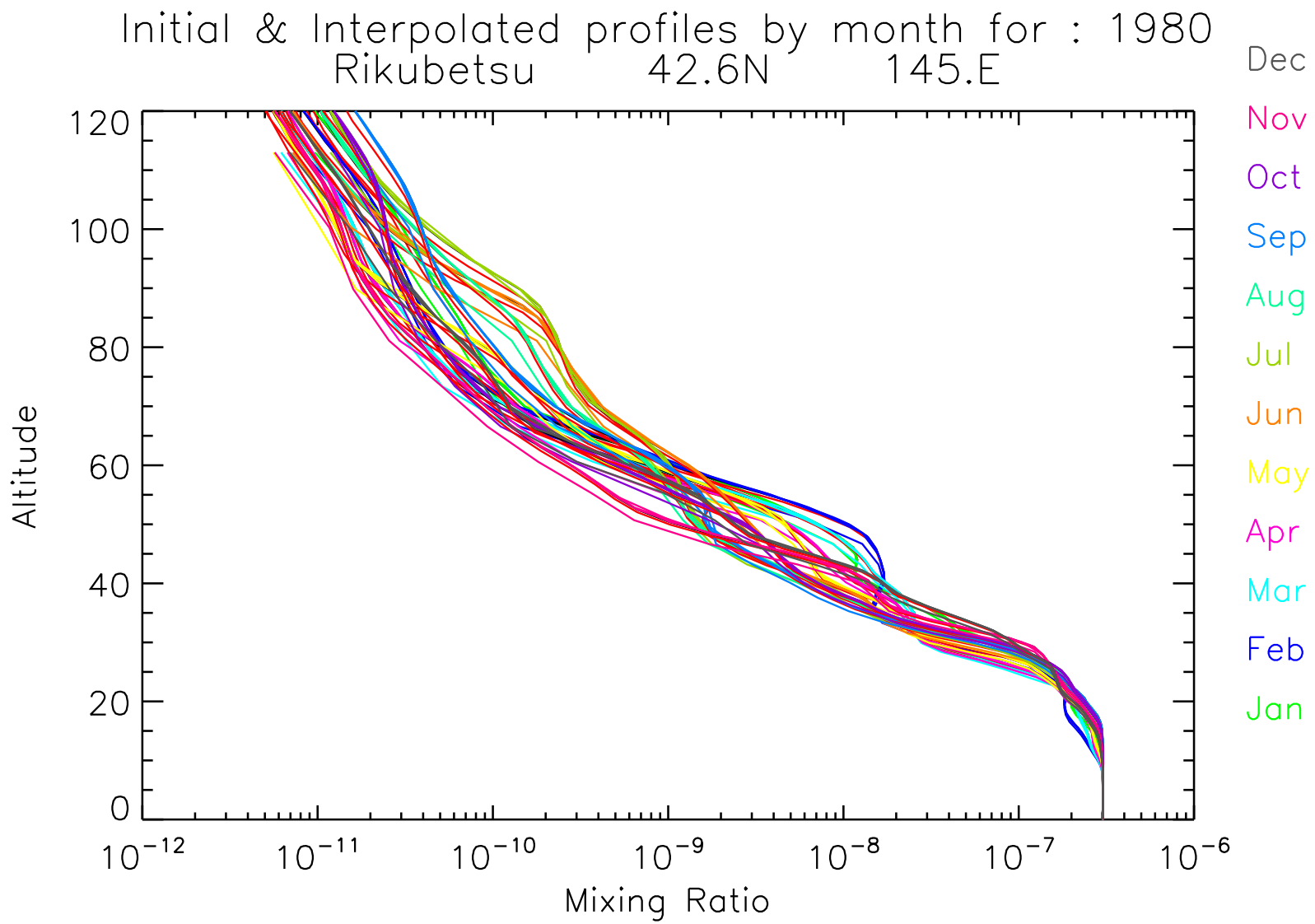
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Altitude
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Mixing Ratio
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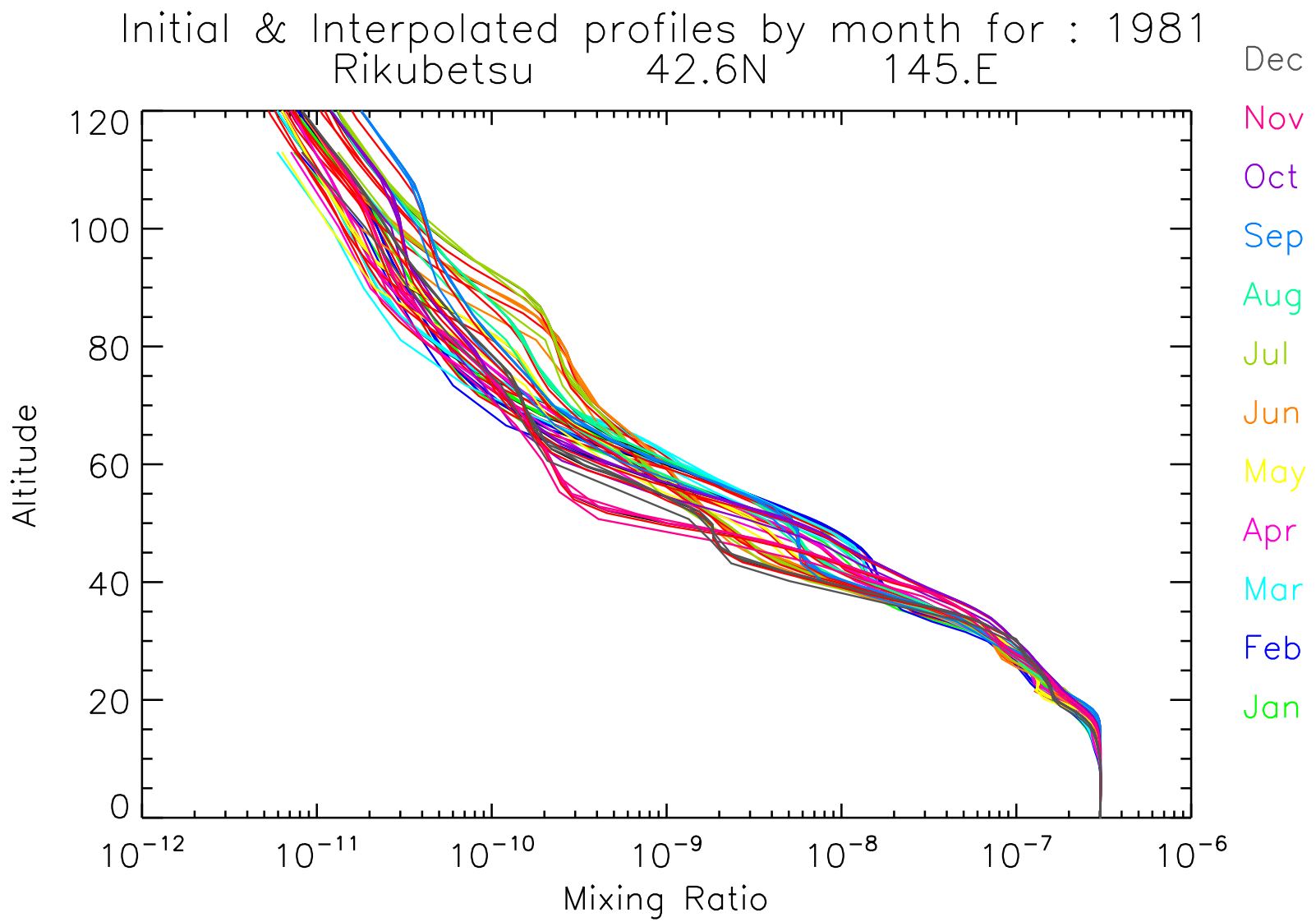
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Mixing Ratio
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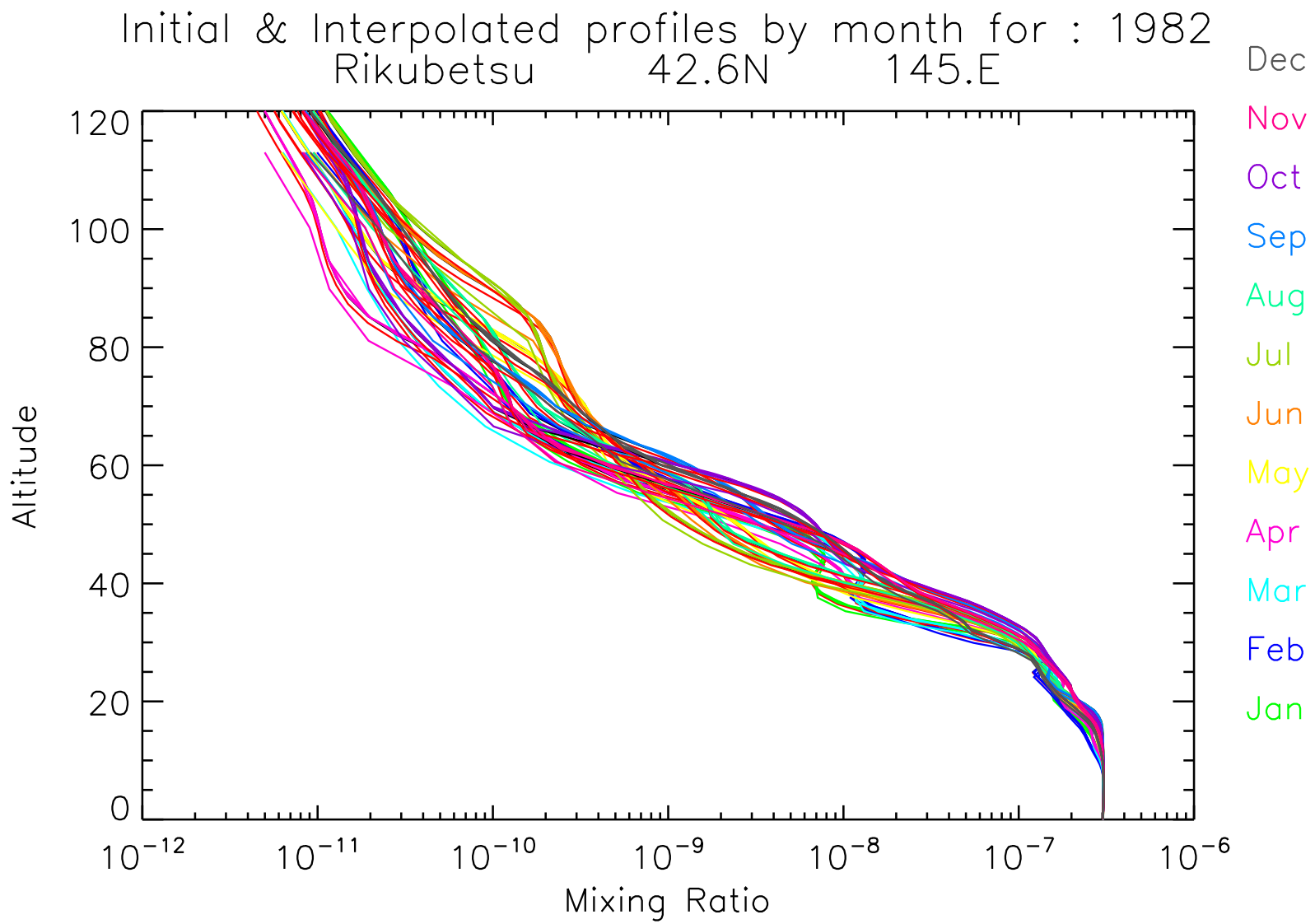
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Mixing Ratio
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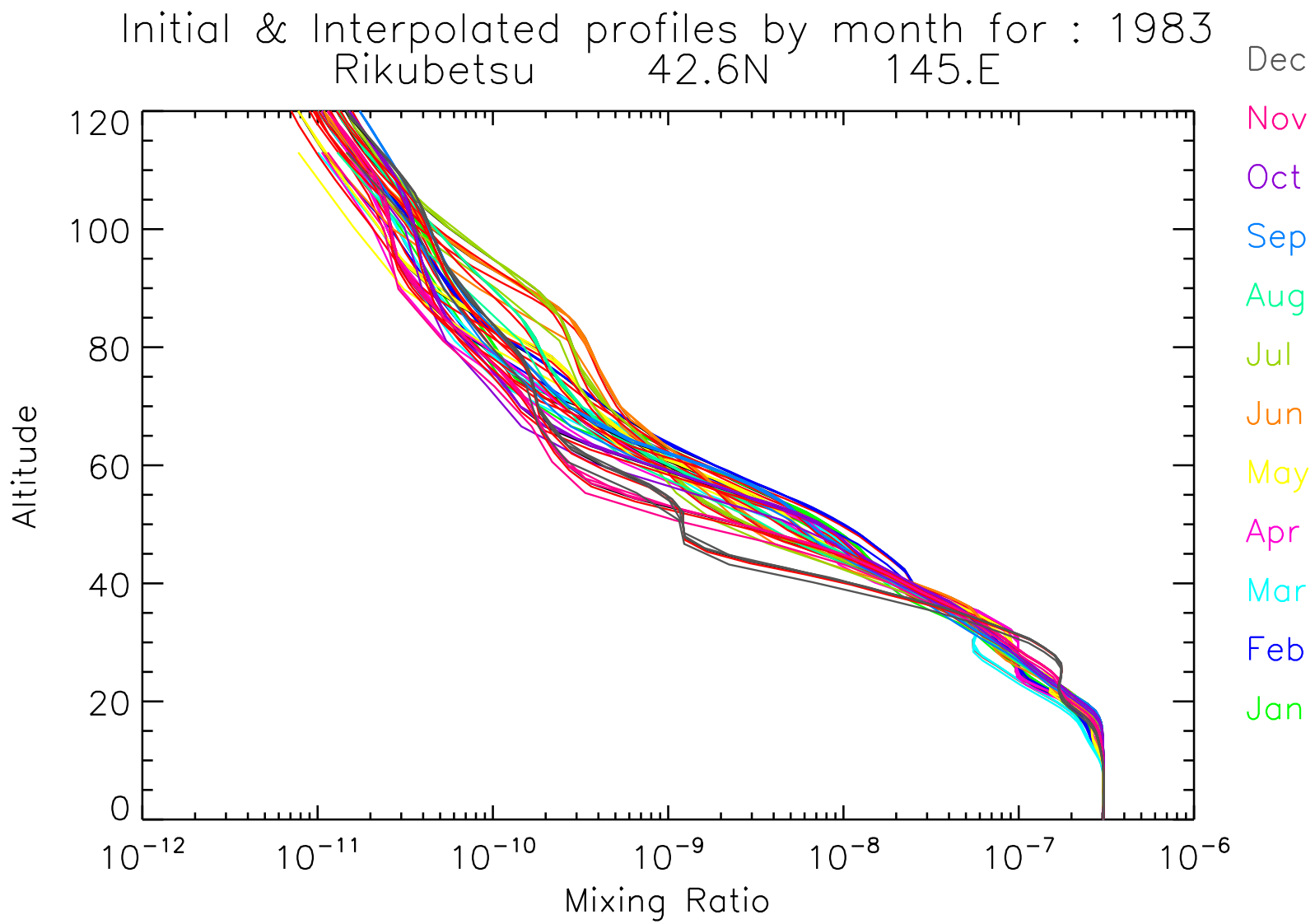
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Mixing Ratio
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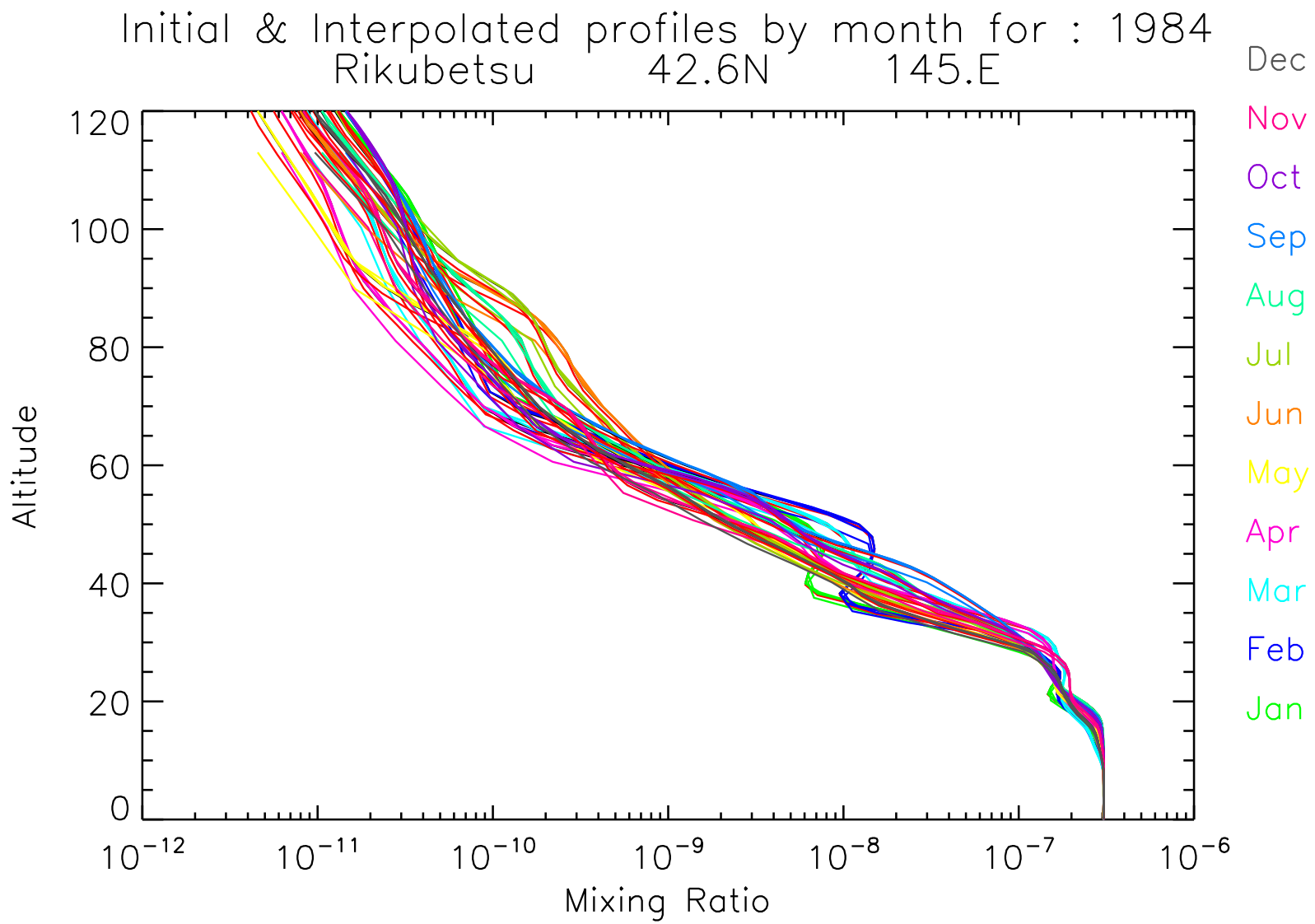
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Altitude
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Mixing Ratio
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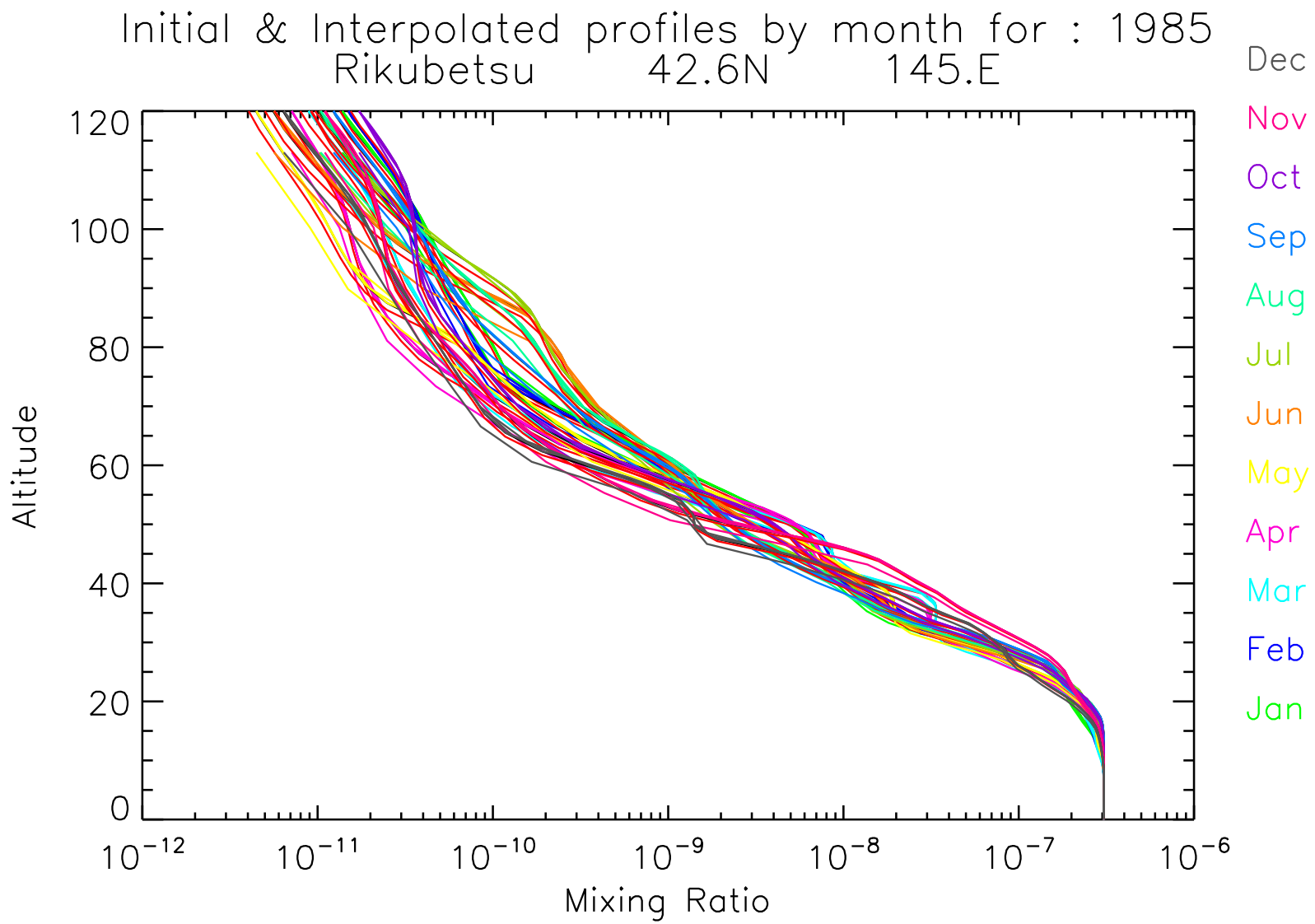
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Altitude
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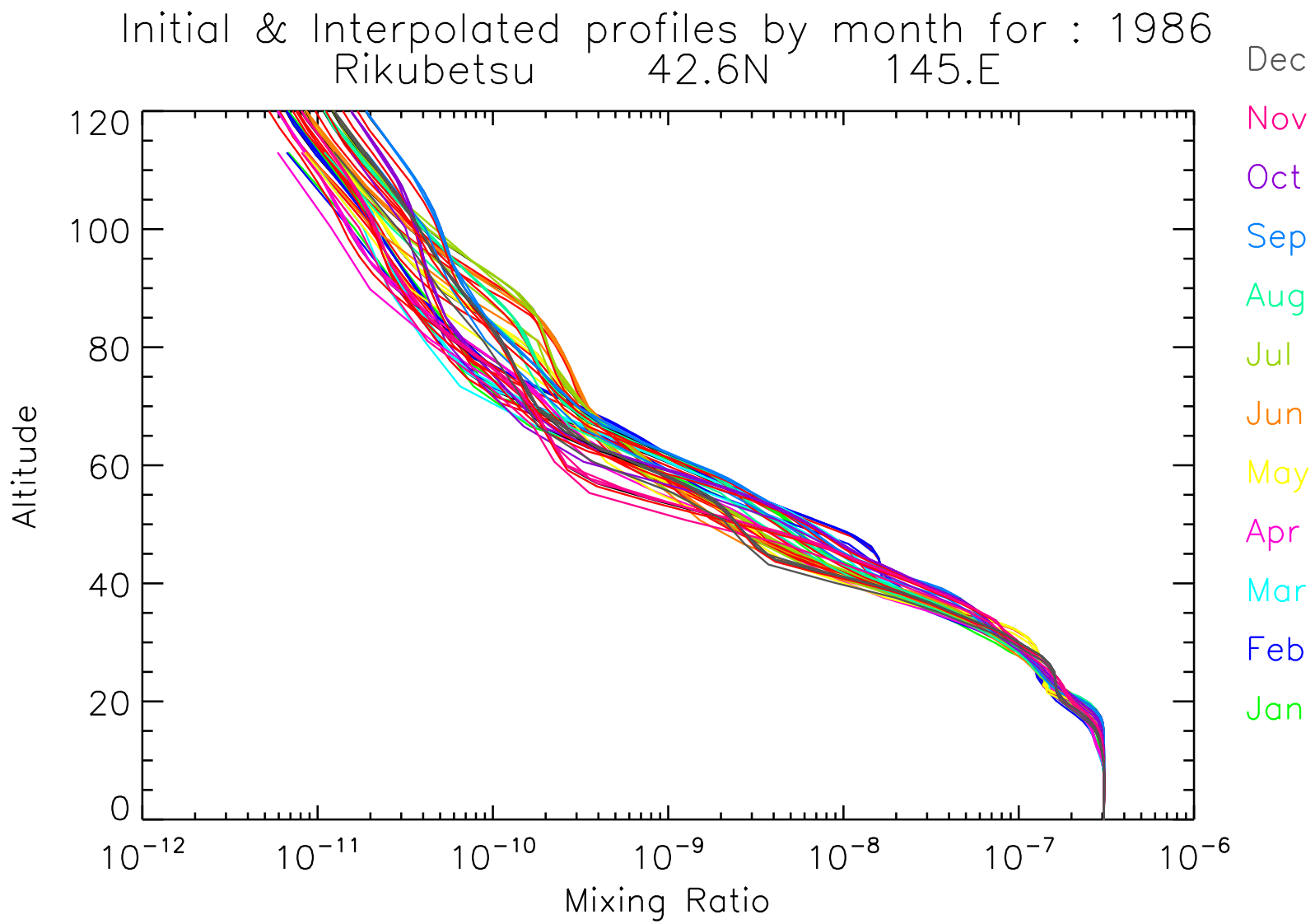
