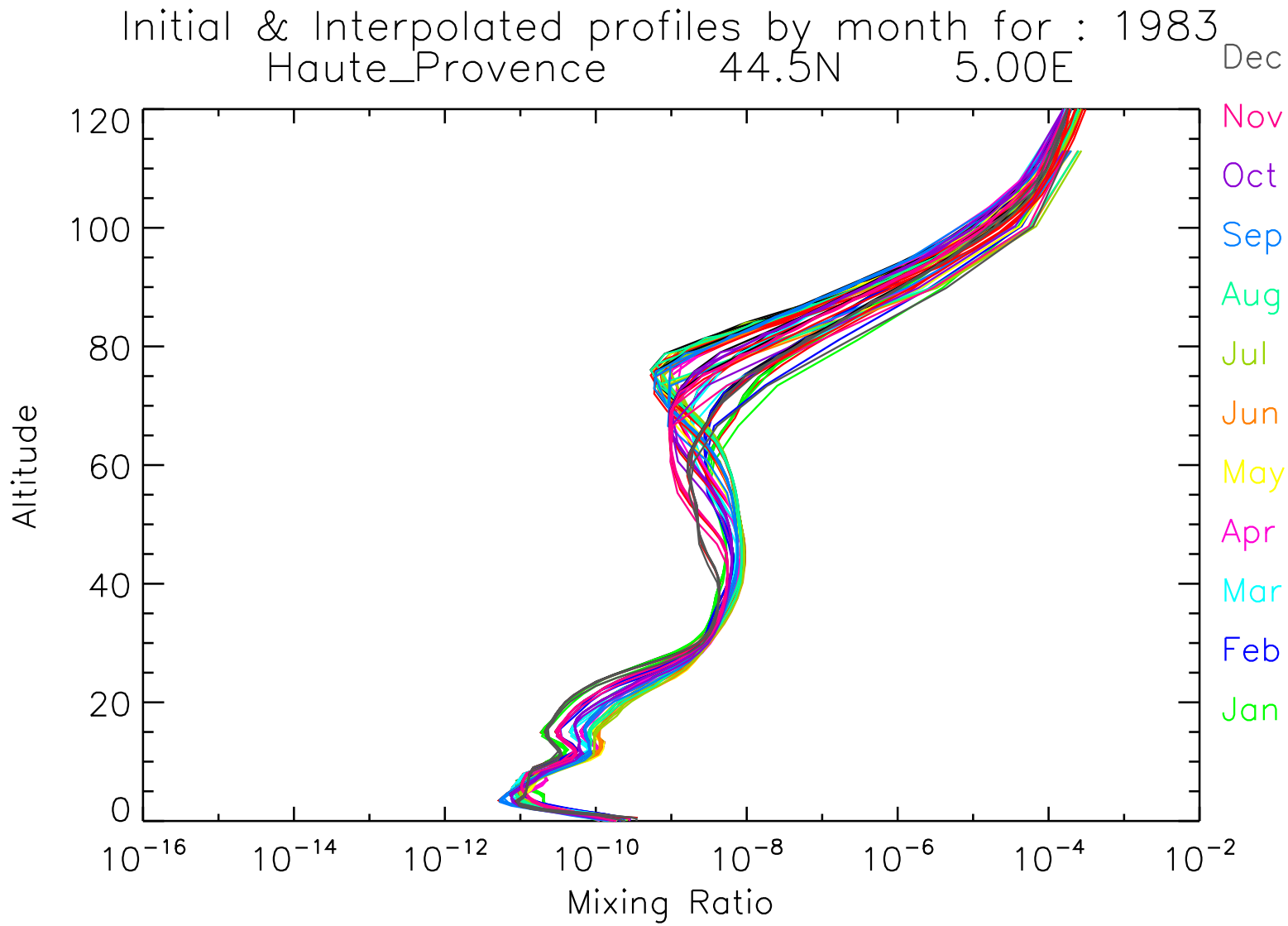
Mixing Ratio


Initial & Interpolated profiles by month for : 1983
Haute_Provence 44.5N 5.00E
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Altitude
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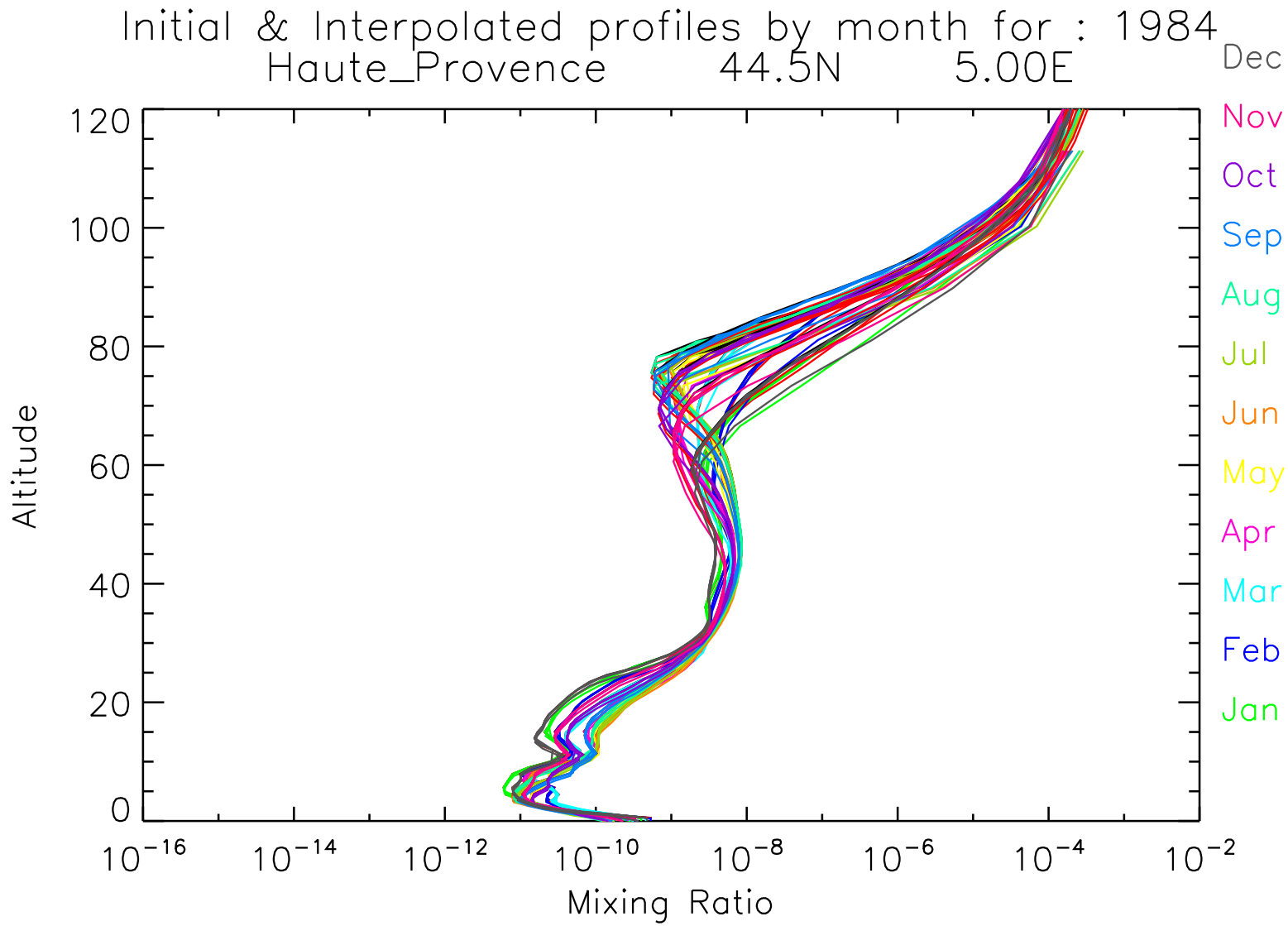
Mixing Ratio


Initial & Interpolated profiles by month for : 1984
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Dec
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Altitude
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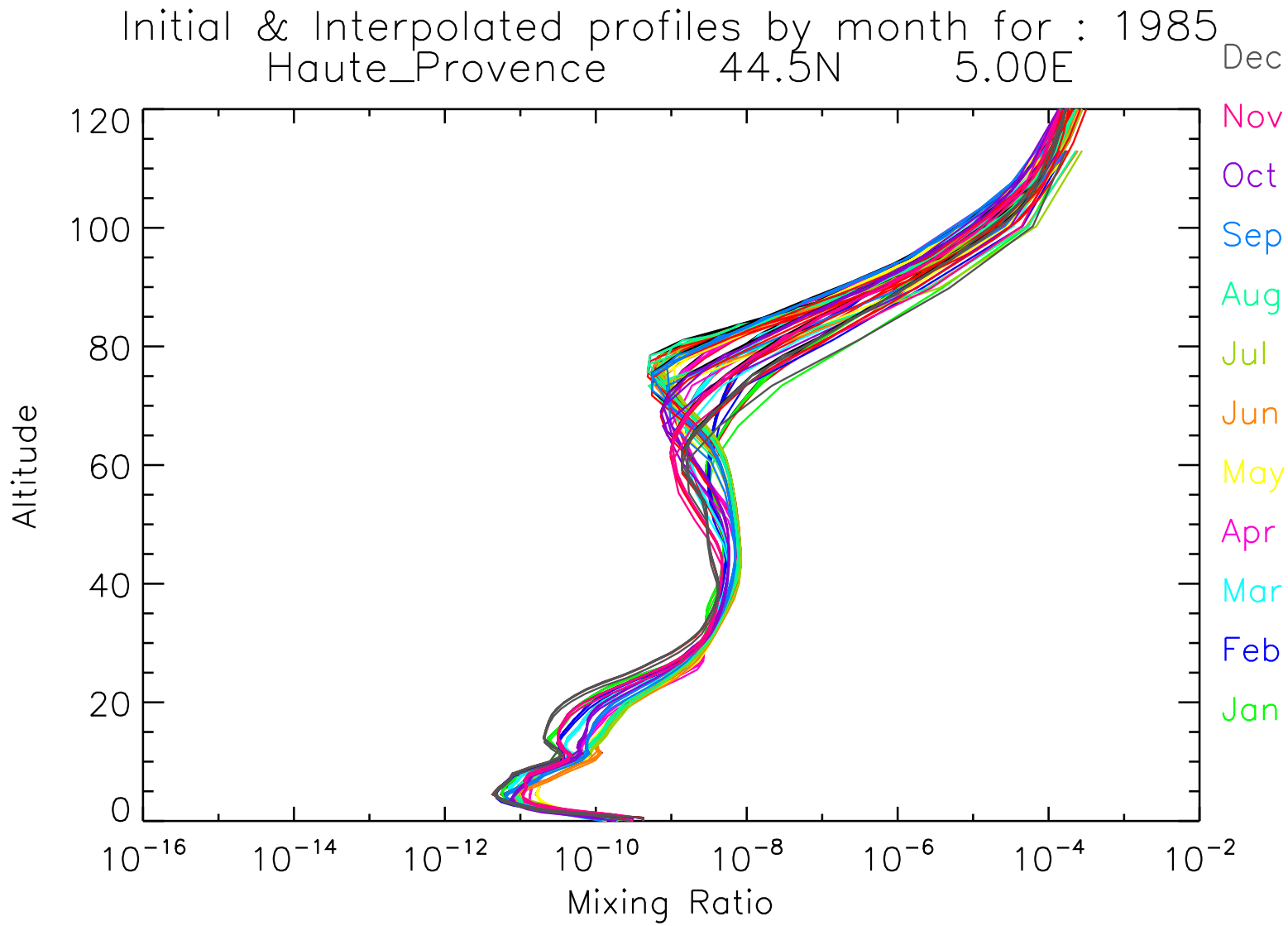
Mixing Ratio


Initial & Interpolated profiles by month for : 1985
Haute_Provence 44.5N 5.00E
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Altitude
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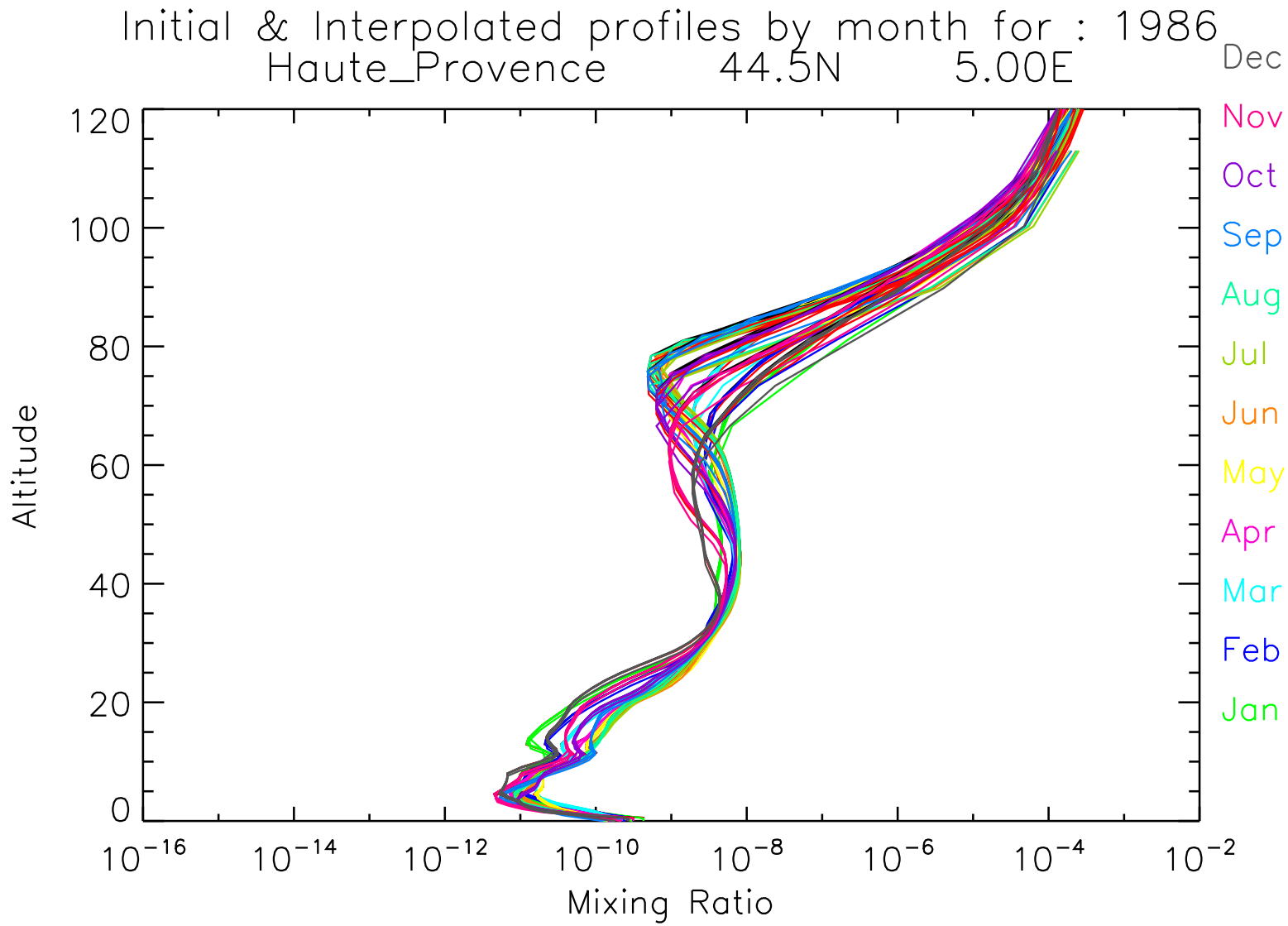
Mixing Ratio


Initial & Interpolated profiles by month for : 1986
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Dec
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Altitude
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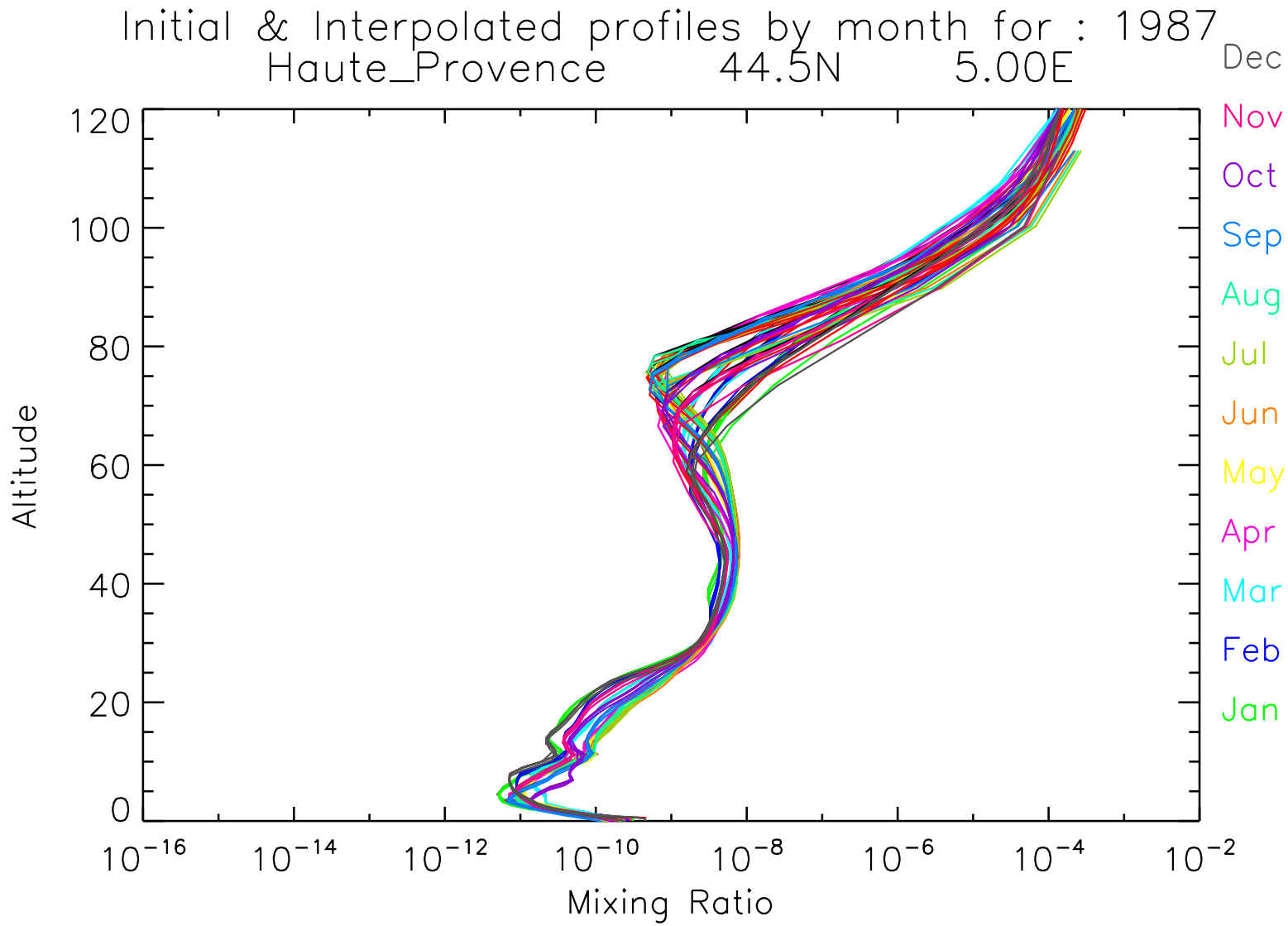
Mixing Ratio


