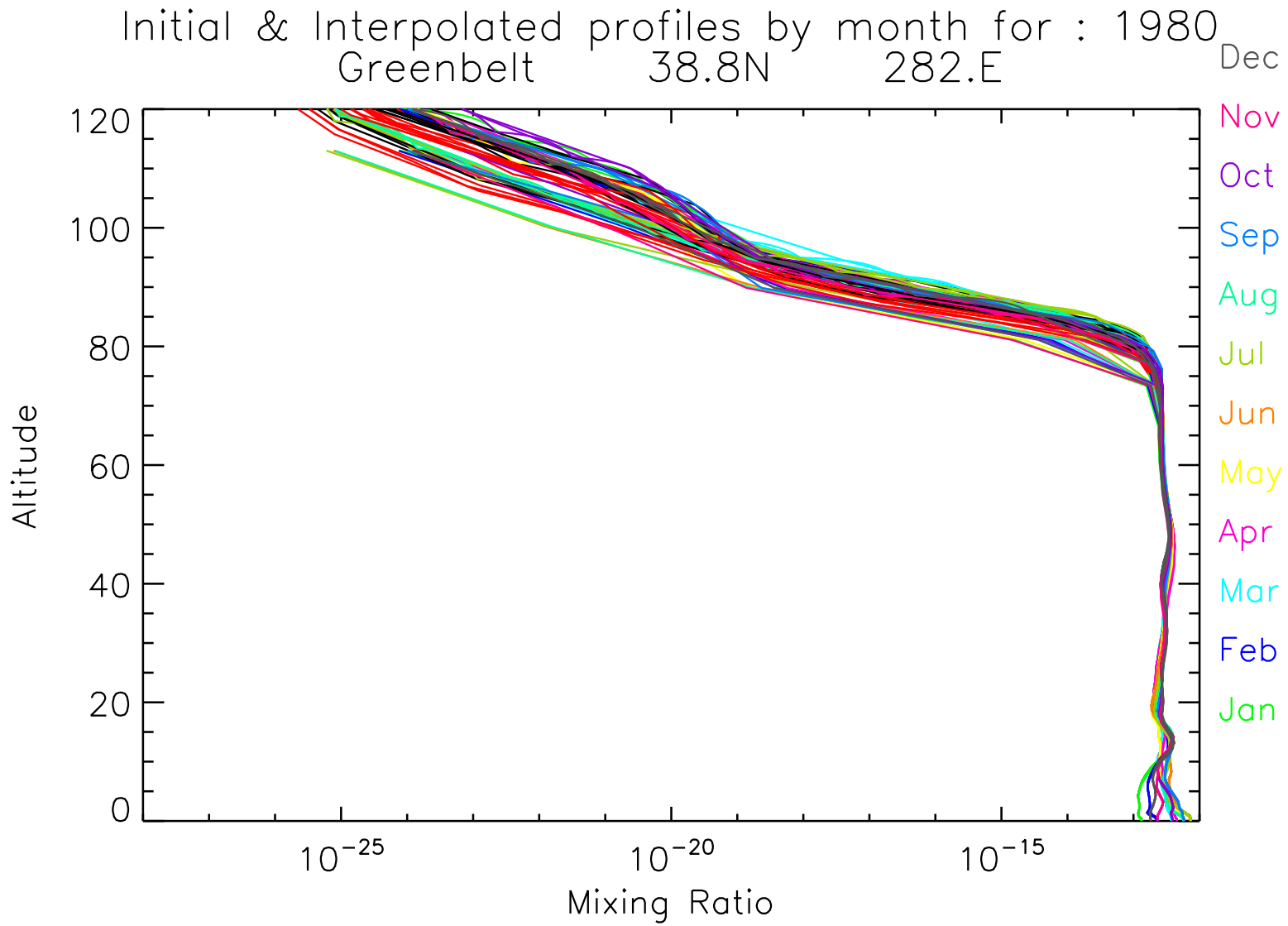
Initial & Interpolated profiles by month for : 1980
Greenbelt 38.8N 282.E
Dec
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Altitude
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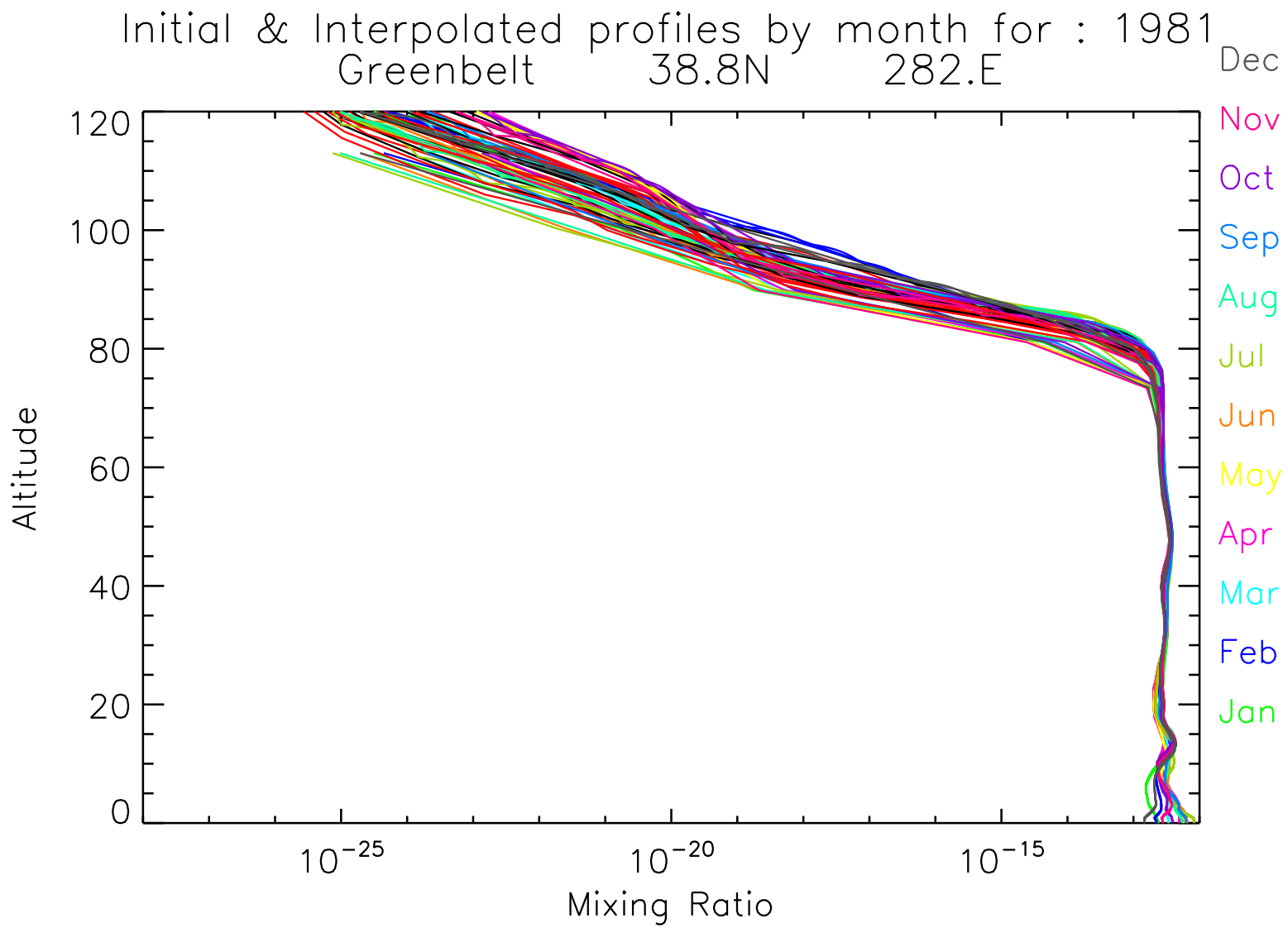
10^{-20}
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 1981
Greenbelt 38.8N 282.E
Dec
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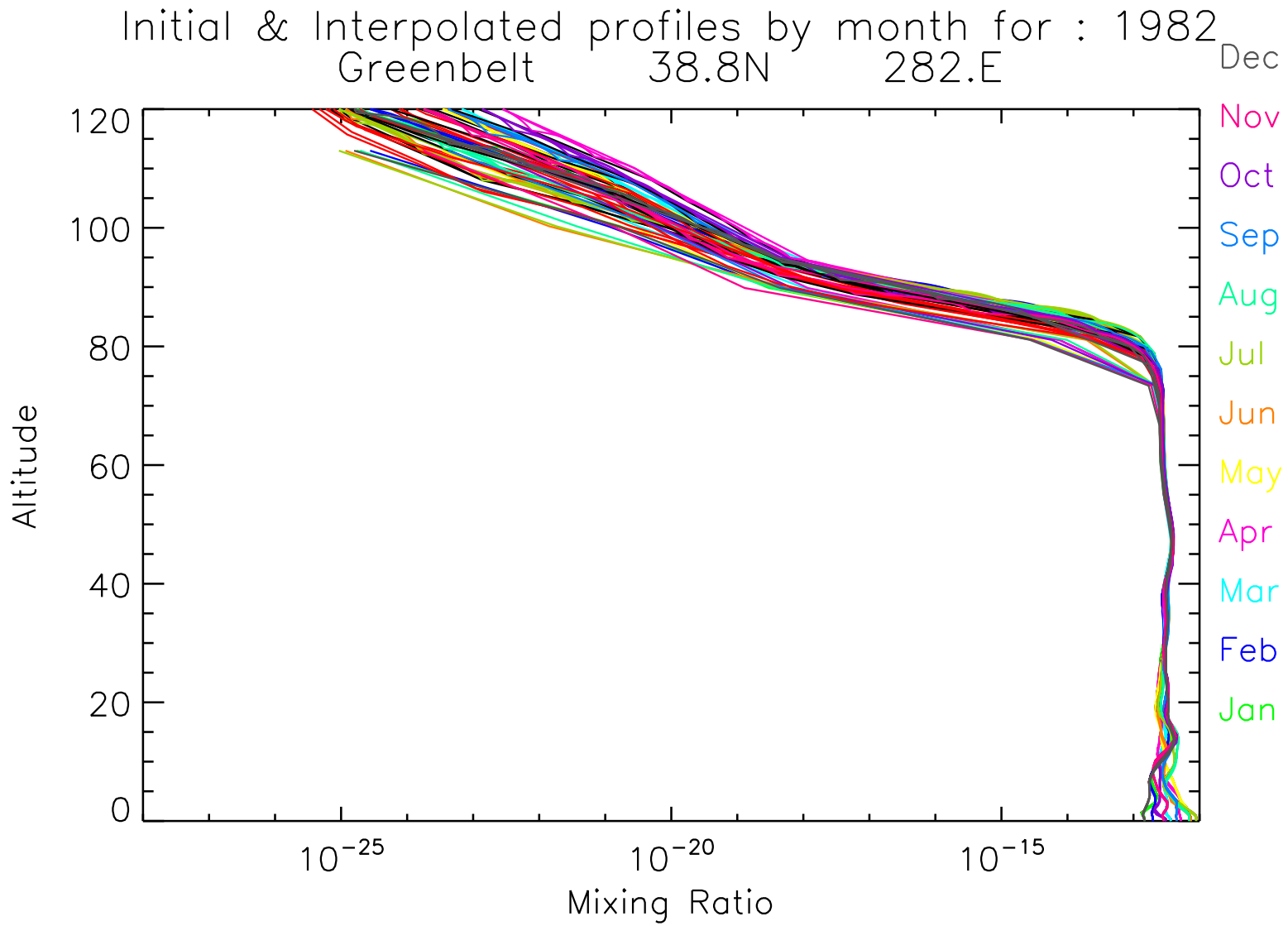
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 1982
Greenbelt 38.8N 282.E
Dec
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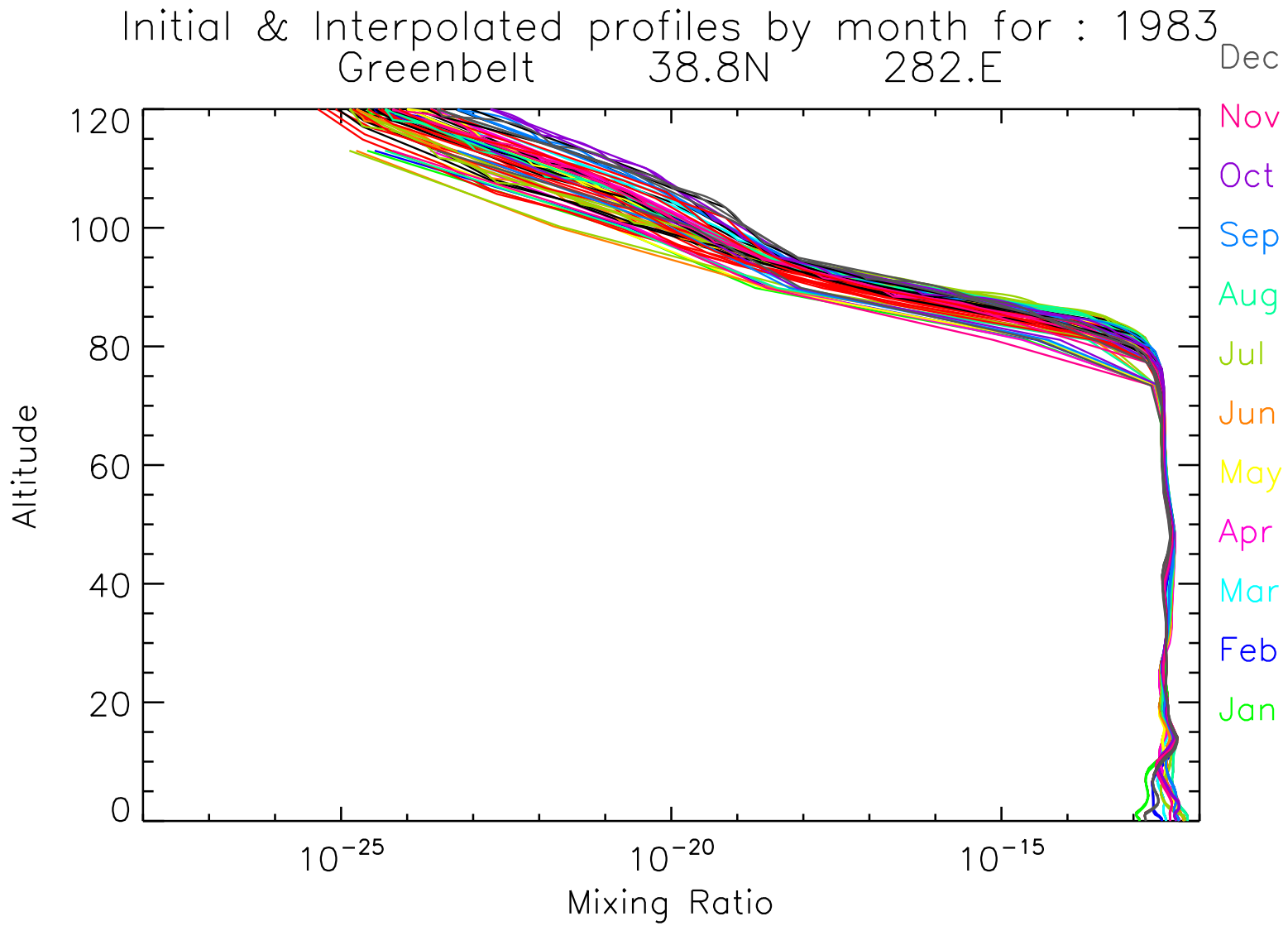
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 1983
Greenbelt 38.8N 282.E
Dec
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Altitude