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Altitude
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Mixing Ratio
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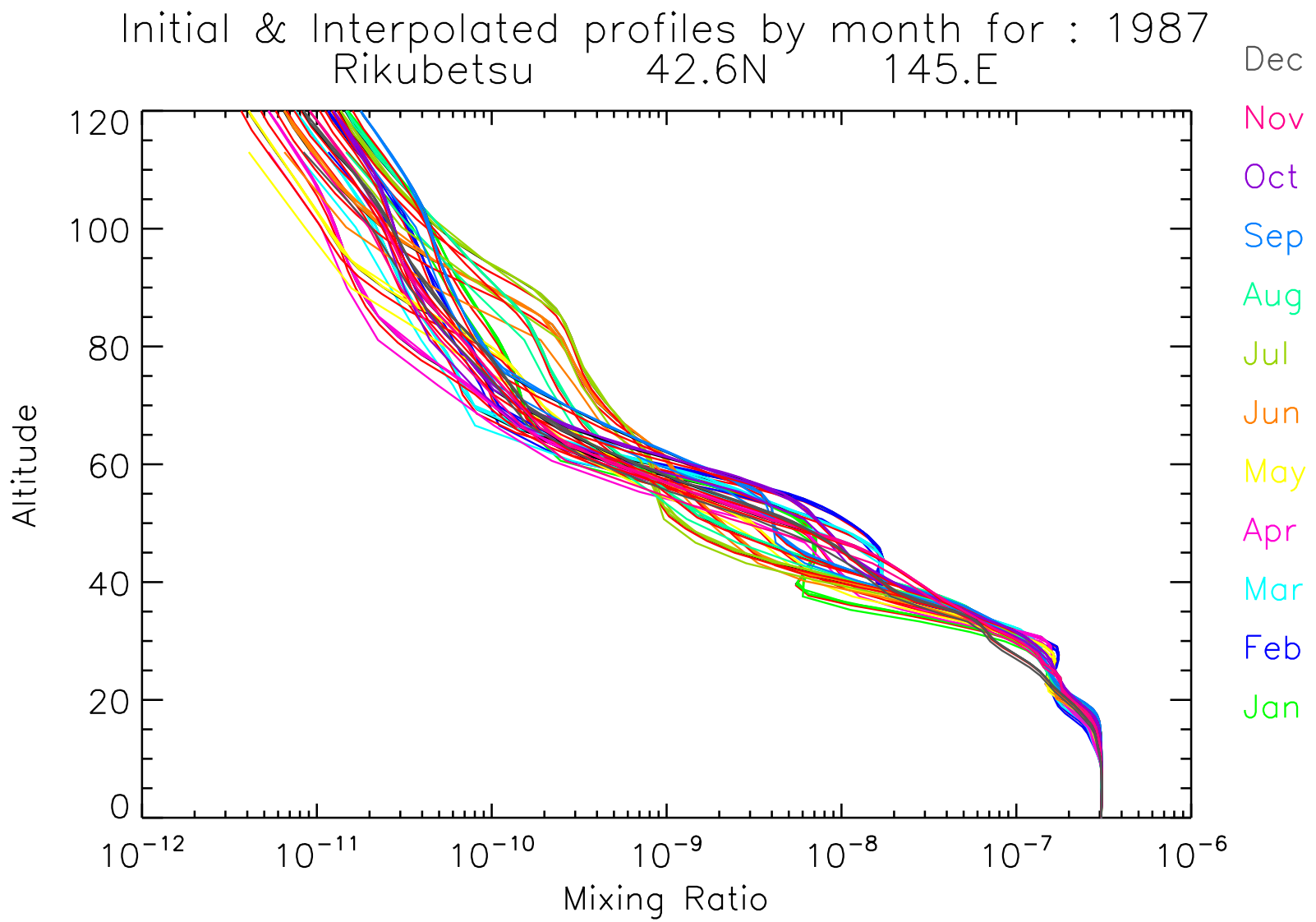
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Altitude
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Mixing Ratio
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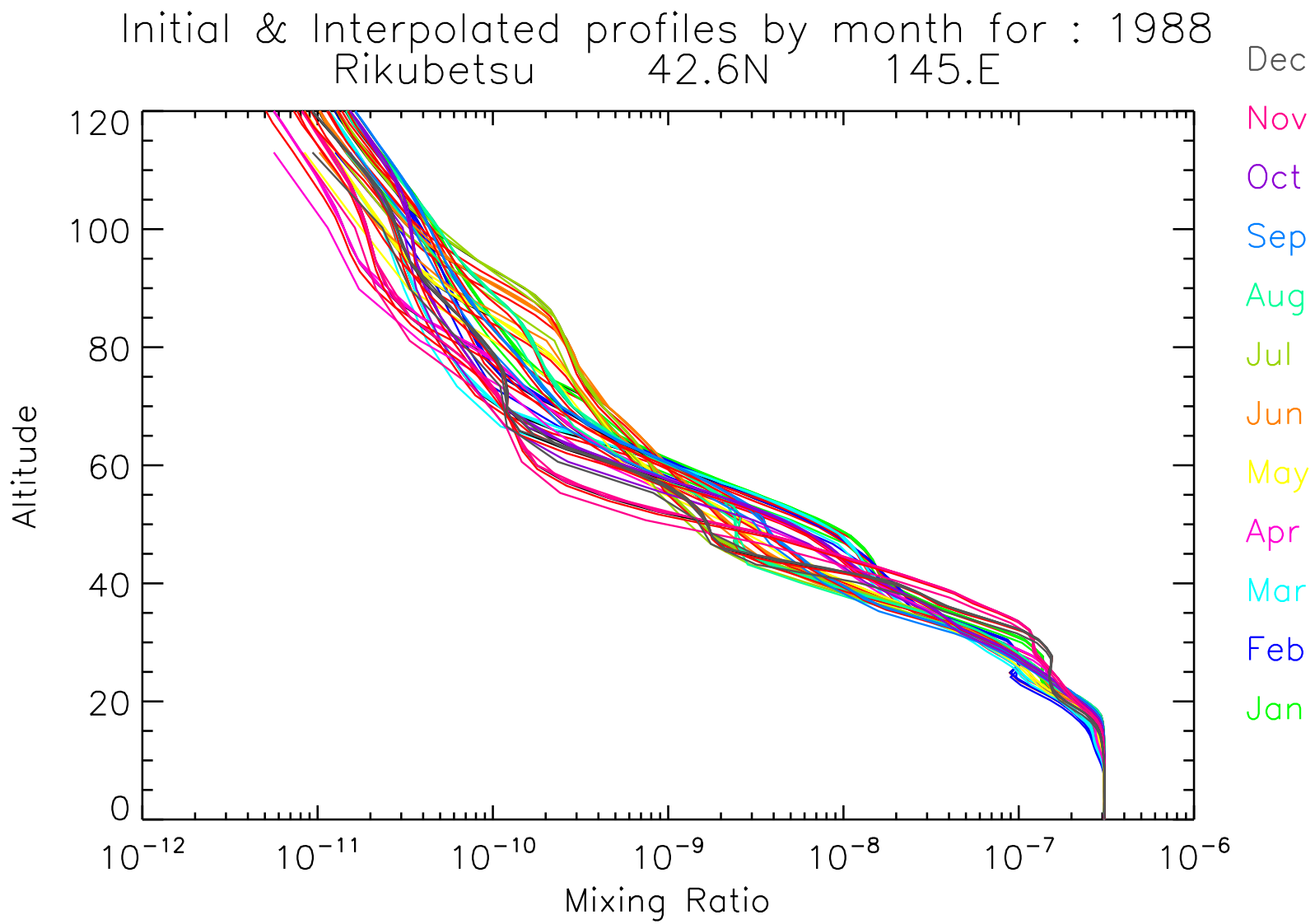
Initial & Interpolated profiles by month for : 1988
Rikubetsu 42.6N 145.E
Altitude
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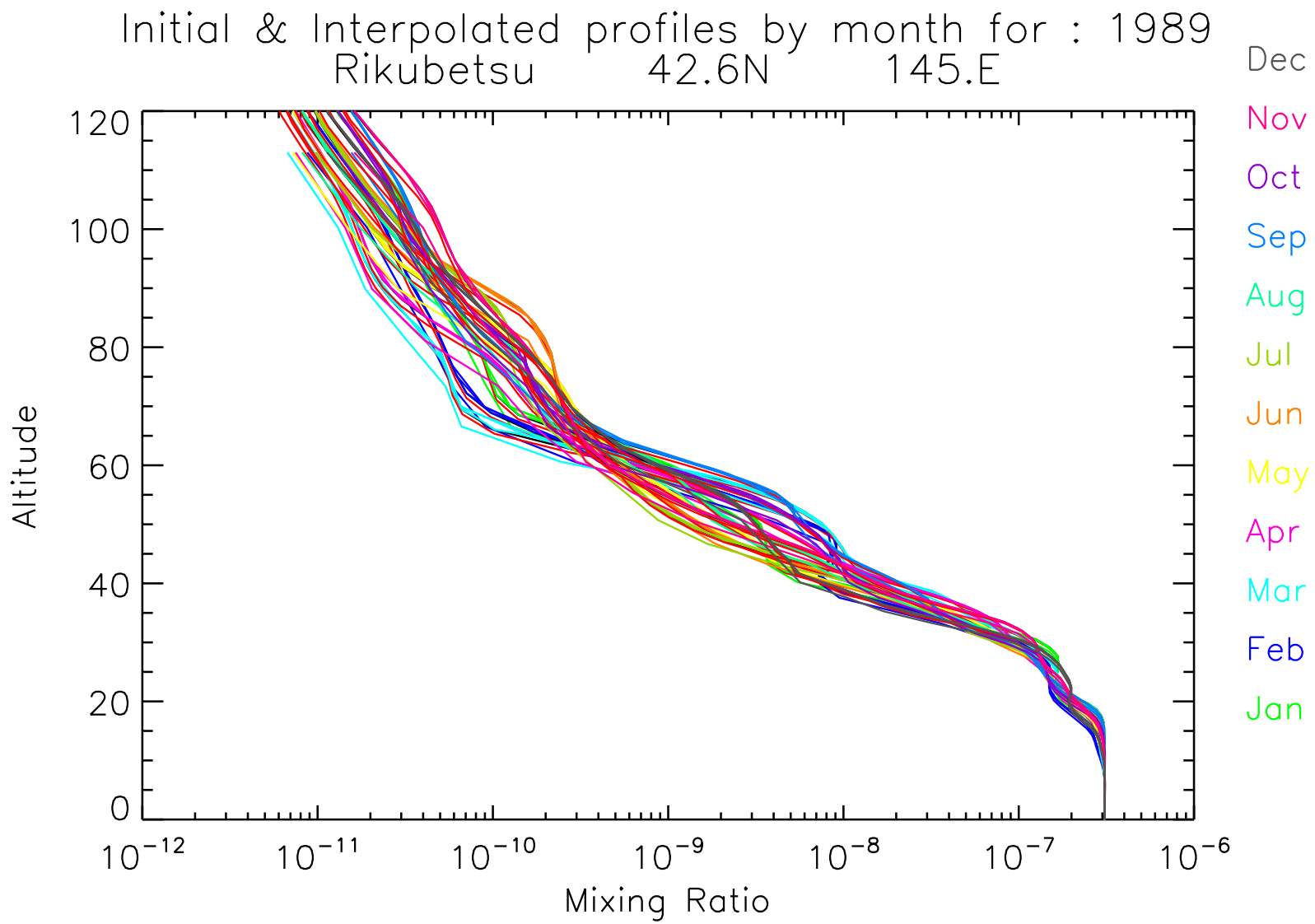
Initial & Interpolated profiles by month for : 1989
Rikubetsu 42.6N 145.E
Altitude
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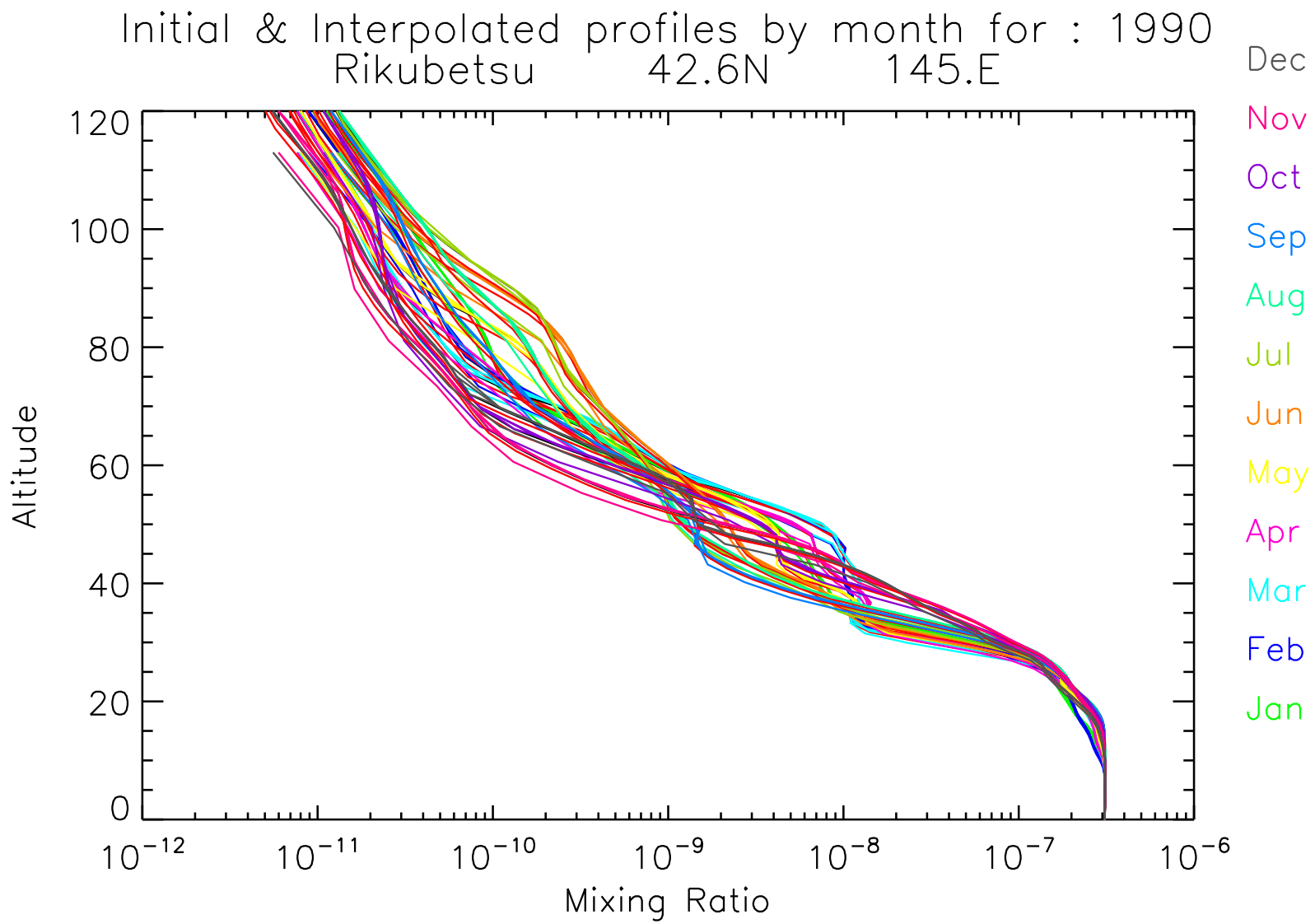
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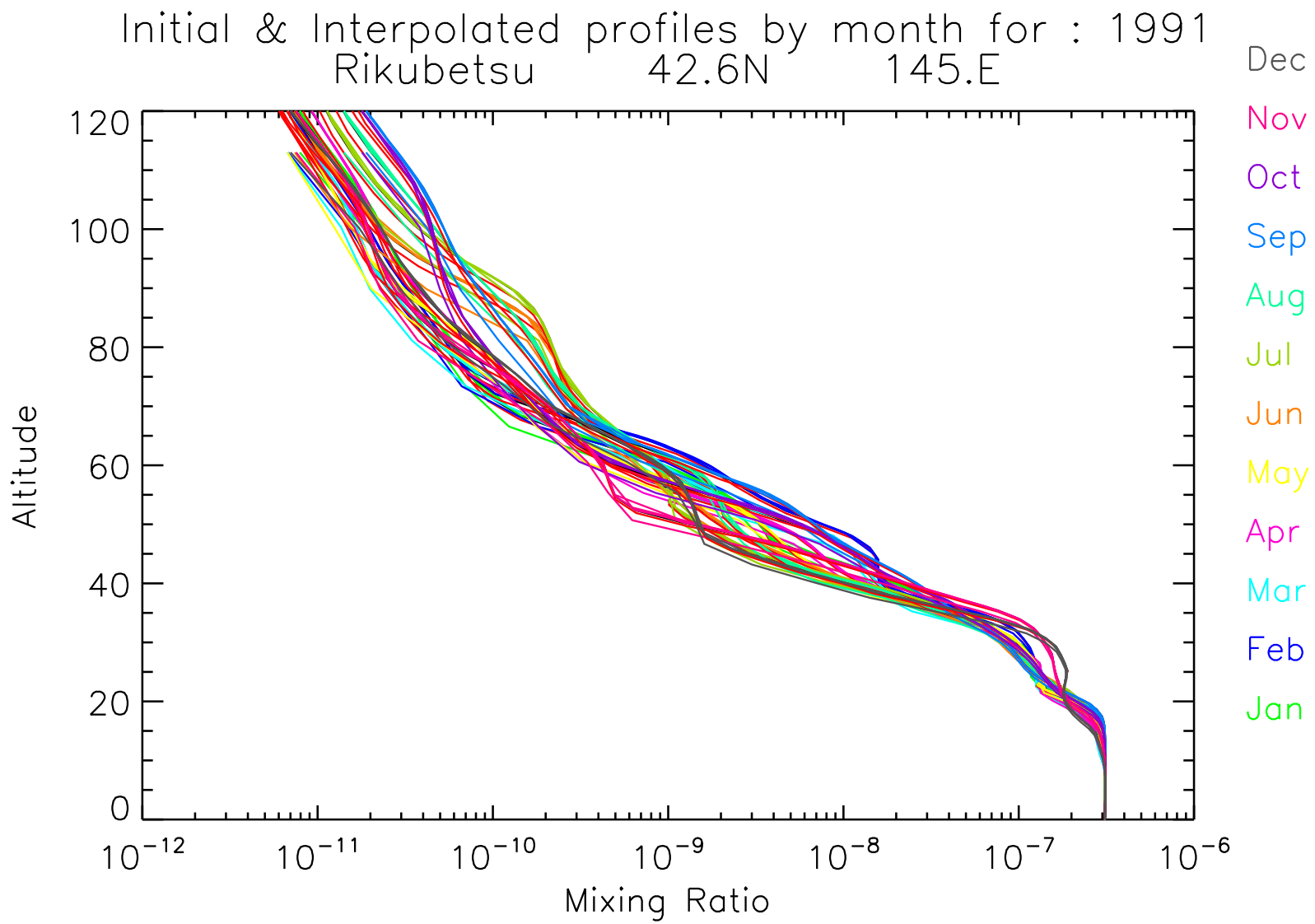
Initial & Interpolated profiles by month for : 1991
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Altitude
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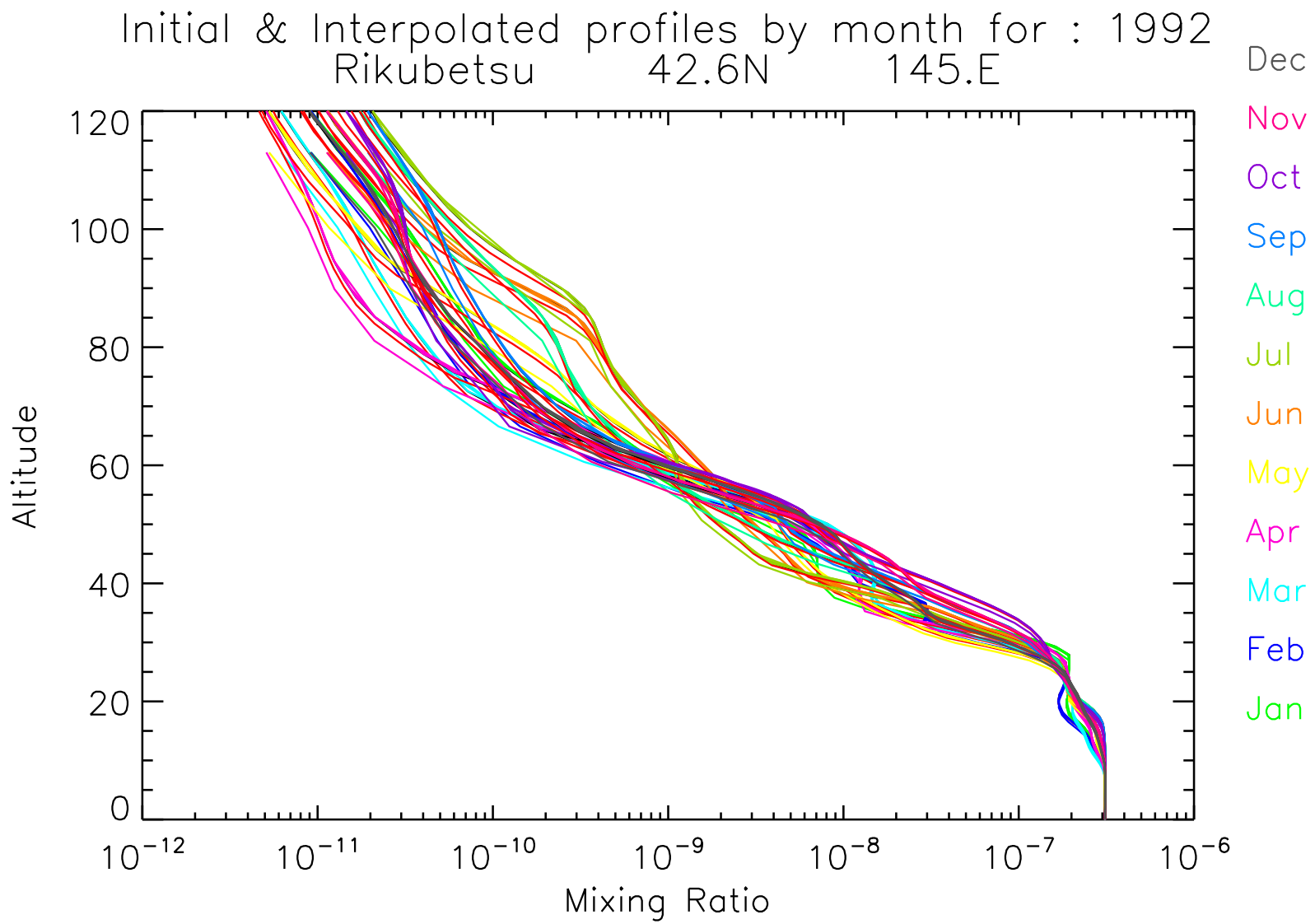