Initial & Interpolated profiles by month for : 1987
Haute_Provence 44.5N 5.00E
Altitude
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Mixing Ratio
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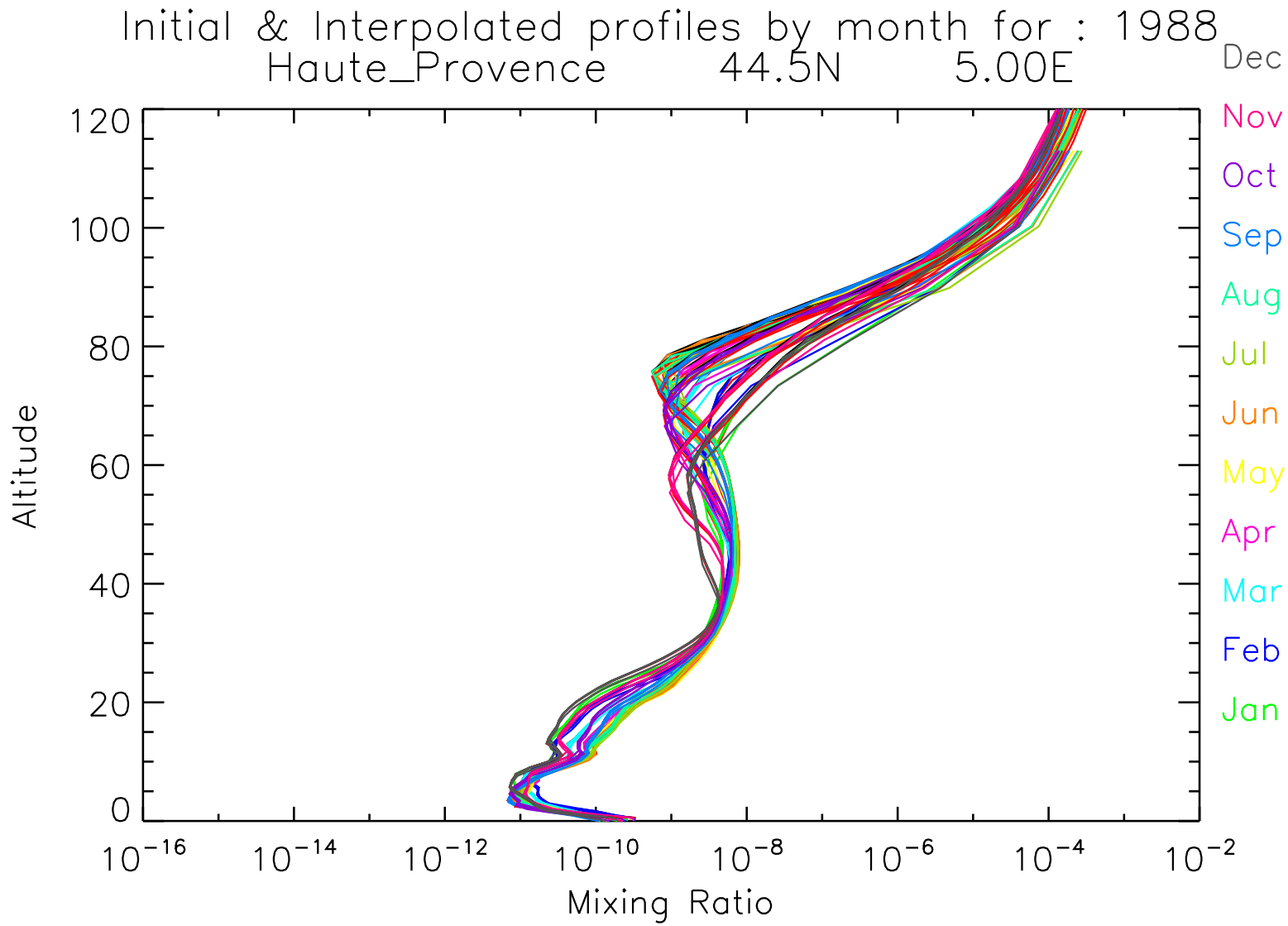
Initial & Interpolated profiles by month for : 1988
Haute_Provence 44.5N 5.00E
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Altitude
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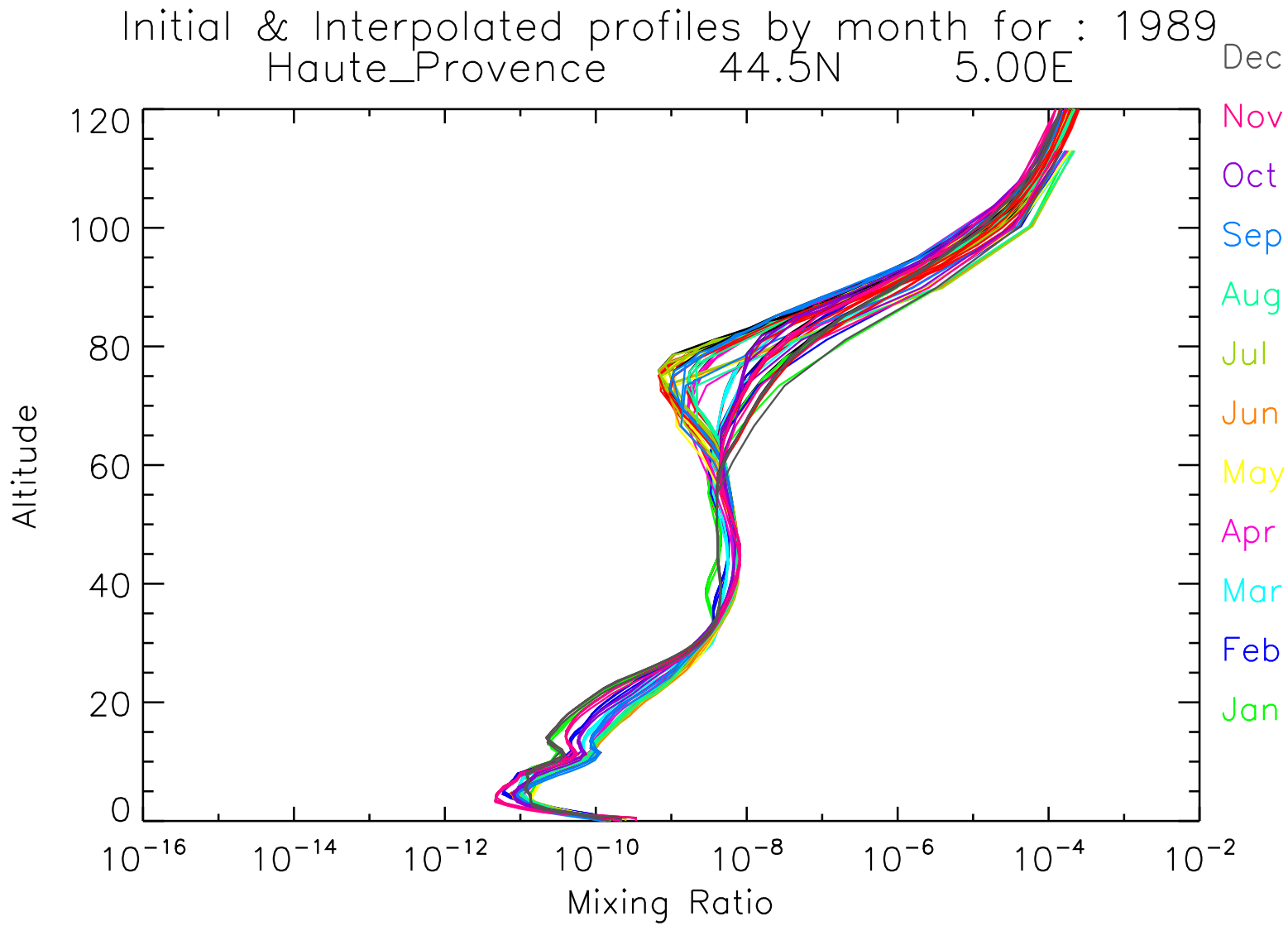
Mixing Ratio


Initial & Interpolated profiles by month for : 1989
Haute_Provence 44.5N 5.00E
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Altitude
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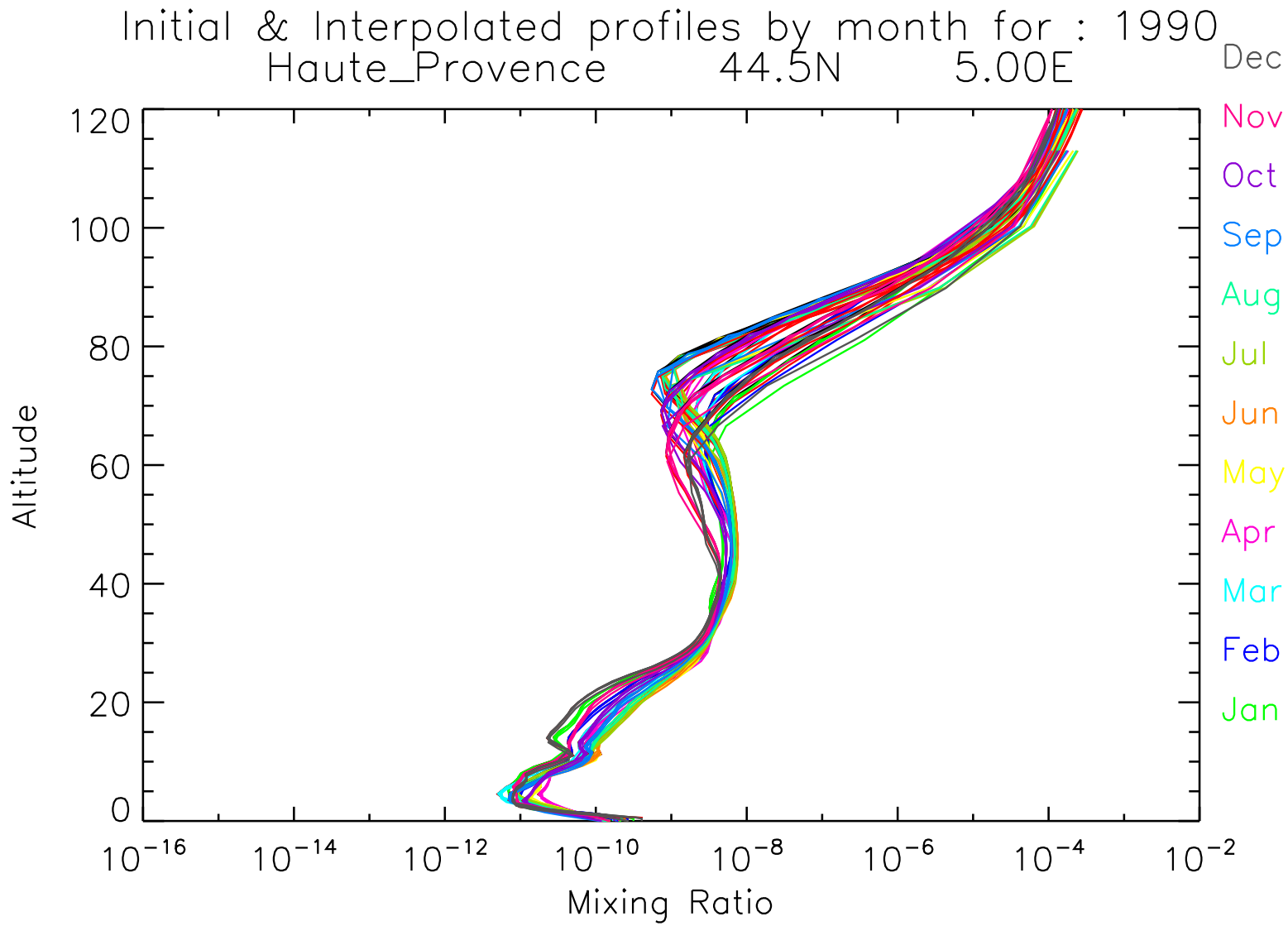
Mixing Ratio


Initial & Interpolated profiles by month for : 1990
Haute_Provence 44.5N 5.00E
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Altitude
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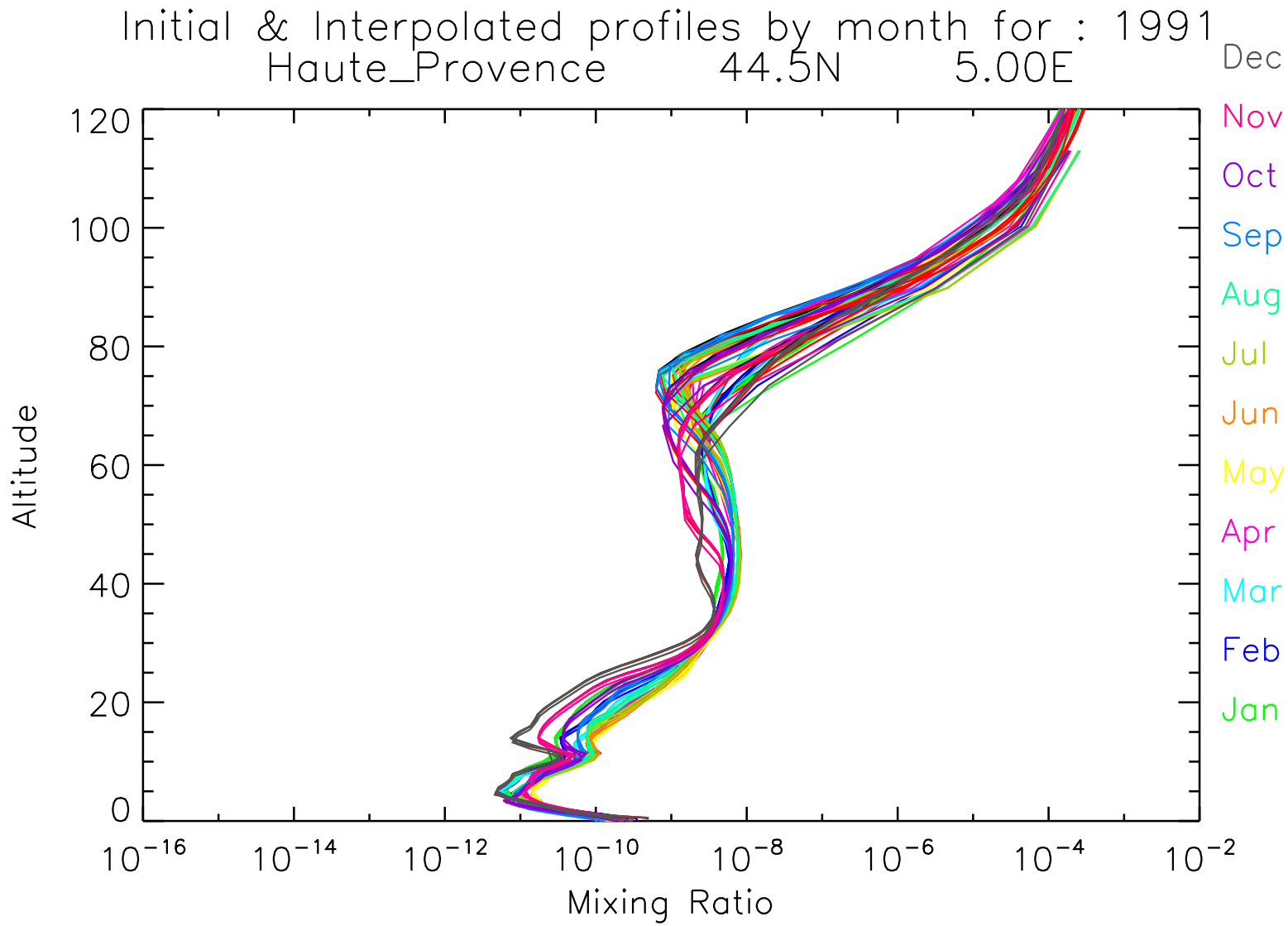
Mixing Ratio


Initial & Interpolated profiles by month for : 1991
Haute_Provence 44.5N 5.00E
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Altitude
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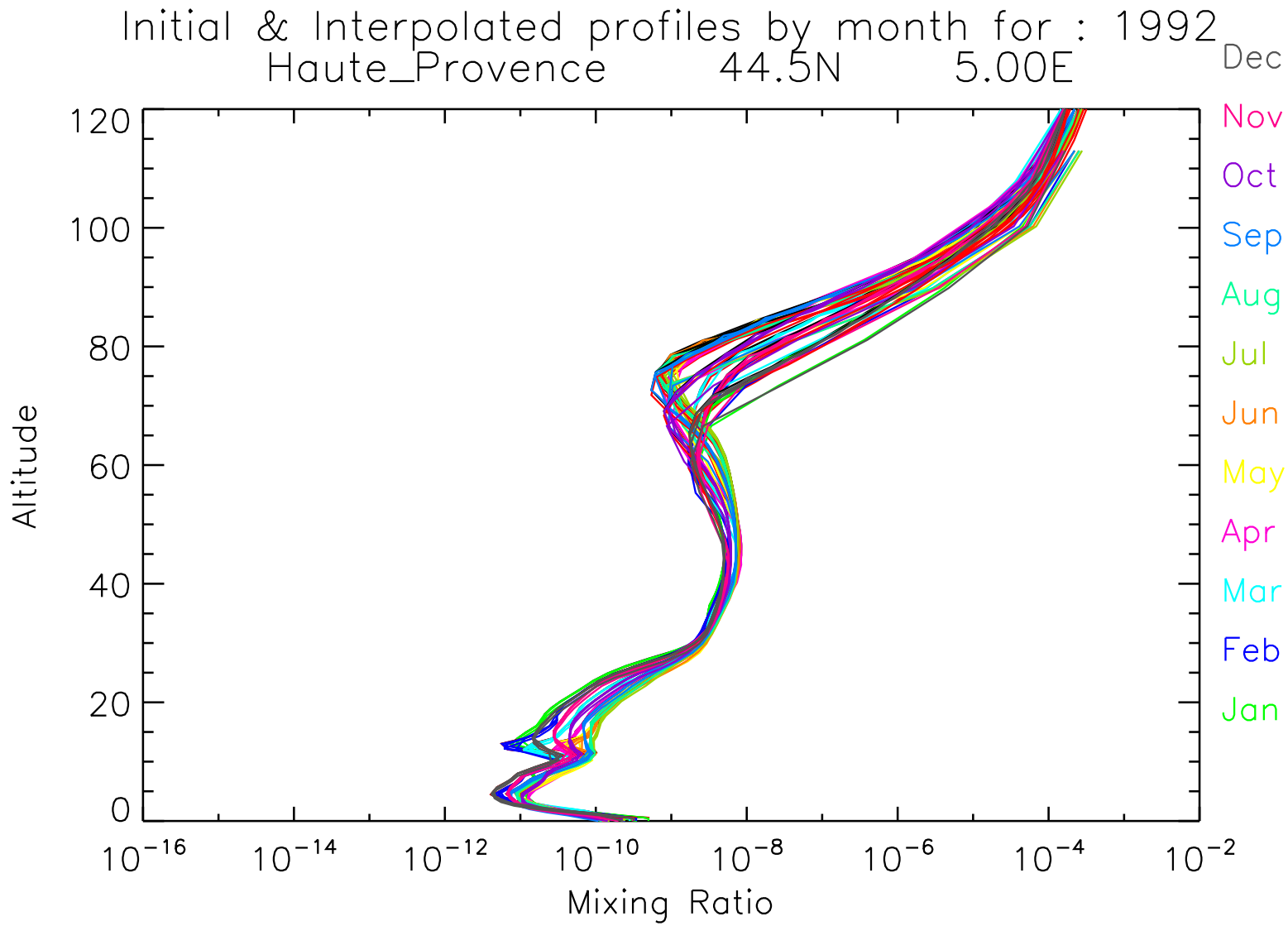
Mixing Ratio


Initial & Interpolated profiles by month for : 1992
Haute_Provence 44.5N 5.00E
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Altitude
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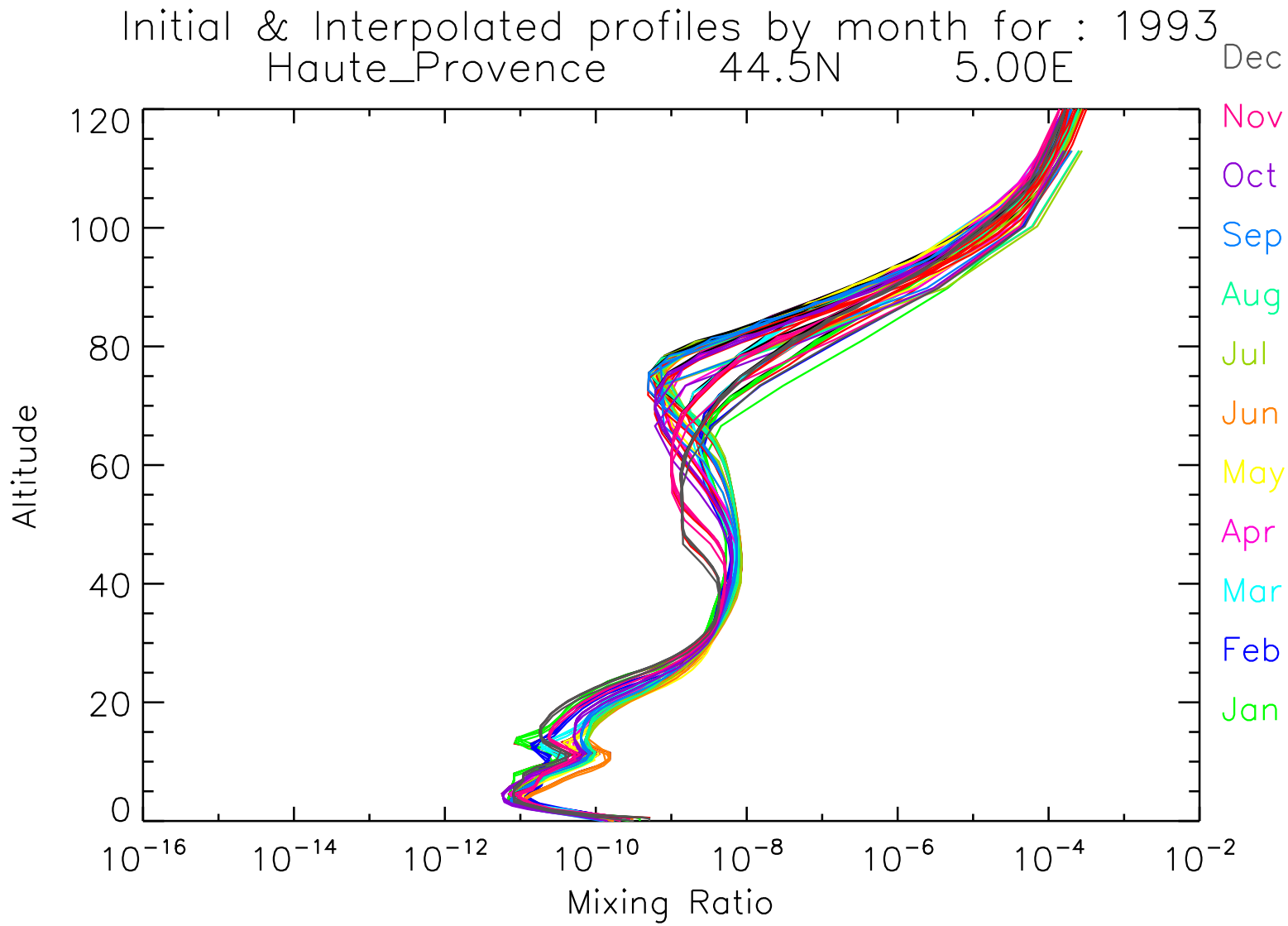
10^{-2}
Mixing Ratio