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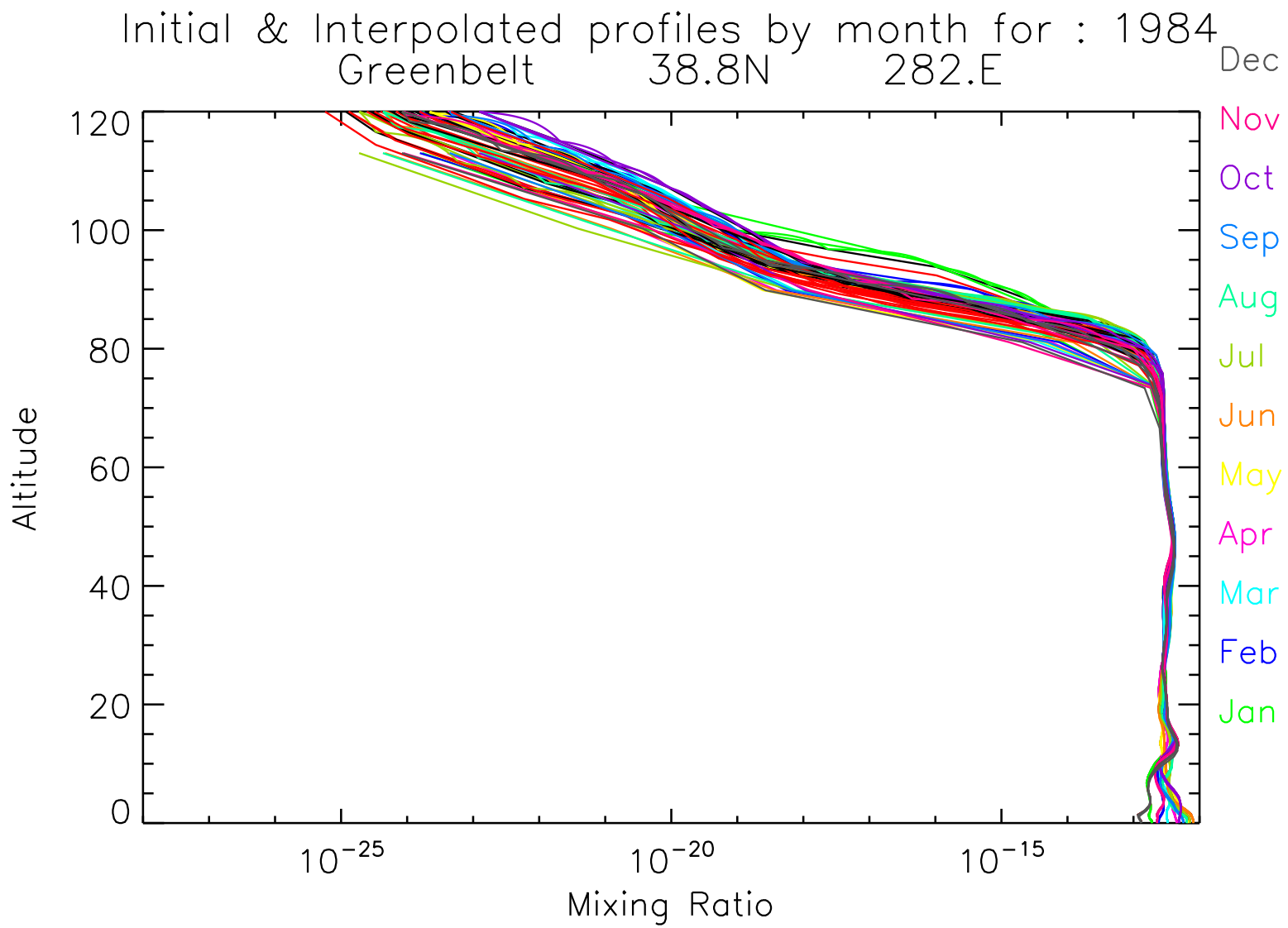
10^{-20}
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 1984
Greenbelt 38.8N 282.E
Dec
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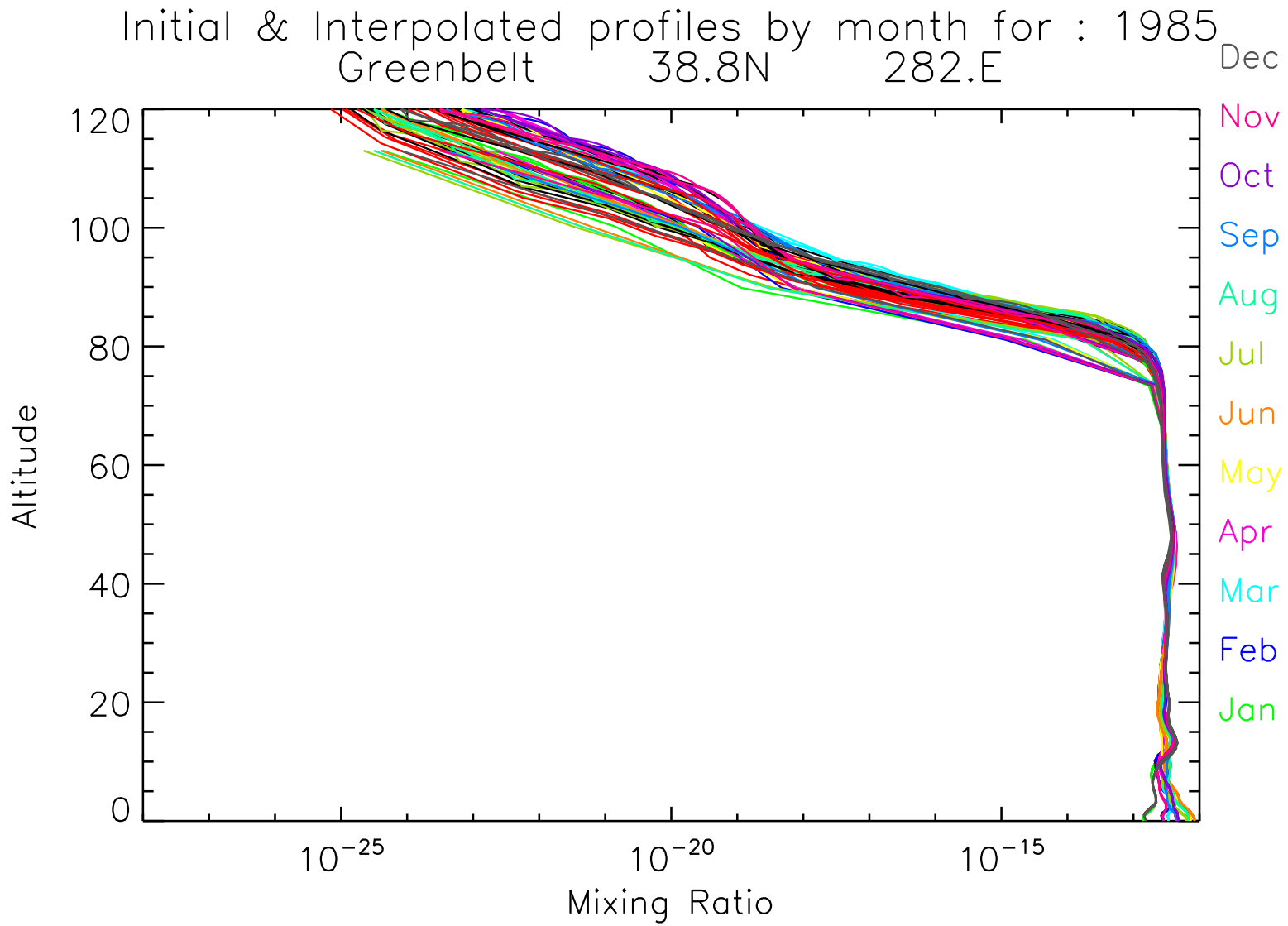
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 1985
Greenbelt 38.8N 282.E
Dec
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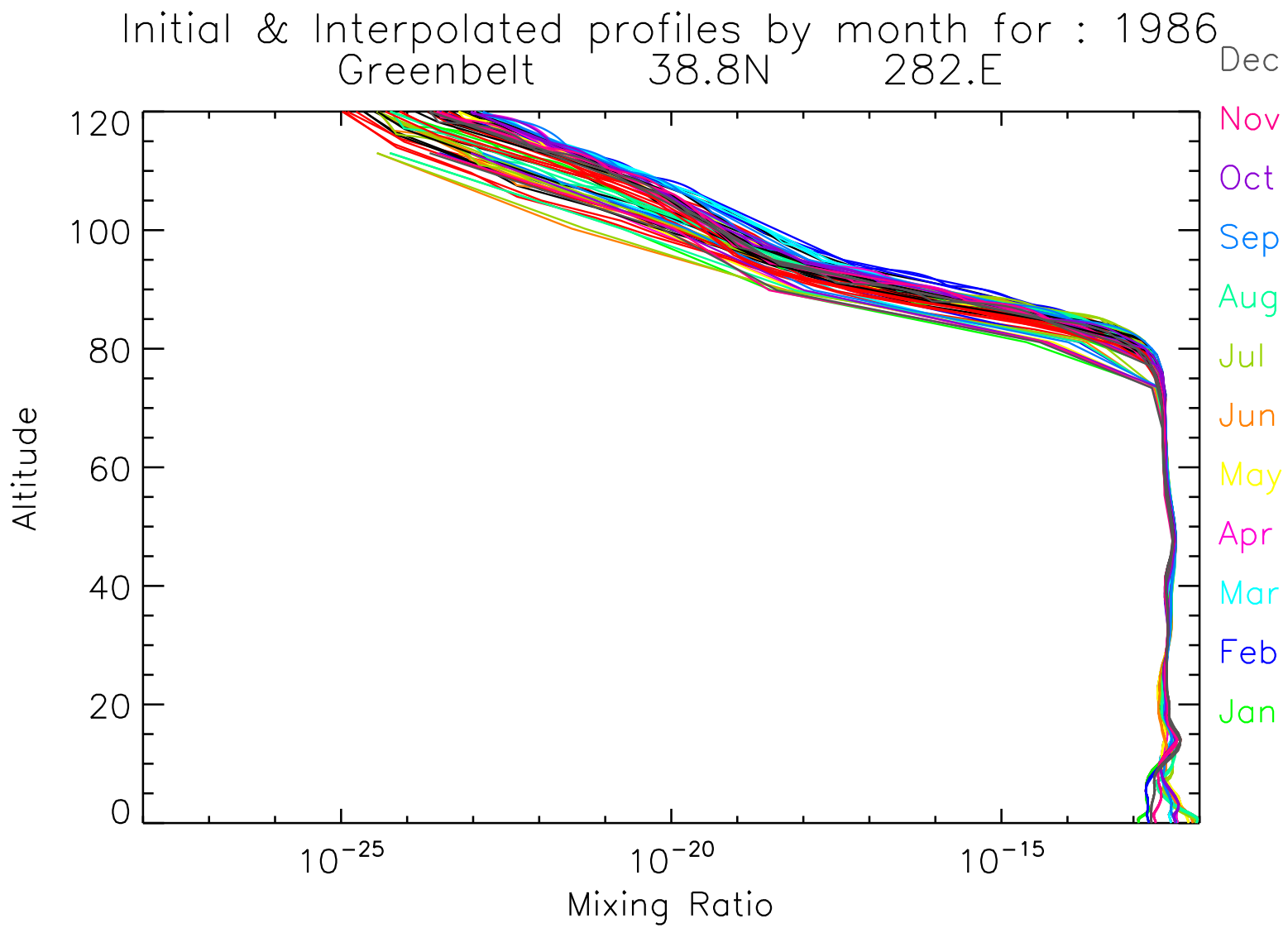
Mixing Ratio


Initial & Interpolated profiles by month for : 1986
Greenbelt 38.8N 282.E
Dec
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Altitude
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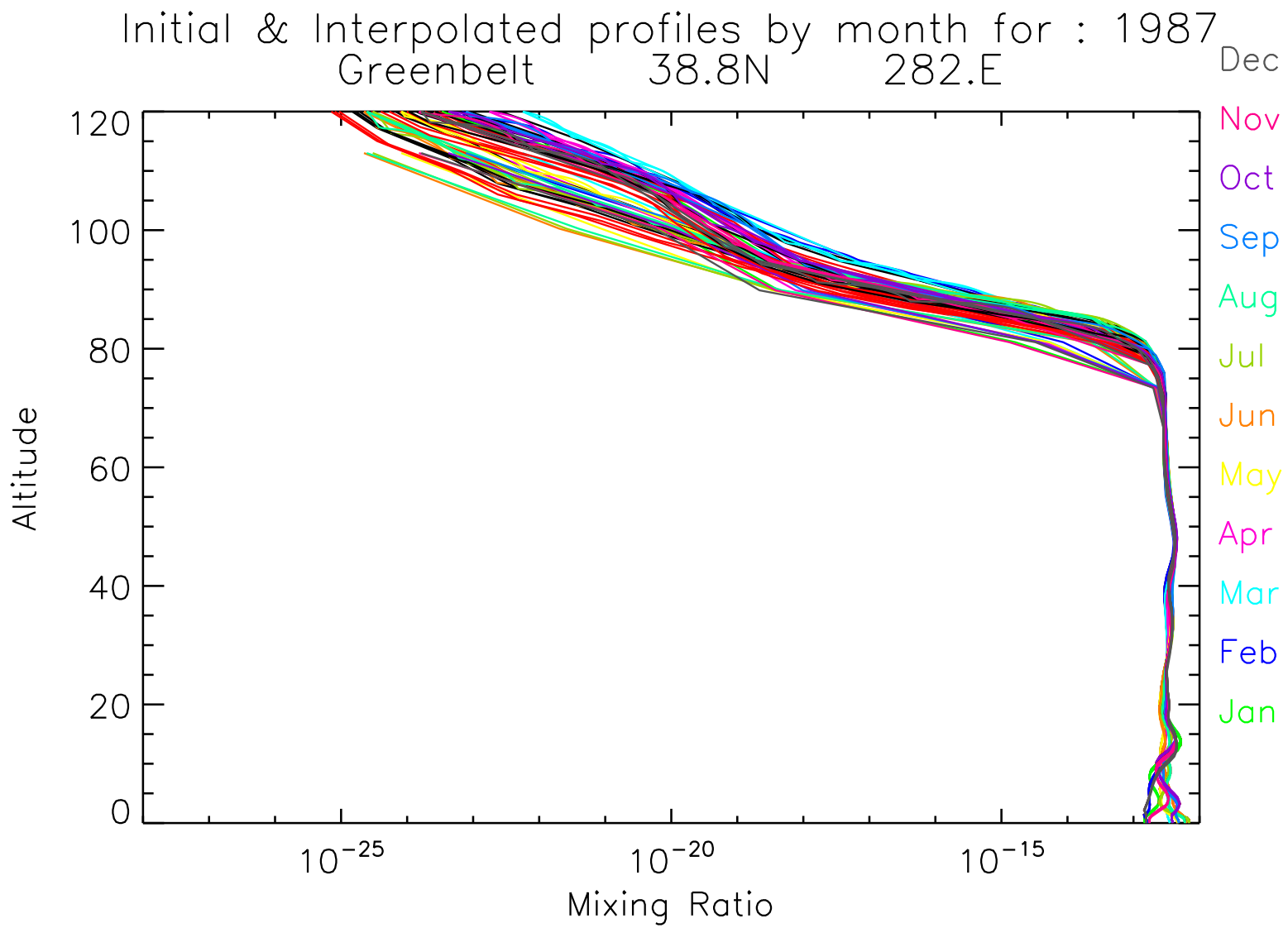
Mixing Ratio


Initial & Interpolated profiles by month for : 1987
Greenbelt 38.8N 282.E
Dec