Initial & Interpolated profiles by month for : 1992
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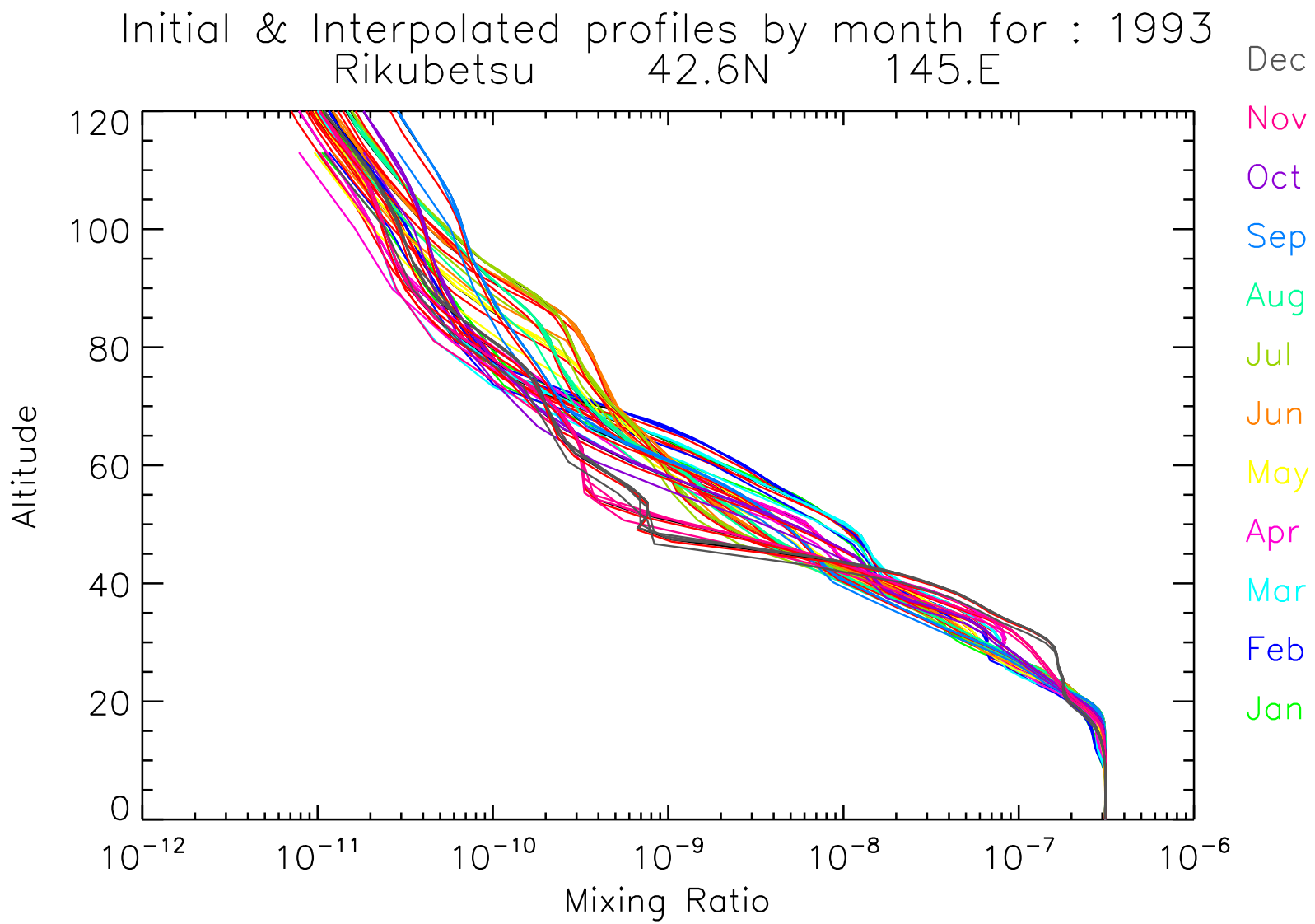
Initial & Interpolated profiles by month for : 1993
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Altitude
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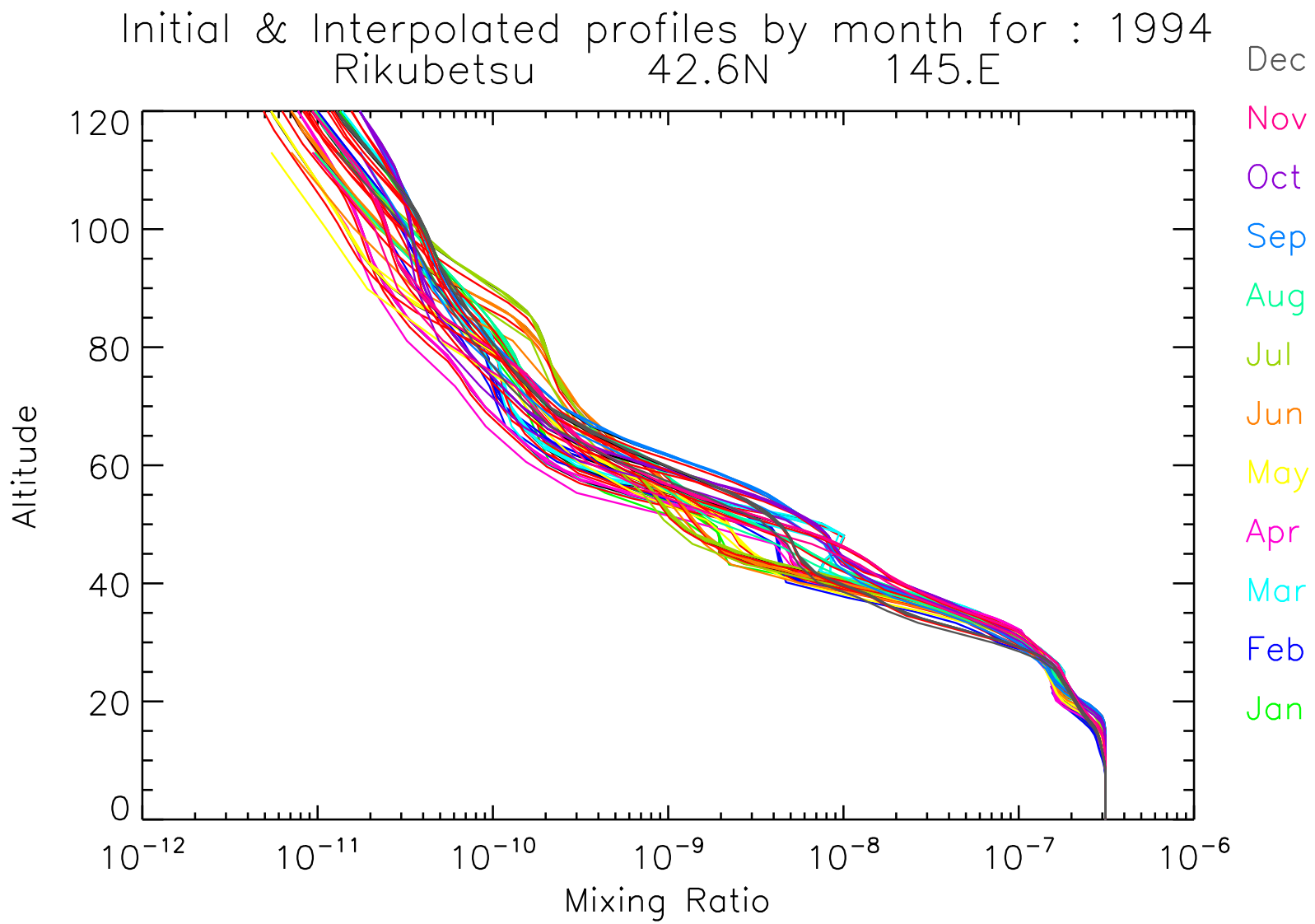
Initial & Interpolated profiles by month for : 1994
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Altitude
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Mixing Ratio
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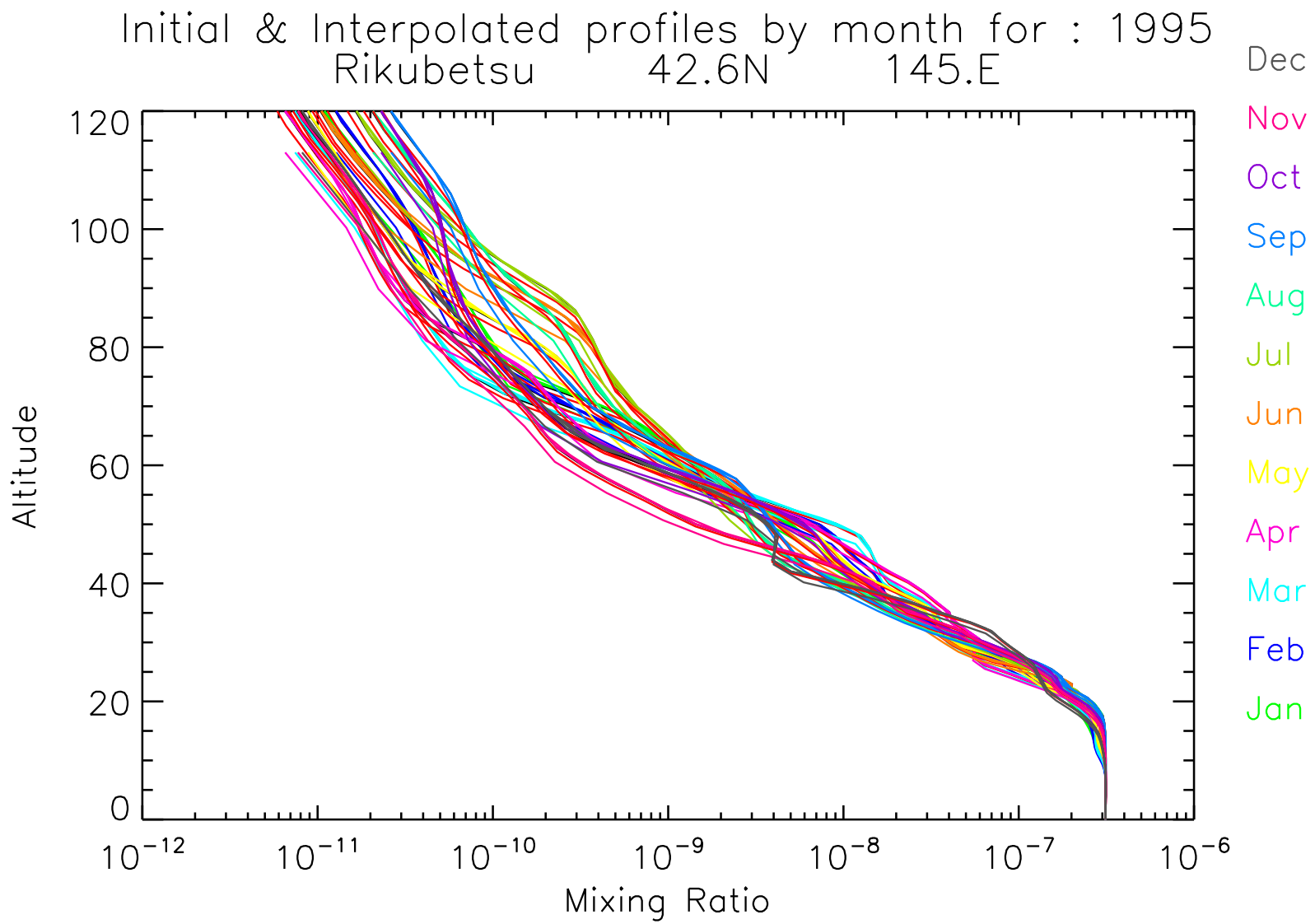
Initial & Interpolated profiles by month for : 1995
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Altitude
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Mixing Ratio
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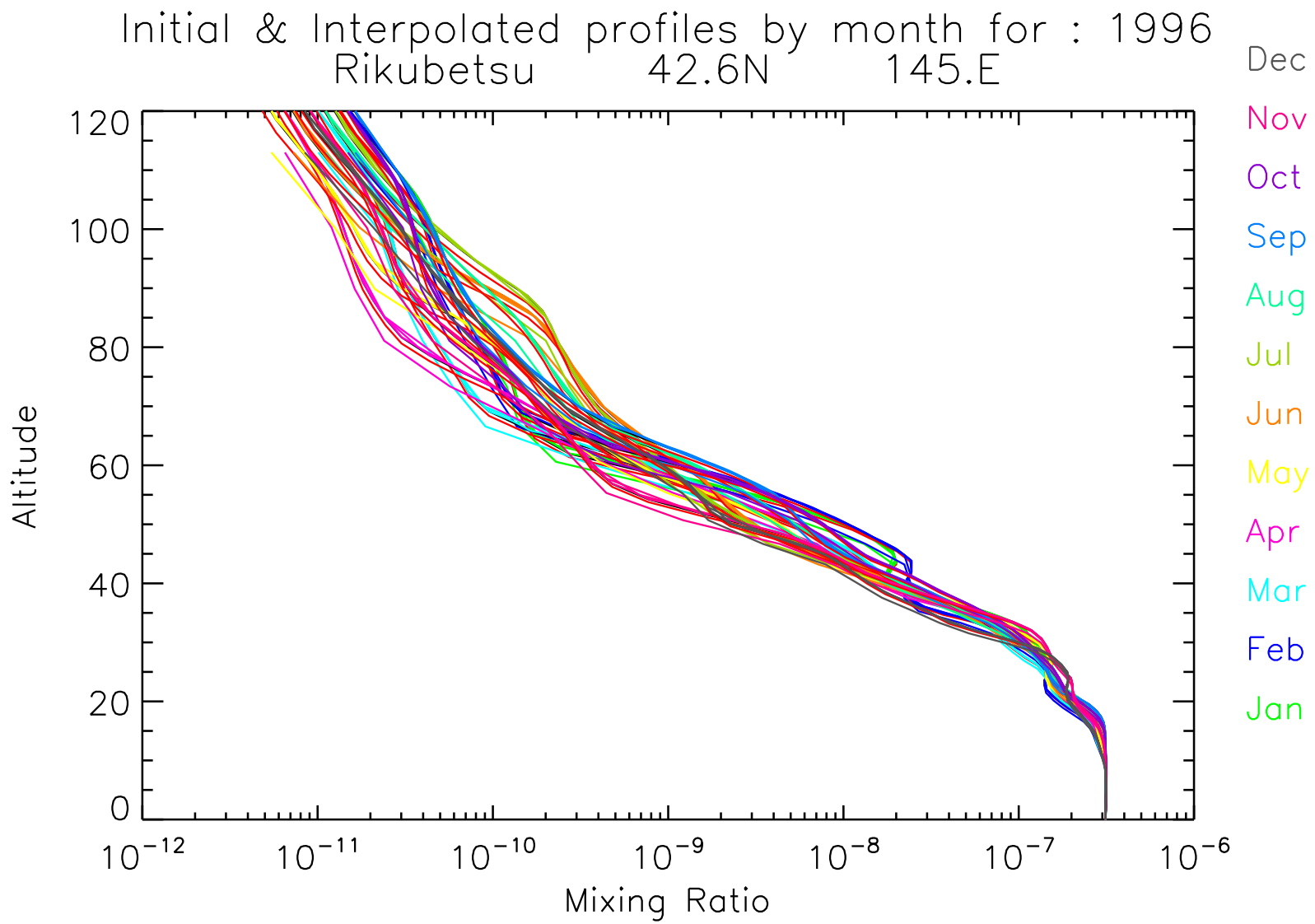
Initial & Interpolated profiles by month for : 1996
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Altitude
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Mixing Ratio