Initial & Interpolated profiles by month for : 1993
Haute_Provence 44.5N 5.00E
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Altitude
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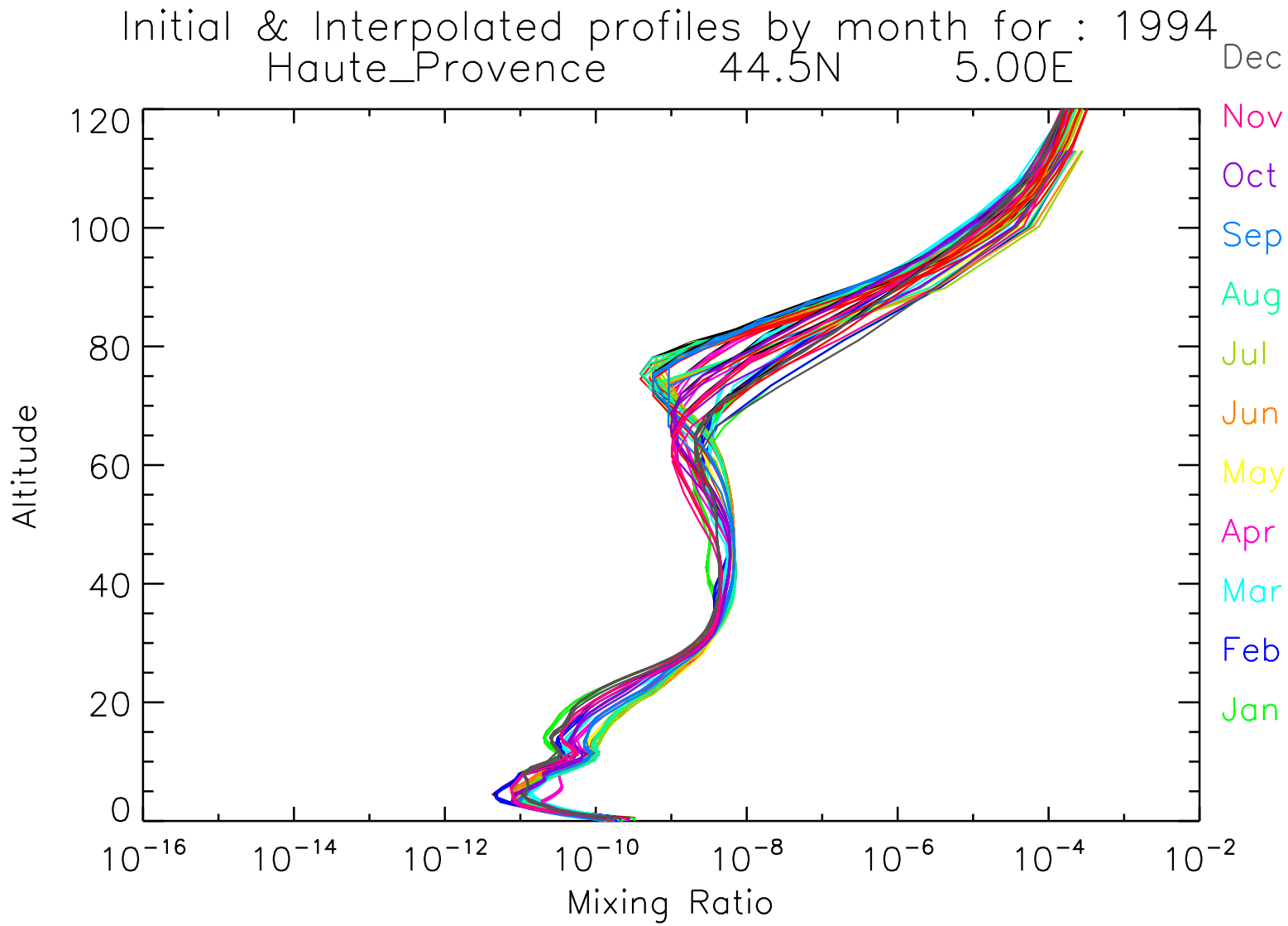
10^{-2}
Mixing Ratio


Initial & Interpolated profiles by month for : 1994
Haute_Provence 44.5N 5.00E
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Altitude
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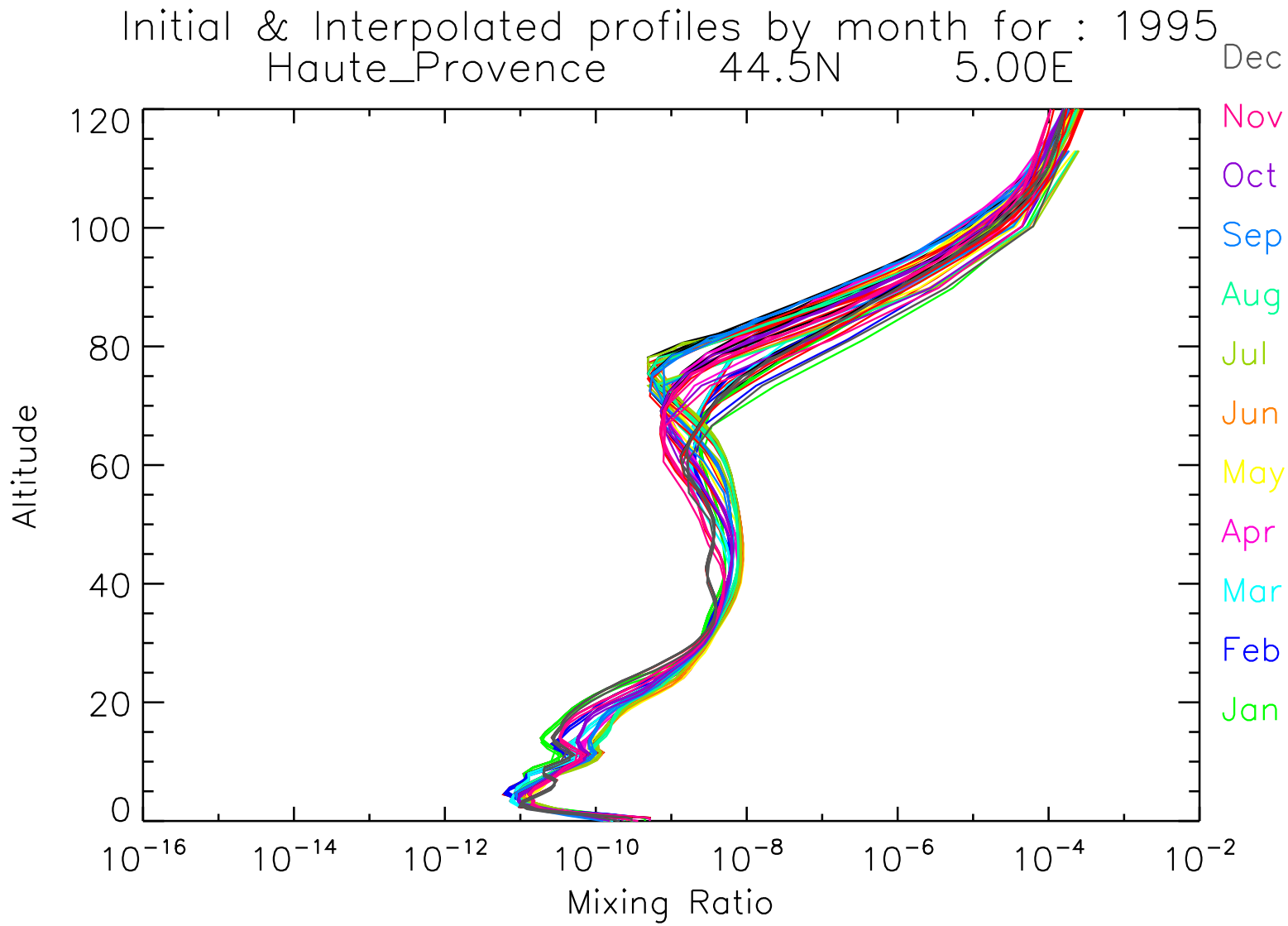
10^{-2}
Mixing Ratio


Initial & Interpolated profiles by month for : 1995
Haute_Provence 44.5N 5.00E
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Altitude
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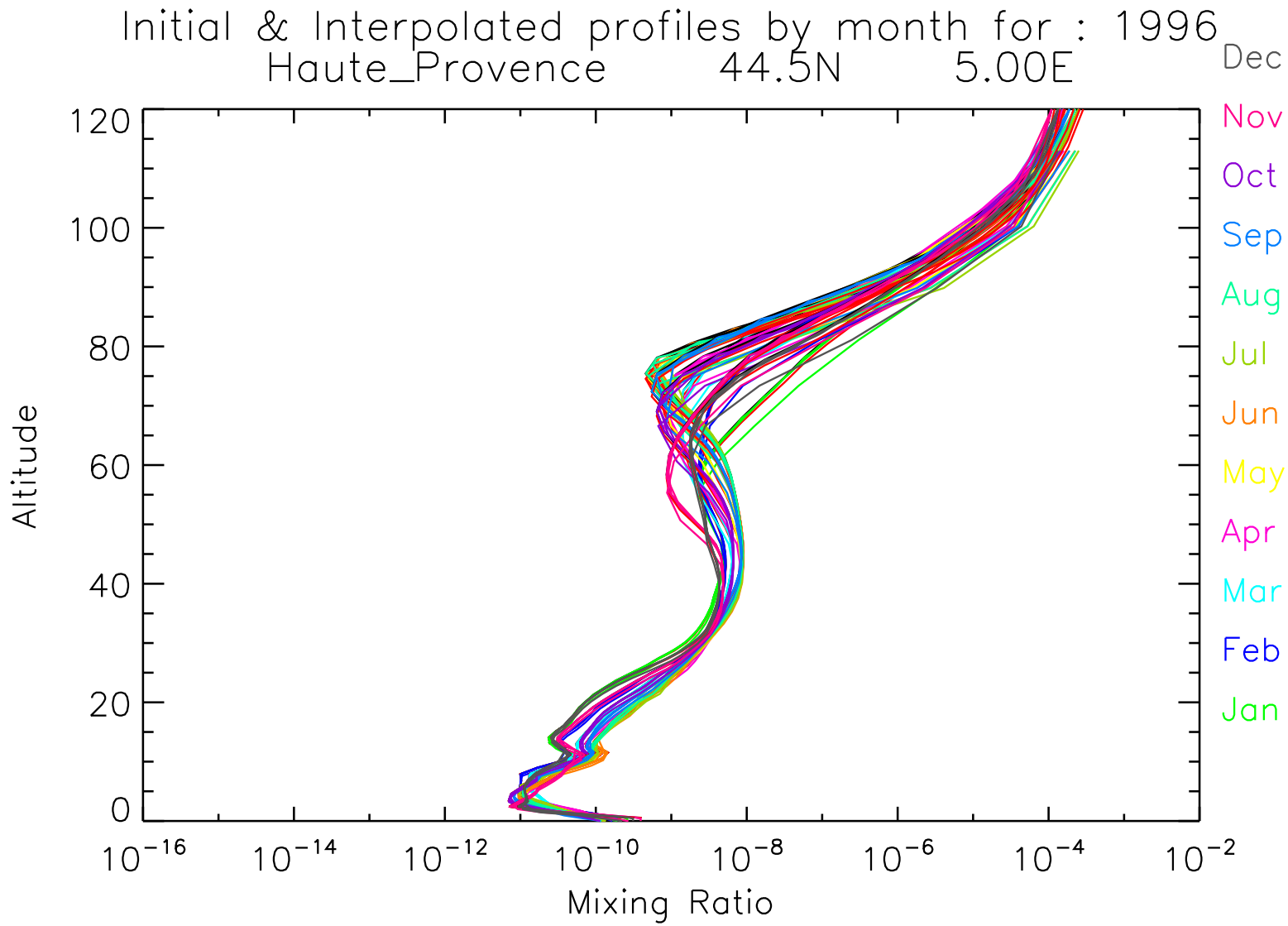
10^{-2}
Mixing Ratio


Initial & Interpolated profiles by month for : 1996
Haute_Provence 44.5N 5.00E
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Altitude
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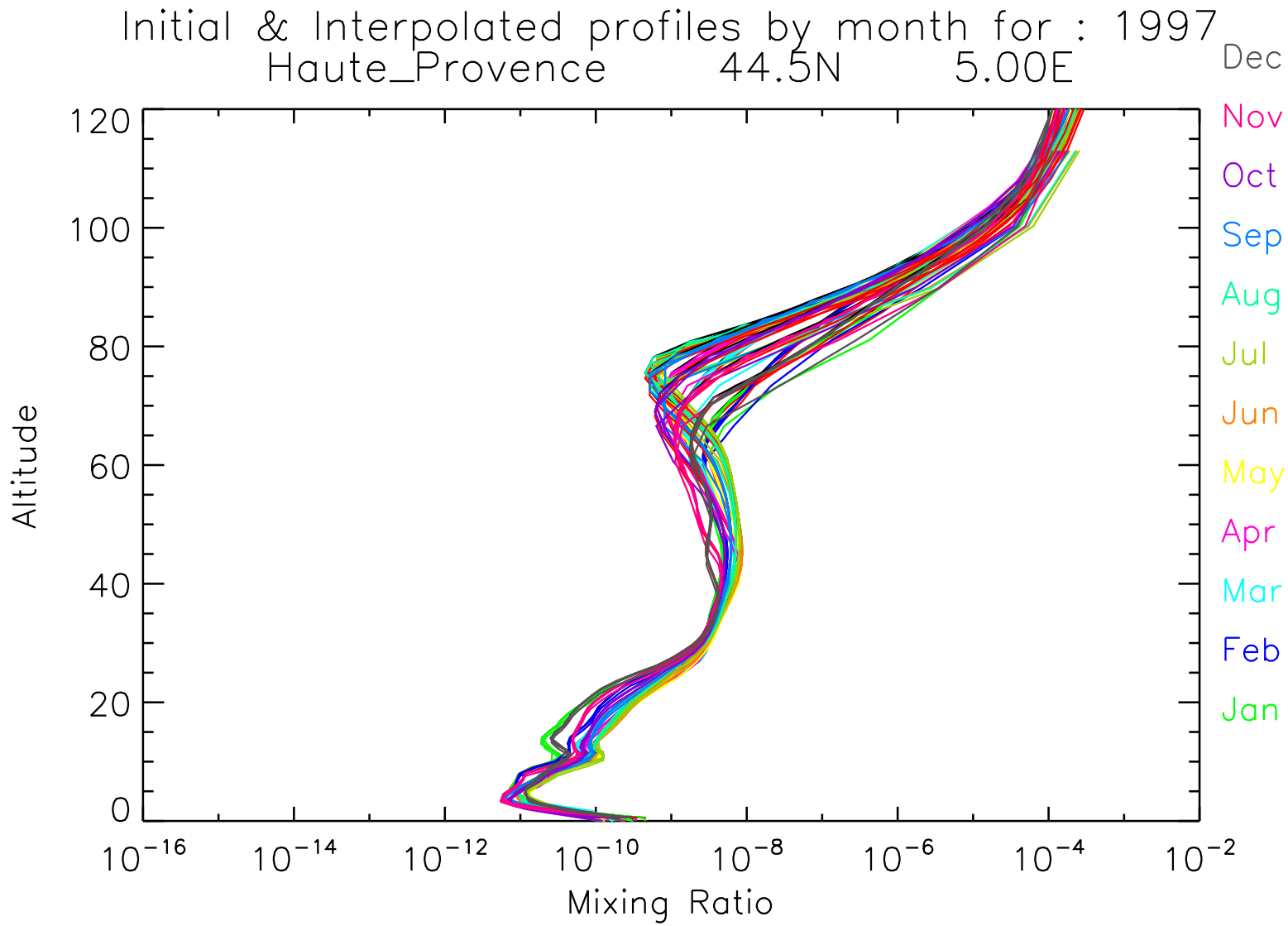
10^{-4}
10^{-2}
Mixing Ratio


Initial & Interpolated profiles by month for : 1997
Haute_Provence 44.5N 5.00E
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Altitude
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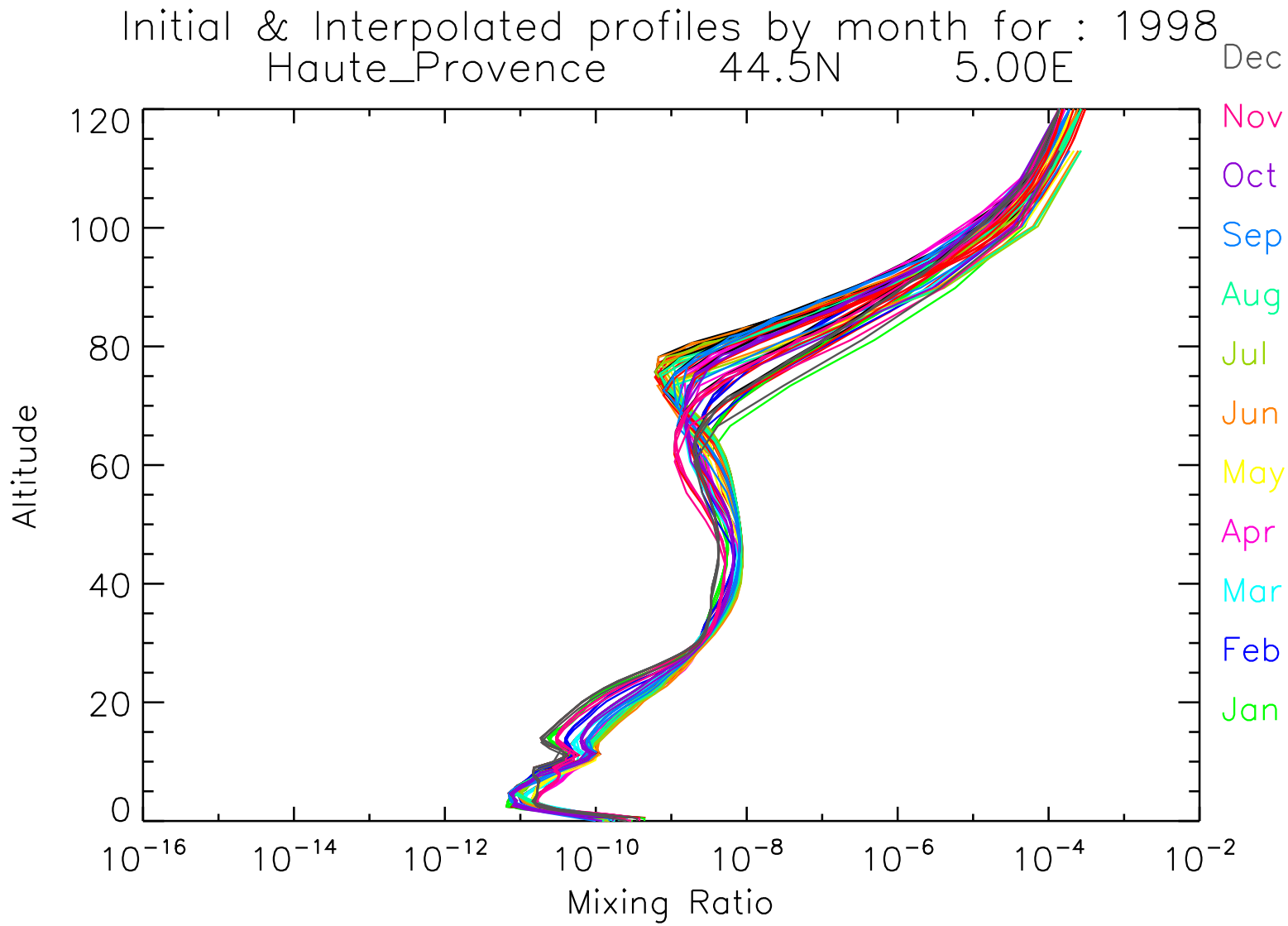
10^{-2}
Mixing Ratio