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Altitude
10^{-25}
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10^{-15}
Mixing Ratio

Initial & Interpolated profiles by month for : 1988
Greenbelt 38.8N 282.E
Mixing Ratio
10−15
10−20
10−25
Altitude
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Dec
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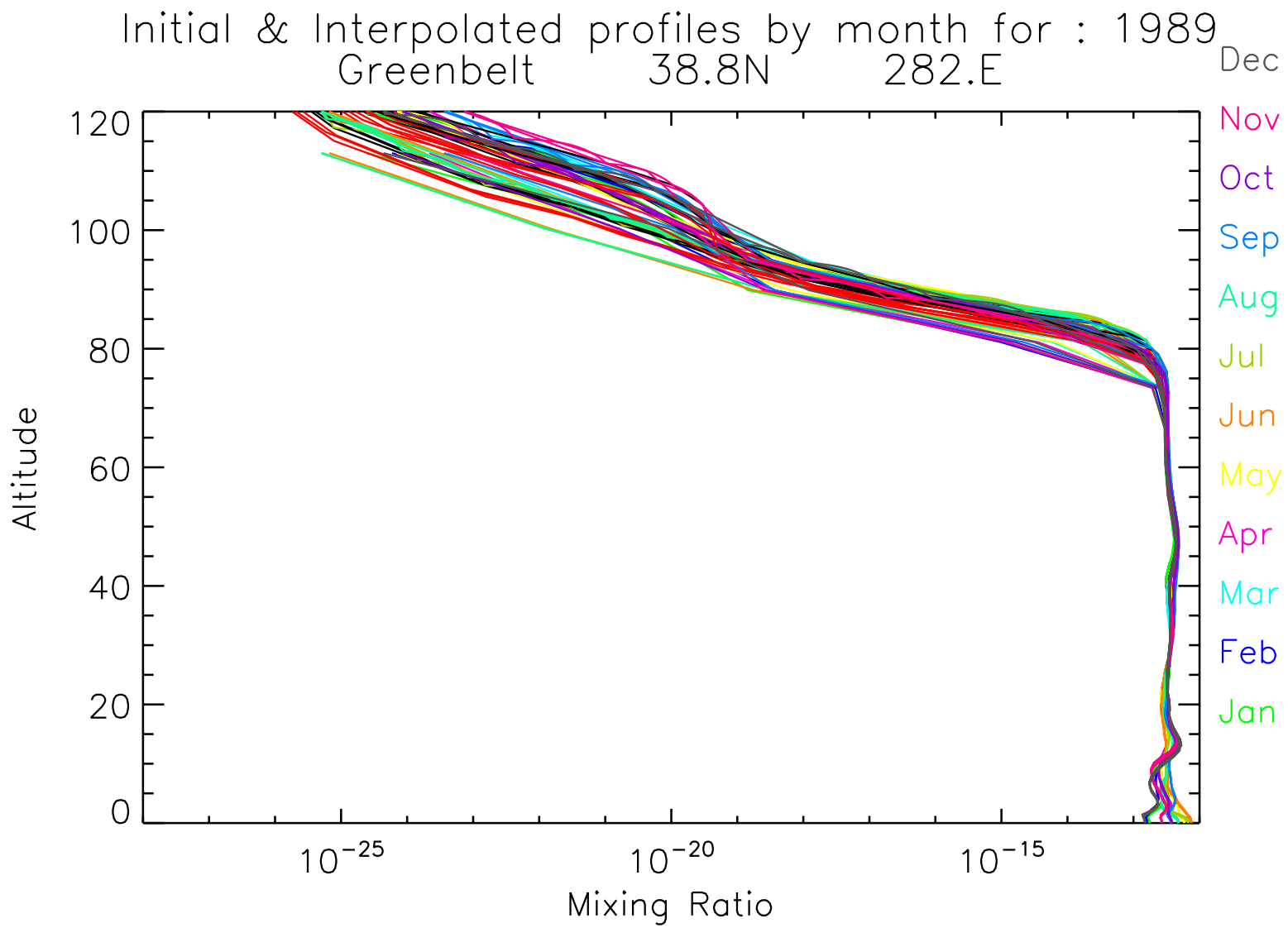
Feb
Jan


Initial & Interpolated profiles by month for : 1989
Greenbelt 38.8N 282.E
Dec
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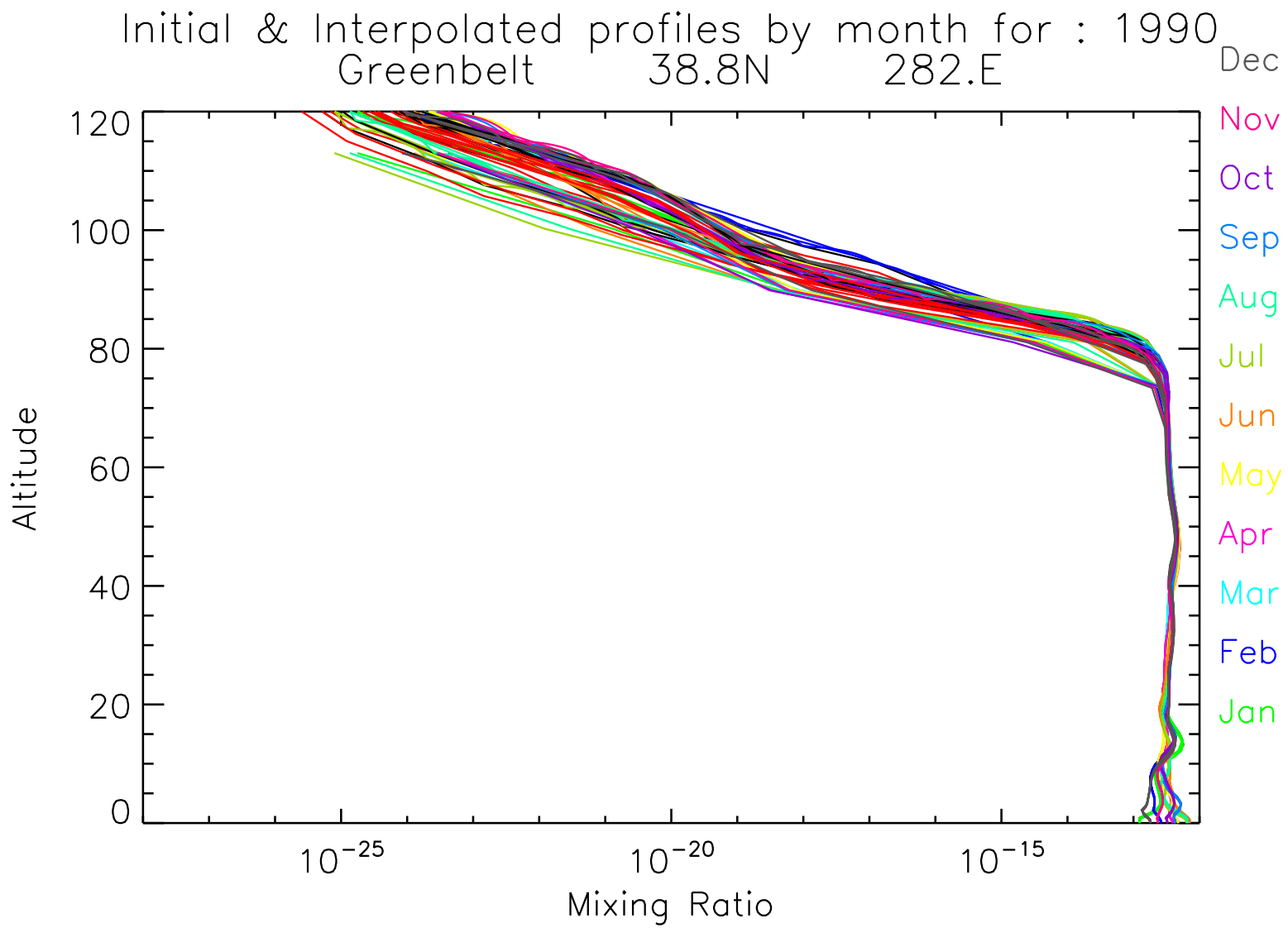
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 1990
Greenbelt 38.8N 282.E
Dec
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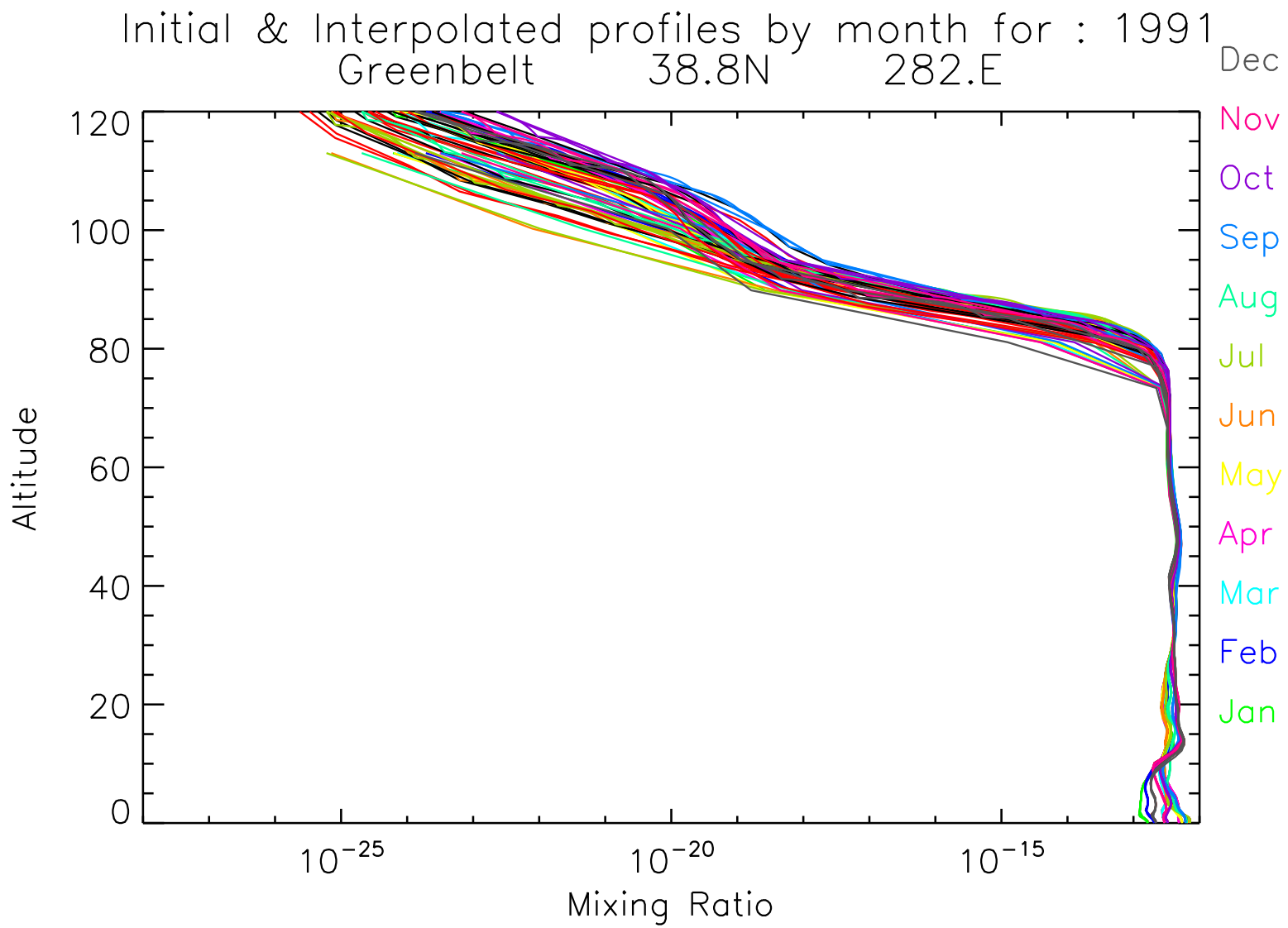
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 1991