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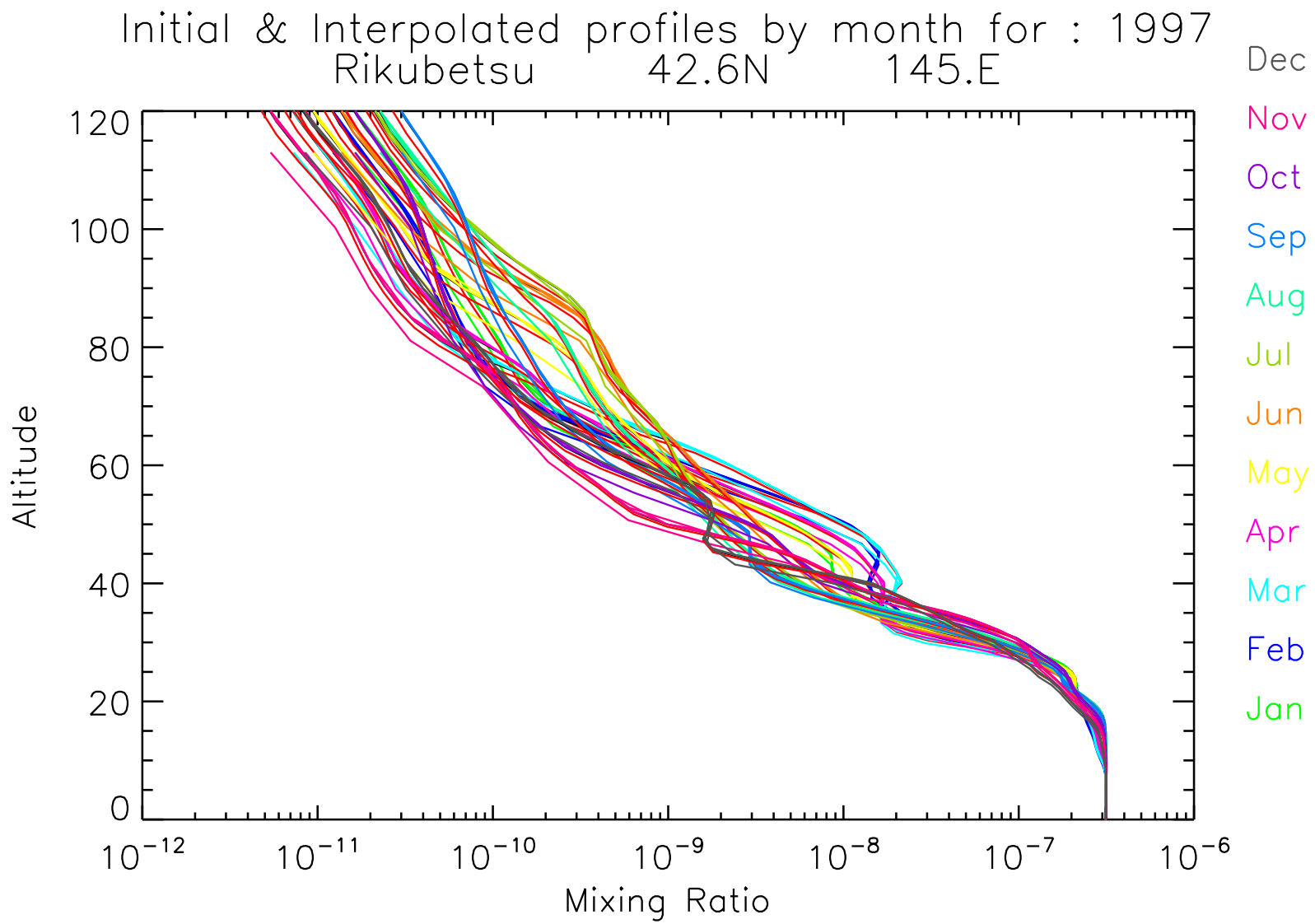
Initial & Interpolated profiles by month for : 1997
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Mixing Ratio
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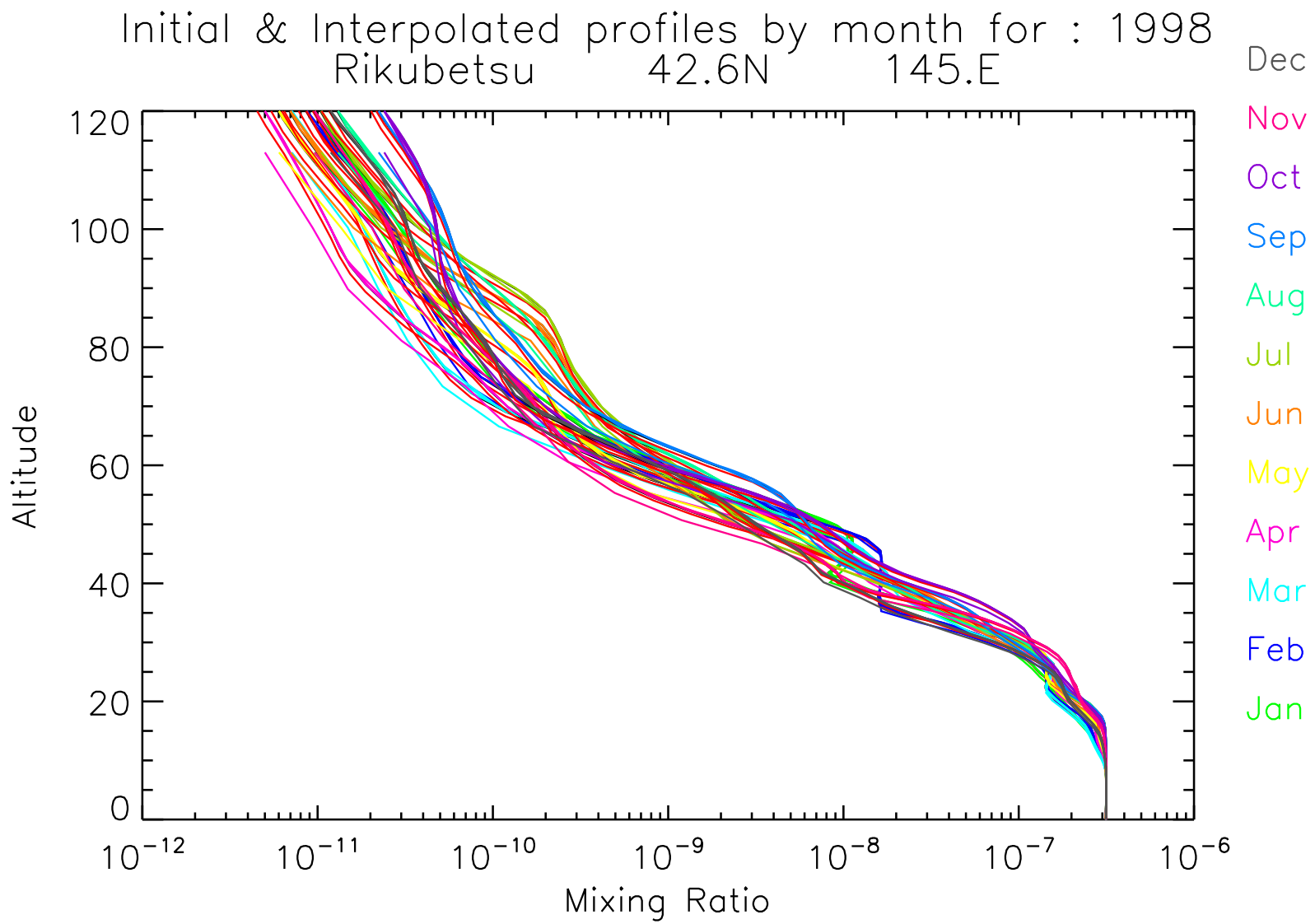
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Altitude
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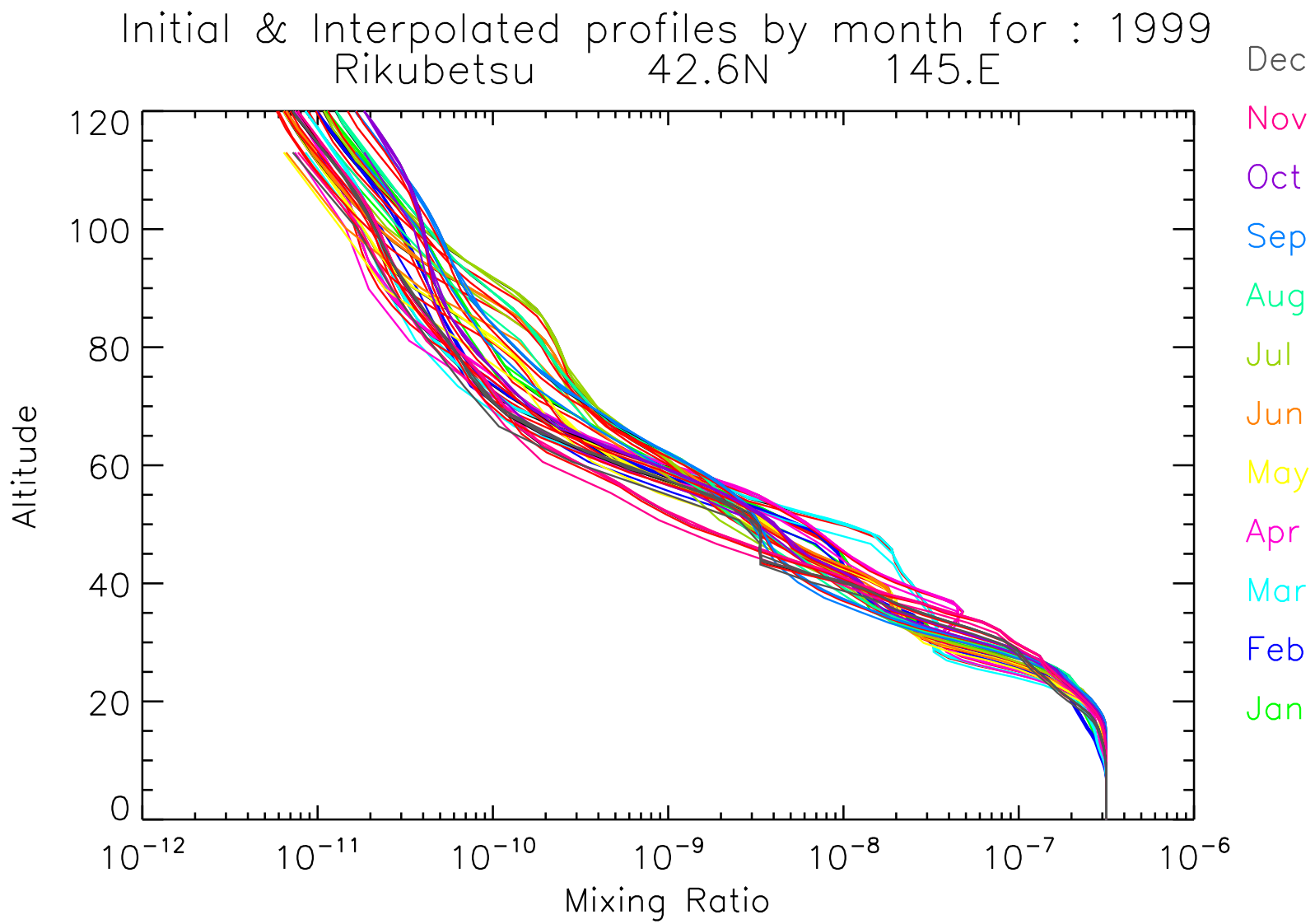
Initial & Interpolated profiles by month for : 1999
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Altitude
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Mixing Ratio
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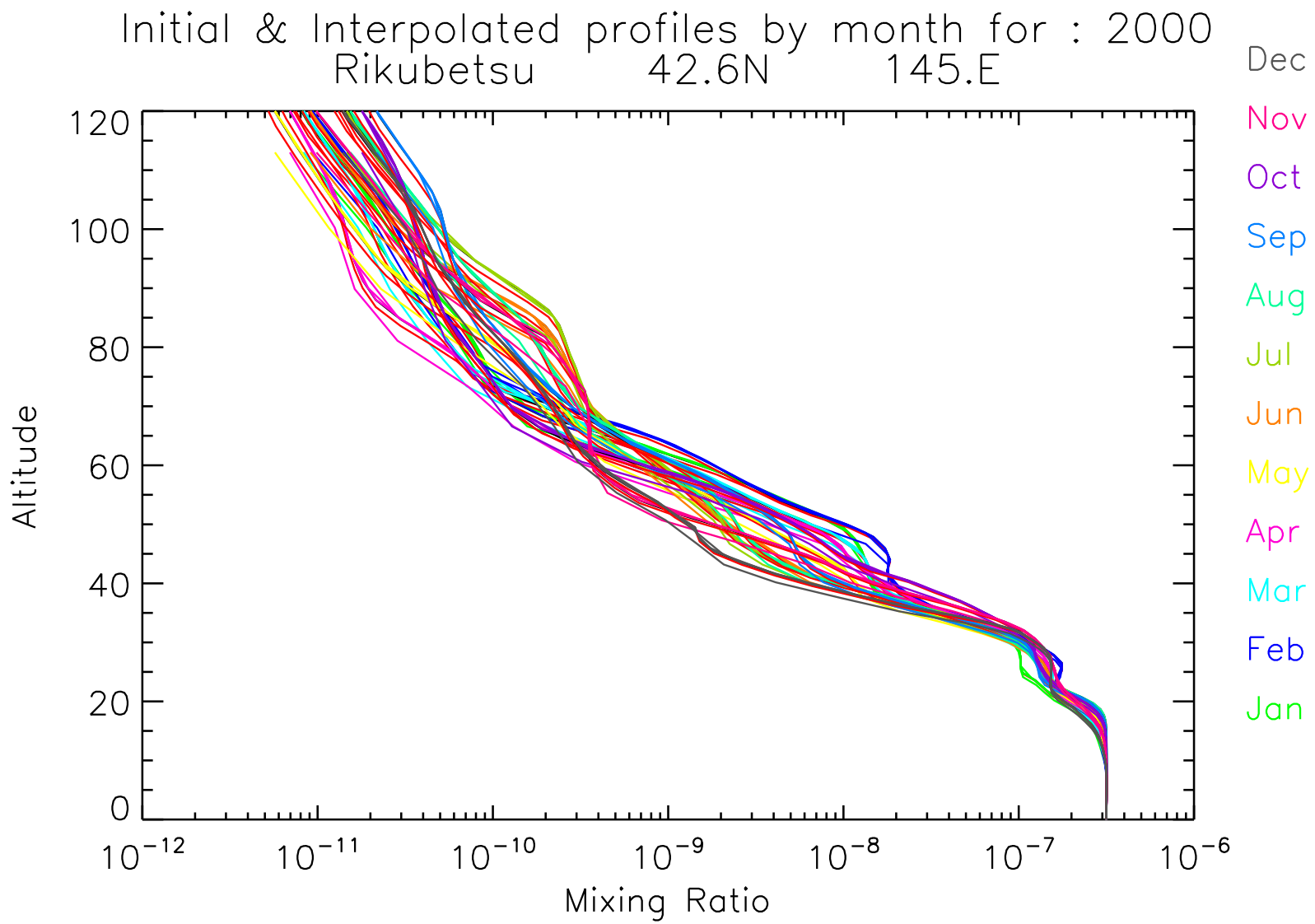
Initial & Interpolated profiles by month for : 2000
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Altitude
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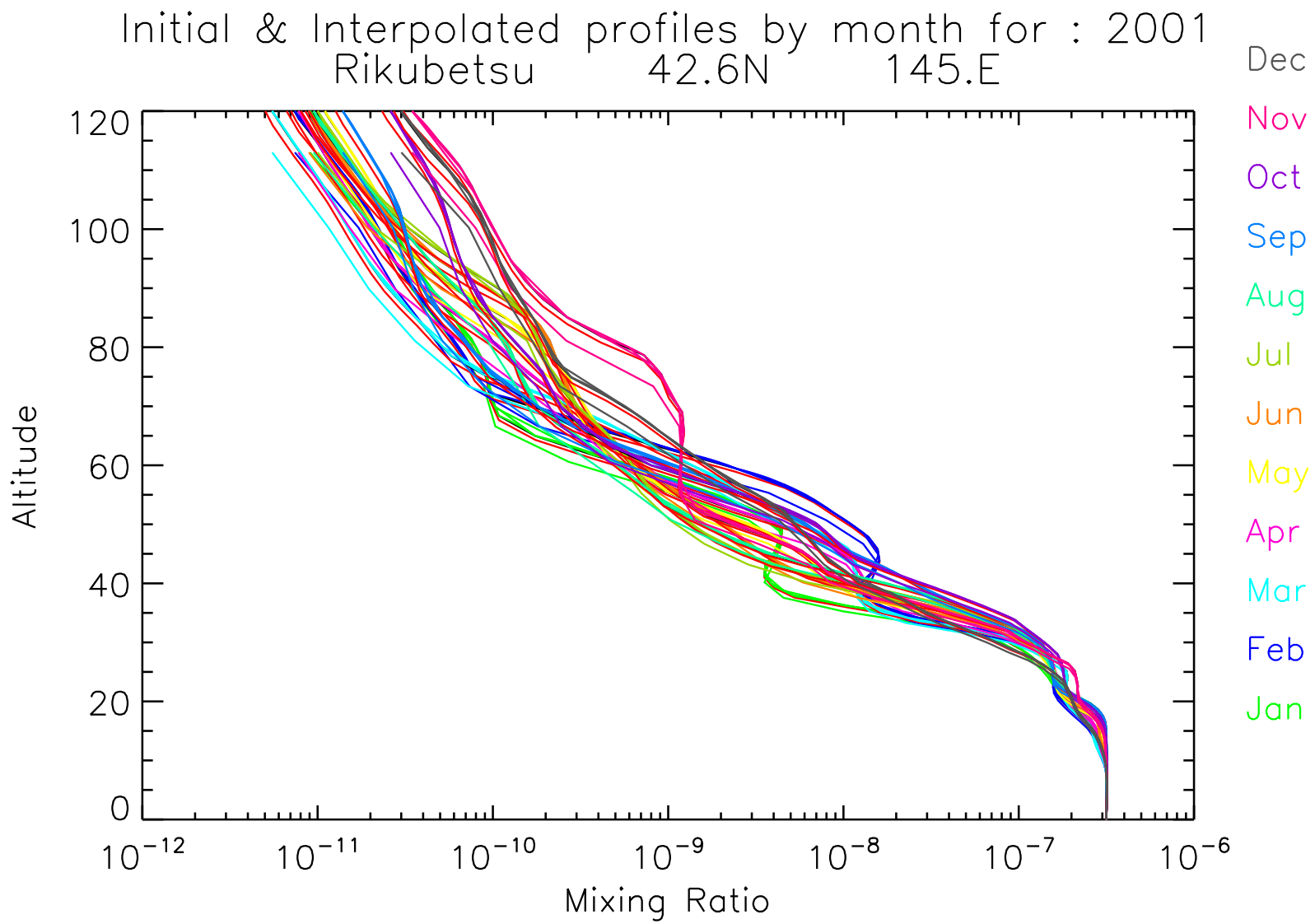
Initial & Interpolated profiles by month for : 2001
Rikubetsu 42.6N 145.E
Altitude
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Mixing Ratio