Initial & Interpolated profiles by month for : 1998
Haute_Provence 44.5N 5.00E
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Altitude
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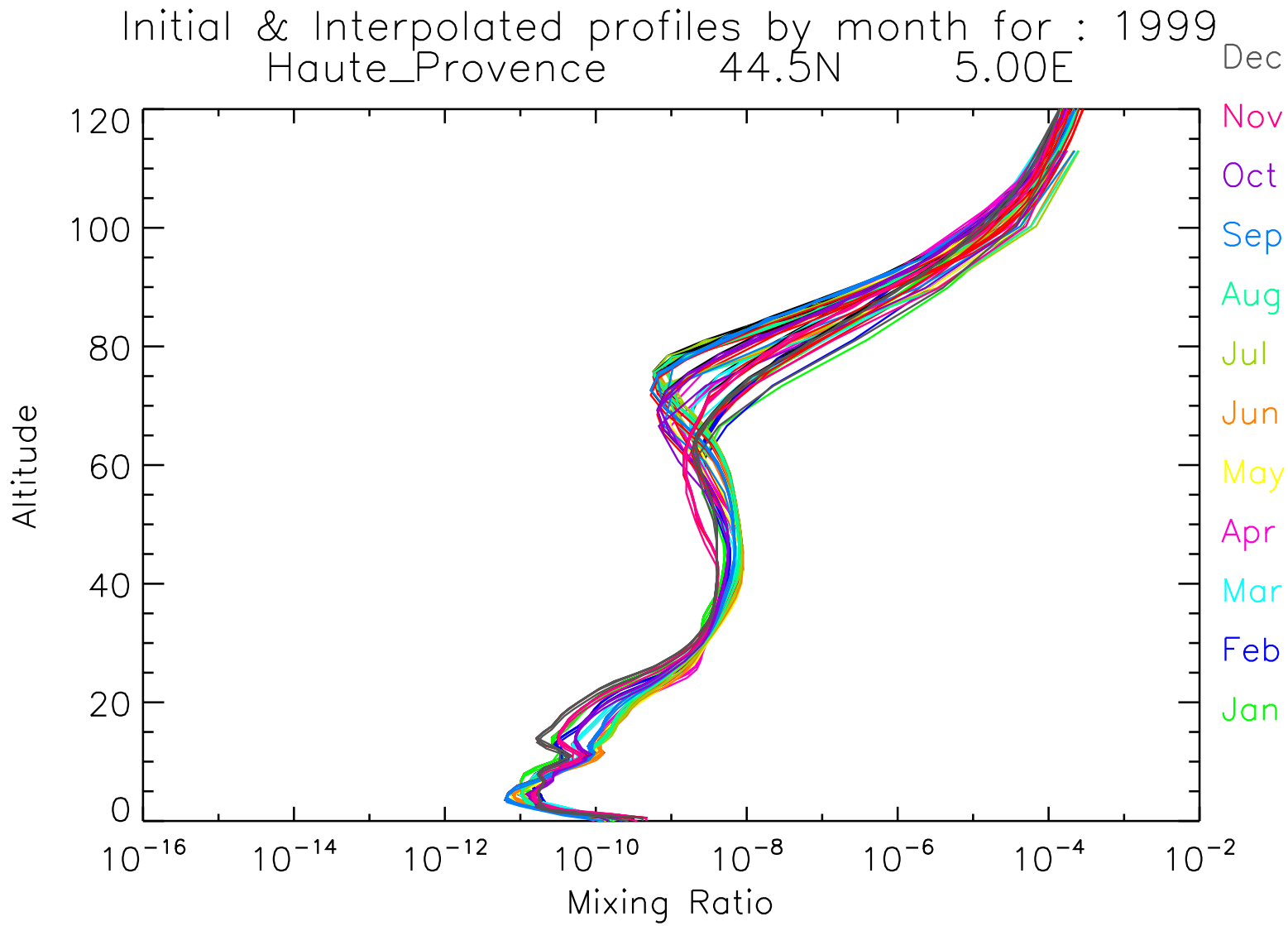
Mixing Ratio


Initial & Interpolated profiles by month for : 1999
Haute_Provence 44.5N 5.00E
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Altitude
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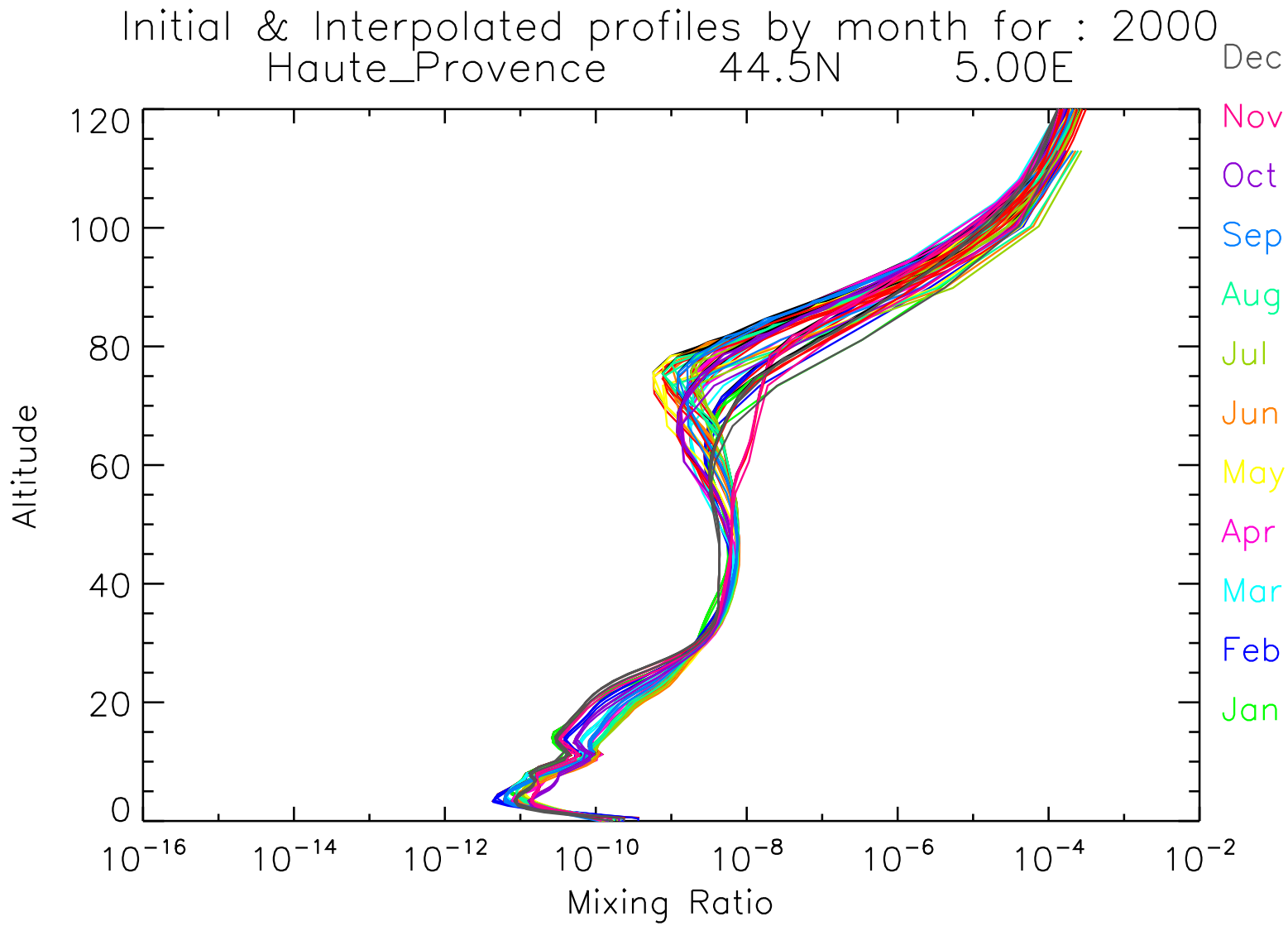
Mixing Ratio


Initial & Interpolated profiles by month for : 2000
Haute_Provence 44.5N 5.00E
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Altitude
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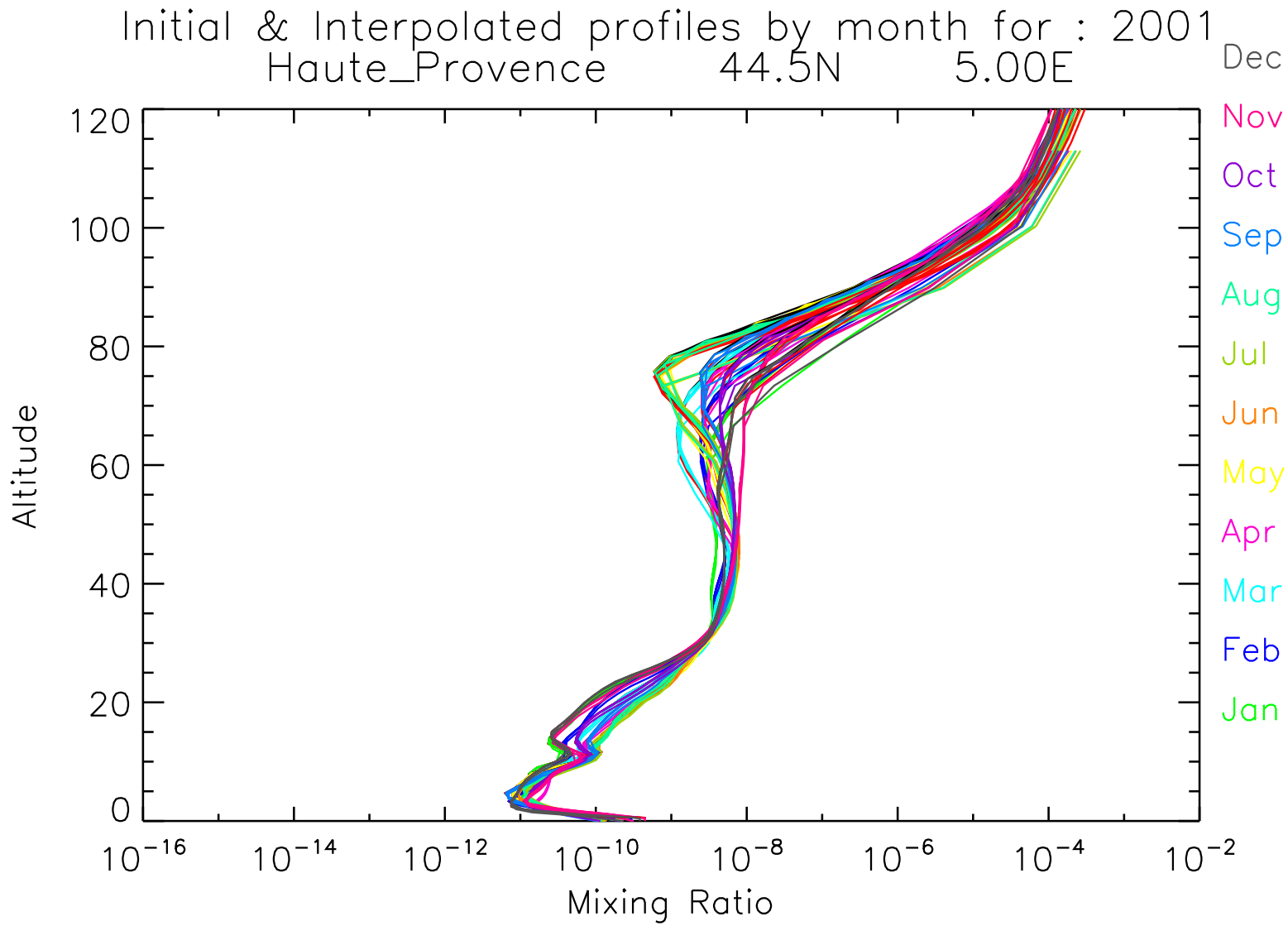
10^{-2}
Mixing Ratio


Initial & Interpolated profiles by month for : 2001
Haute_Provence 44.5N 5.00E
Dec
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Altitude
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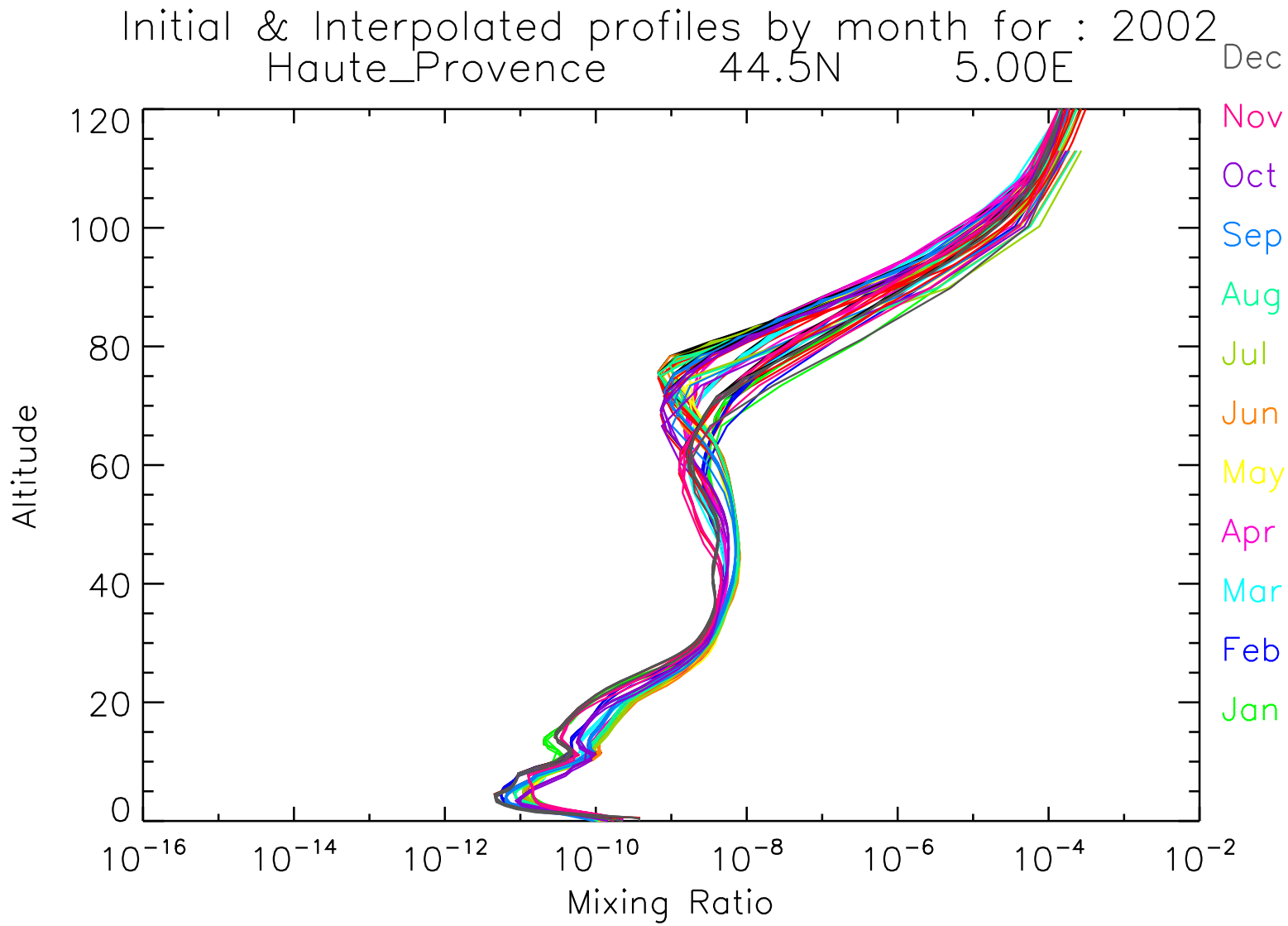
10^{-2}
Mixing Ratio


Initial & Interpolated profiles by month for : 2002
Haute_Provence 44.5N 5.00E
Dec
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Altitude
120
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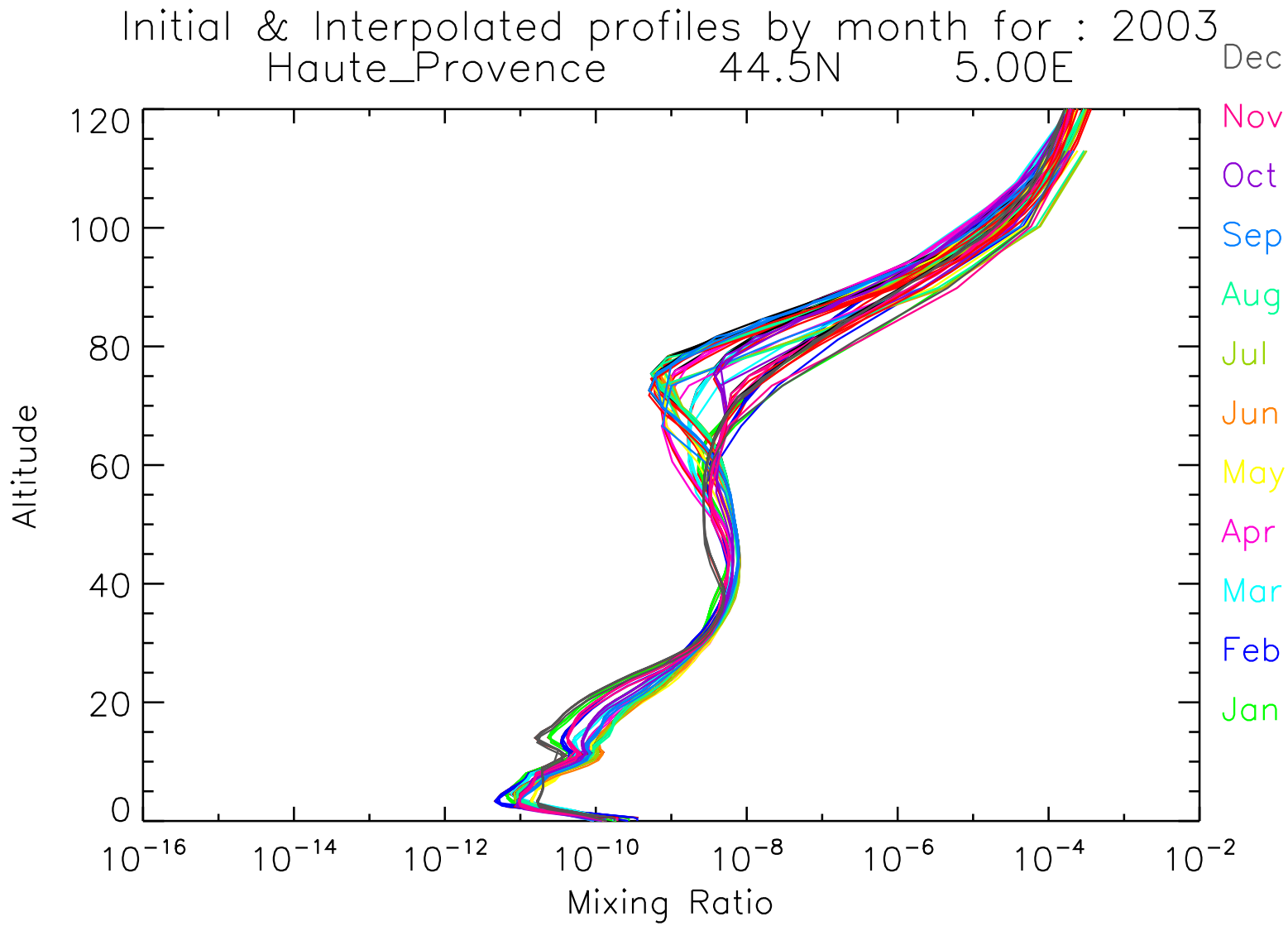
10^{-4}
10^{-2}
Mixing Ratio


Initial & Interpolated profiles by month for : 2003
Haute_Provence 44.5N 5.00E
Dec
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Altitude
120
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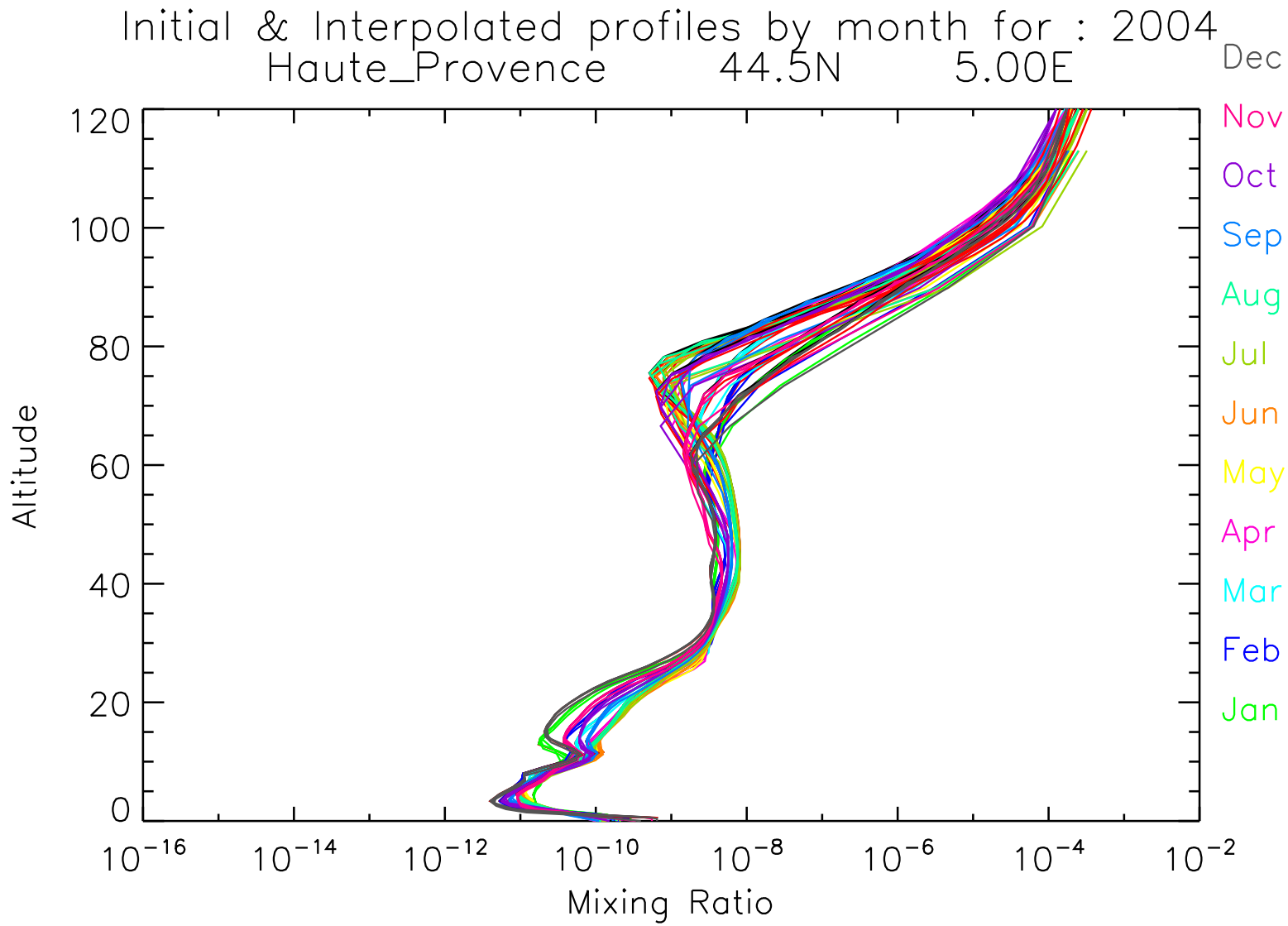
10^{-4}
10^{-2}
Mixing Ratio