Greenbelt 38.8N 282.E
Dec
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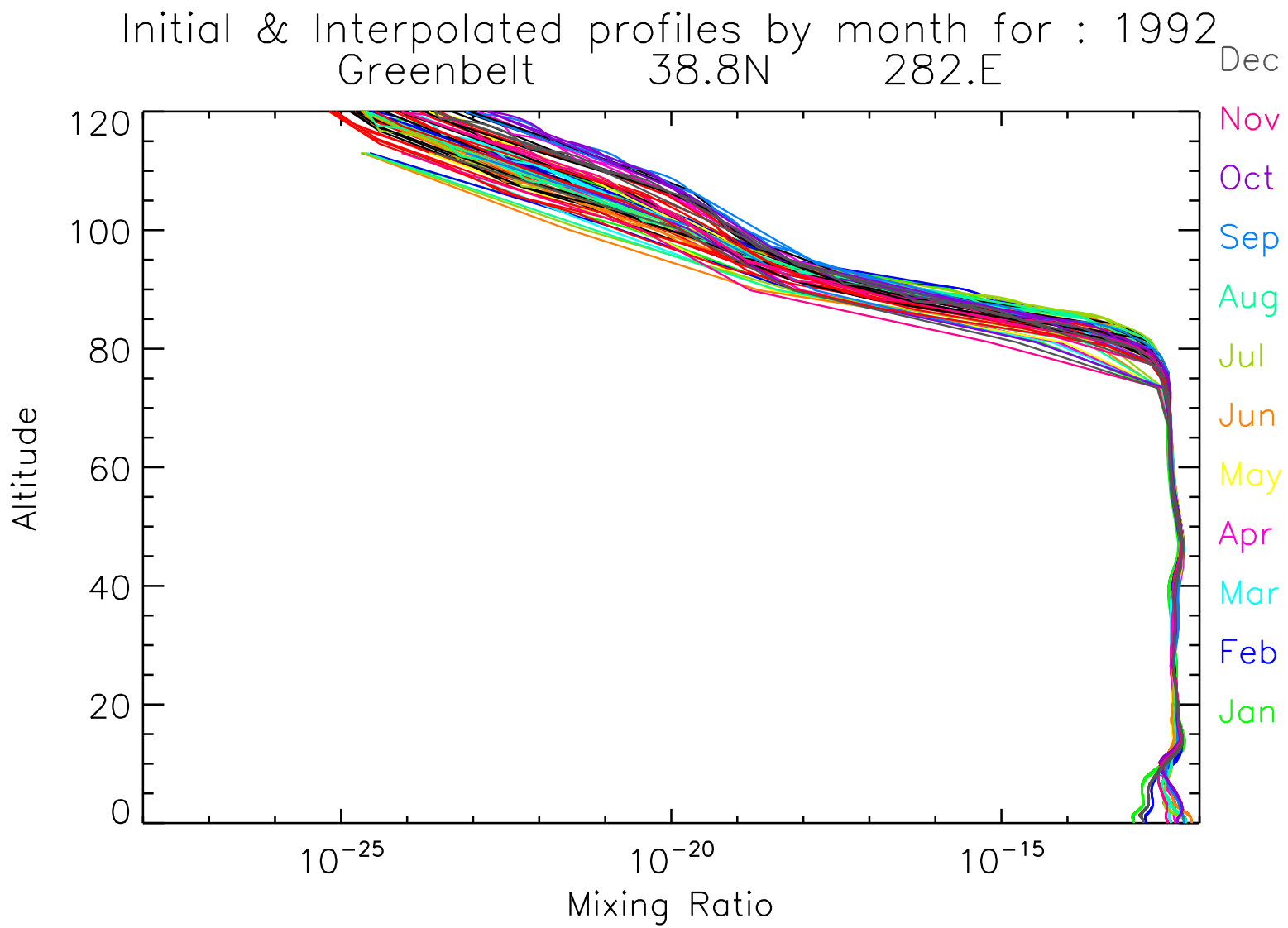
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 1992
Greenbelt 38.8N 282.E
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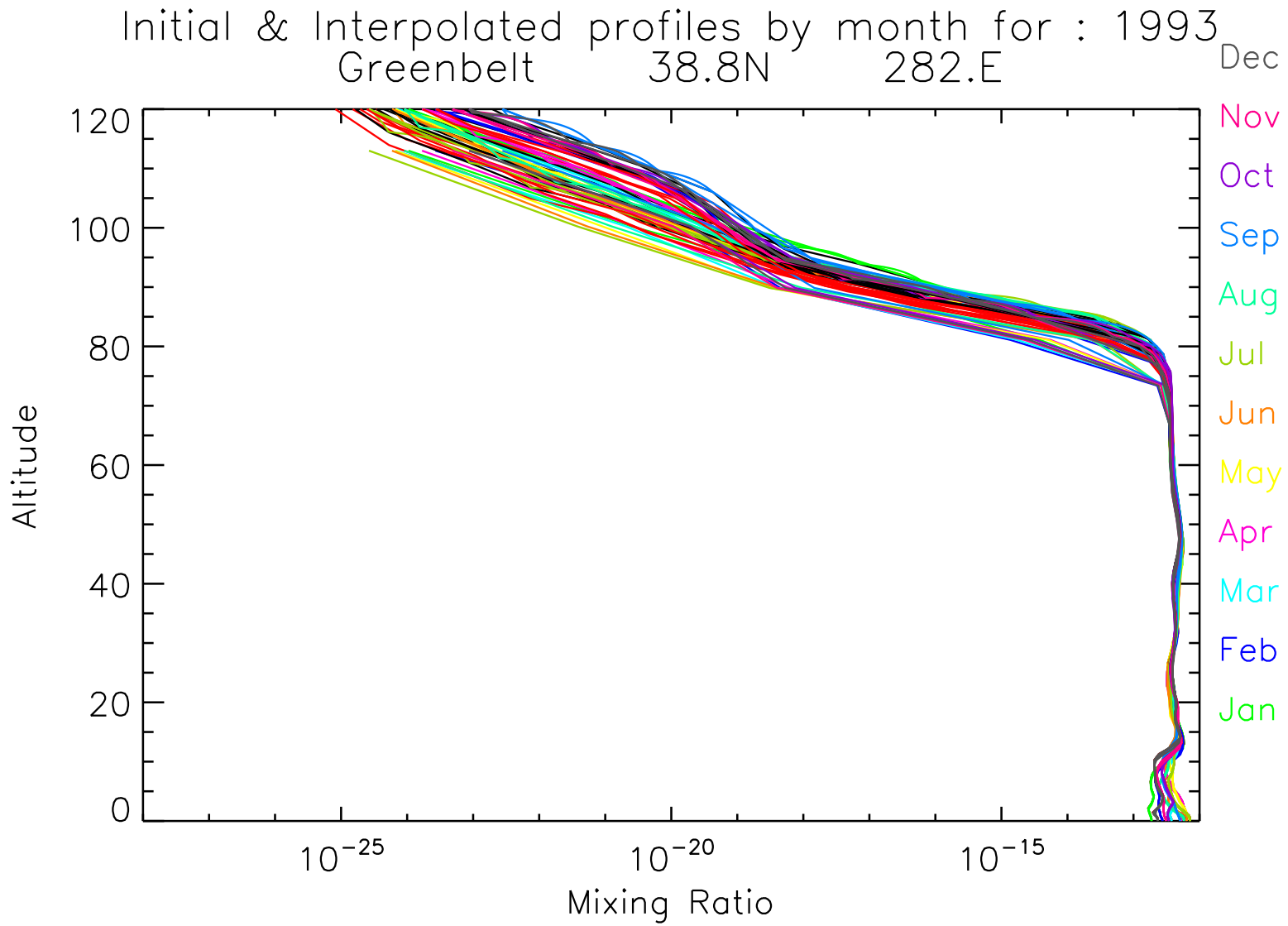
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 1993
Greenbelt 38.8N 282.E
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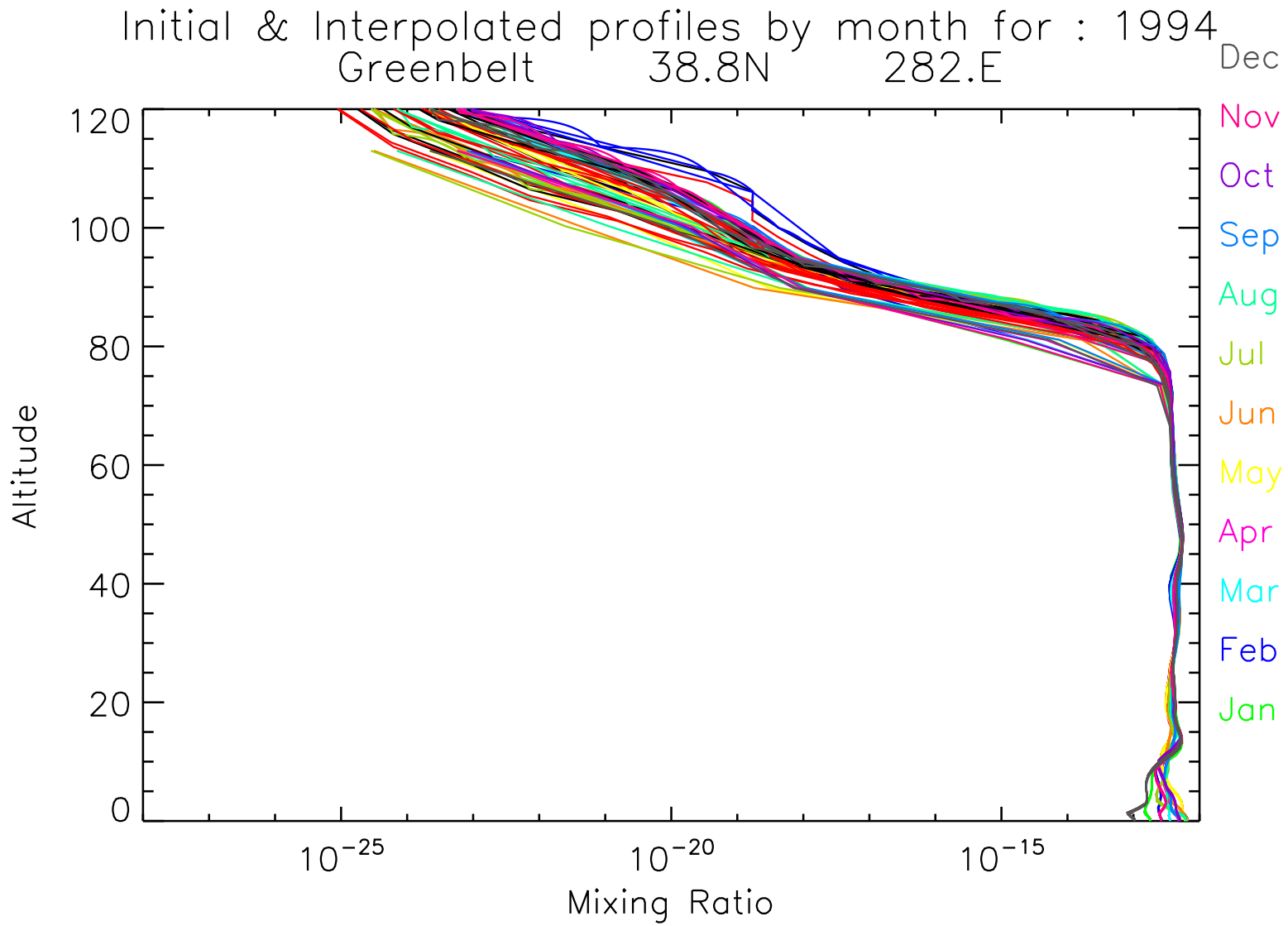
Mixing Ratio


Initial & Interpolated profiles by month for : 1994
Greenbelt 38.8N 282.E
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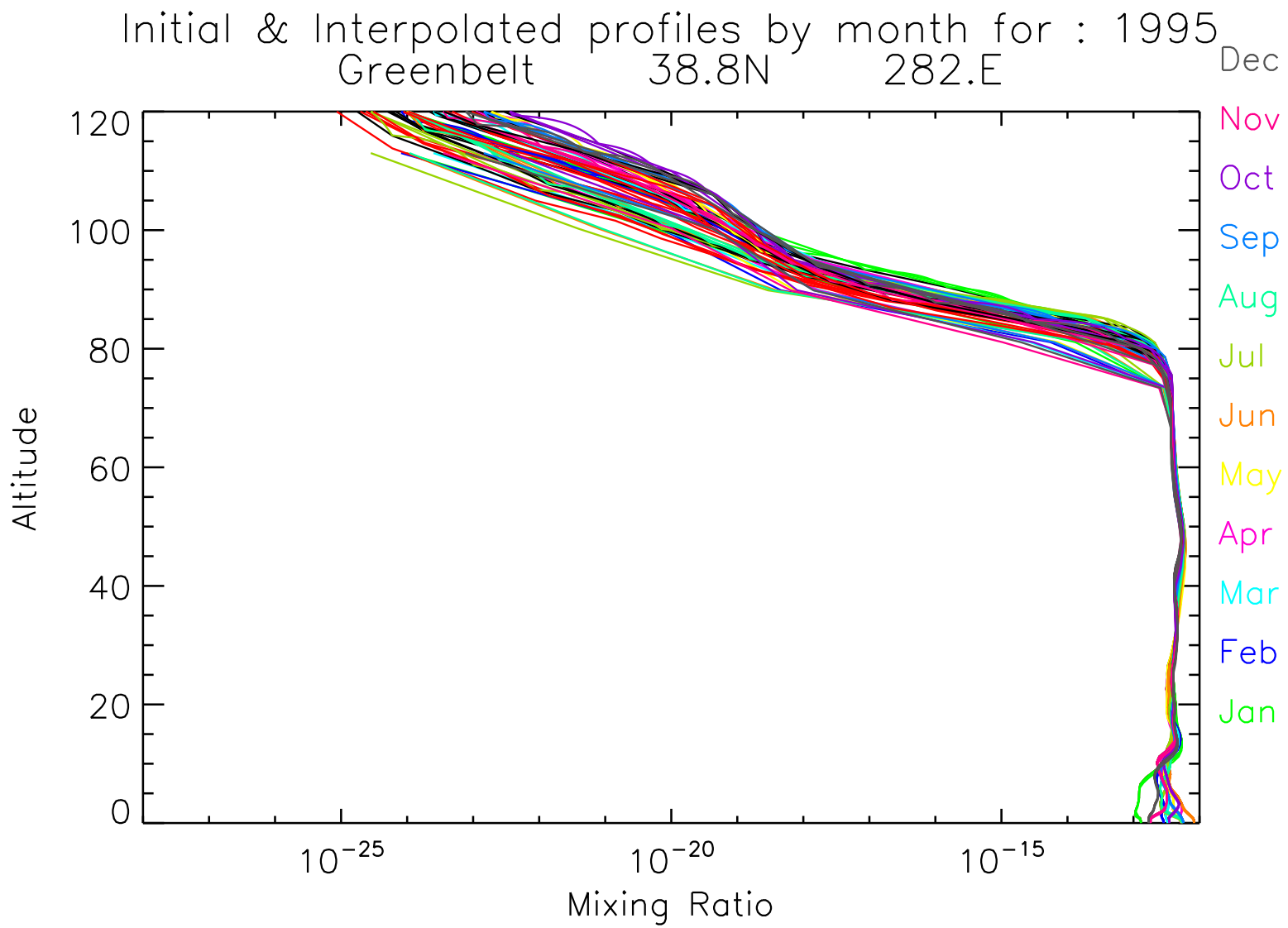
Mixing Ratio


Initial & Interpolated profiles by month for : 1995
Greenbelt 38.8N 282.E
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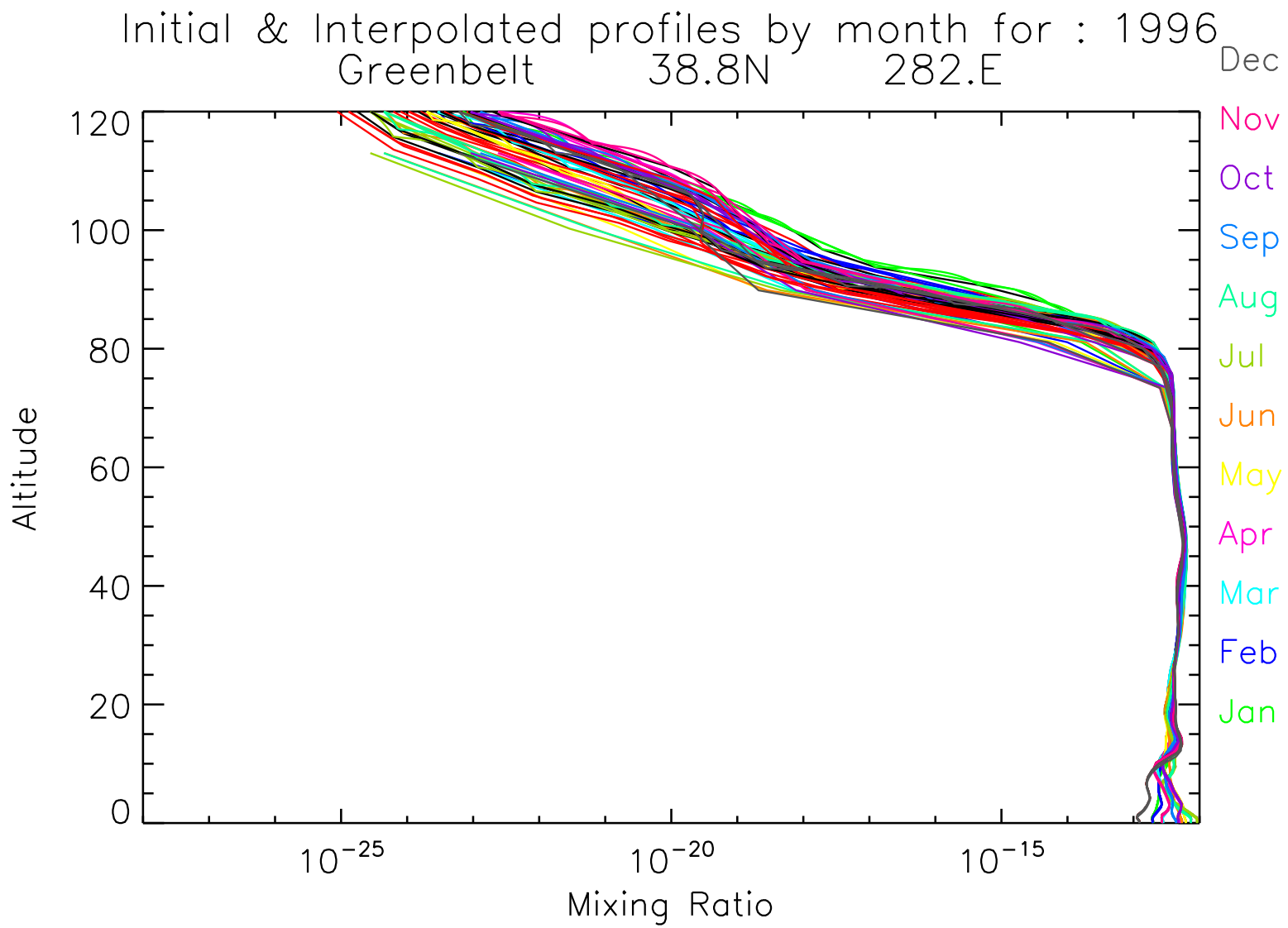