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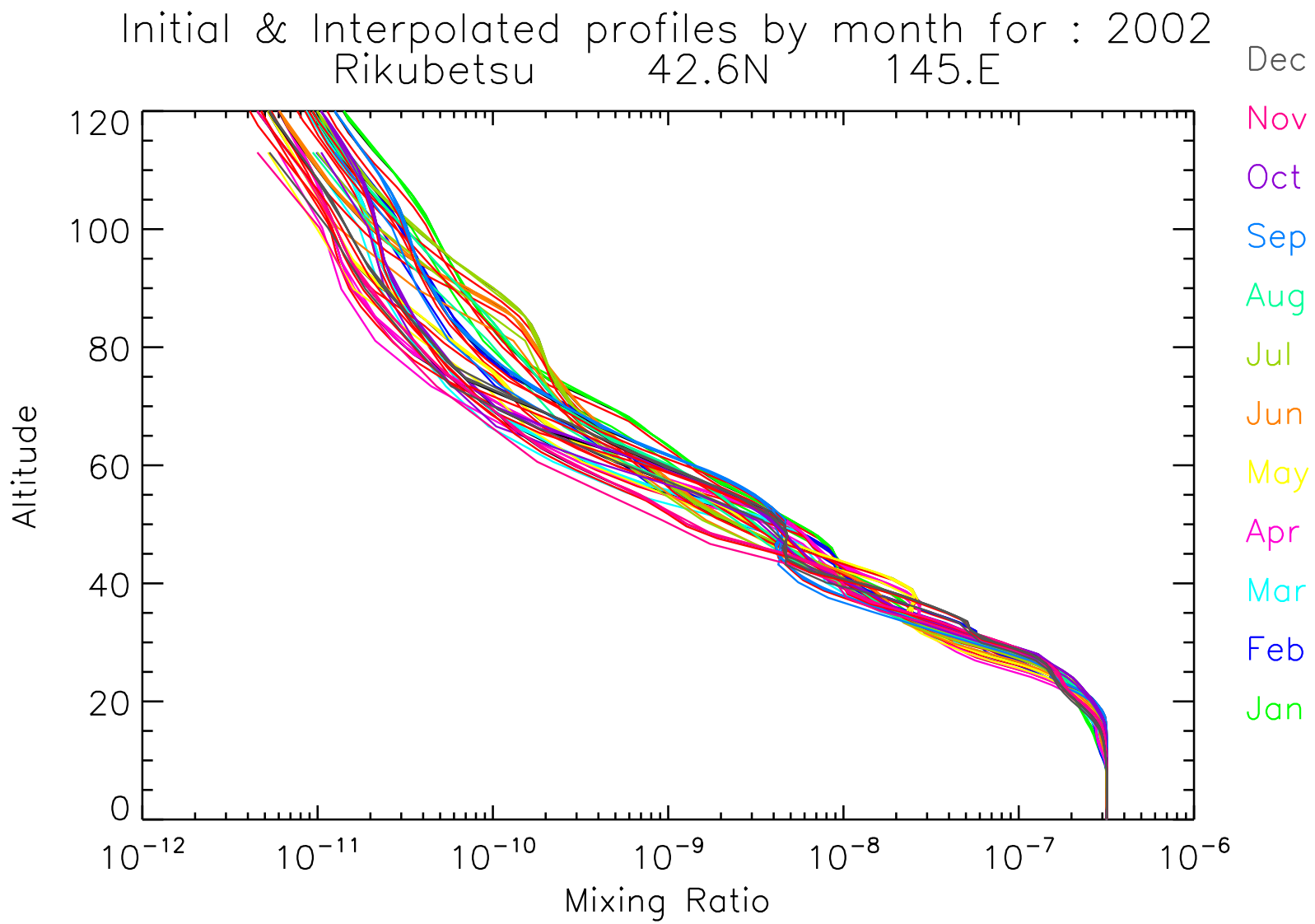
Initial & Interpolated profiles by month for : 2002
Rikubetsu 42.6N 145.E
Altitude
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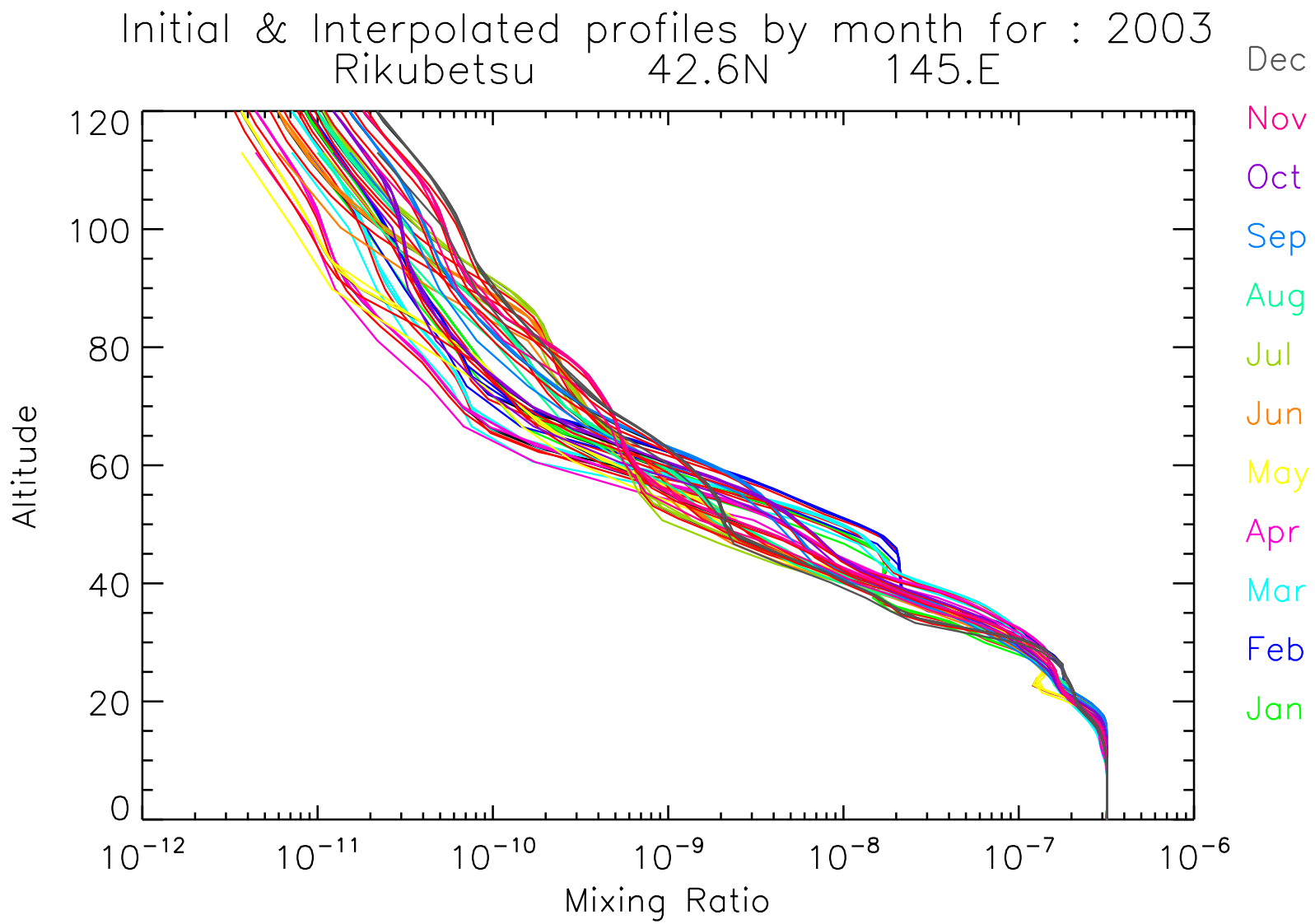
Initial & Interpolated profiles by month for : 2003
Rikubetsu 42.6N 145.E
Altitude
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Mixing Ratio
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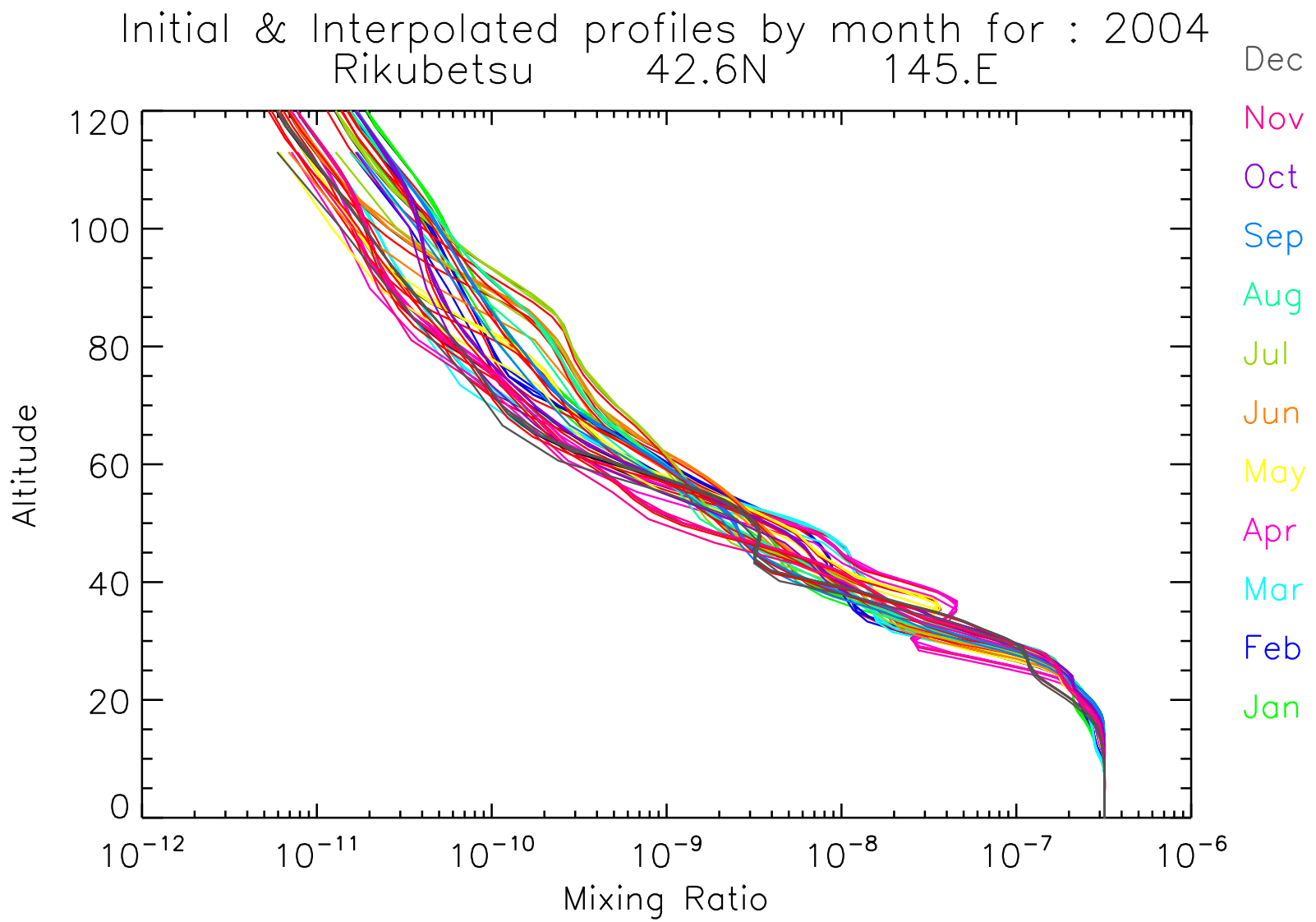
Initial & Interpolated profiles by month for : 2004
Rikubetsu 42.6N 145.E
Altitude
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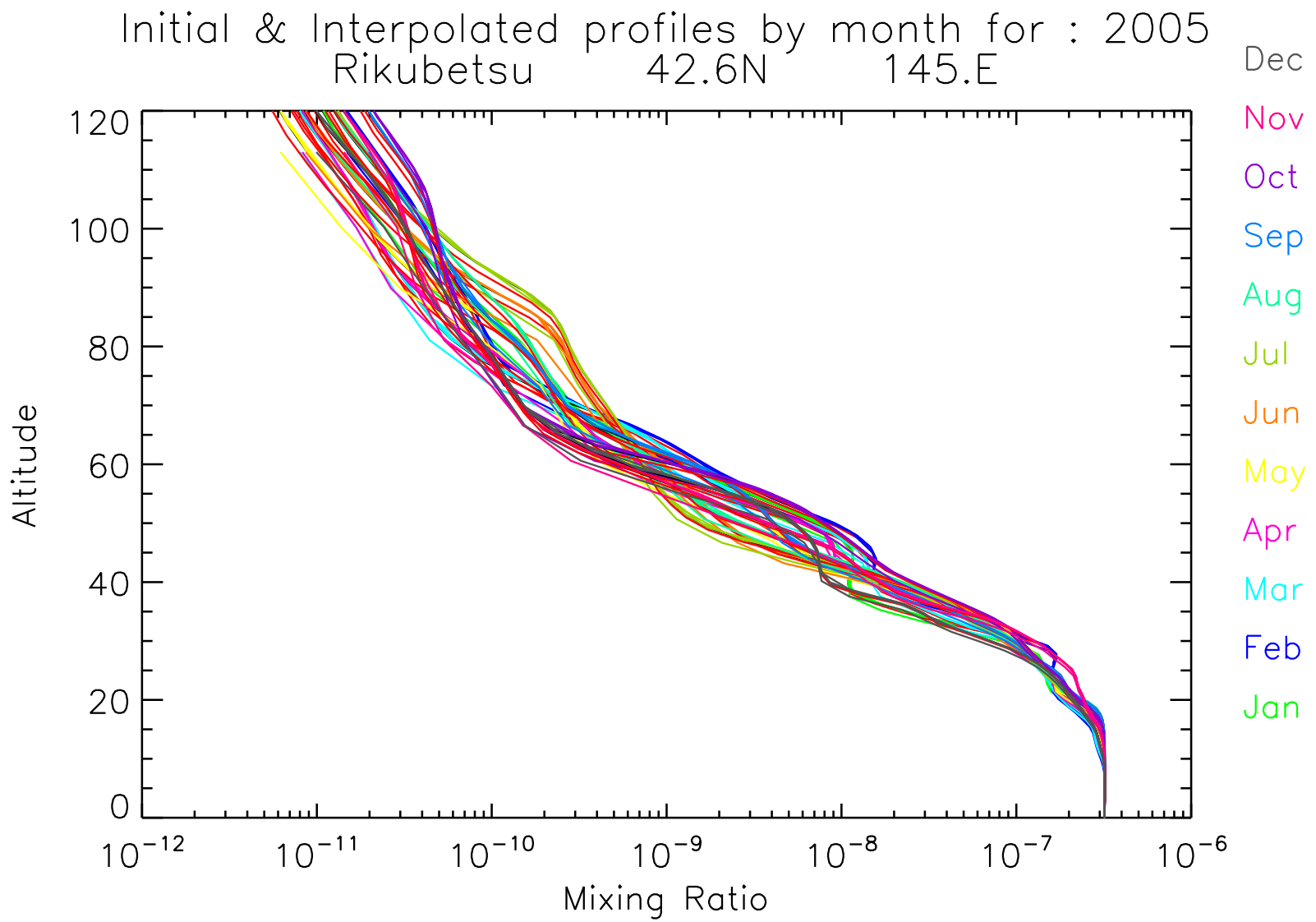
Initial & Interpolated profiles by month for : 2005
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Altitude
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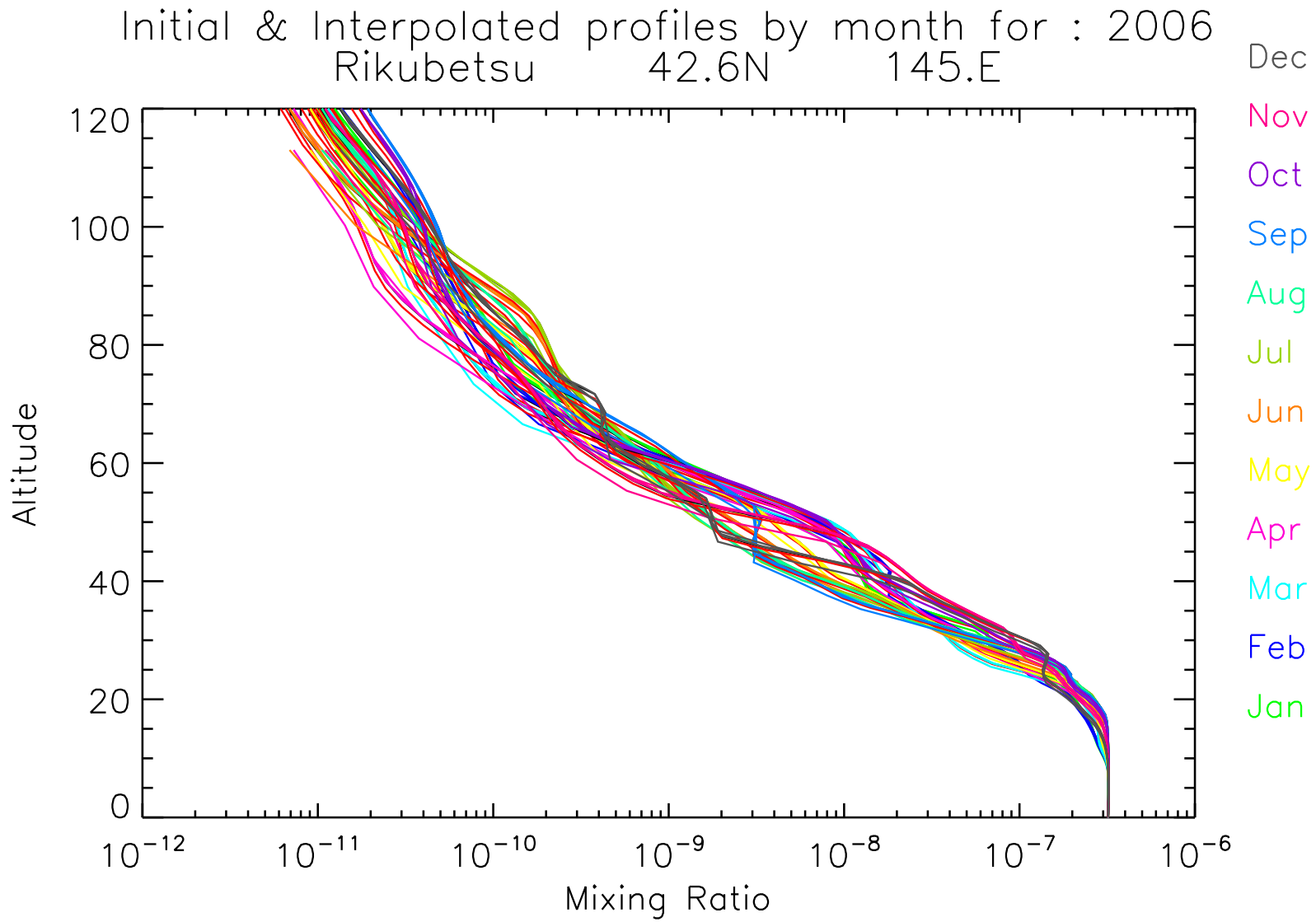
Initial & Interpolated profiles by month for : 2006
Rikubetsu 42.6N 145.E
Altitude
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Mixing Ratio
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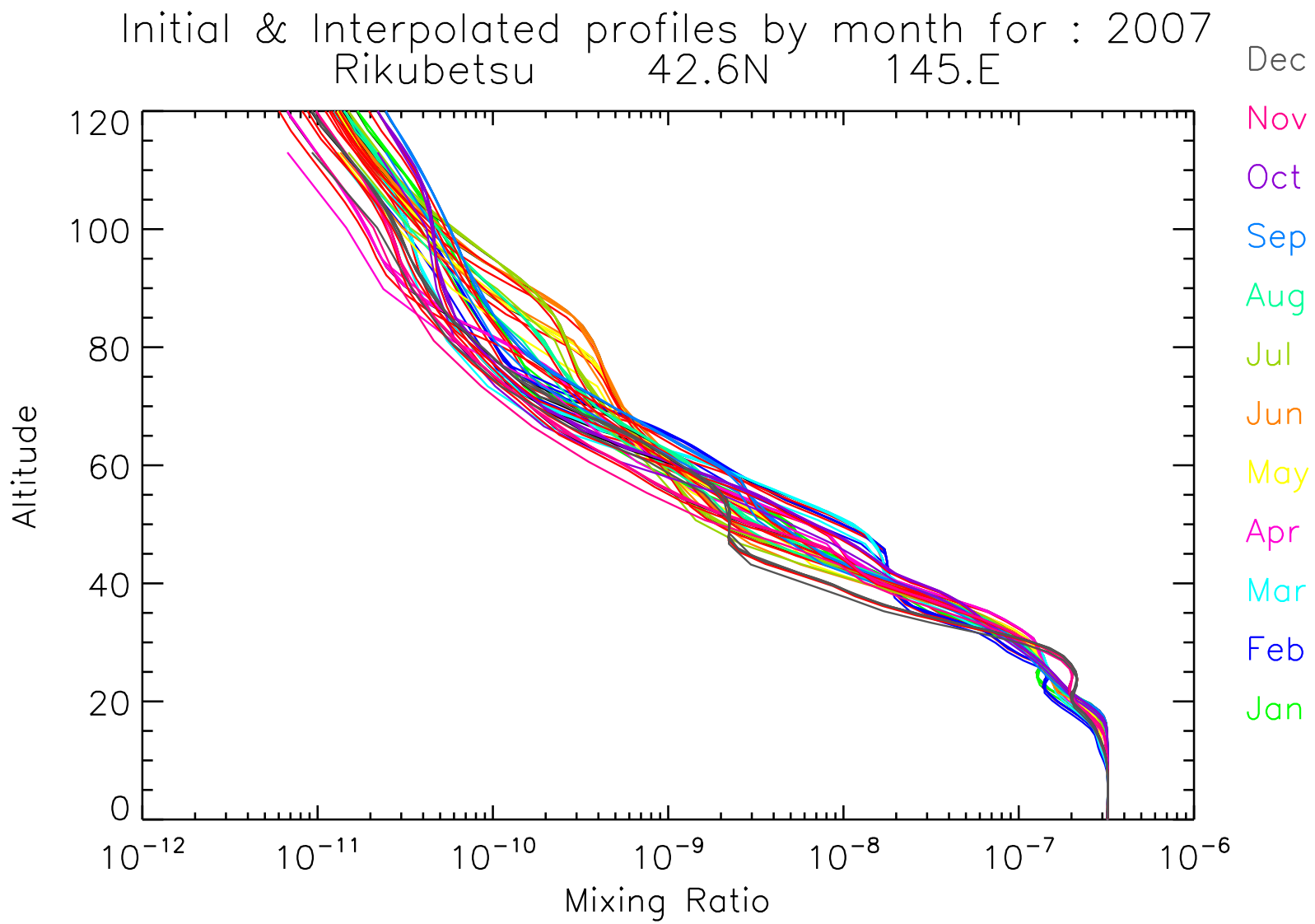