Initial & Interpolated profiles by month for : 2004
Haute_Provence 44.5N 5.00E
Dec
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Altitude
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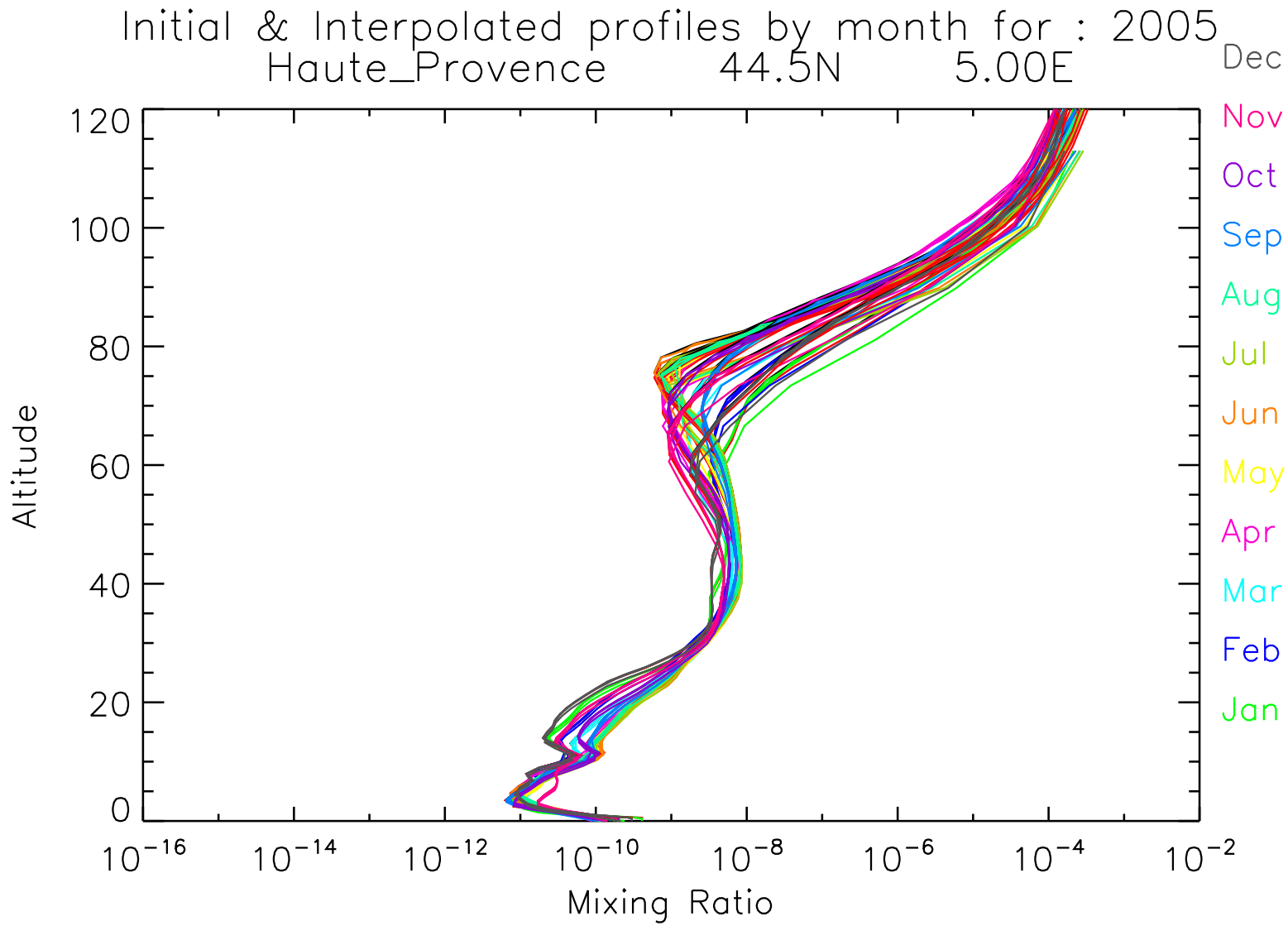
10^{-2}
Mixing Ratio


Initial & Interpolated profiles by month for : 2005
Haute_Provence 44.5N 5.00E
Dec
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Altitude
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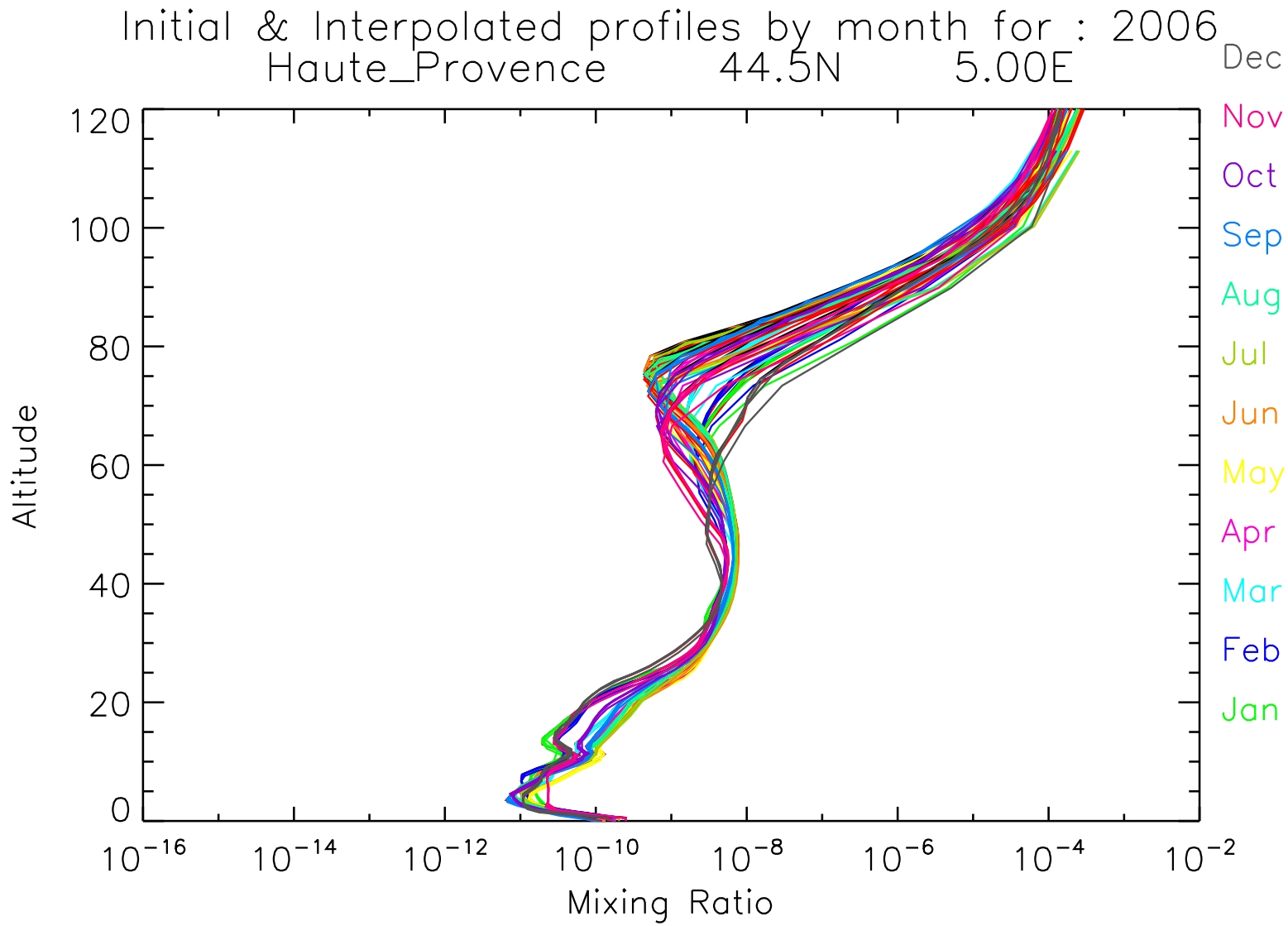
10^{-2}
Mixing Ratio


Initial & Interpolated profiles by month for : 2006
Haute_Provence 44.5N 5.00E
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Altitude
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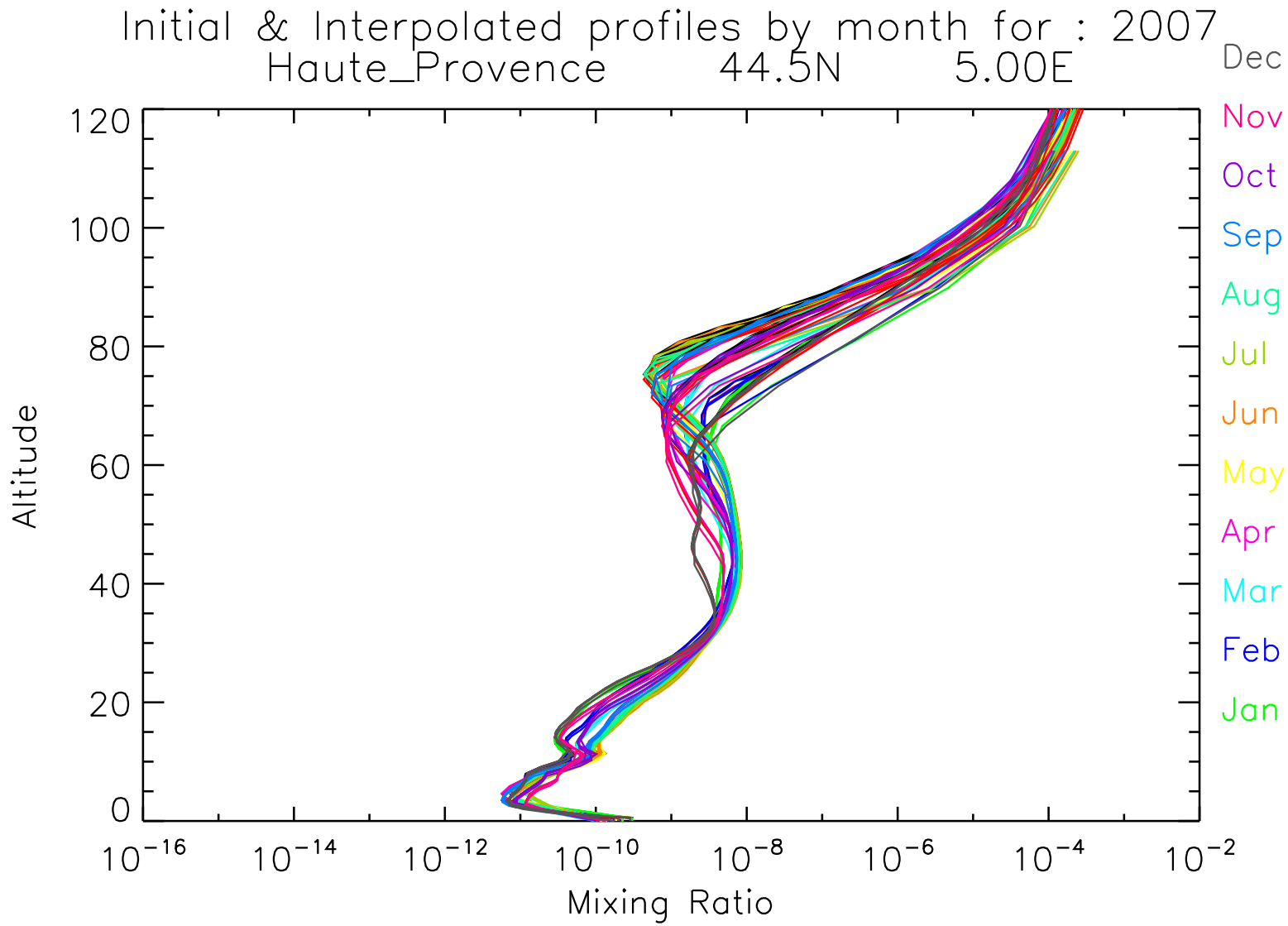
10^{-2}
Mixing Ratio


Initial & Interpolated profiles by month for : 2007
Haute_Provence 44.5N 5.00E
Dec
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Altitude
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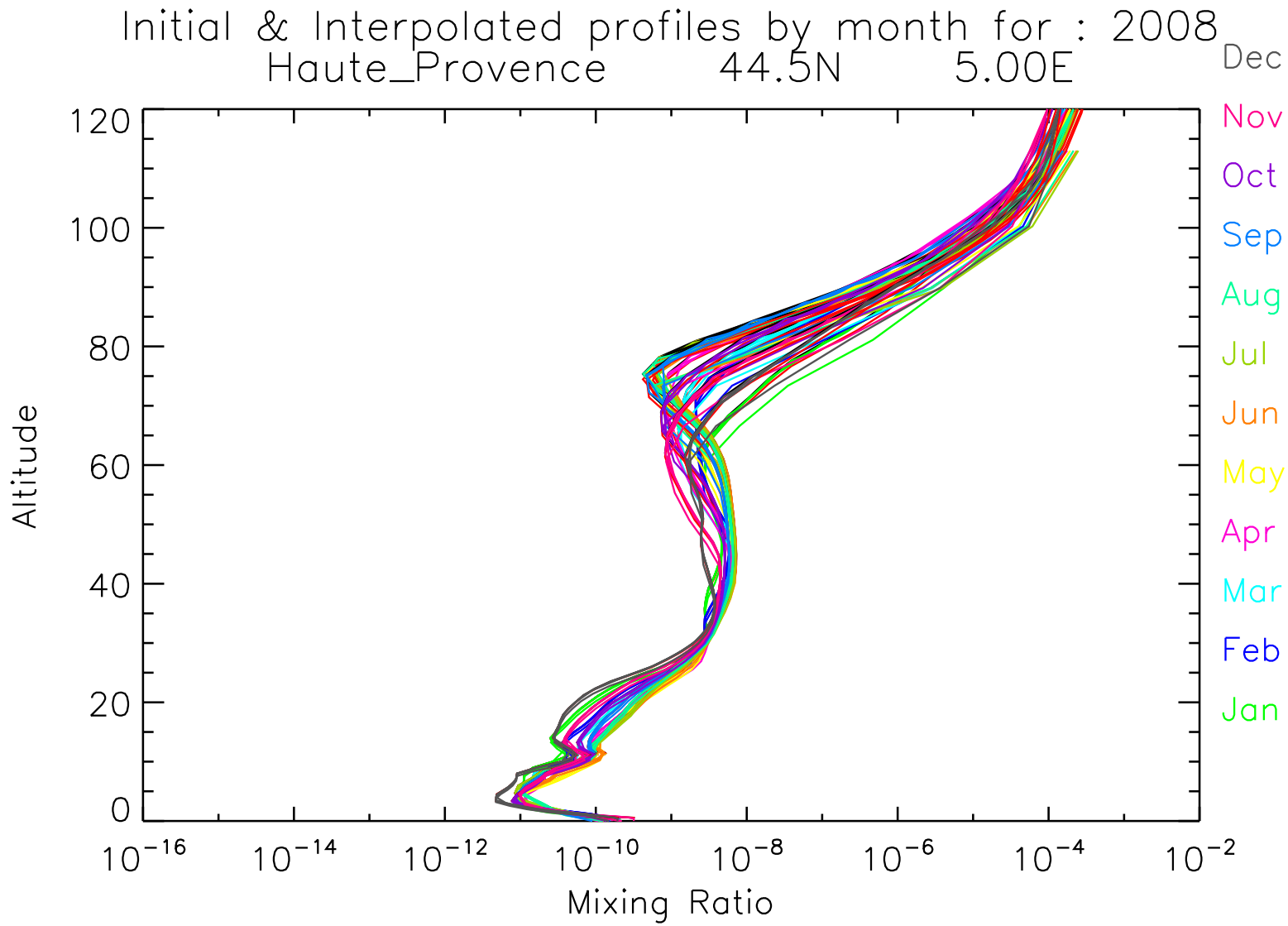
10^{-2}
Mixing Ratio


Initial & Interpolated profiles by month for : 2008
Haute_Provence 44.5N 5.00E
Dec
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Feb
Jan
Altitude
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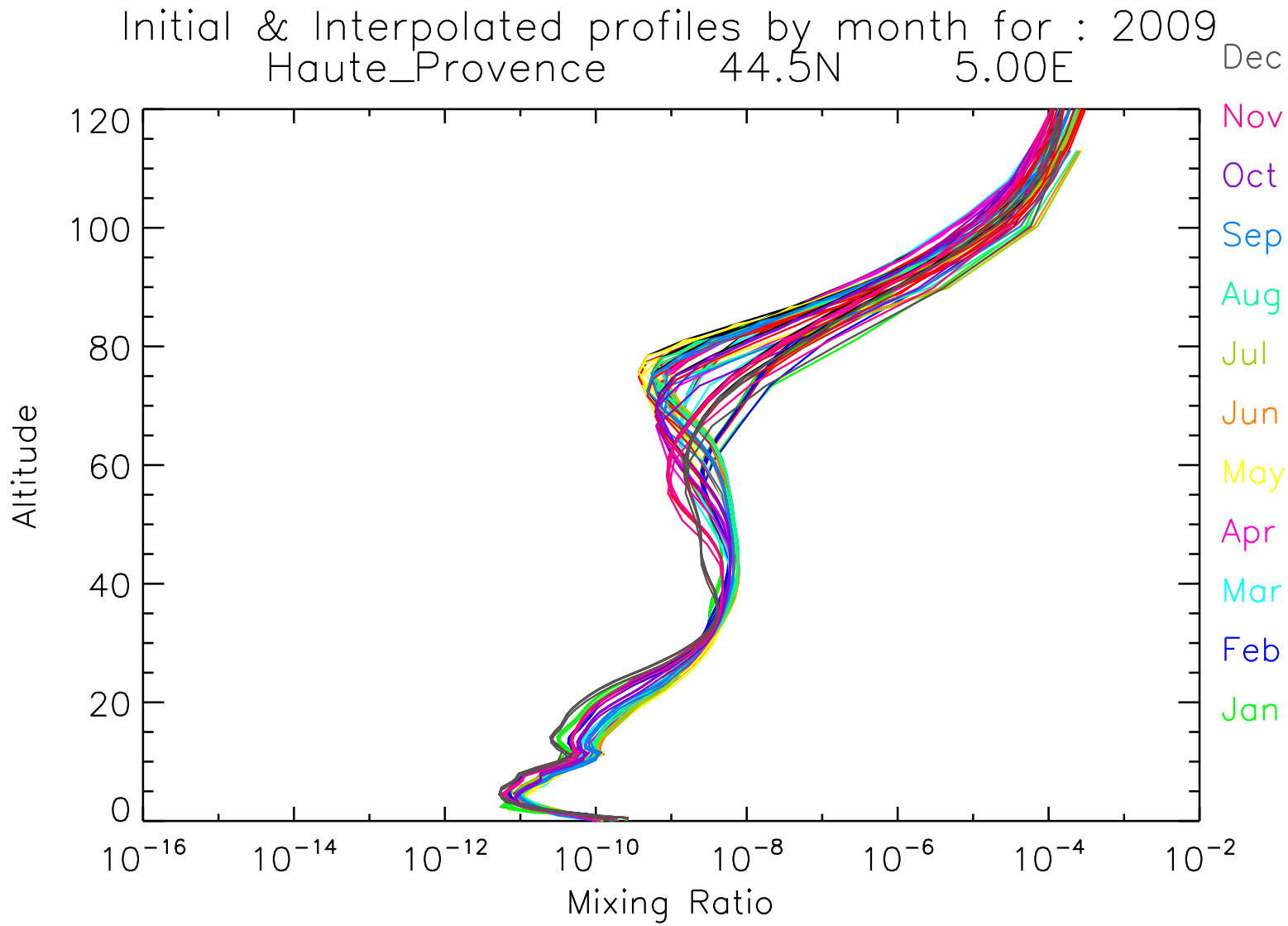
10^{-2}
Mixing Ratio