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 1996
Greenbelt 38.8N 282.E
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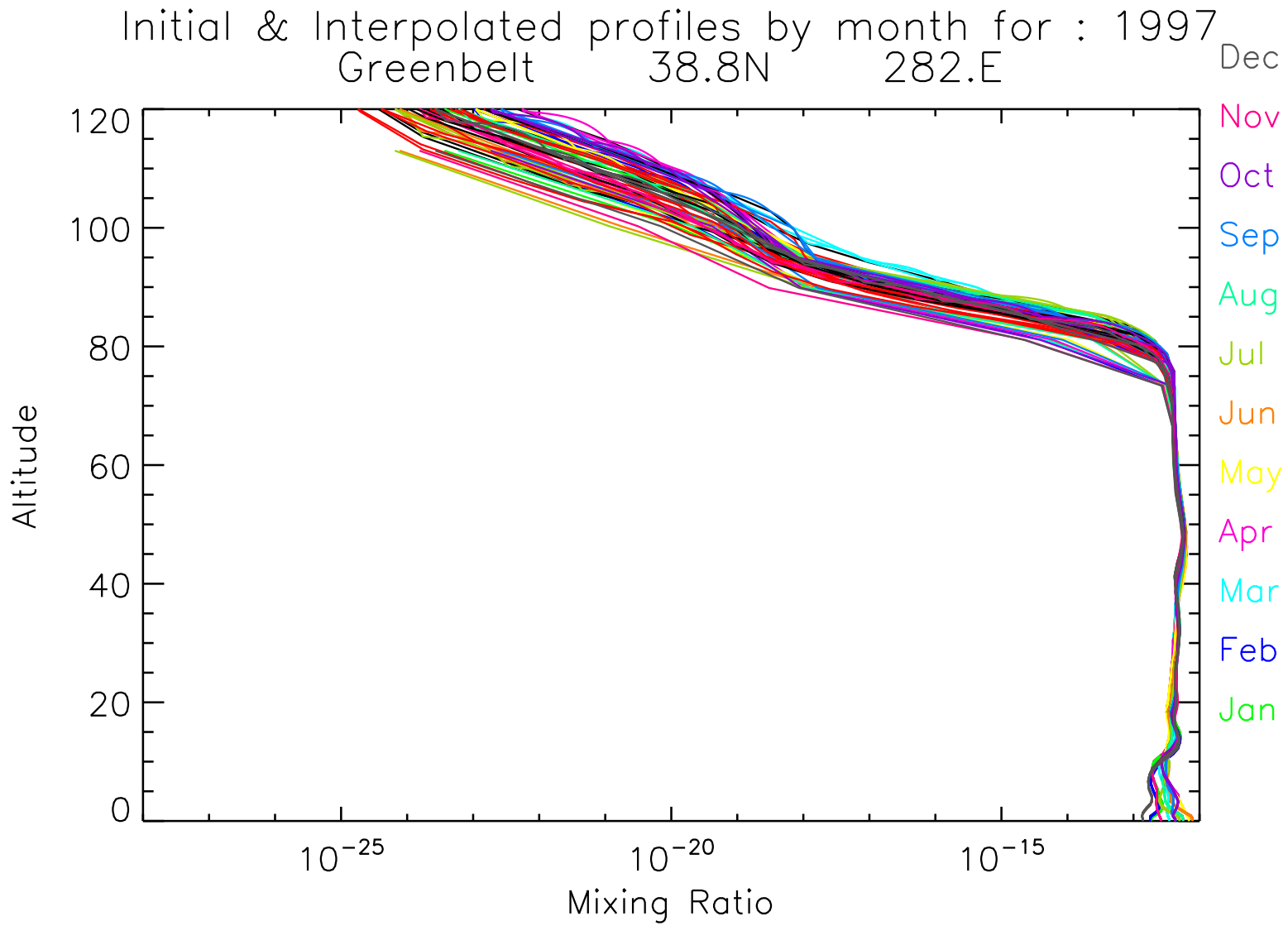
Mixing Ratio


Initial & Interpolated profiles by month for : 1997
Greenbelt 38.8N 282.E
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Altitude
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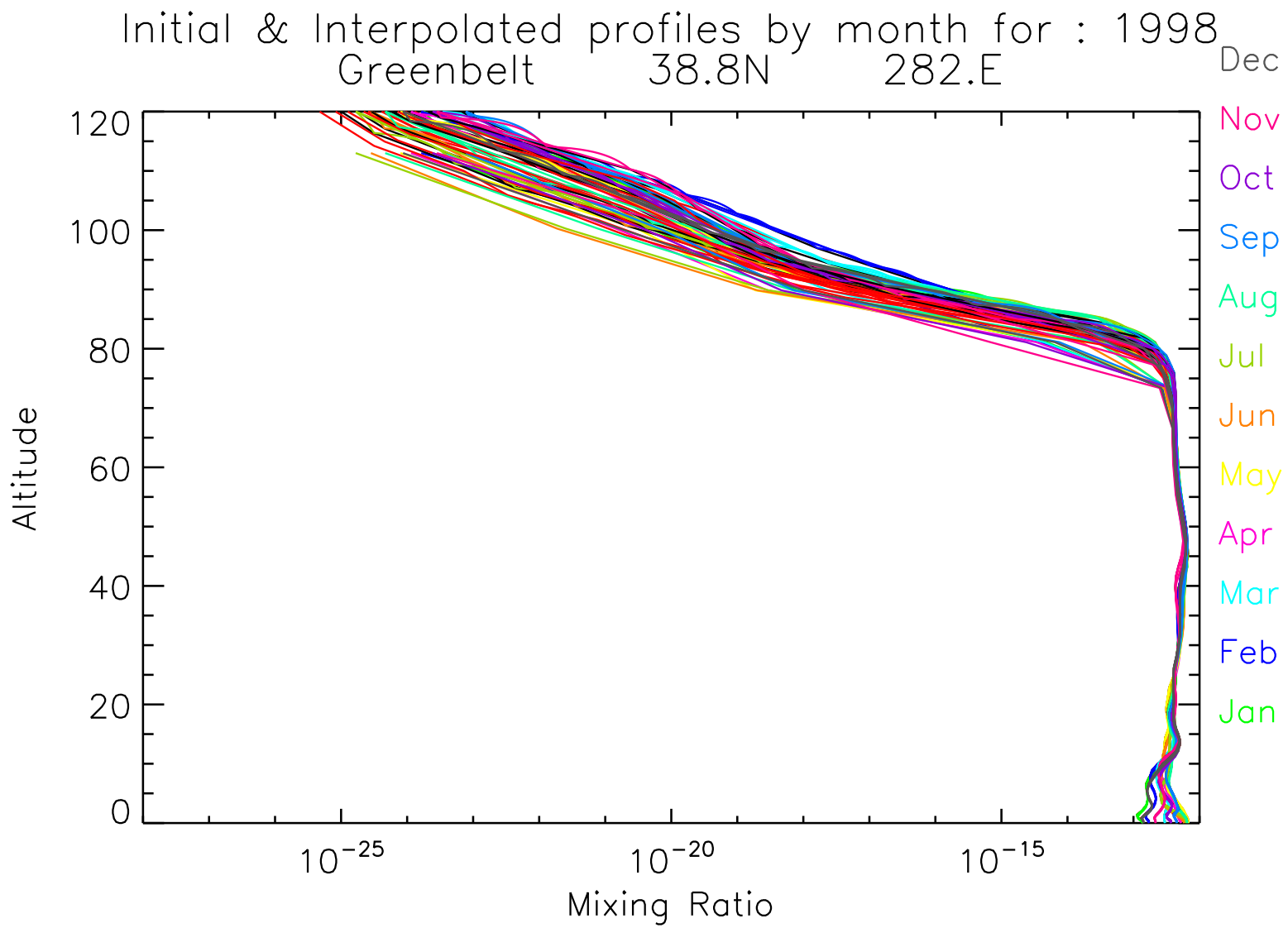
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 1998
Greenbelt 38.8N 282.E
Dec
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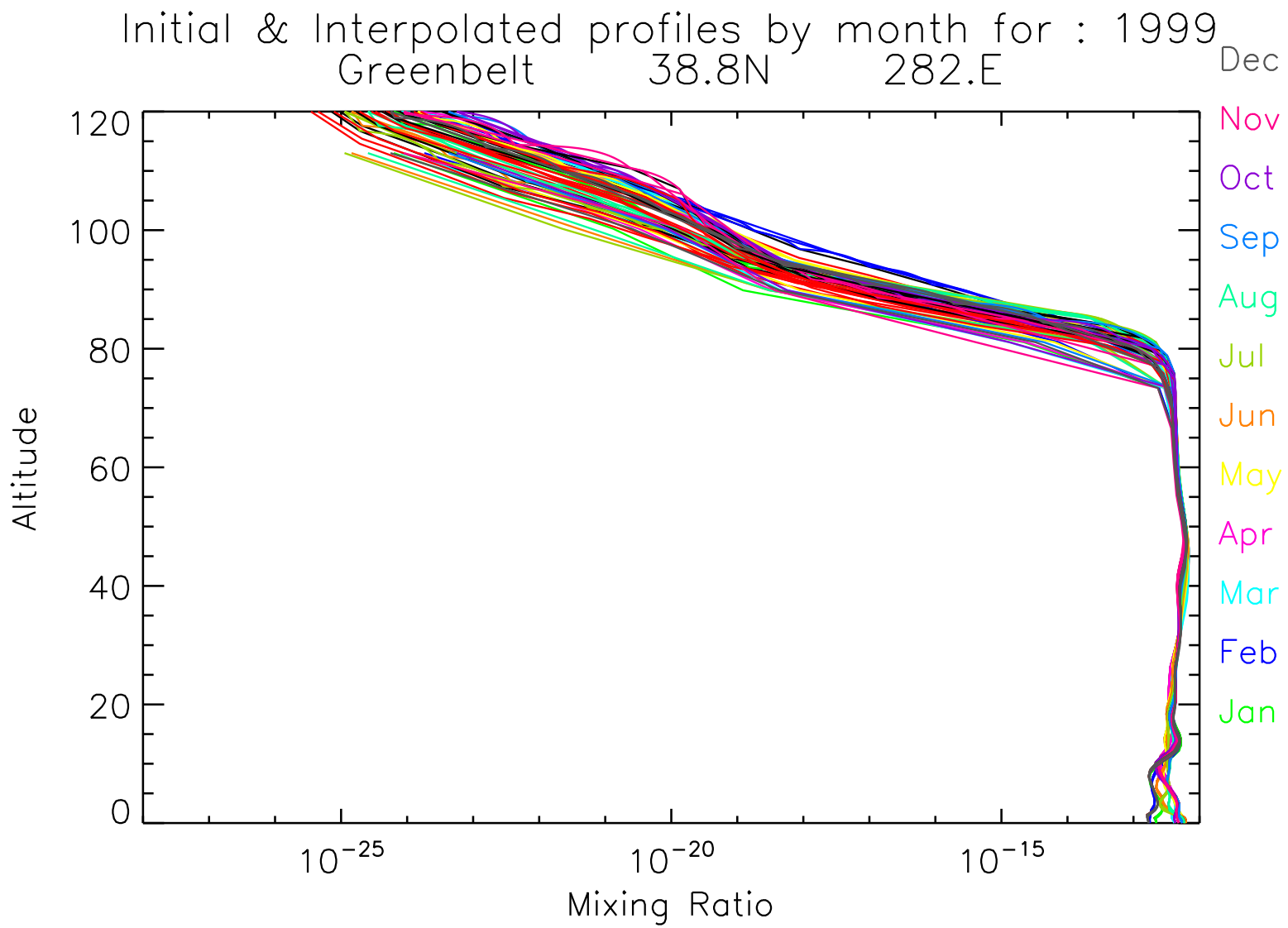
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 1999
Greenbelt 38.8N 282.E
Dec
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Altitude