Initial & Interpolated profiles by month for : 2007
Rikubetsu 42.6N 145.E
Altitude
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Mixing Ratio
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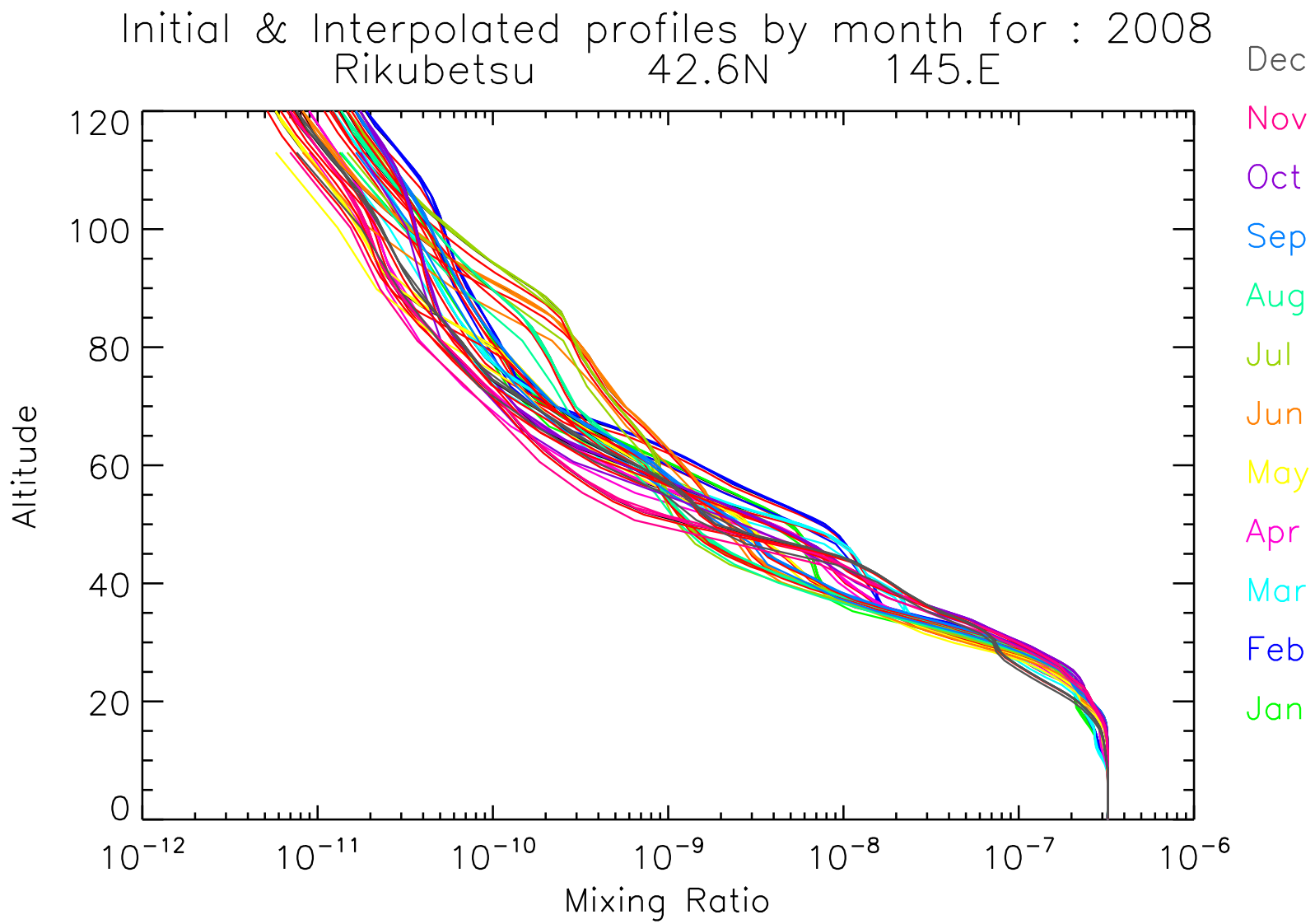
Initial & Interpolated profiles by month for : 2008
Rikubetsu 42.6N 145.E
Altitude
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Mixing Ratio
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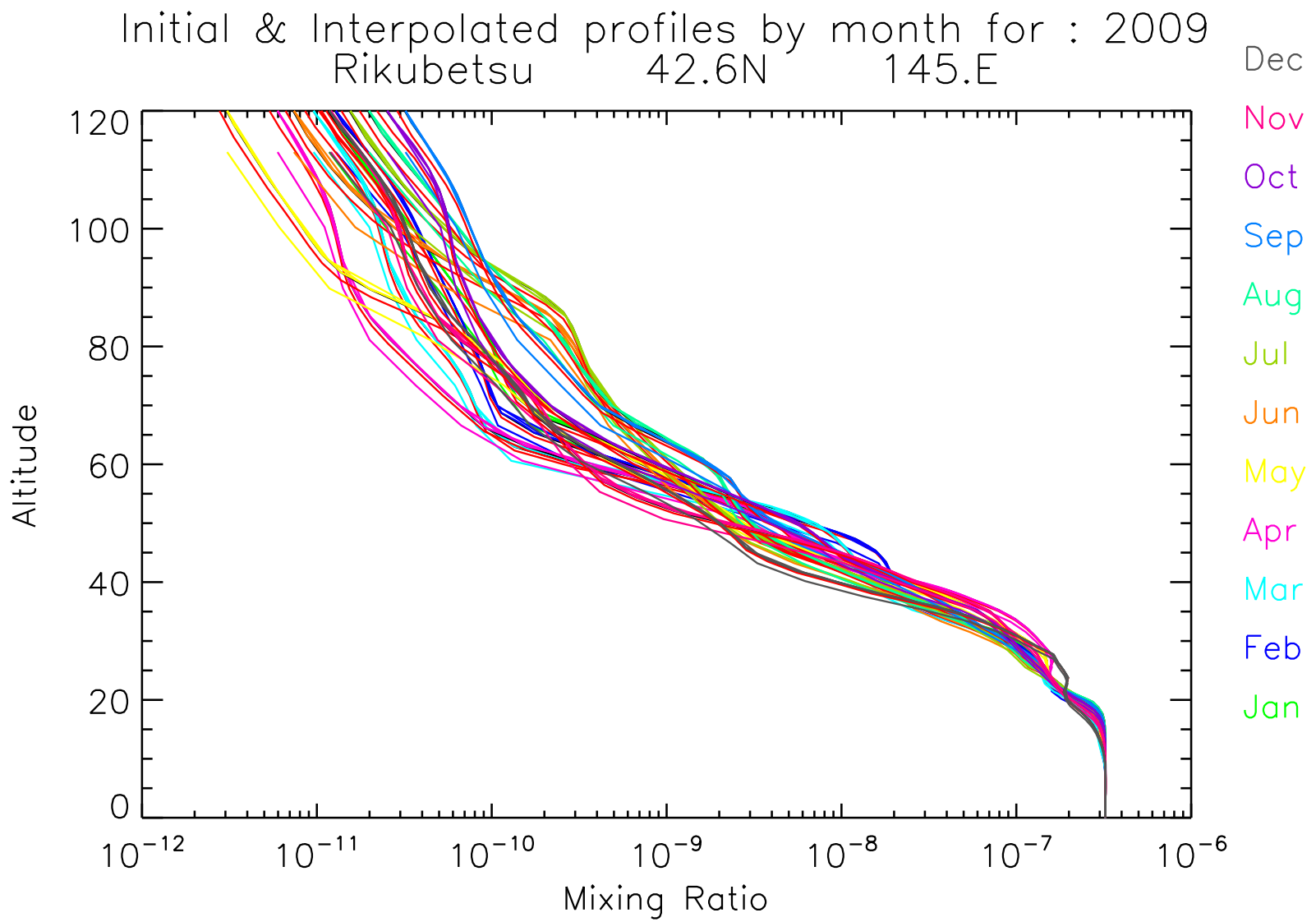
Initial & Interpolated profiles by month for : 2009
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Altitude
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Mixing Ratio
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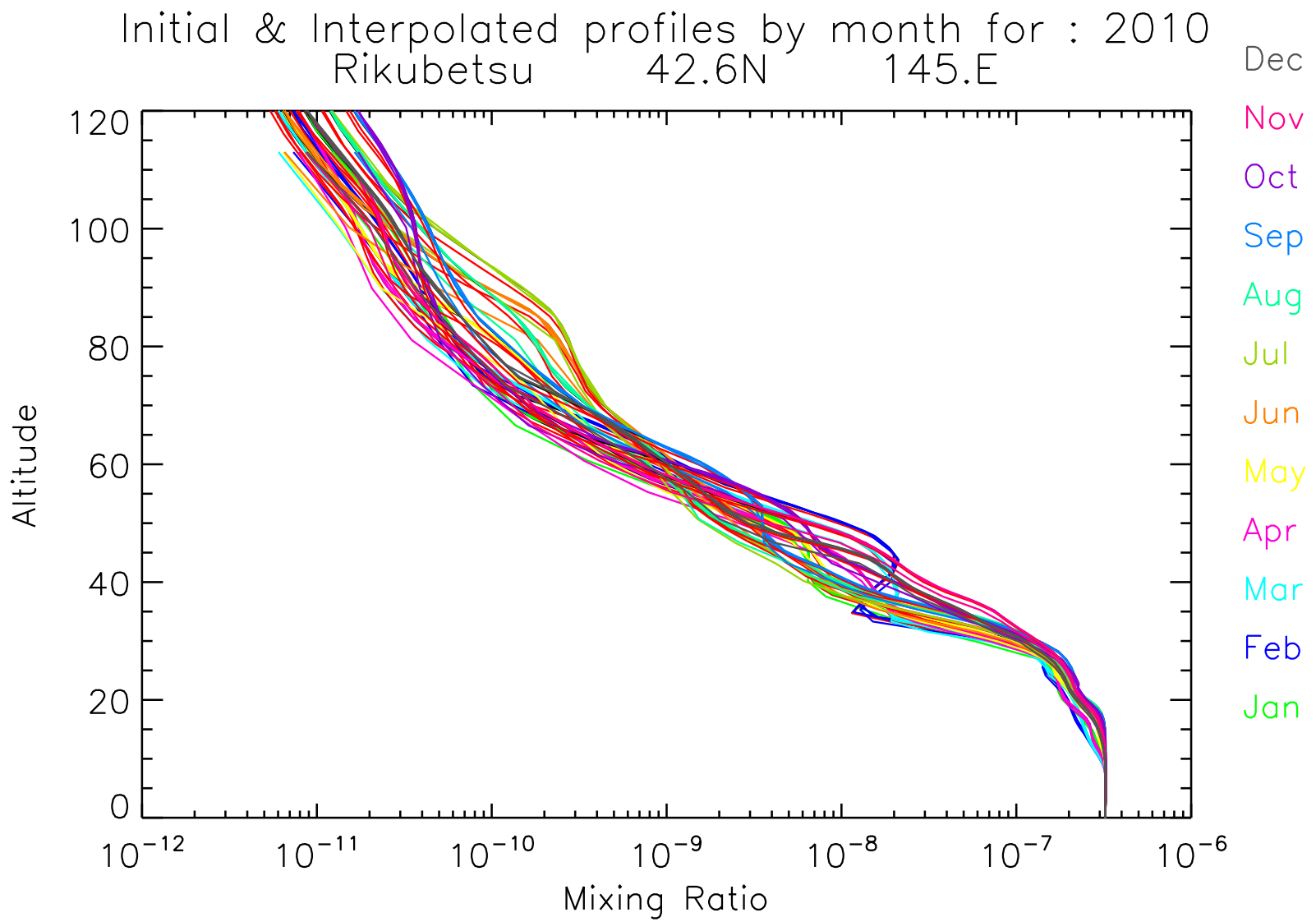
Initial & Interpolated profiles by month for : 2010
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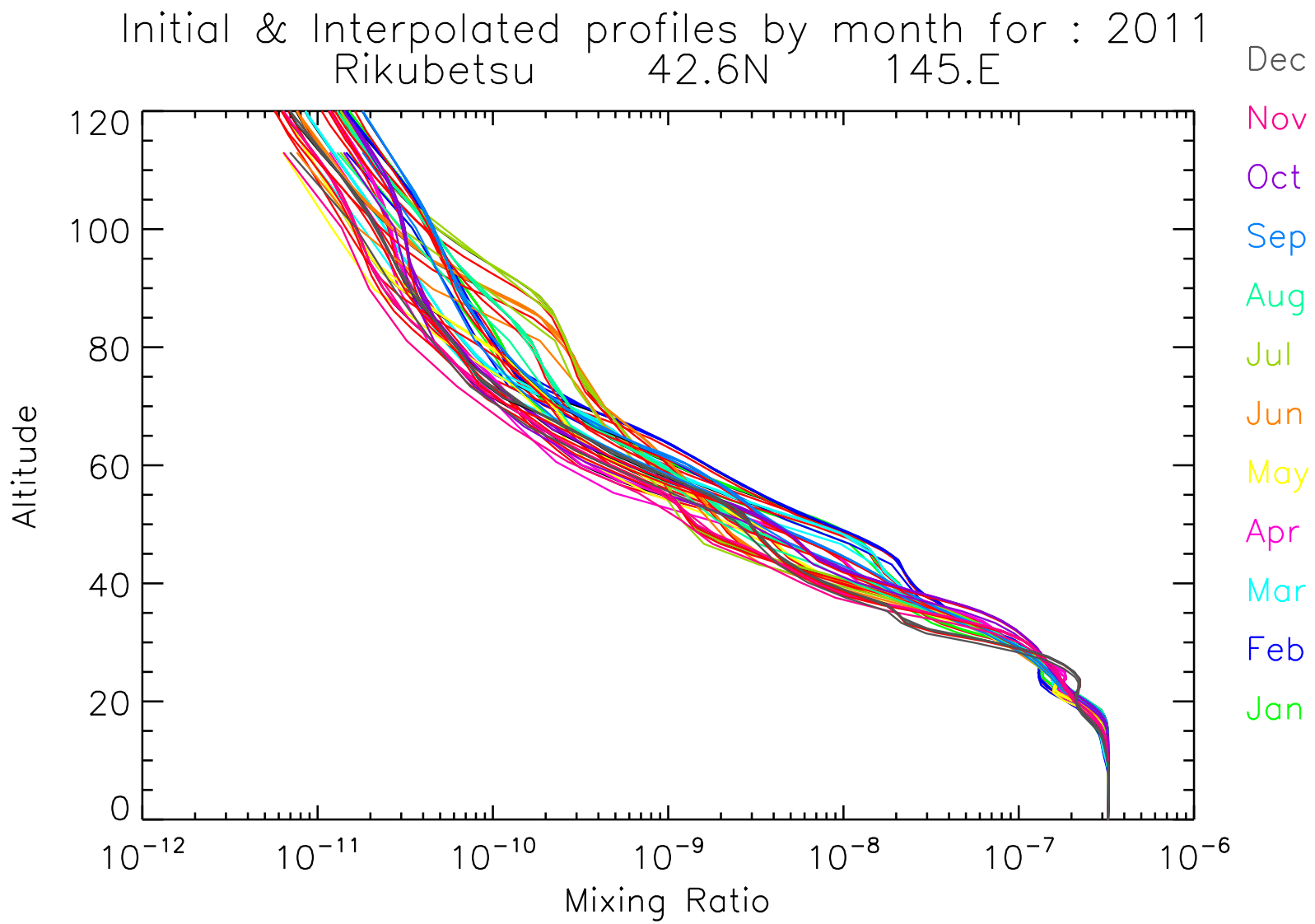
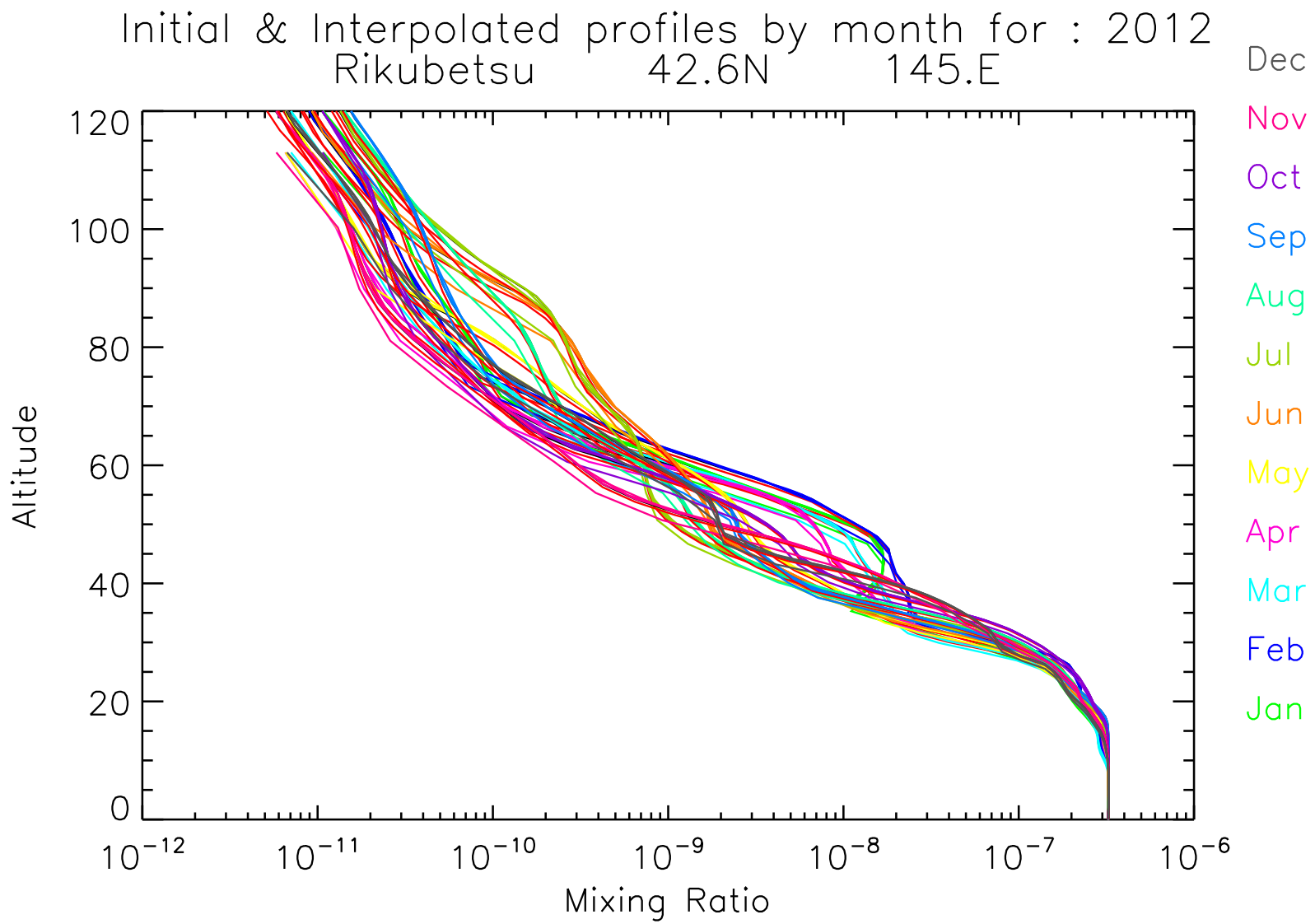
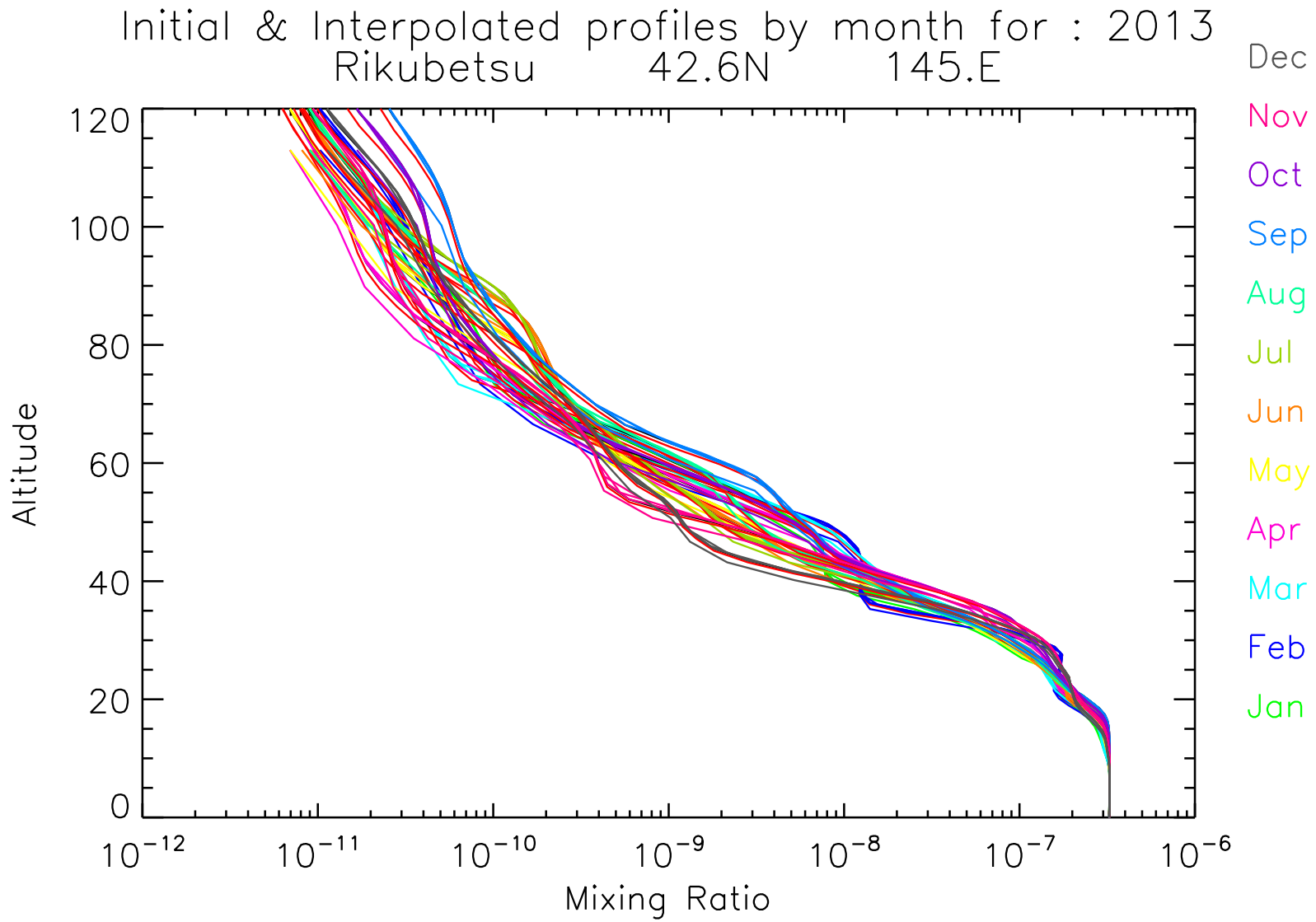
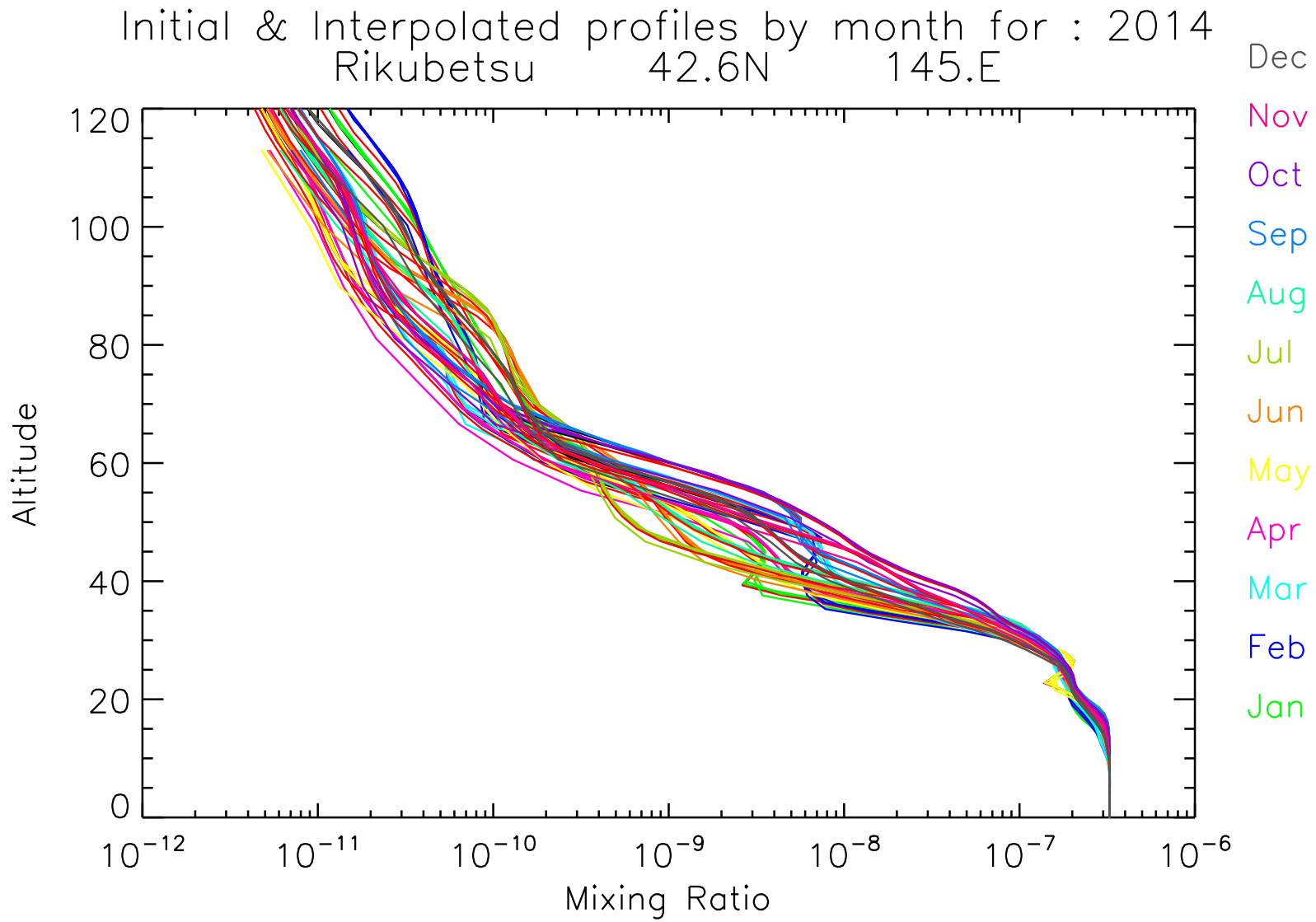
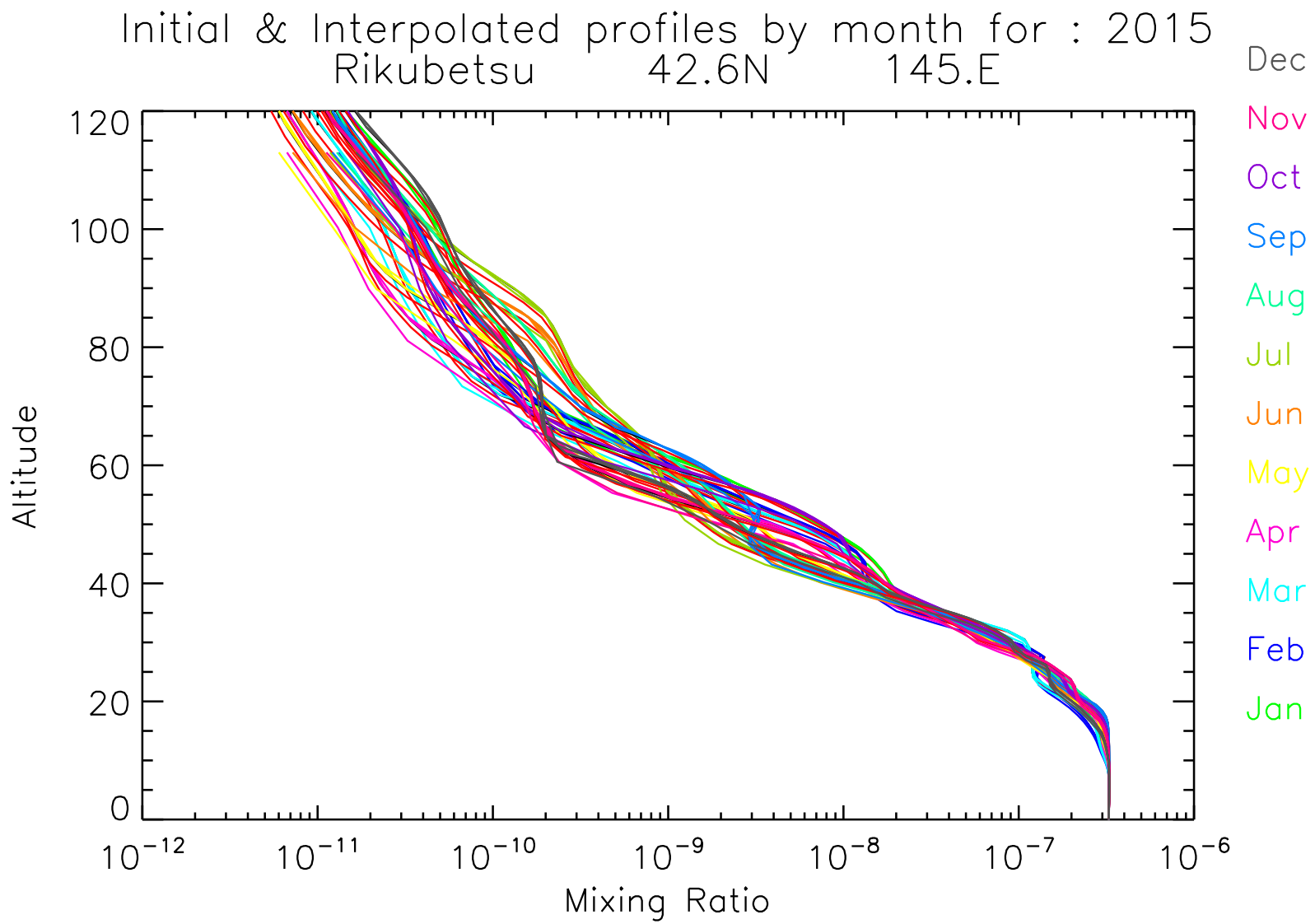
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