Initial & Interpolated profiles by month for : 2009
Haute_Provence 44.5N 5.00E
Dec
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Feb
Jan
Altitude
120
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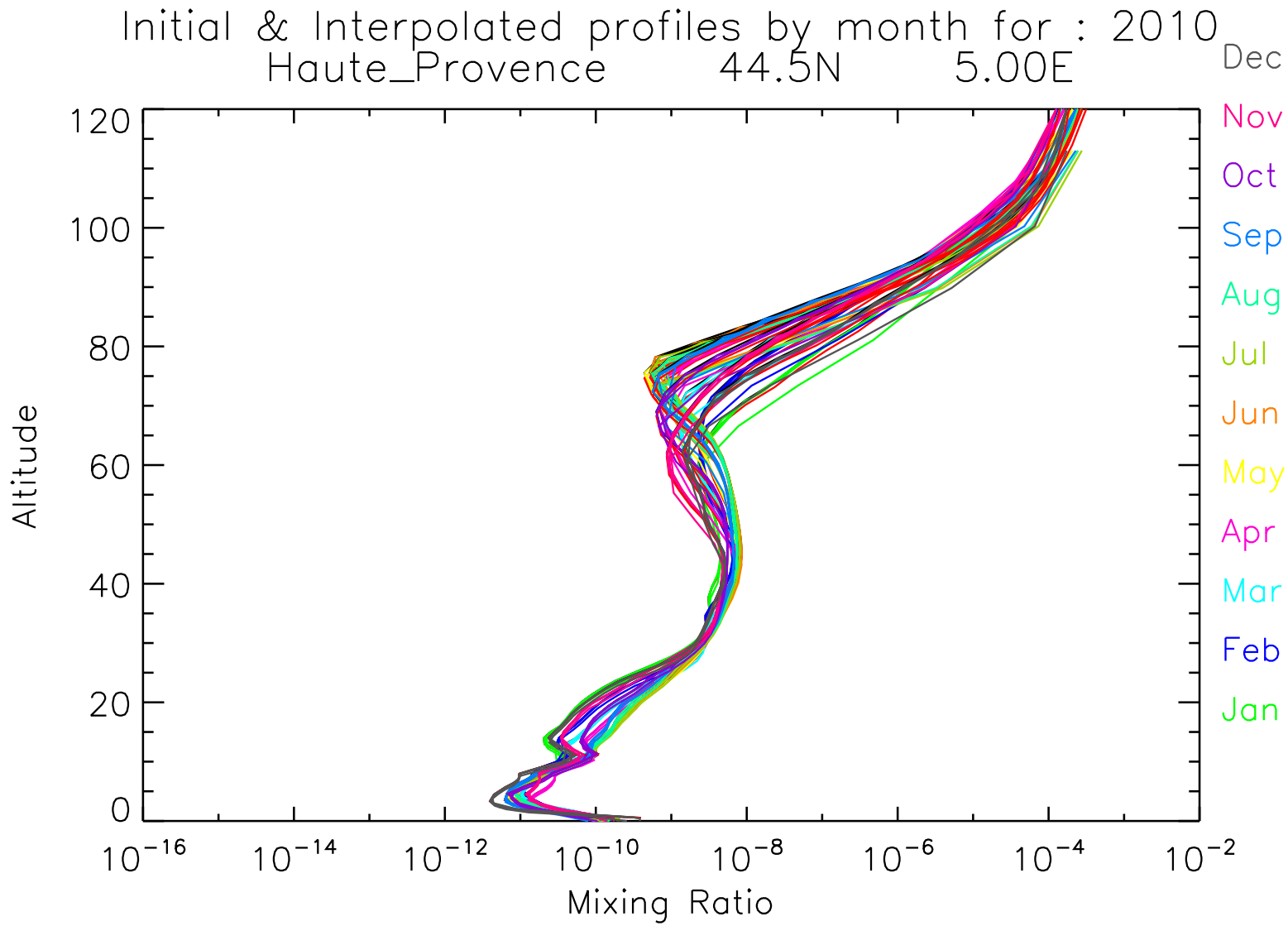
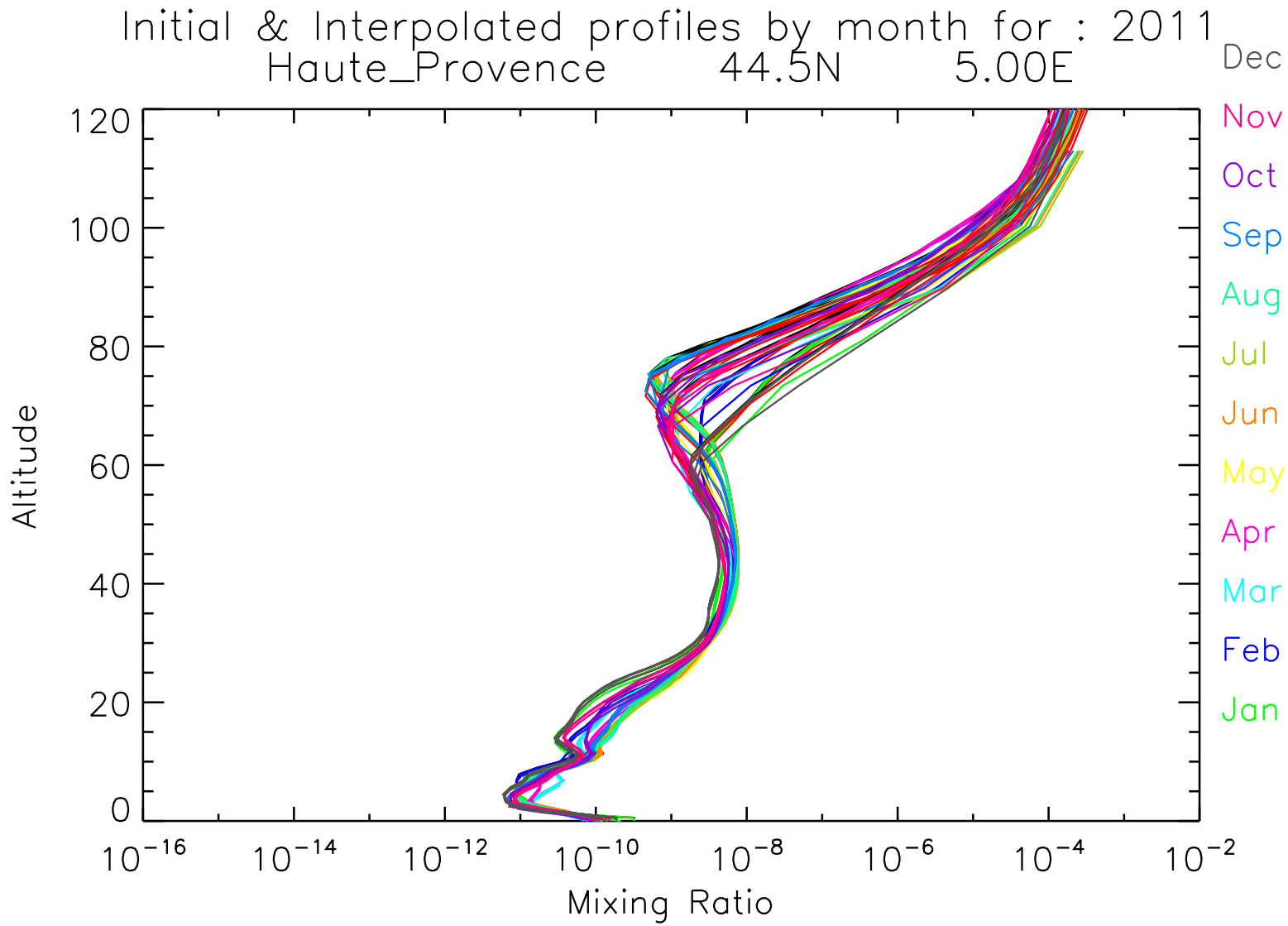
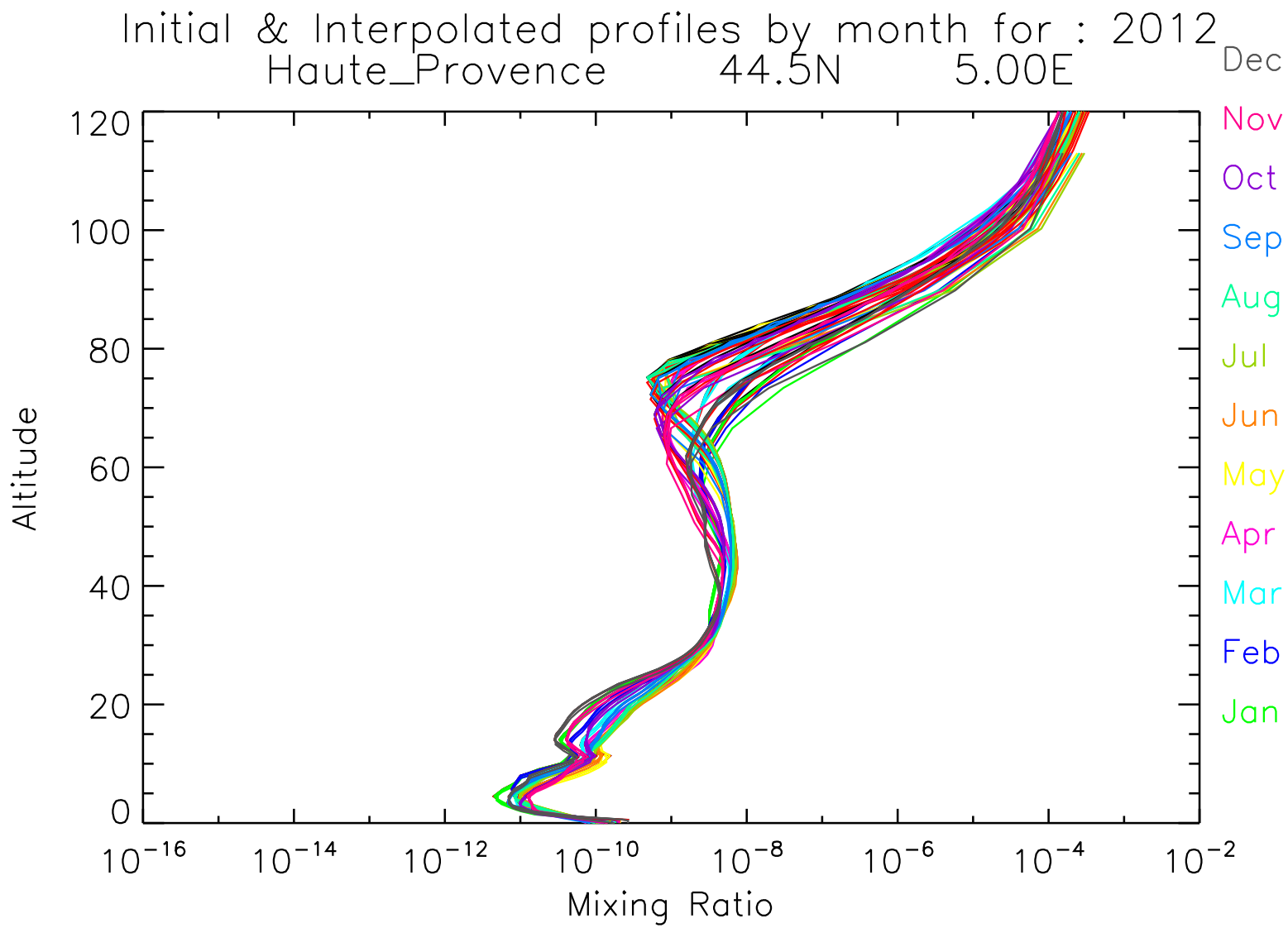
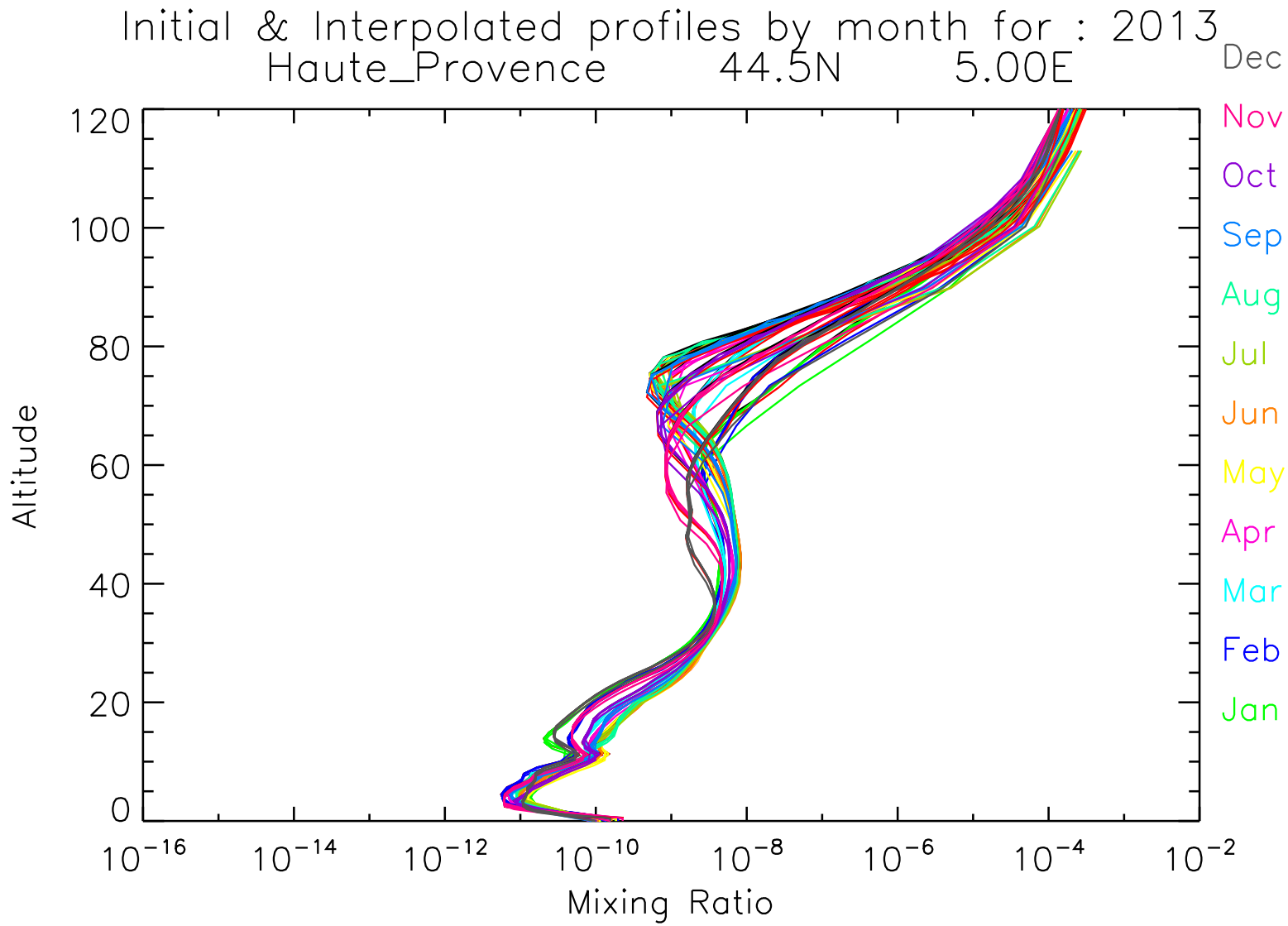
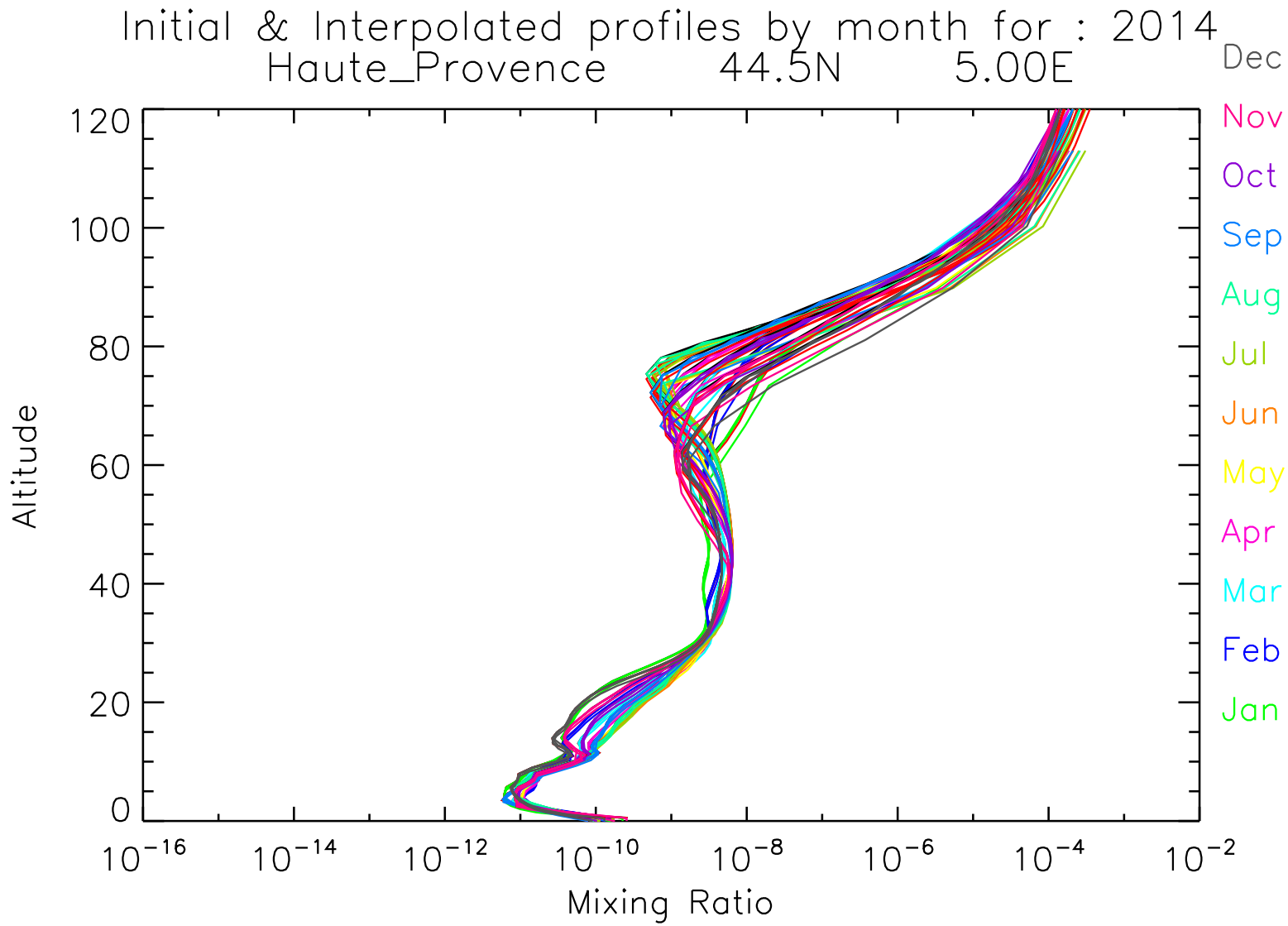
80
60
40
20
0
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
10^{-6}
10^{-4}
10^{-2}
Mixing Ratio

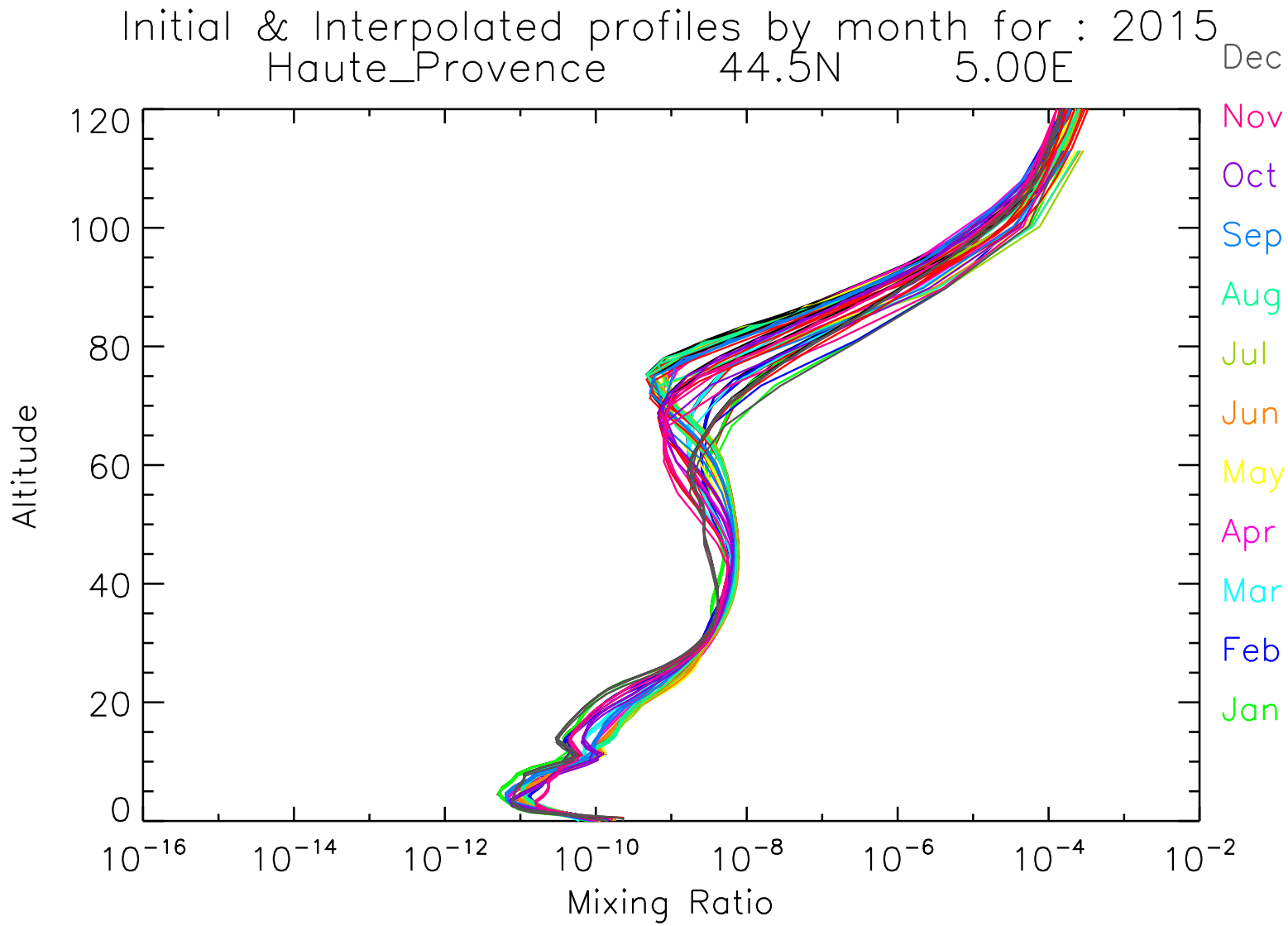

Initial & Interpolated profiles by month for : 2010
Haute_Provence 44.5N 5.00E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
10^{-6}
10^{-4}
10^{-2}
Mixing Ratio