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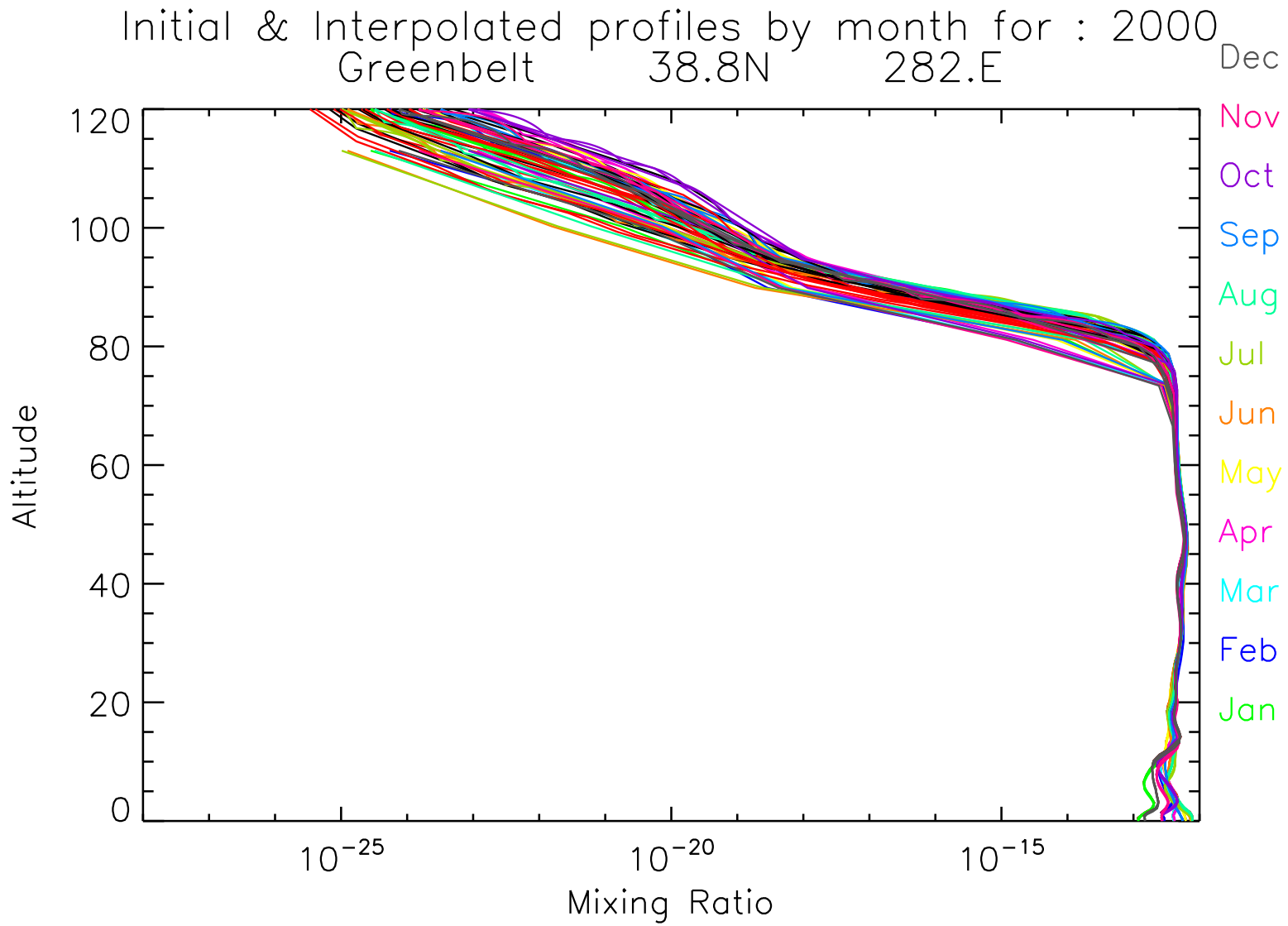
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 2000
Greenbelt 38.8N 282.E
Dec
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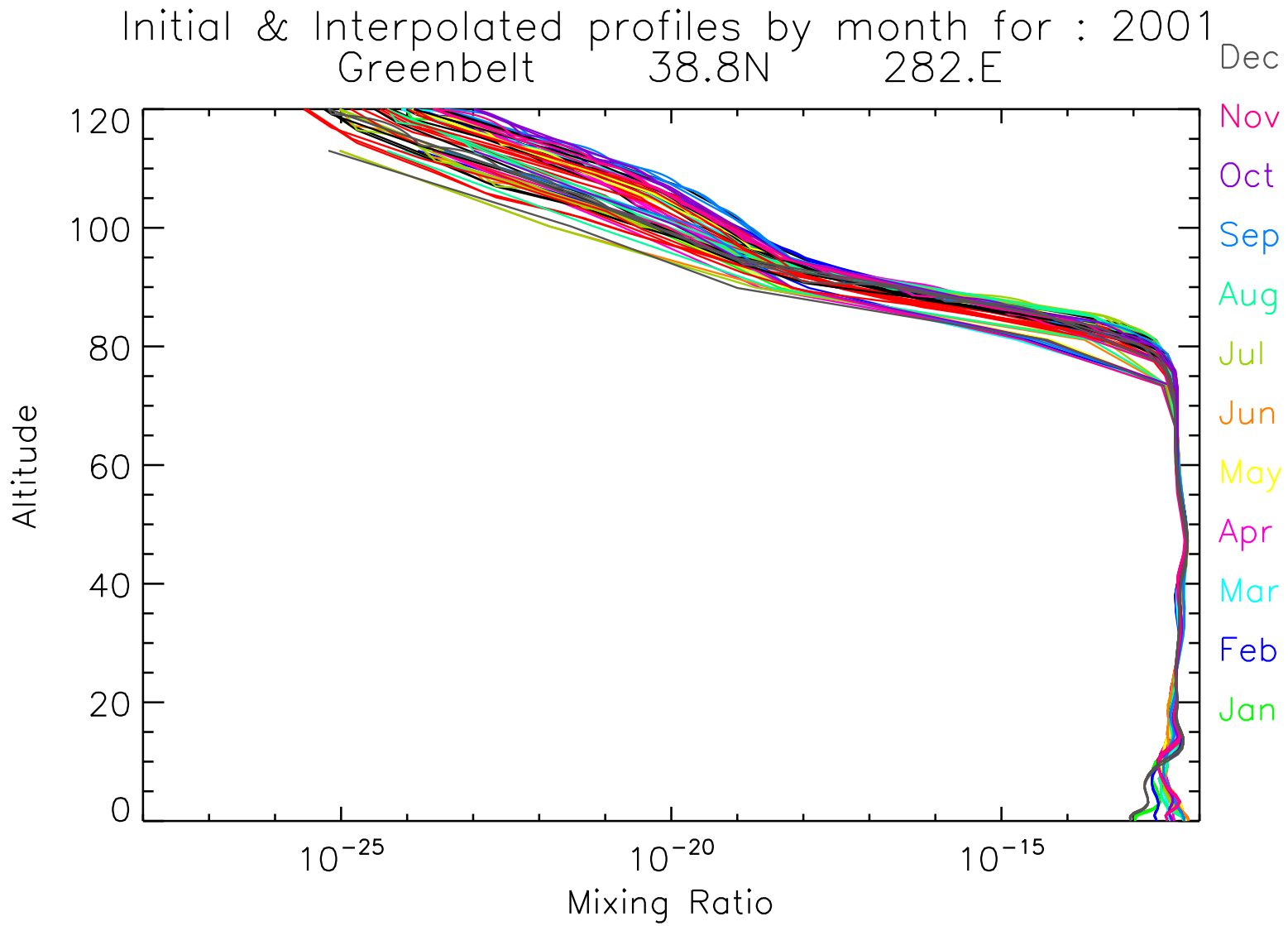
Altitude
10^{-25}
10^{-20}
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 2001
Greenbelt 38.8N 282.E
Dec
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10^{-25}
10^{-20}
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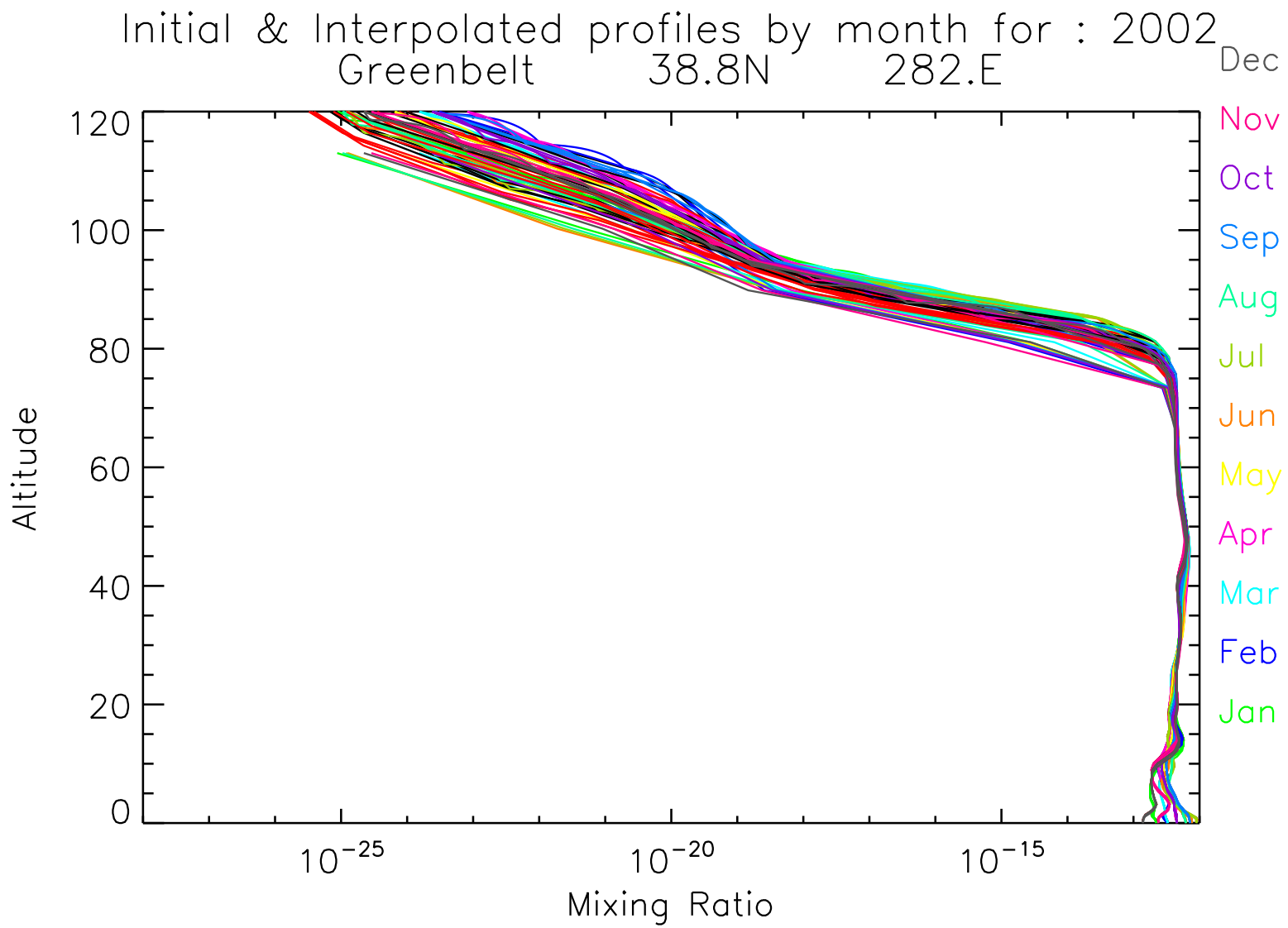
Mixing Ratio


Initial & Interpolated profiles by month for : 2002
Greenbelt 38.8N 282.E
Dec
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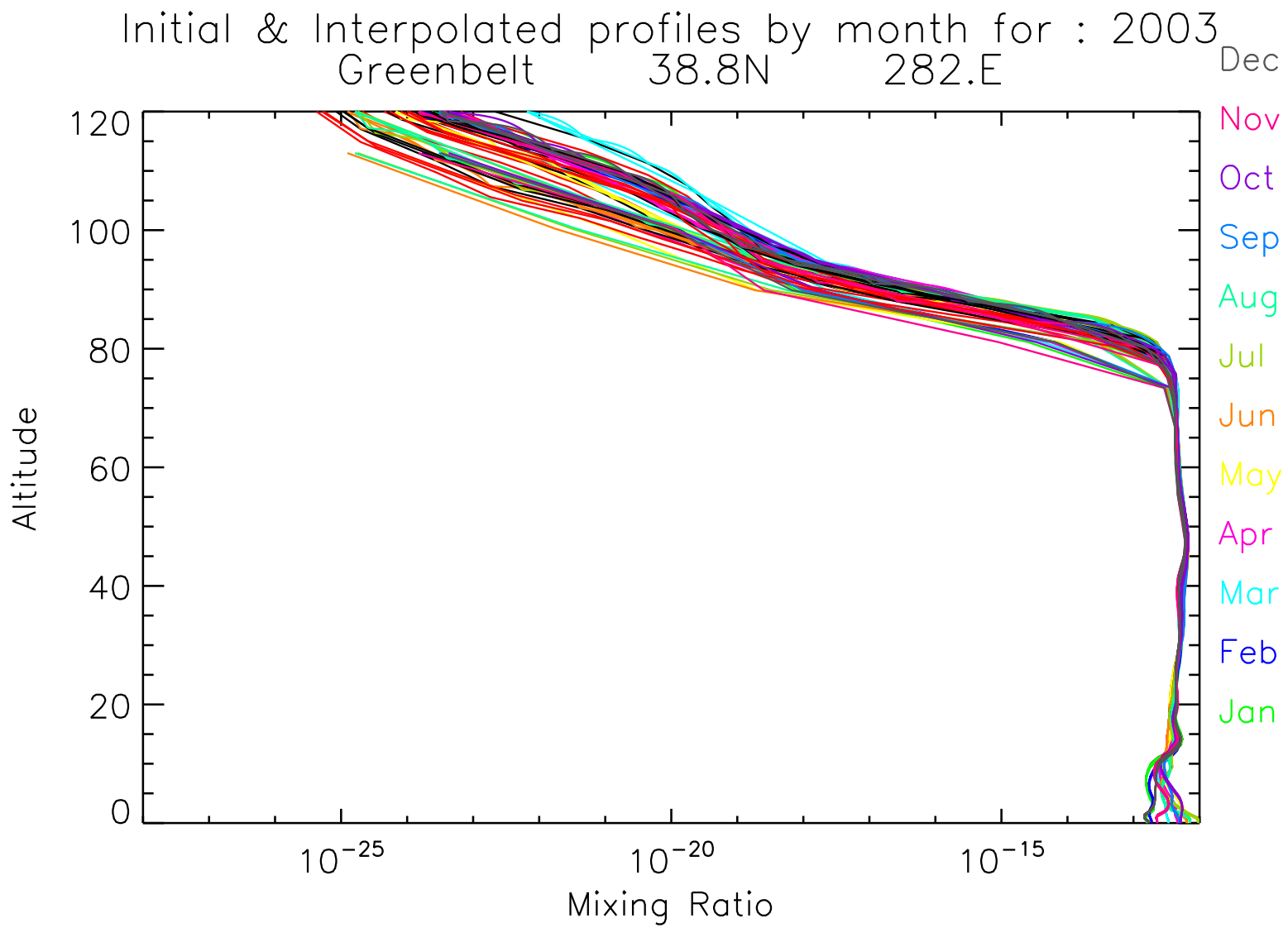
10^{-25}
10^{-20}
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 2003
Greenbelt 38.8N 282.E
Dec