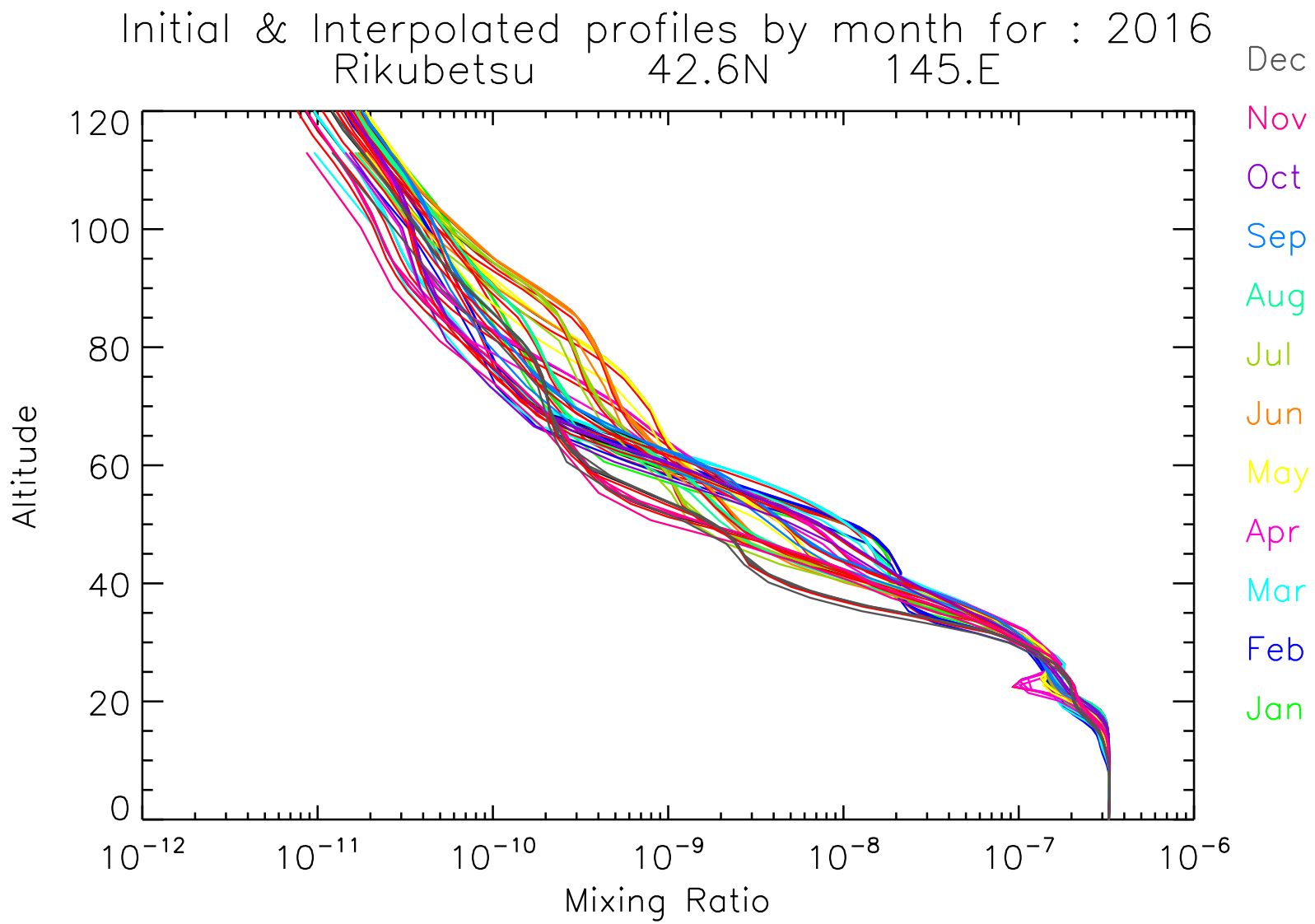

Initial & Interpolated profiles by month for : 2011
Rikubetsu 42.6N 145.E
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

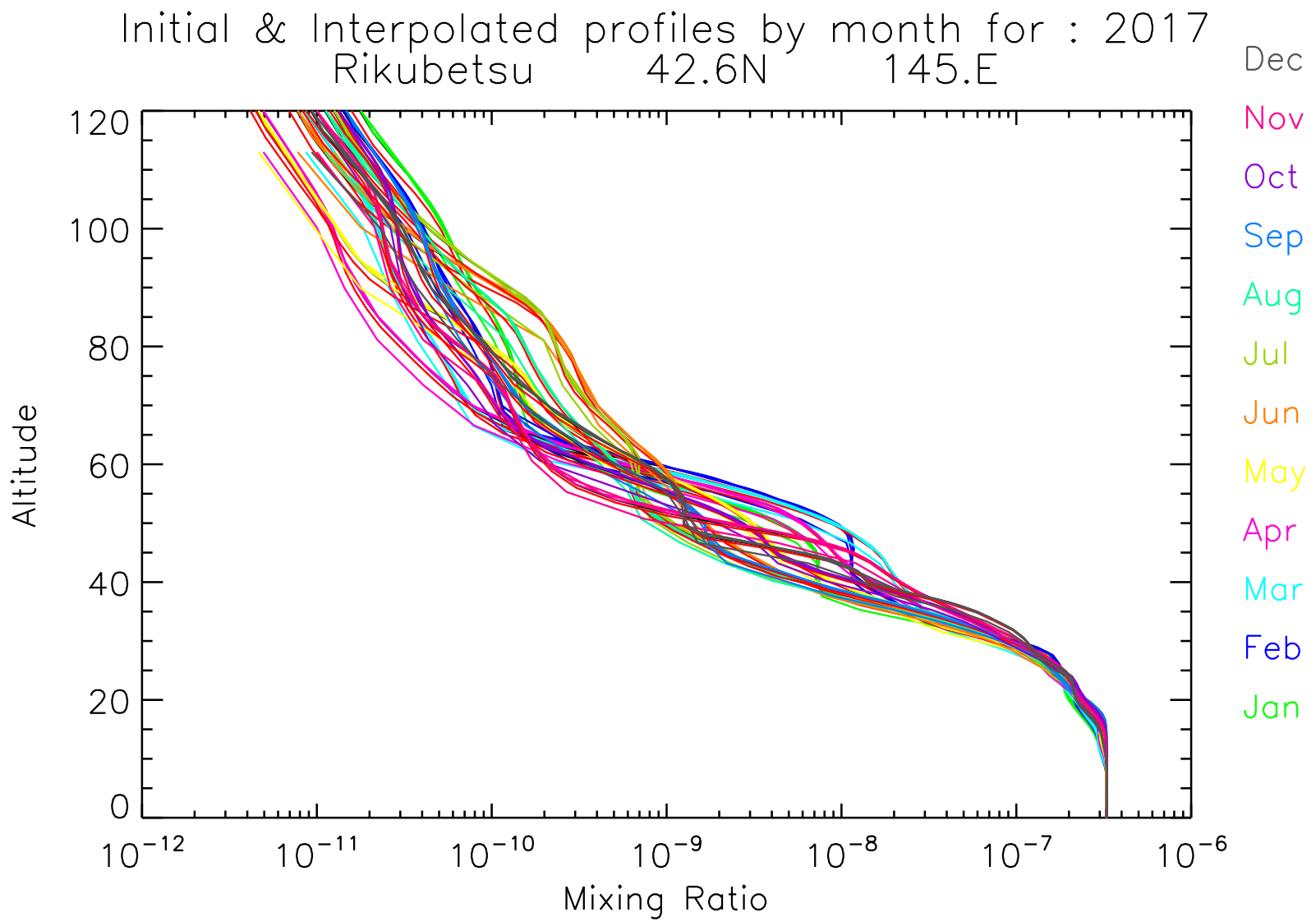

Initial & Interpolated profiles by month for : 2012
Rikubetsu 42.6N 145.E
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

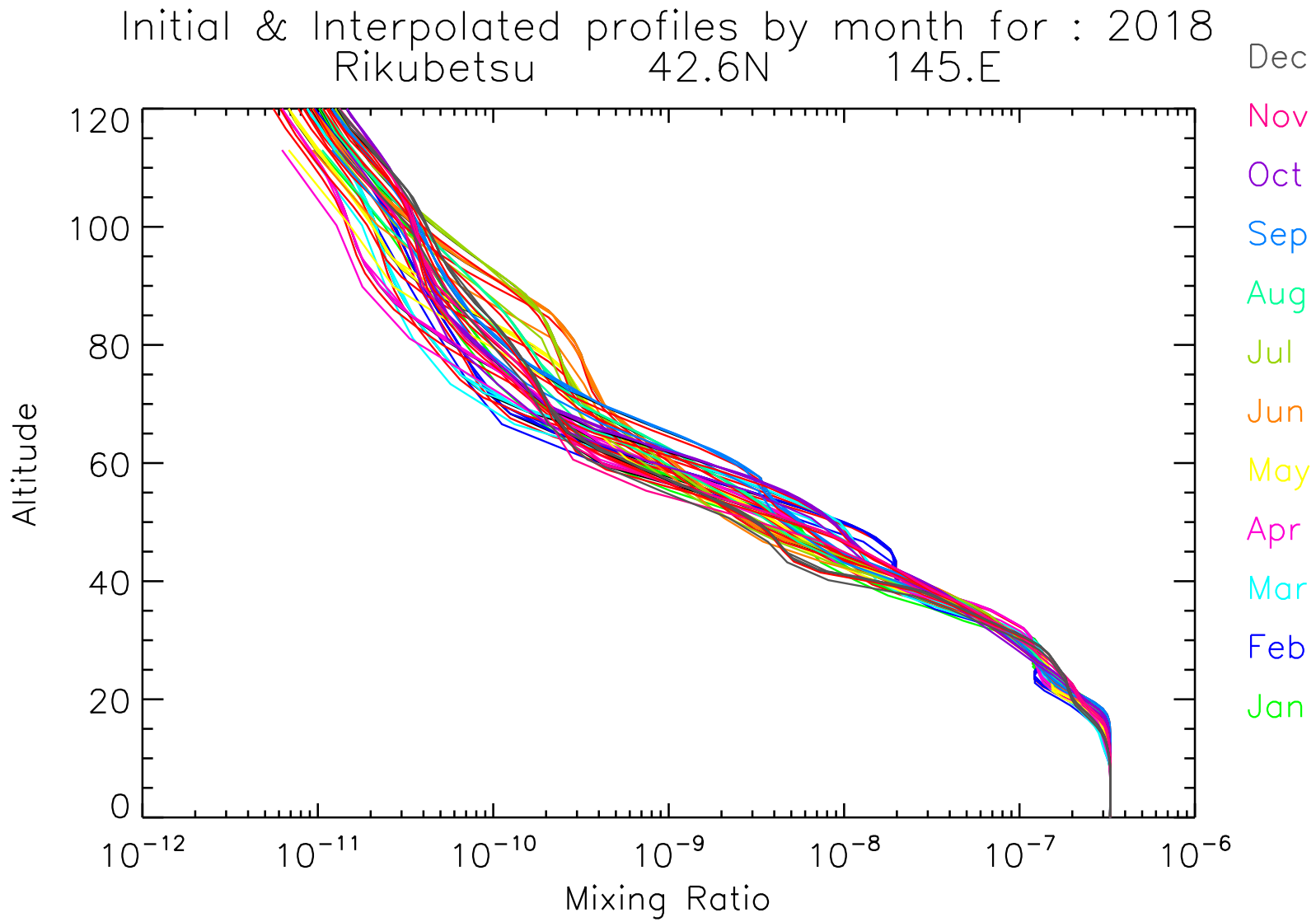

Initial & Interpolated profiles by month for : 2013
Rikubetsu 42.6N 145.E
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

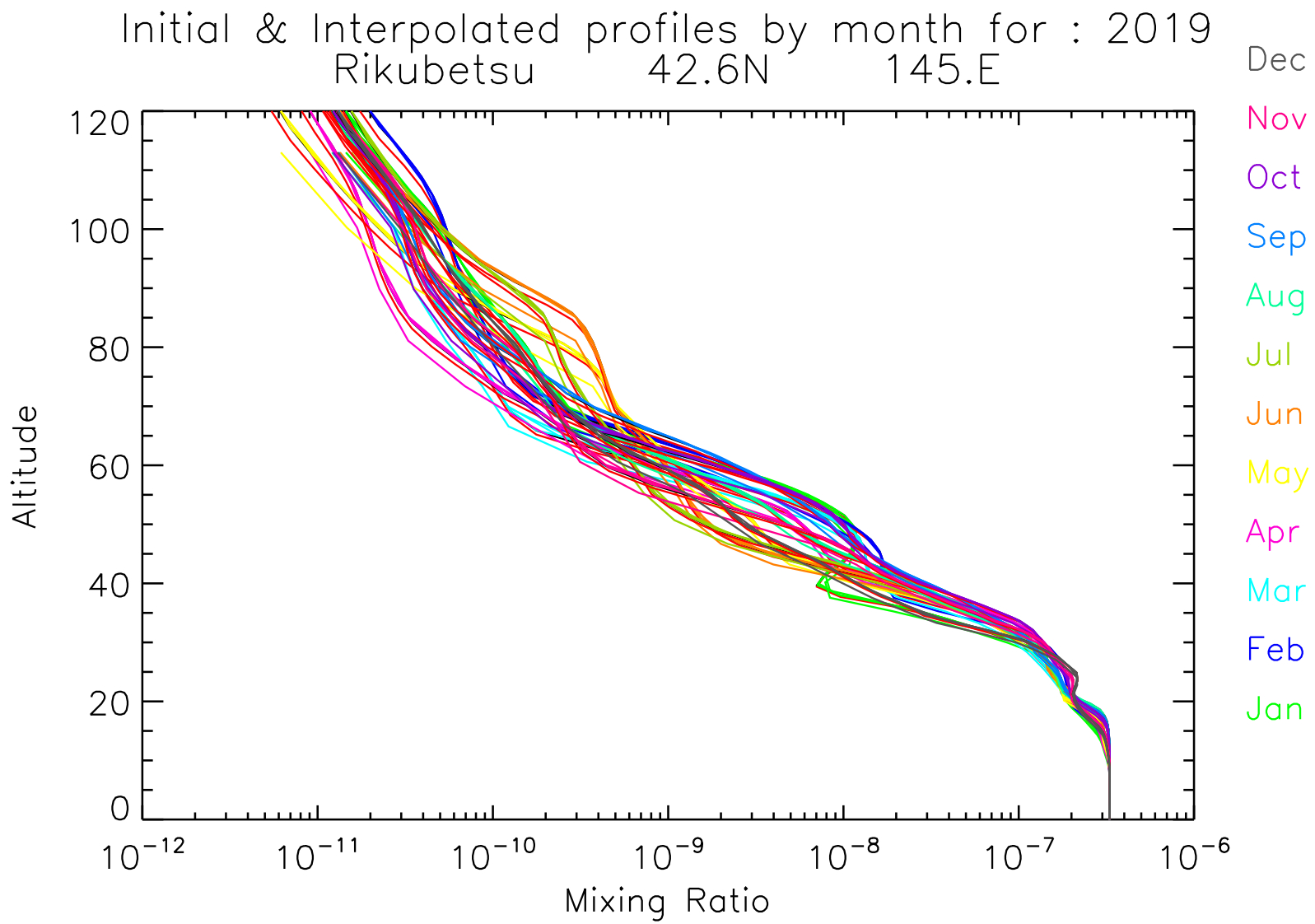

Initial & Interpolated profiles by month for : 2014
Rikubetsu 42.6N 145.E
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

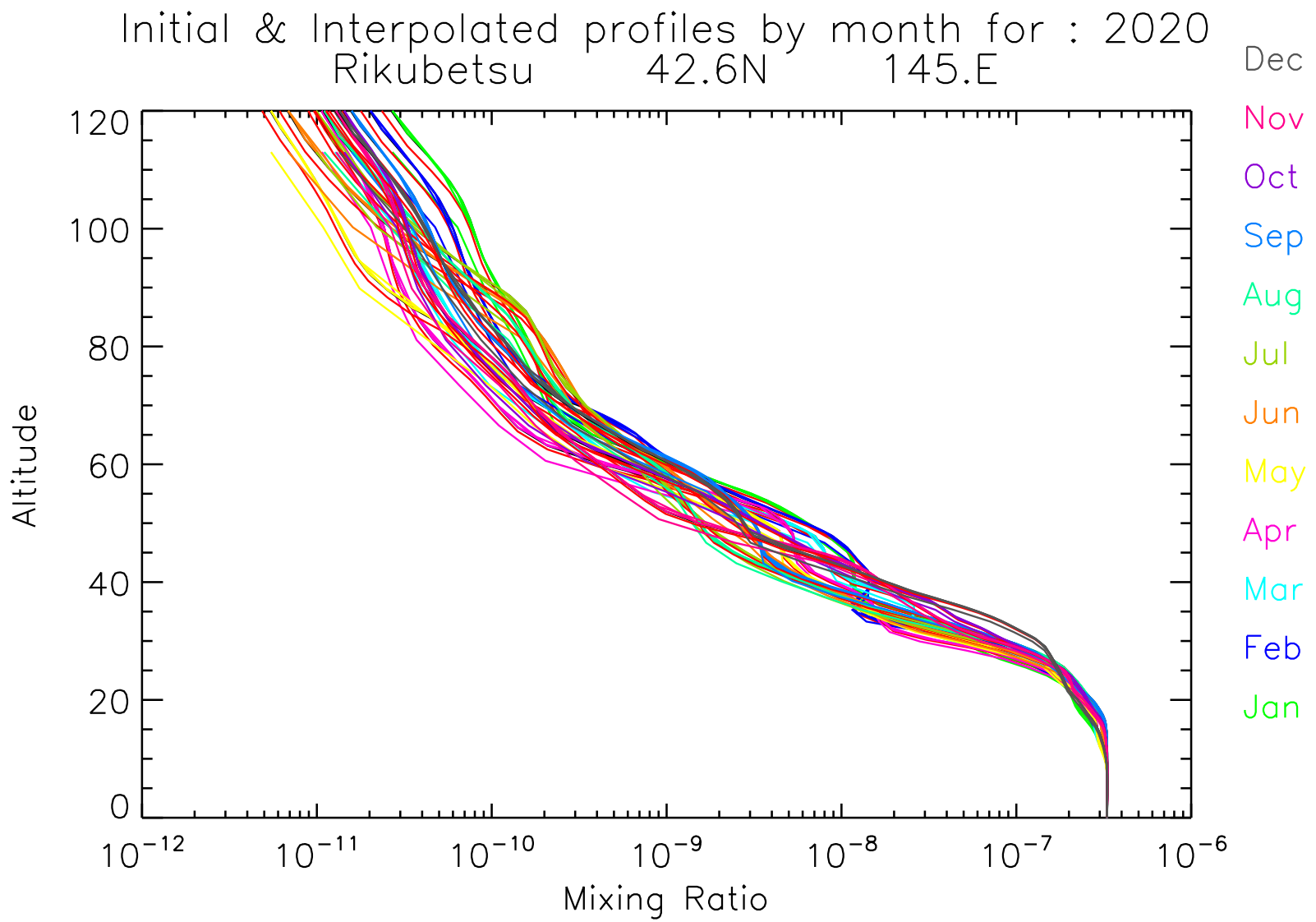

Initial & Interpolated profiles by month for : 2015
Rikubetsu 42.6N 145.E
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