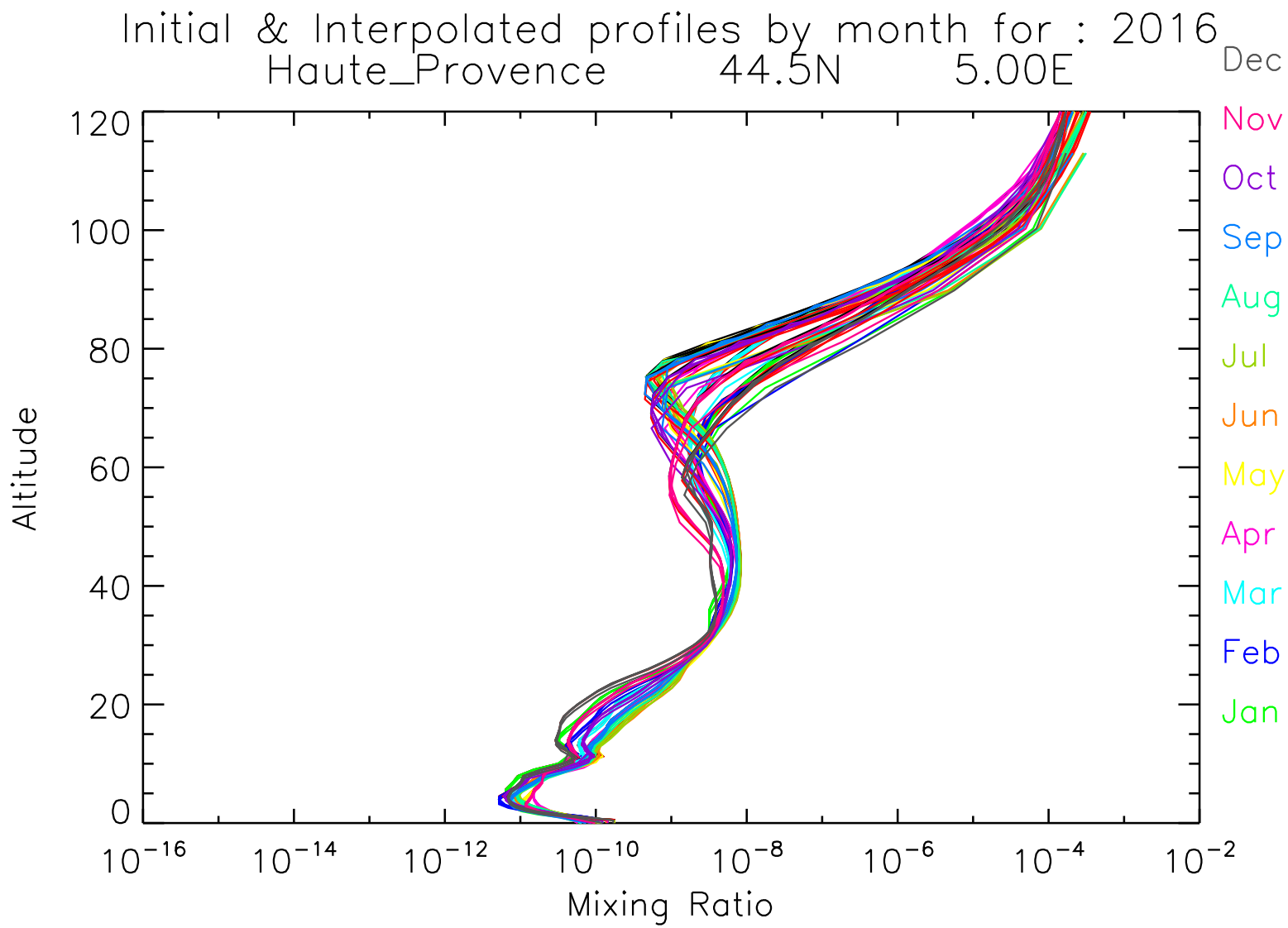

Initial & Interpolated profiles by month for : 2011
Haute_Provence 44.5N 5.00E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
10^{-6}
10^{-4}
10^{-2}
Mixing Ratio

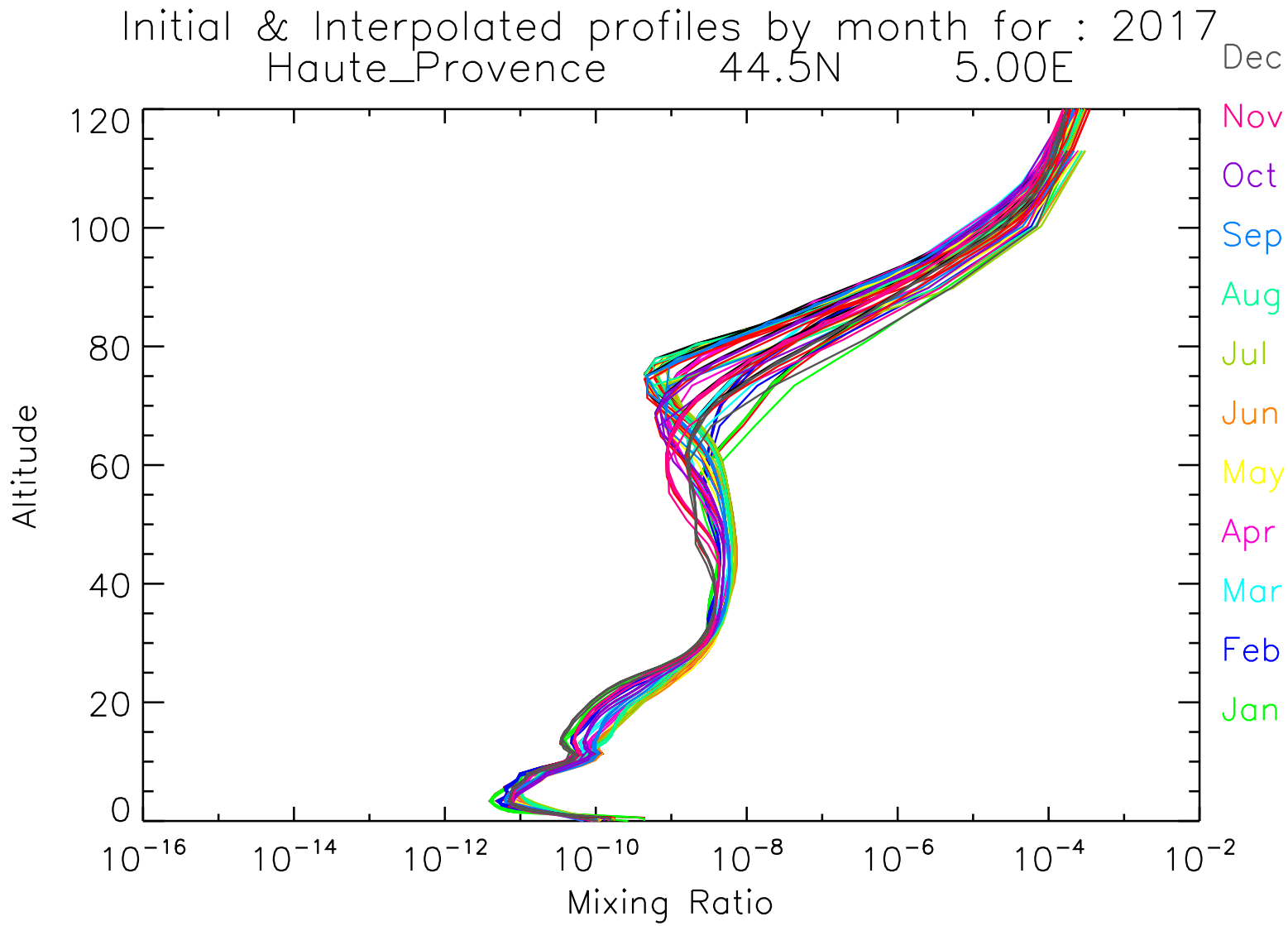

Initial & Interpolated profiles by month for : 2012
Haute_Provence 44.5N 5.00E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
10^{-6}
10^{-4}
10^{-2}
Mixing Ratio

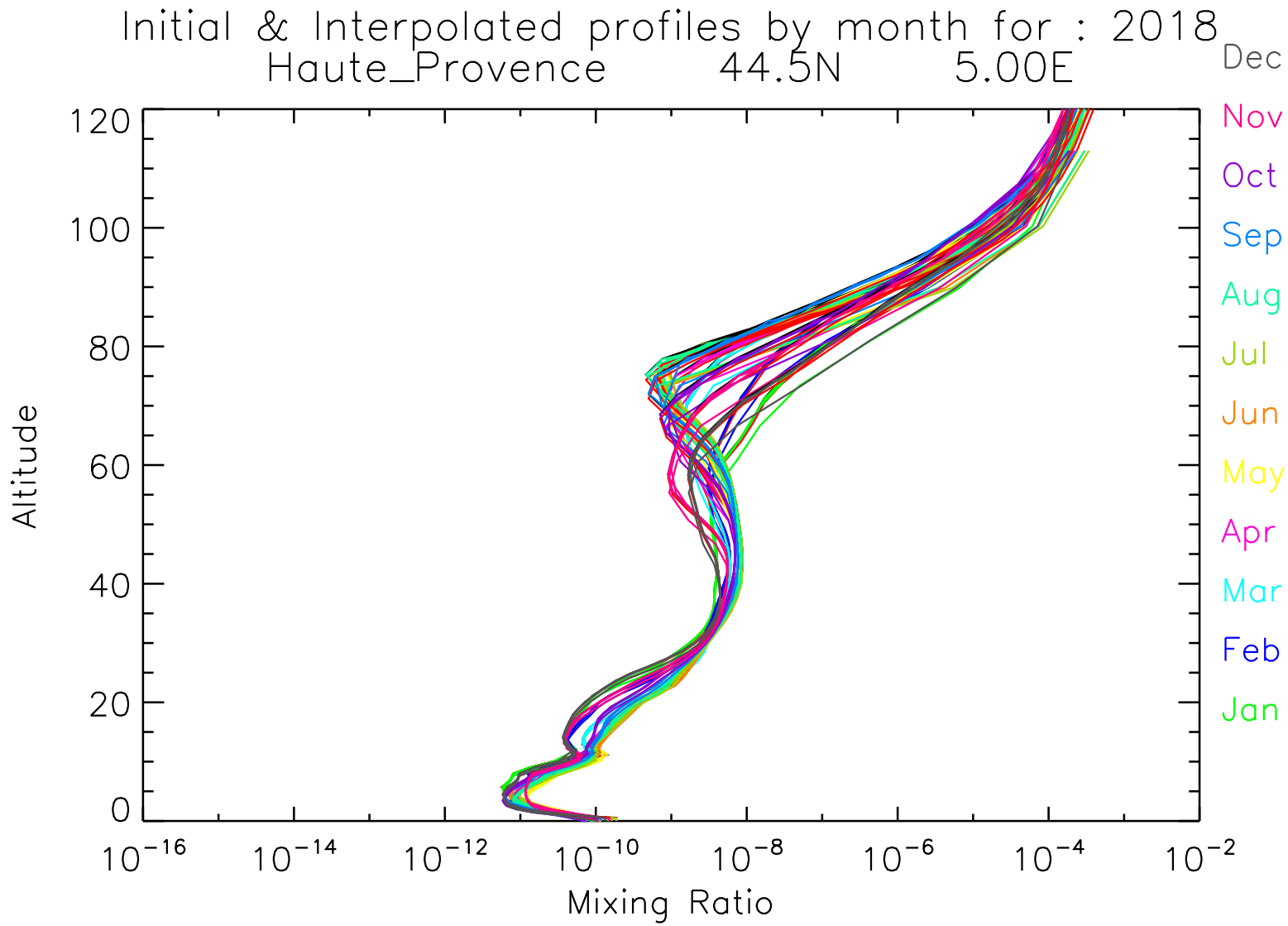

Initial & Interpolated profiles by month for : 2013
Haute_Provence 44.5N 5.00E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
10^{-6}
10^{-4}
10^{-2}
Mixing Ratio

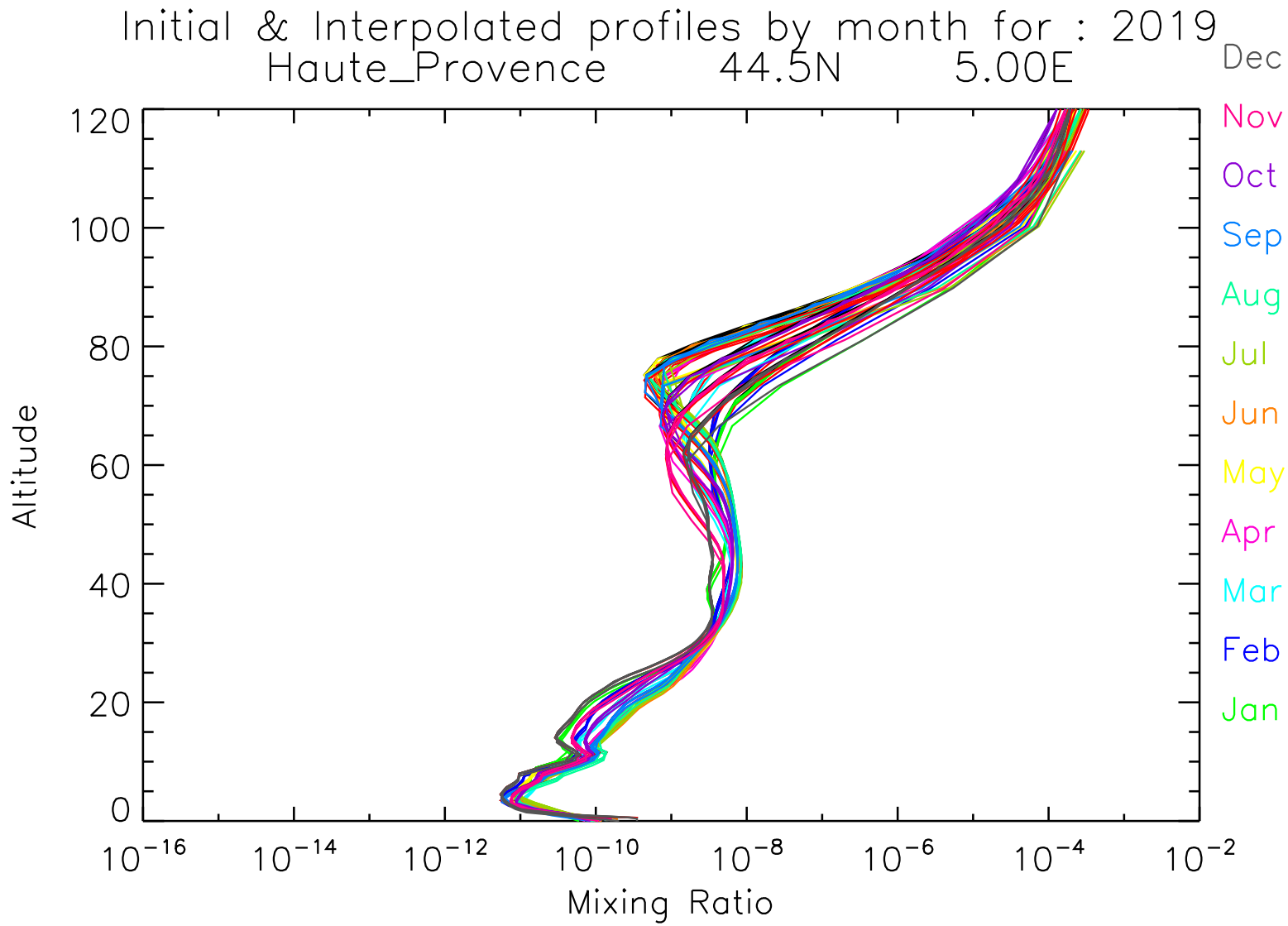

Initial & Interpolated profiles by month for : 2014
Haute_Provence 44.5N 5.00E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
10^{-6}
10^{-4}
10^{-2}
Mixing Ratio

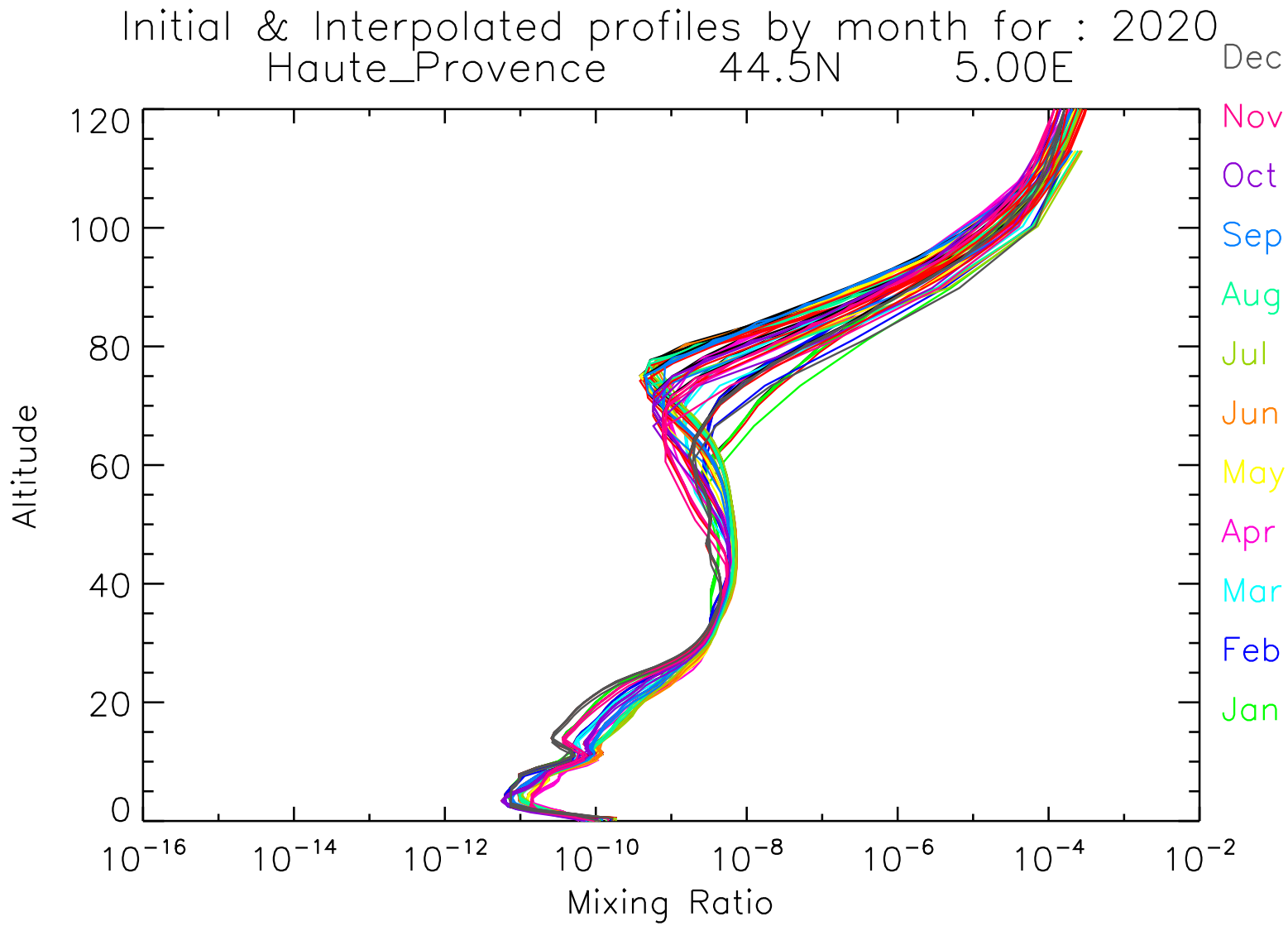

Initial & Interpolated profiles by month for : 2015
Haute_Provence 44.5N 5.00E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
10^{-6}
10^{-4}
10^{-2}
Mixing Ratio