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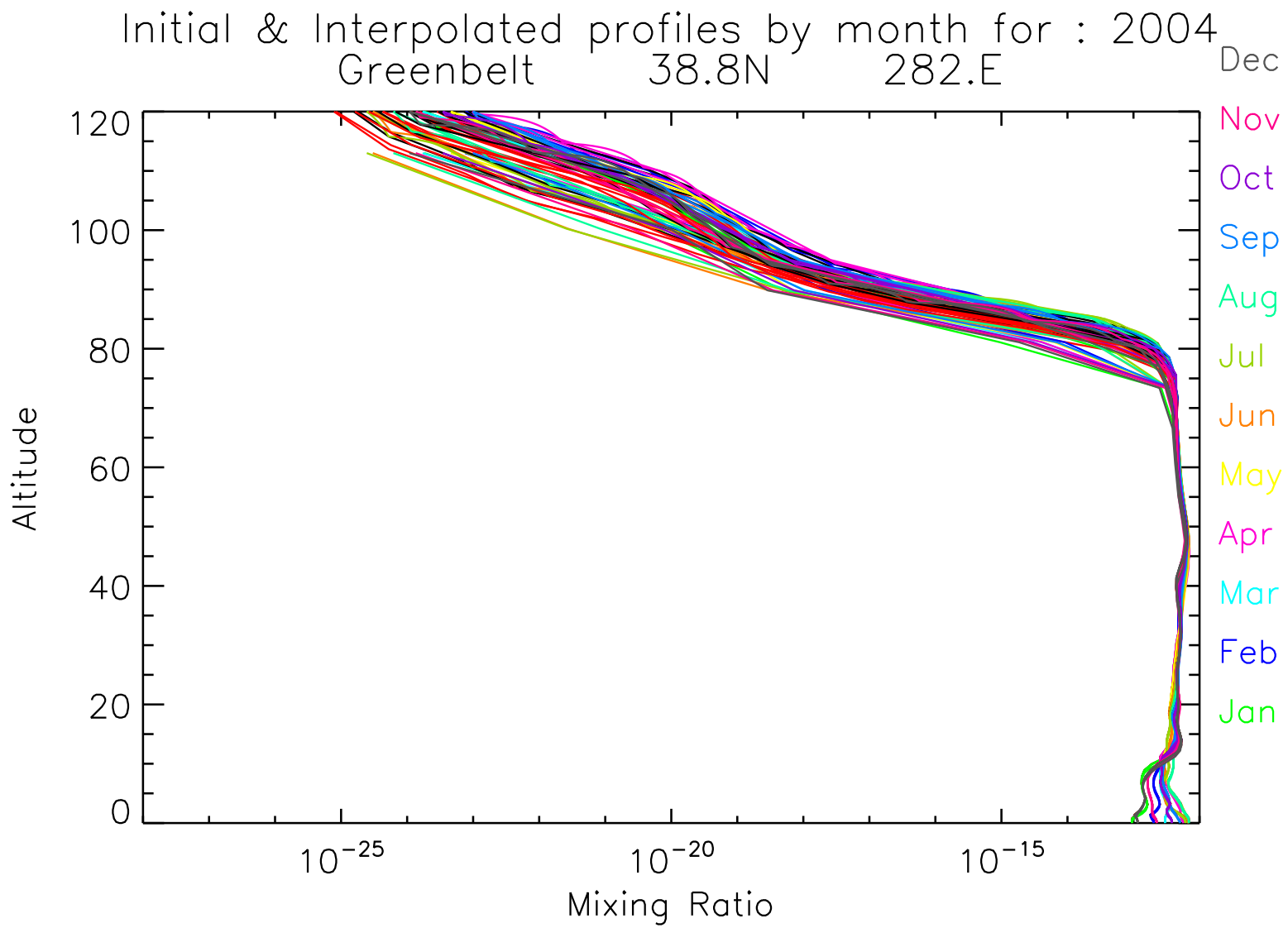
Altitude
10^{-25}
10^{-20}
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 2004
Greenbelt 38.8N 282.E
Dec
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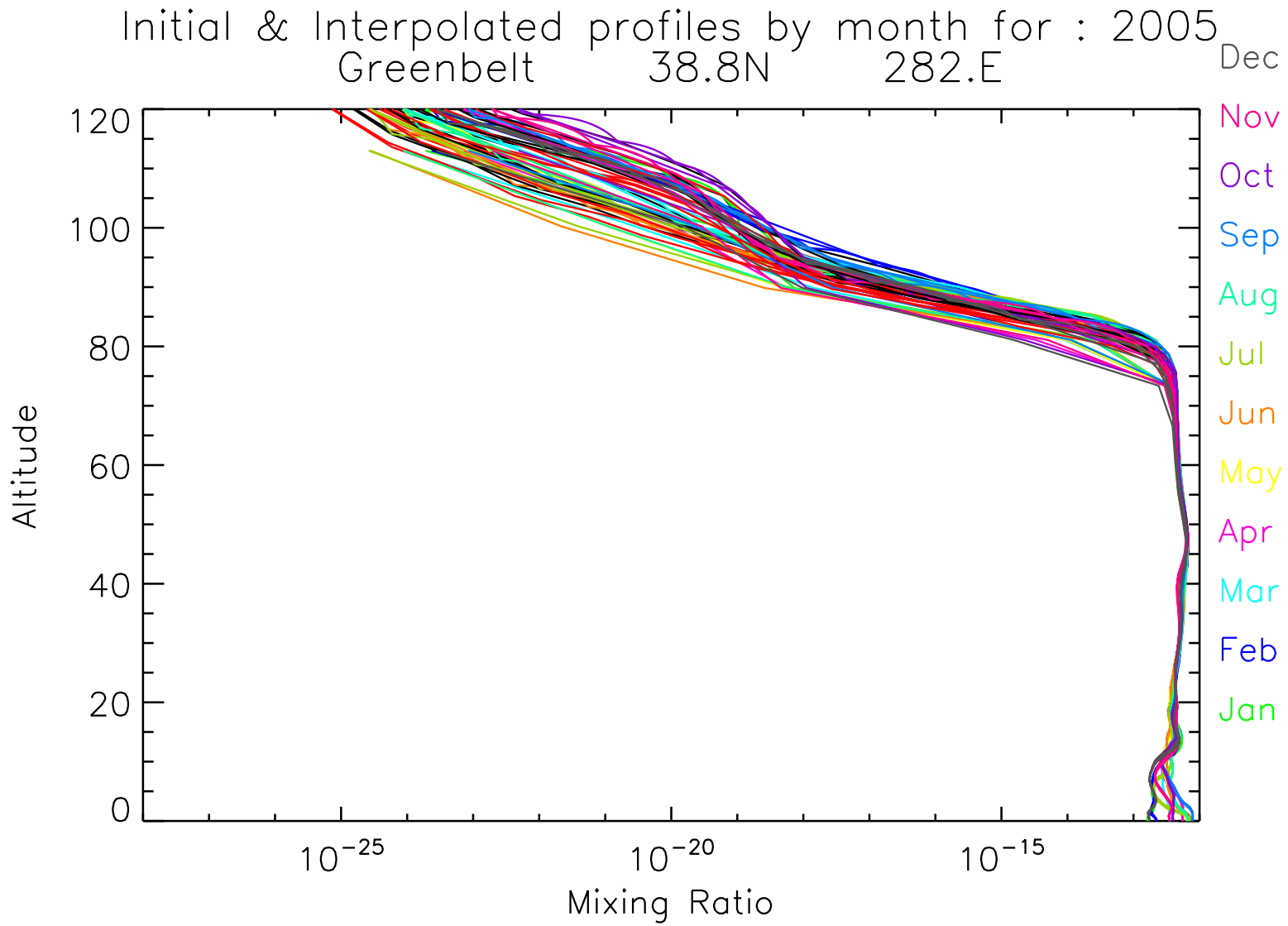
Altitude
10^{-25}
10^{-20}
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 2005
Greenbelt 38.8N 282.E
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Altitude
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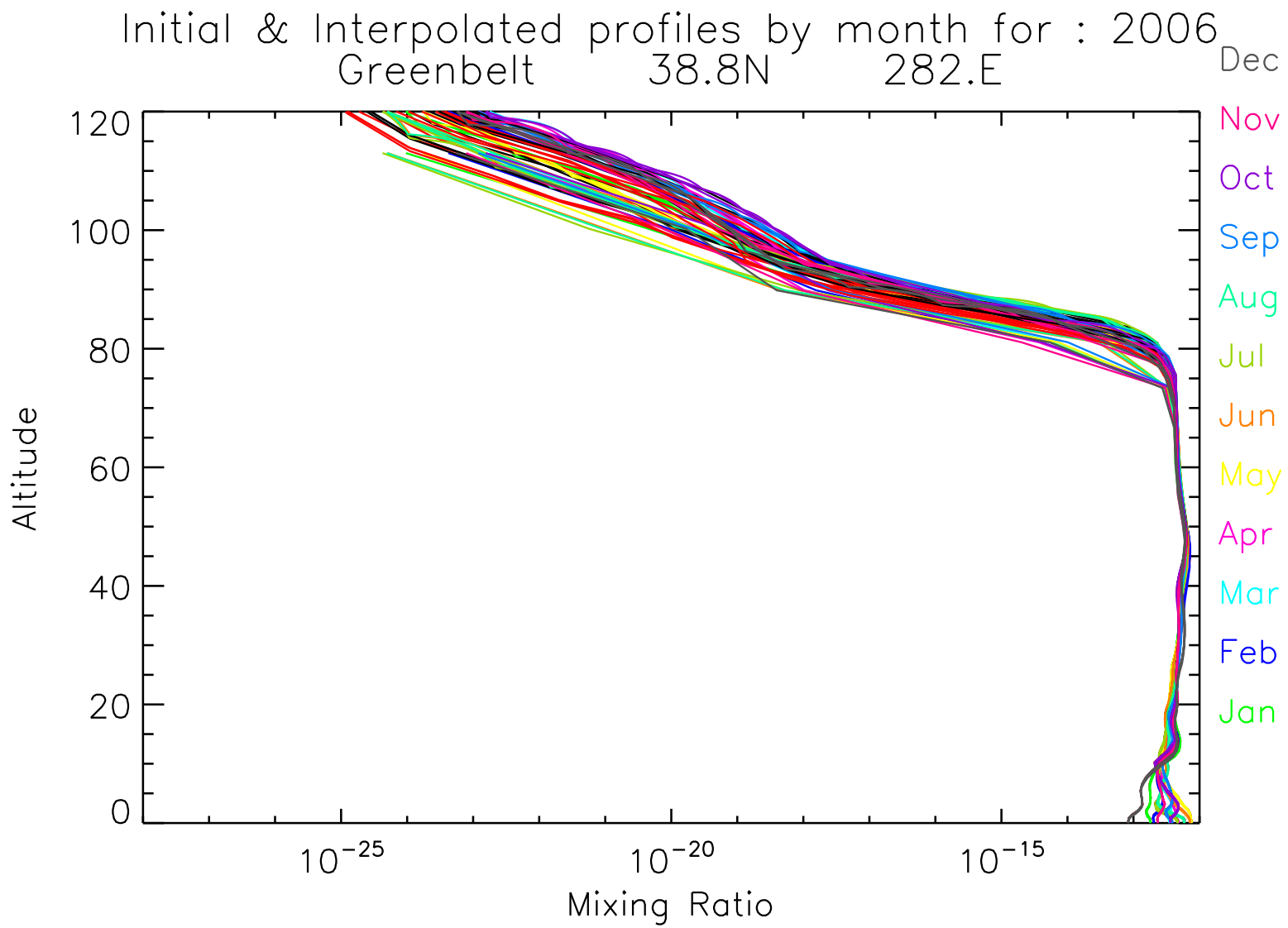
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 2006
Greenbelt 38.8N 282.E
Dec
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Altitude
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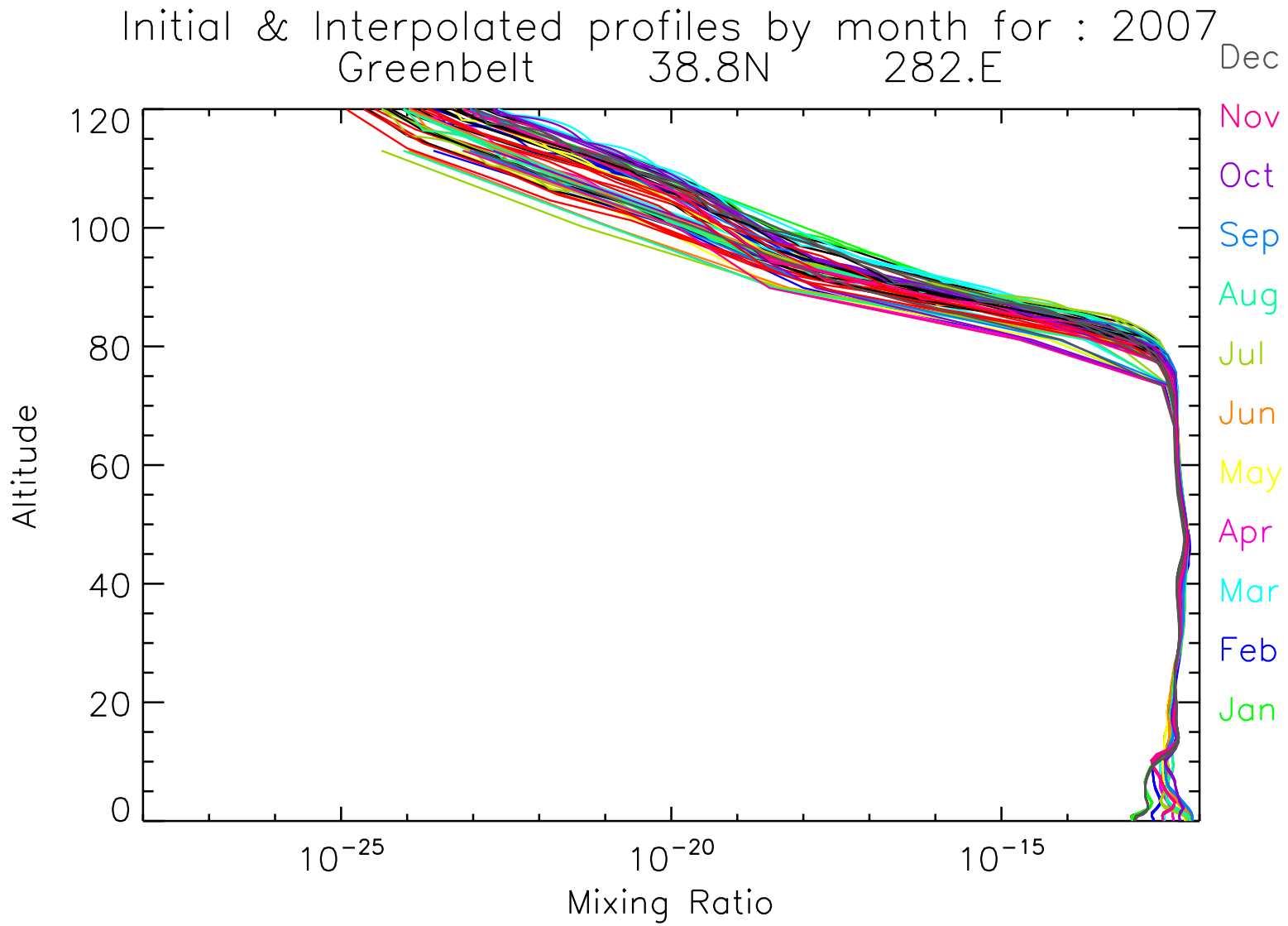