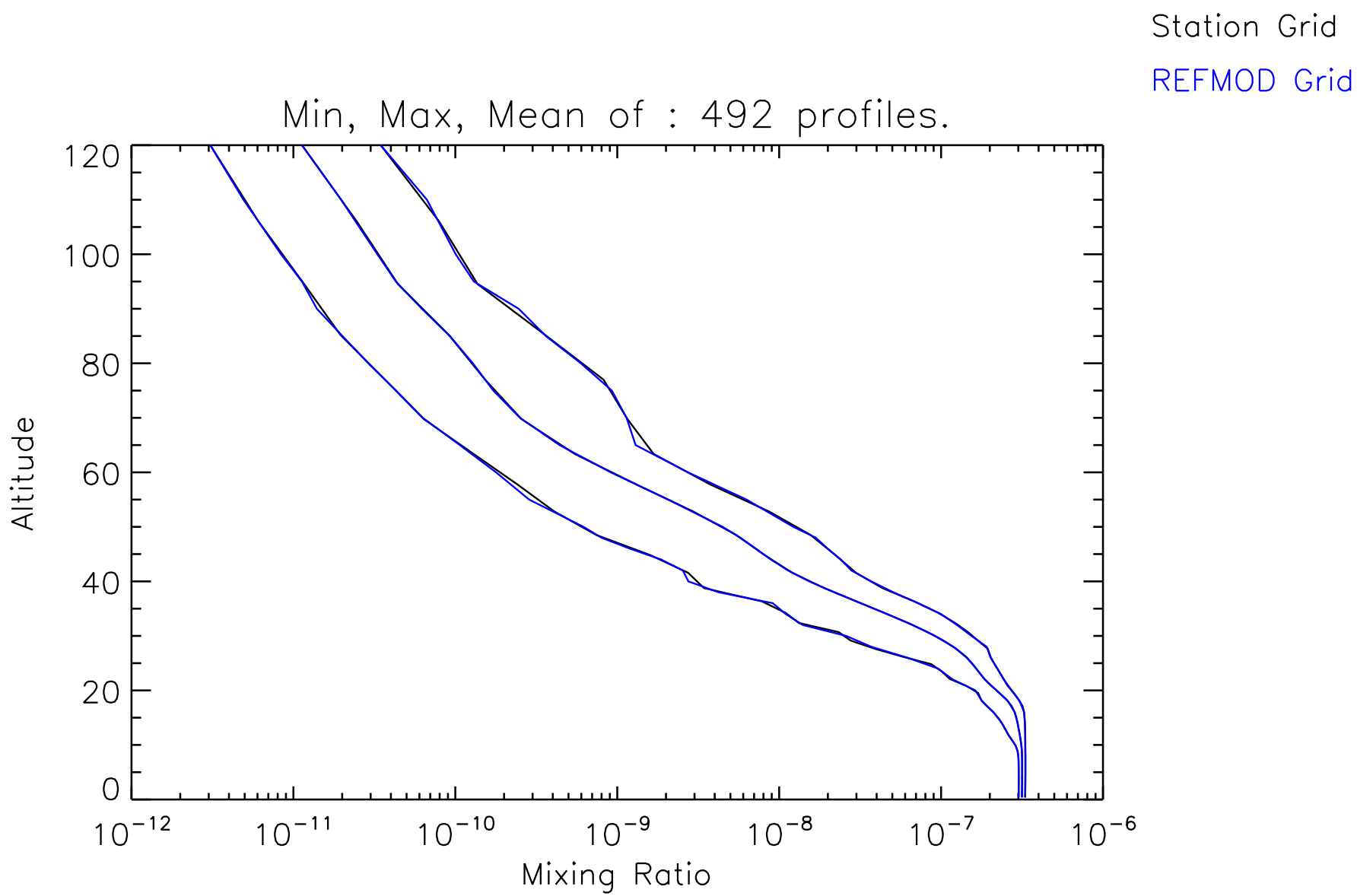

Initial & Interpolated profiles by month for : 2016
Rikubetsu 42.6N 145.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio

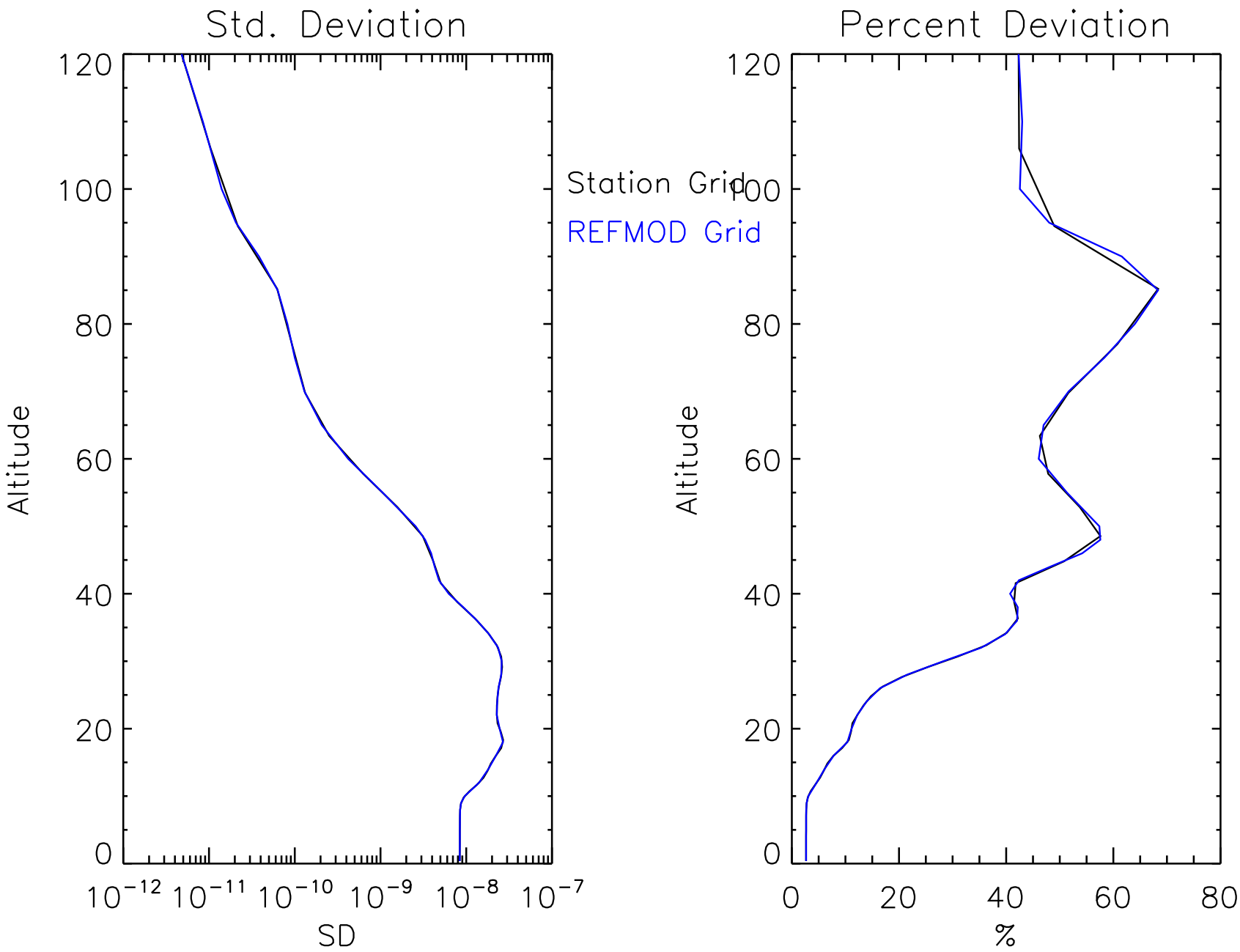

Initial & Interpolated profiles by month for : 2017
Rikubetsu 42.6N 145.E
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

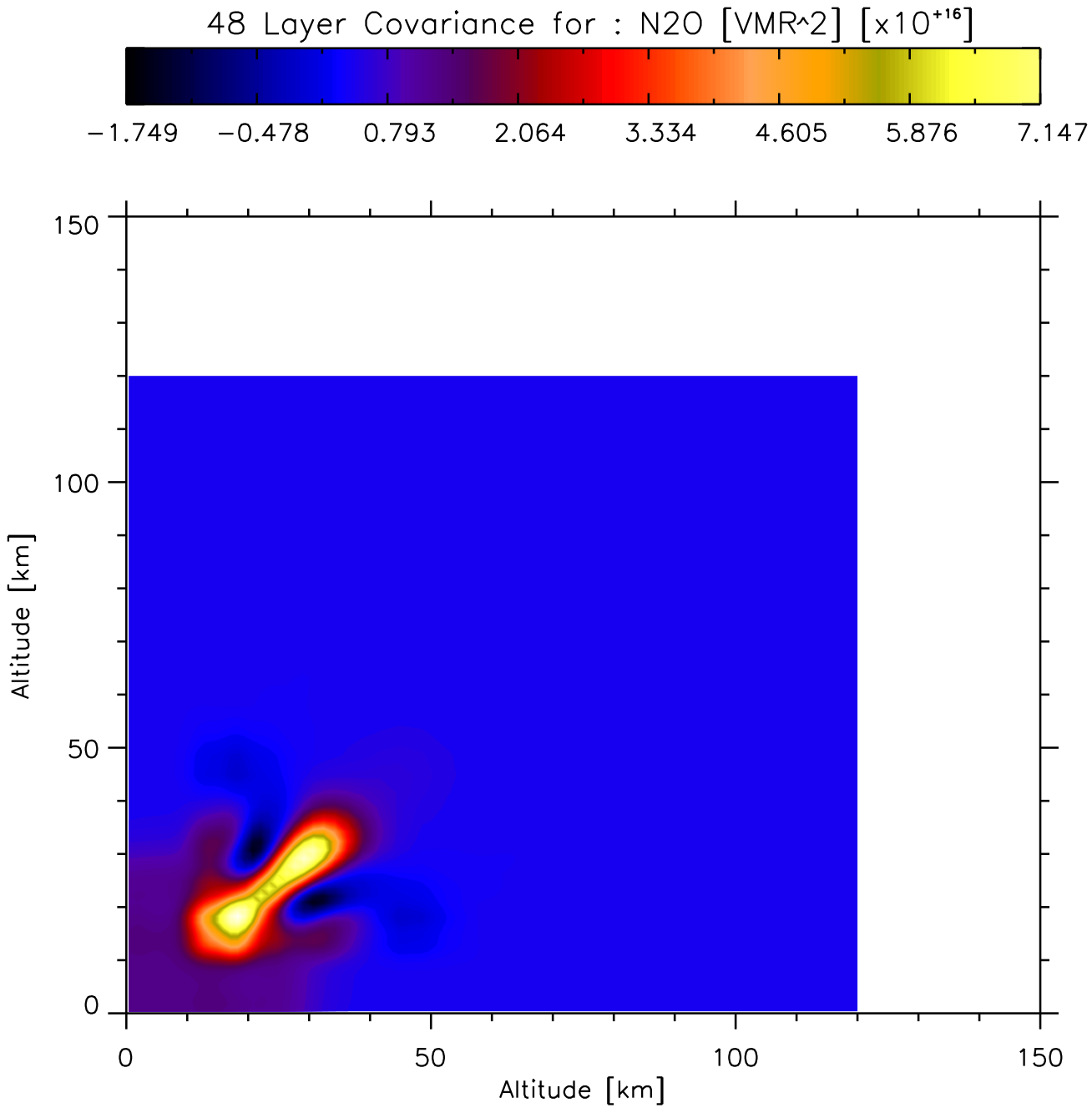

Initial & Interpolated profiles by month for : 2018
Rikubetsu 42.6N 145.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio

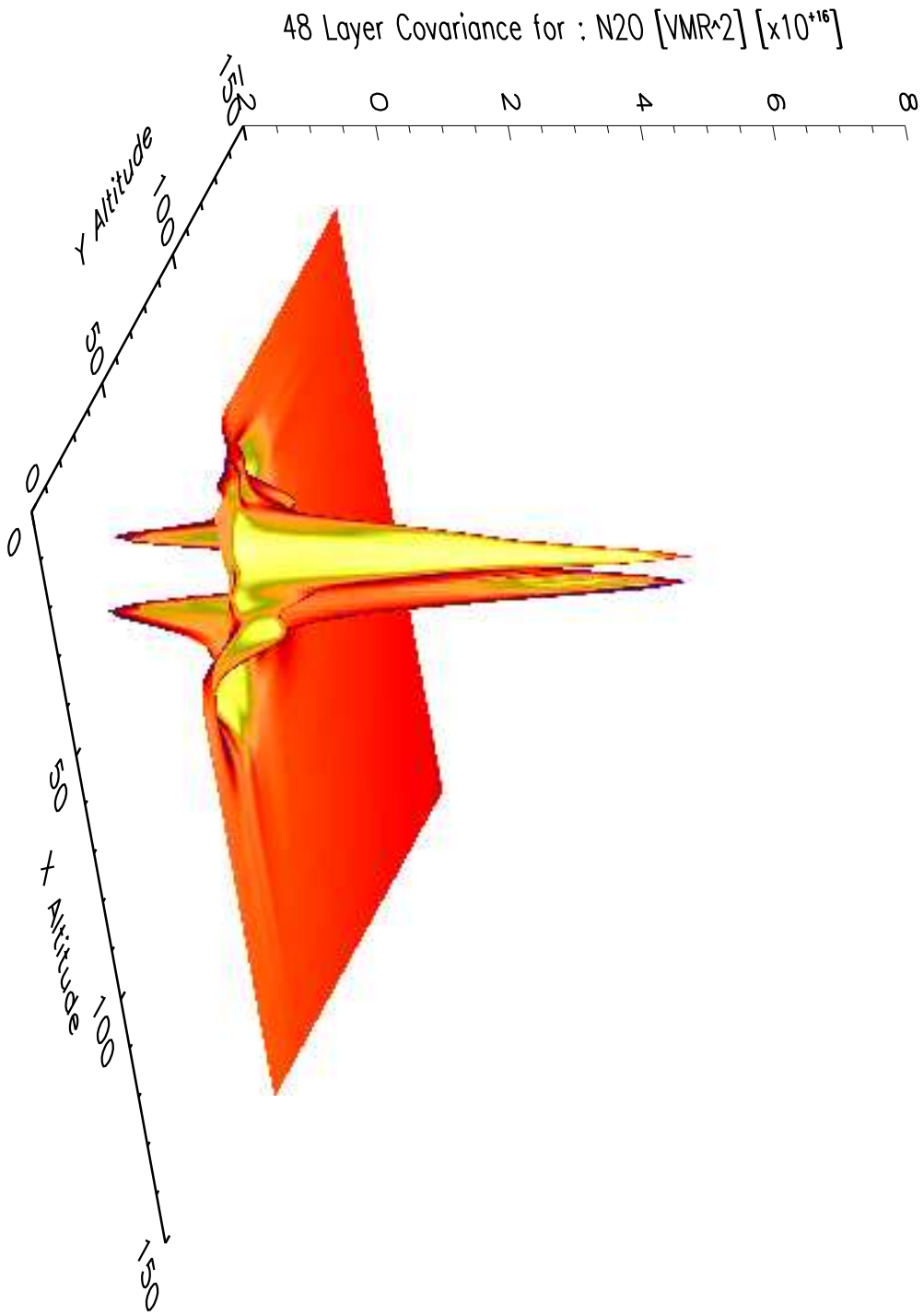

Initial & Interpolated profiles by month for : 2019
Rikubetsu 42.6N 145.E
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

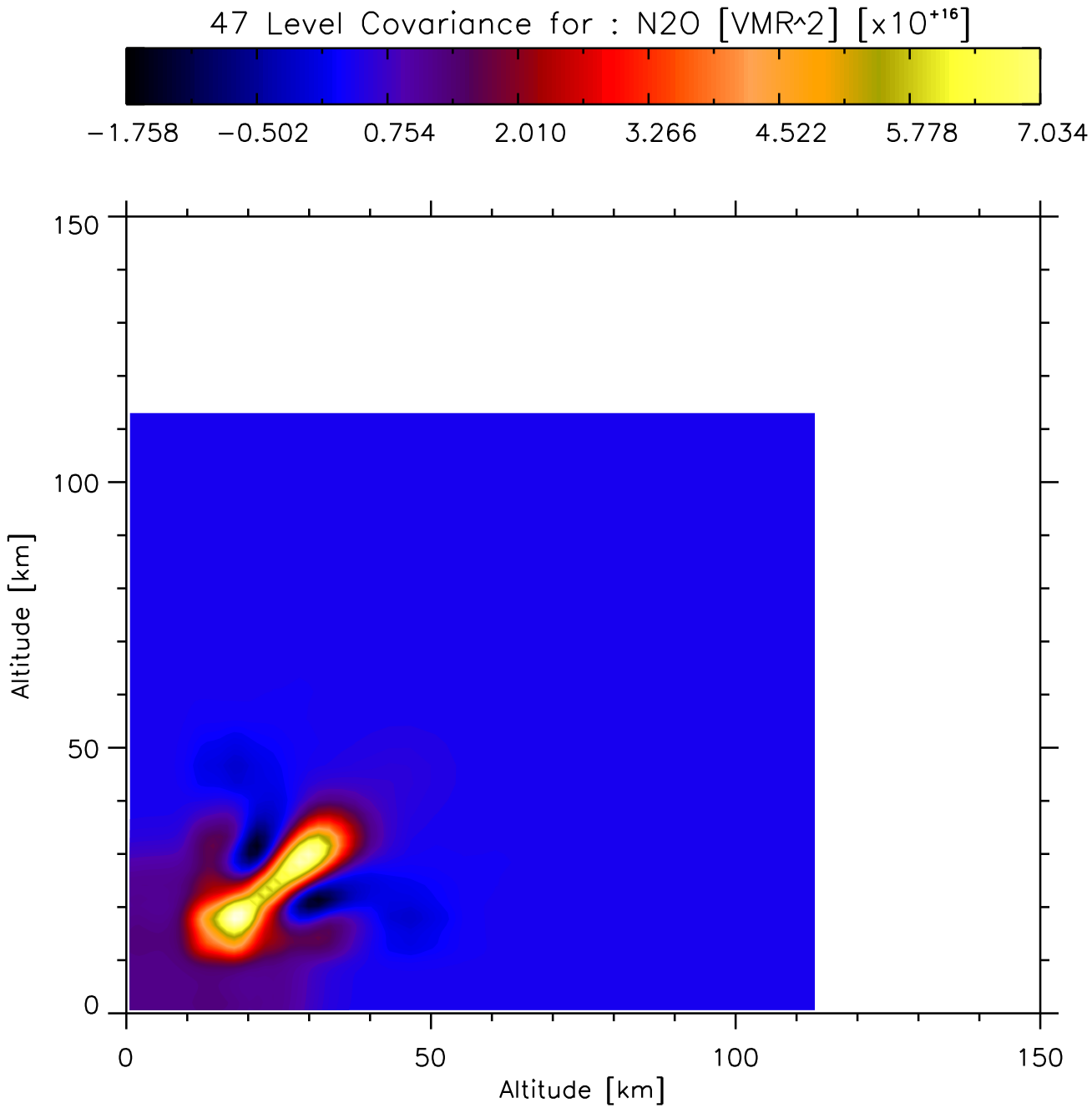

Initial & Interpolated profiles by month for : 2020
Rikubetsu 42.6N 145.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio

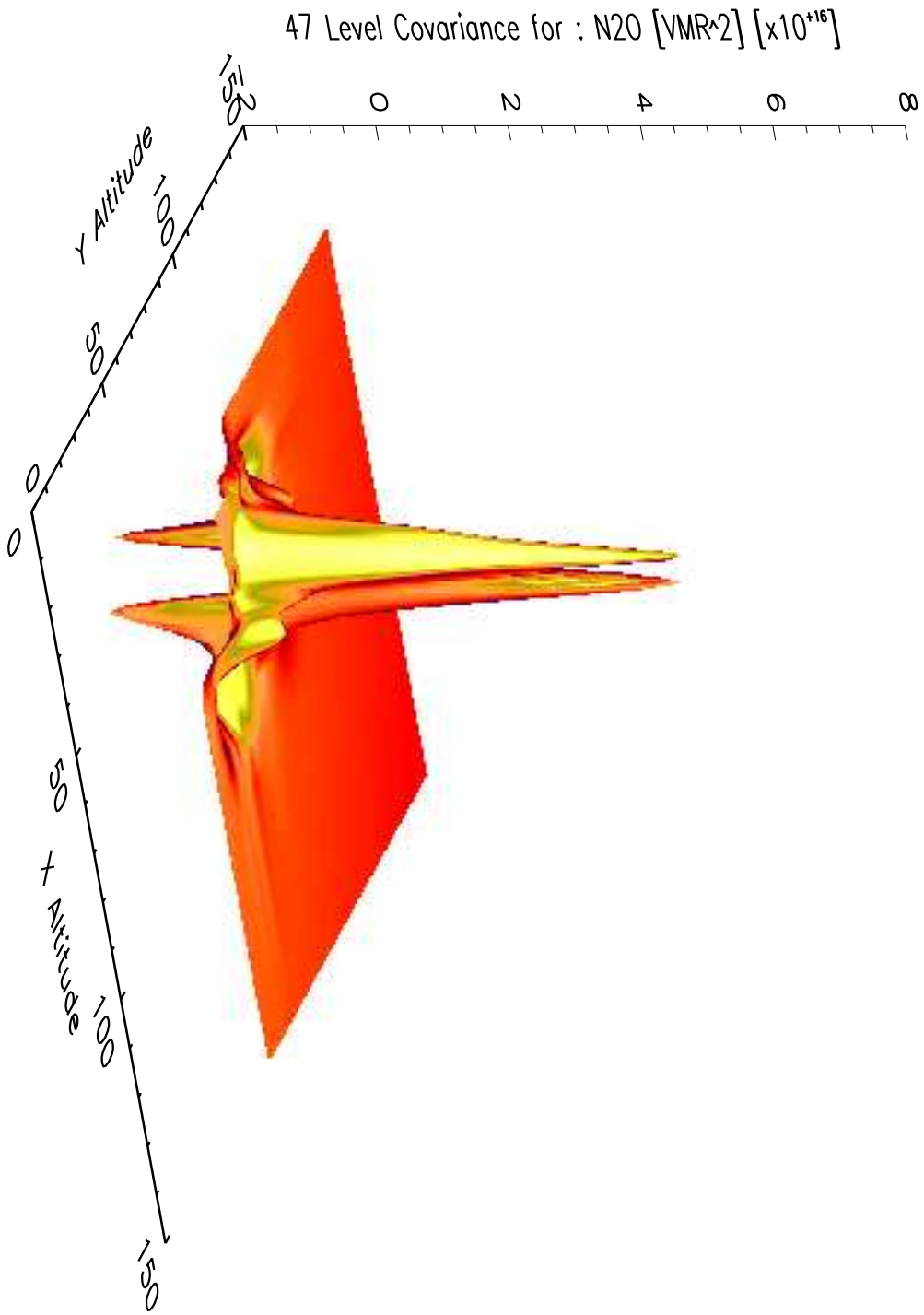

Station Grid
REFMOD Grid
Min, Max, Mean of : 492 profiles.
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio


Std. Deviation
Percent Deviation
Station Grid
REFMOD Grid
Altitude
Altitude
120
100
80
60
40
20
0
10^{-12} 10^{-11} 10^{-10} 10^{-9} 10^{-8} 10^{-7}
SD
0 20 40 60 80
%


48 Layer Covariance for : N2O [VMR^2] [x10^+16]
−1.749
−0.478
0.793
2.064
3.334
4.605
5.876
7.147
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]


48 Layer Covariance for : N2O [VMR^2] [x10^+16]
-150
0
2
4
6
8
Y Altitude
100
50
0
0
50
X Altitude
100
150


47 Level Covariance for : N2O [VMR^2] [x10^+16]
−1.758
−0.502
0.754
2.010
3.266
4.522
5.778
7.034
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]


47 Level Covariance for : N2O [VMR^2] [x10^+16]
8
6
4
2
0
-2
Y Altitude
100
50
0
0
50
100
X Altitude