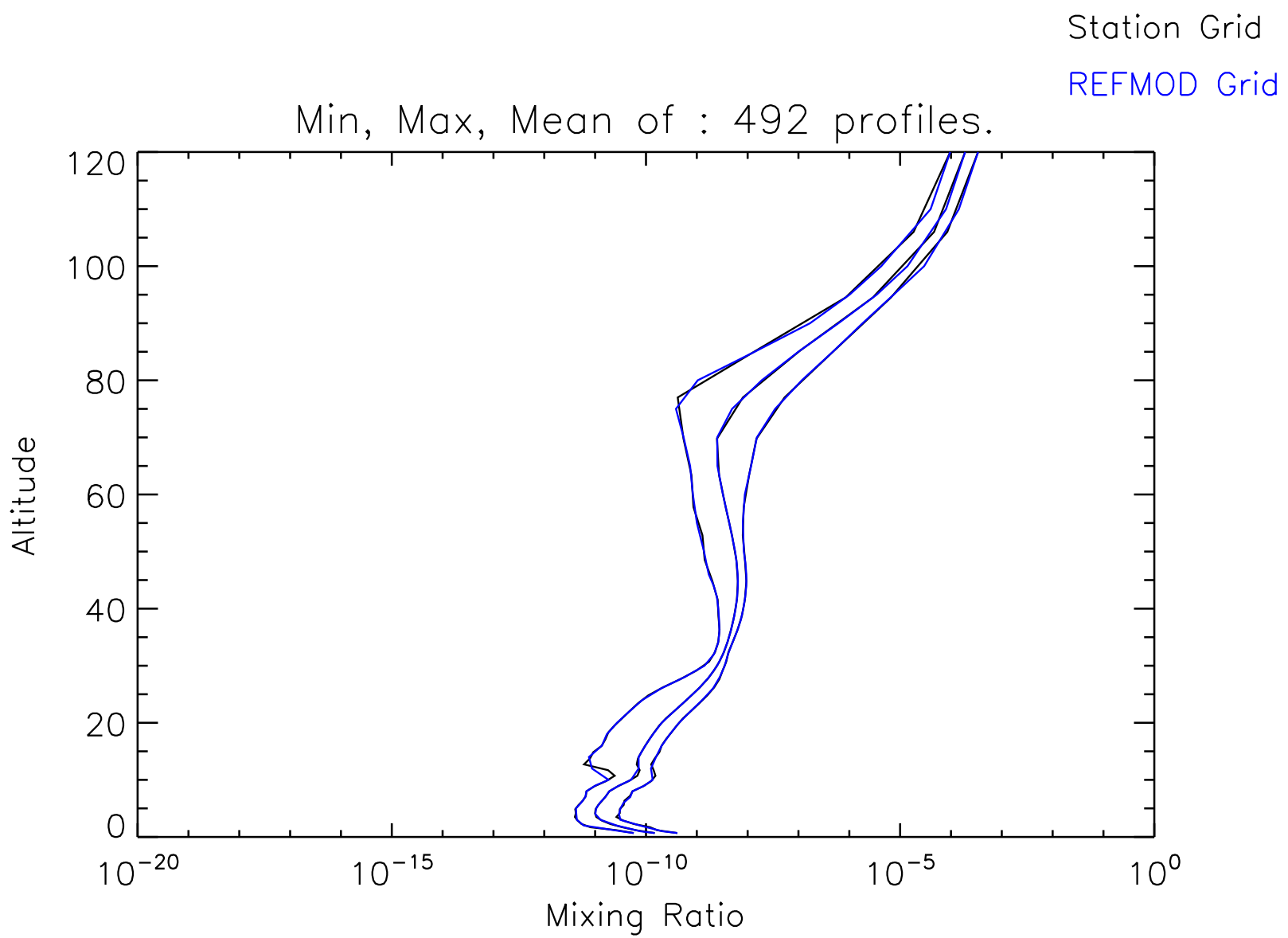

Initial & Interpolated profiles by month for : 2016
Haute_Provence 44.5N 5.00E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
10^{-6}
10^{-4}
10^{-2}
Mixing Ratio

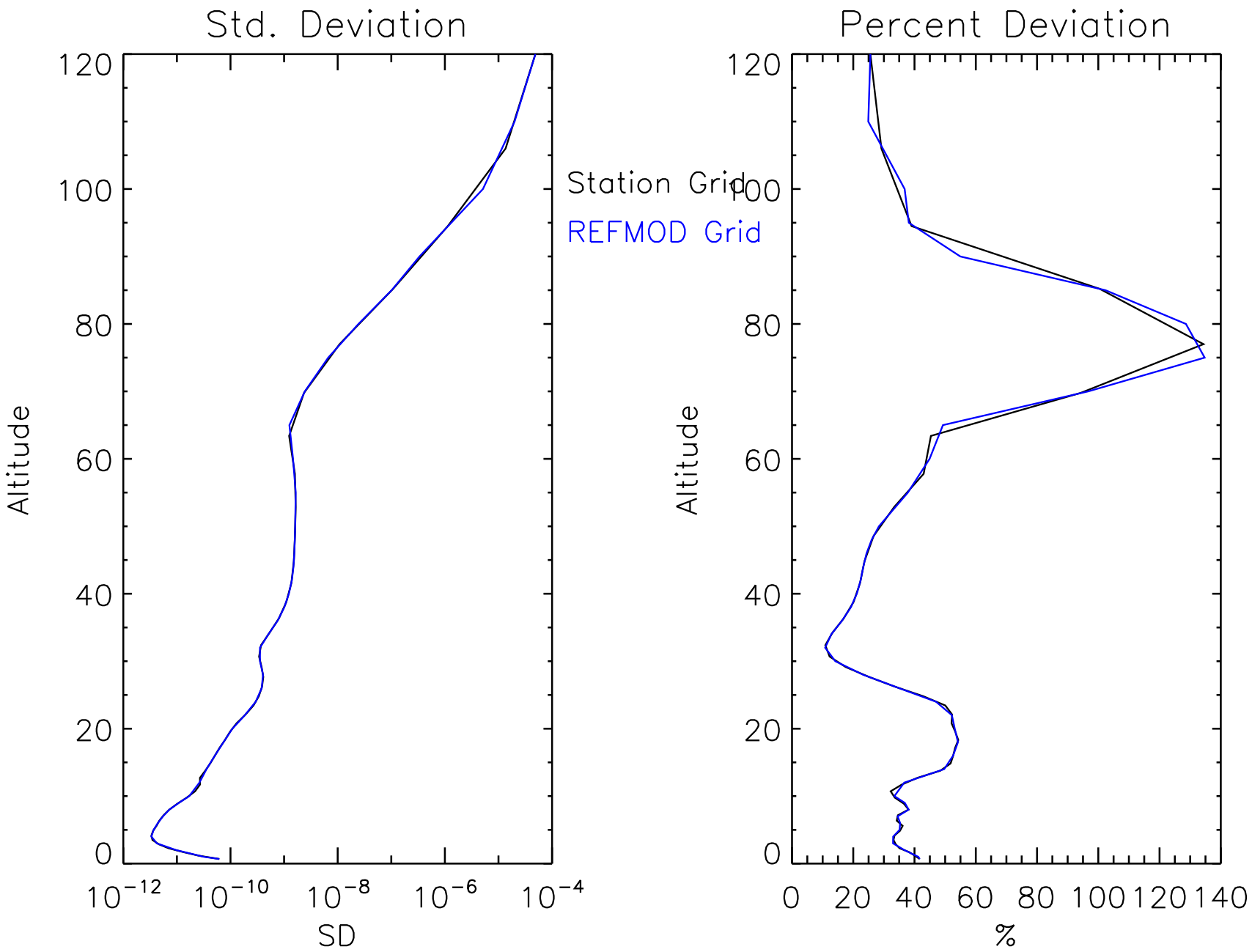

Initial & Interpolated profiles by month for : 2017
Haute_Provence 44.5N 5.00E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
10^{-6}
10^{-4}
10^{-2}
Mixing Ratio

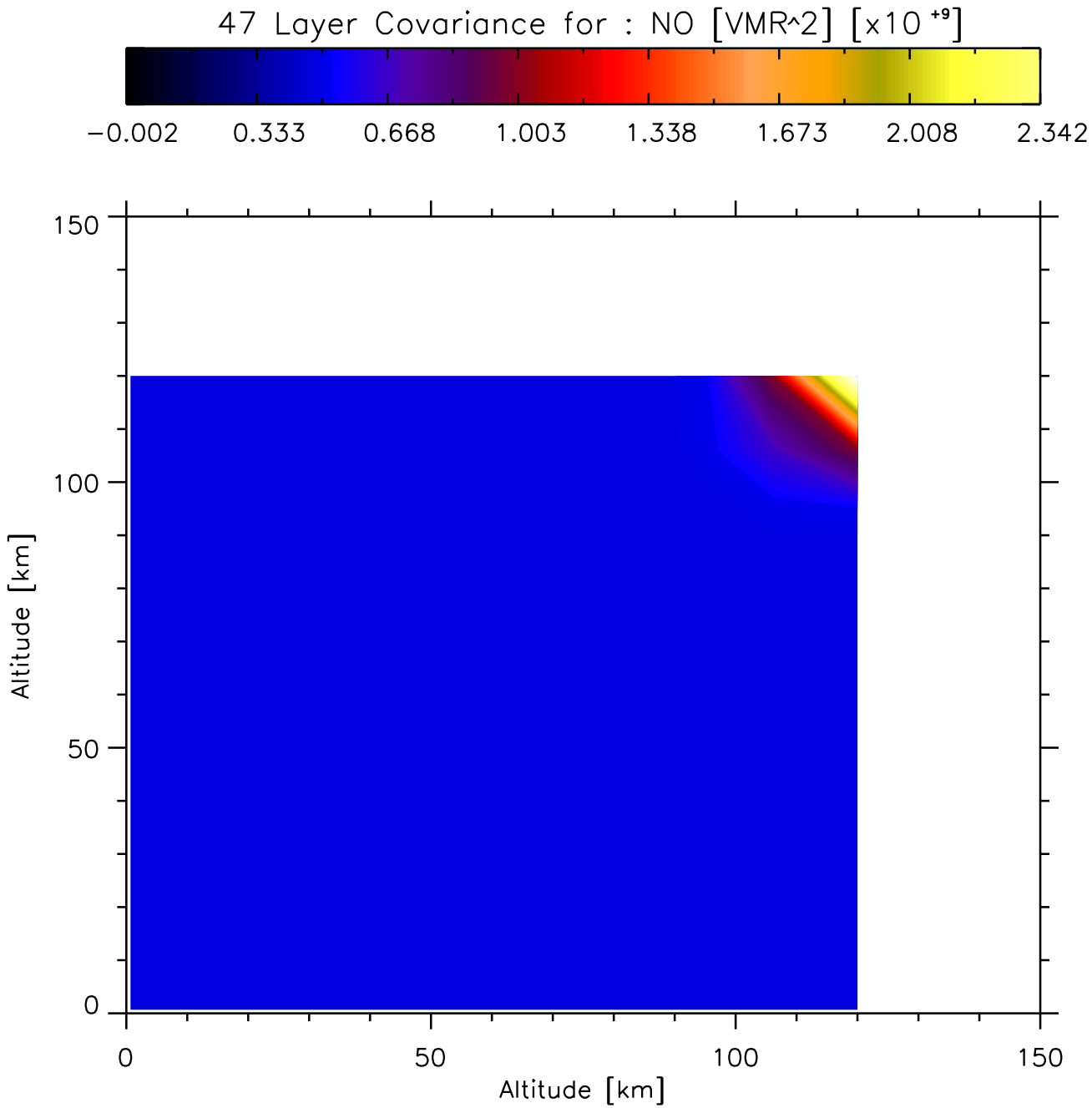

Initial & Interpolated profiles by month for : 2018
Haute_Provence 44.5N 5.00E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
10^{-6}
10^{-4}
10^{-2}
Mixing Ratio


Initial & Interpolated profiles by month for : 2019
Haute_Provence 44.5N 5.00E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
10^{-6}
10^{-4}
10^{-2}
Mixing Ratio

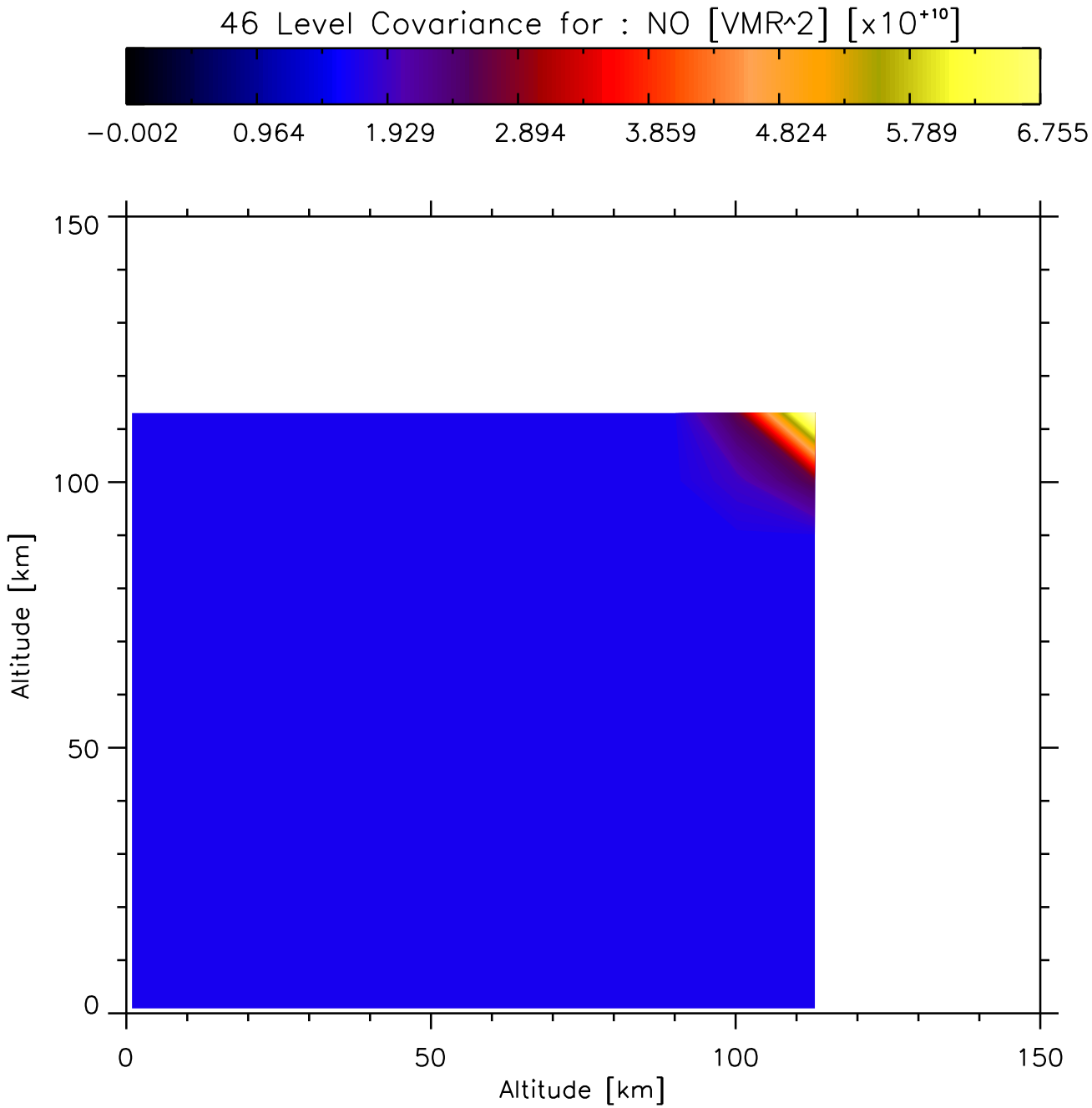

Initial & Interpolated profiles by month for : 2020
Haute_Provence 44.5N 5.00E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
10^{-6}
10^{-4}
10^{-2}
Mixing Ratio

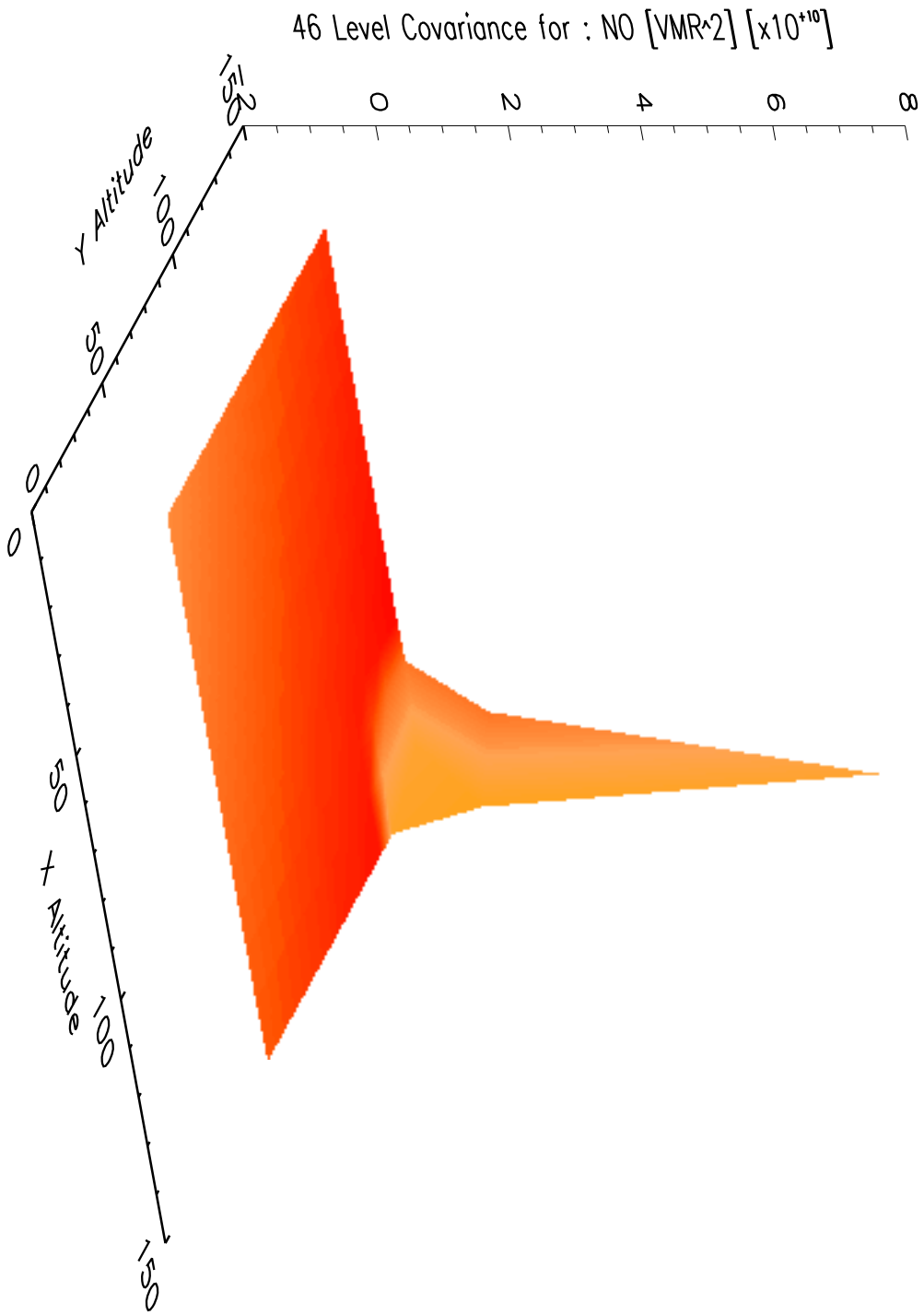

Station Grid
REFMOD Grid
Min, Max, Mean of : 492 profiles.
120
100
80
60
40
20
0
Altitude
10^{-20}
10^{-15}
10^{-10}
10^{-5}
10^{0}
Mixing Ratio


Std. Deviation
Percent Deviation
Station Grid
REFMOD Grid
Altitude
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-10}
10^{-8}
10^{-6}
10^{-4}
SD
0
20
40
60
80
100
120
140
%


47 Layer Covariance for : NO [VMR^2] [x10 +9]
−0.002
0.333
0.668
1.003
1.338
1.673
2.008
2.342
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]

47 Layer Covariance for : NO [VMR^2] [x10^-9]
Y Altitude
X Altitude
0
50
100
150
0
50
100
150
-2.5
-2.0
-1.5
-1.0
-0.5
0.0
0.5
1.0


46 Level Covariance for : NO [VMR^2] [x10^+10]
−0.002
0.964
1.929
2.894
3.859
4.824
5.789
6.755
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]


46 Level Covariance for : NO [VMR^2] [x10^+10]
0
2
4
6
8
Y Altitude
0
50
100
150
X Altitude
0
50
100
150