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 2007
Greenbelt 38.8N 282.E
Dec
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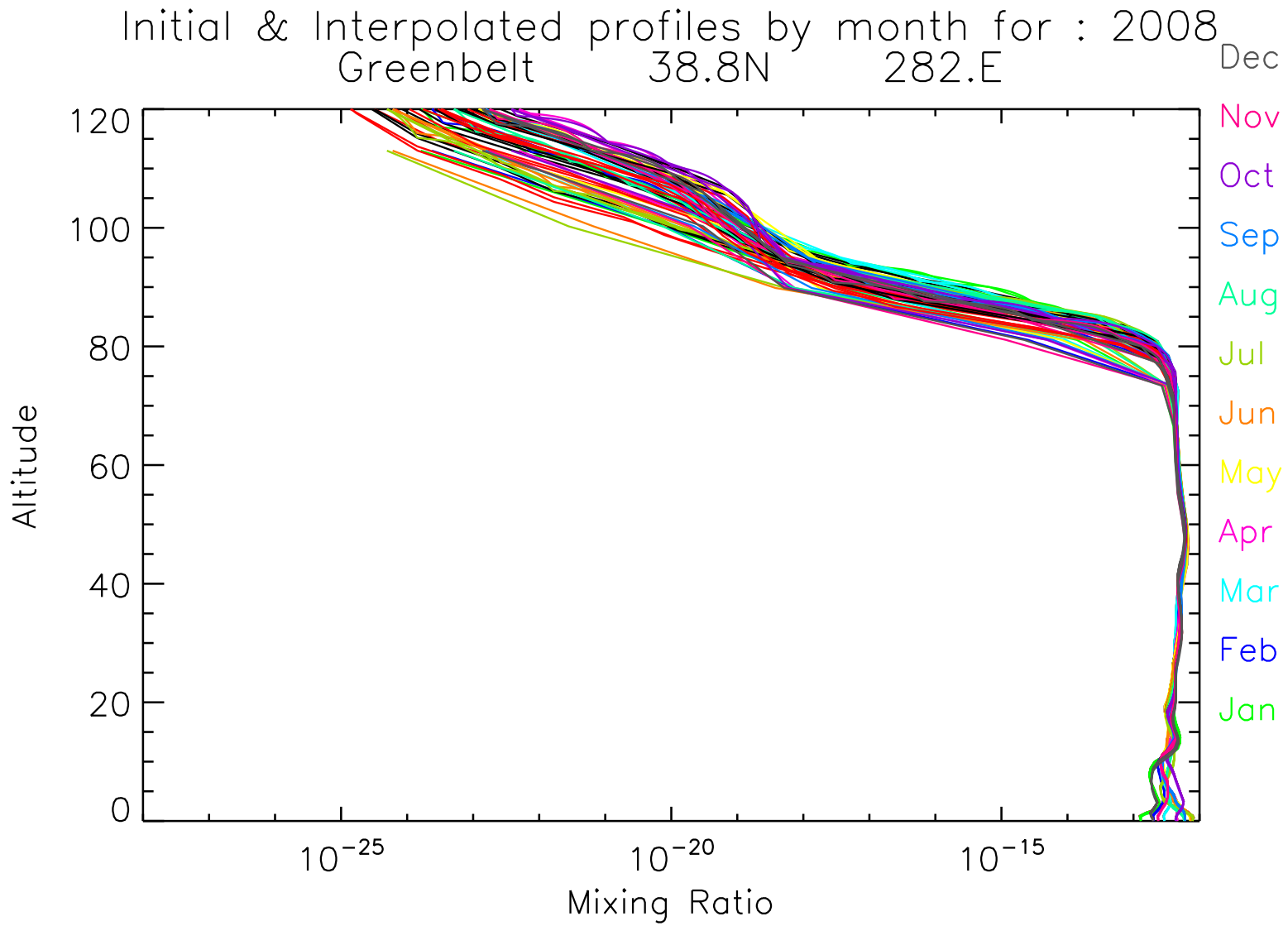
Altitude
10^{-25}
10^{-20}
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 2008
Greenbelt 38.8N 282.E
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Altitude
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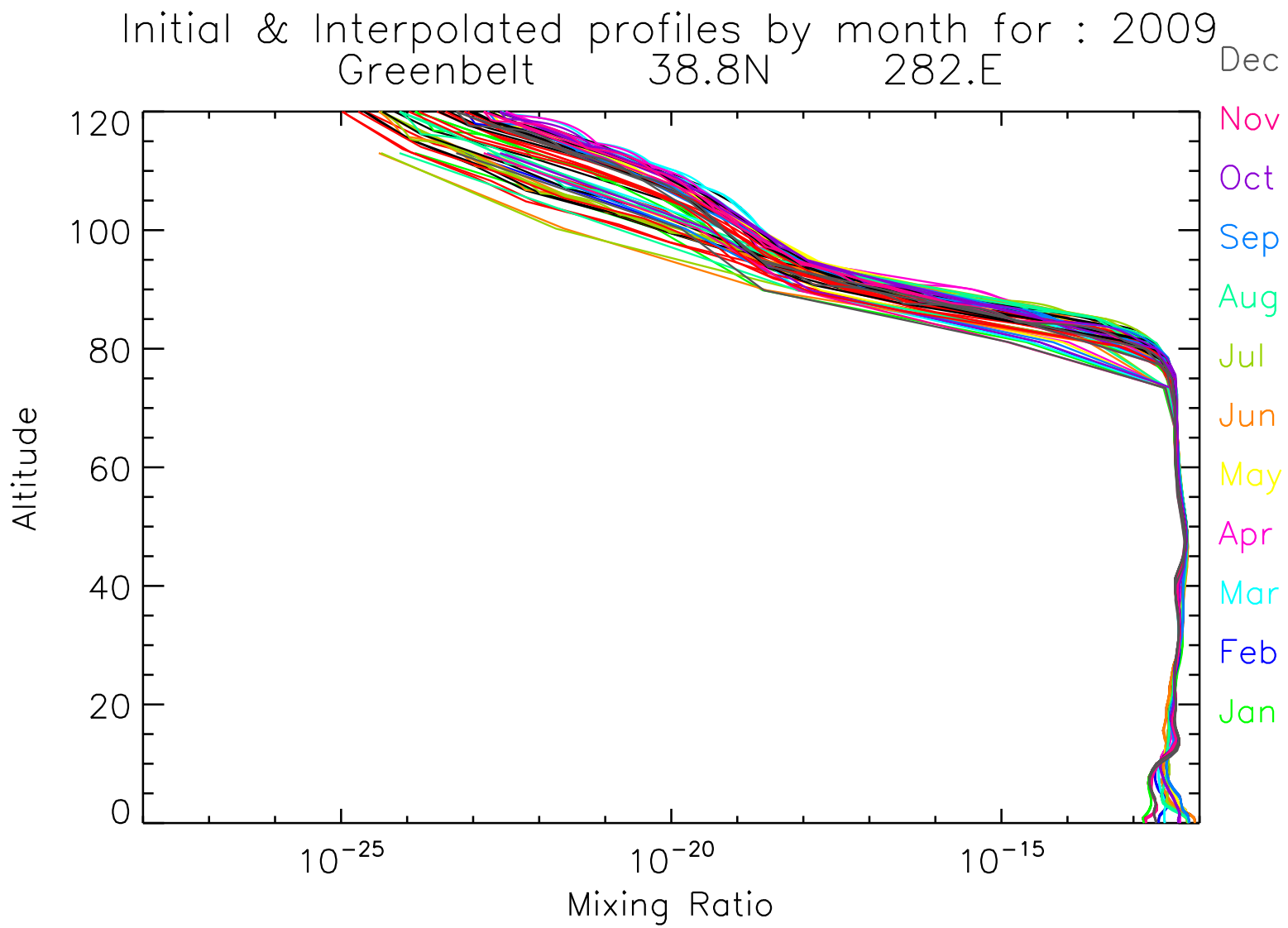
Mixing Ratio


Initial & Interpolated profiles by month for : 2009
Greenbelt 38.8N 282.E
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Altitude
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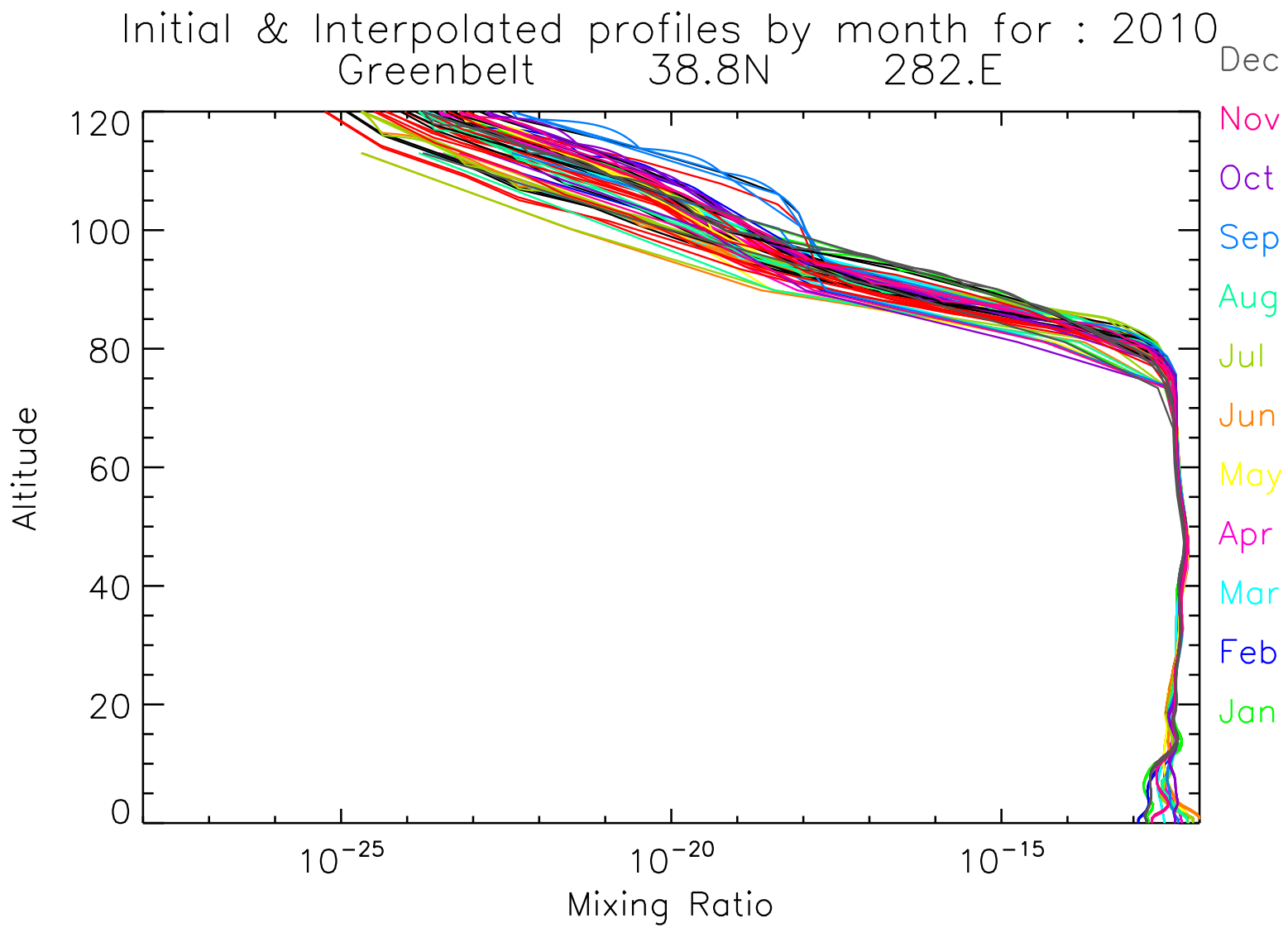
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 2010
Greenbelt 38.8N 282.E
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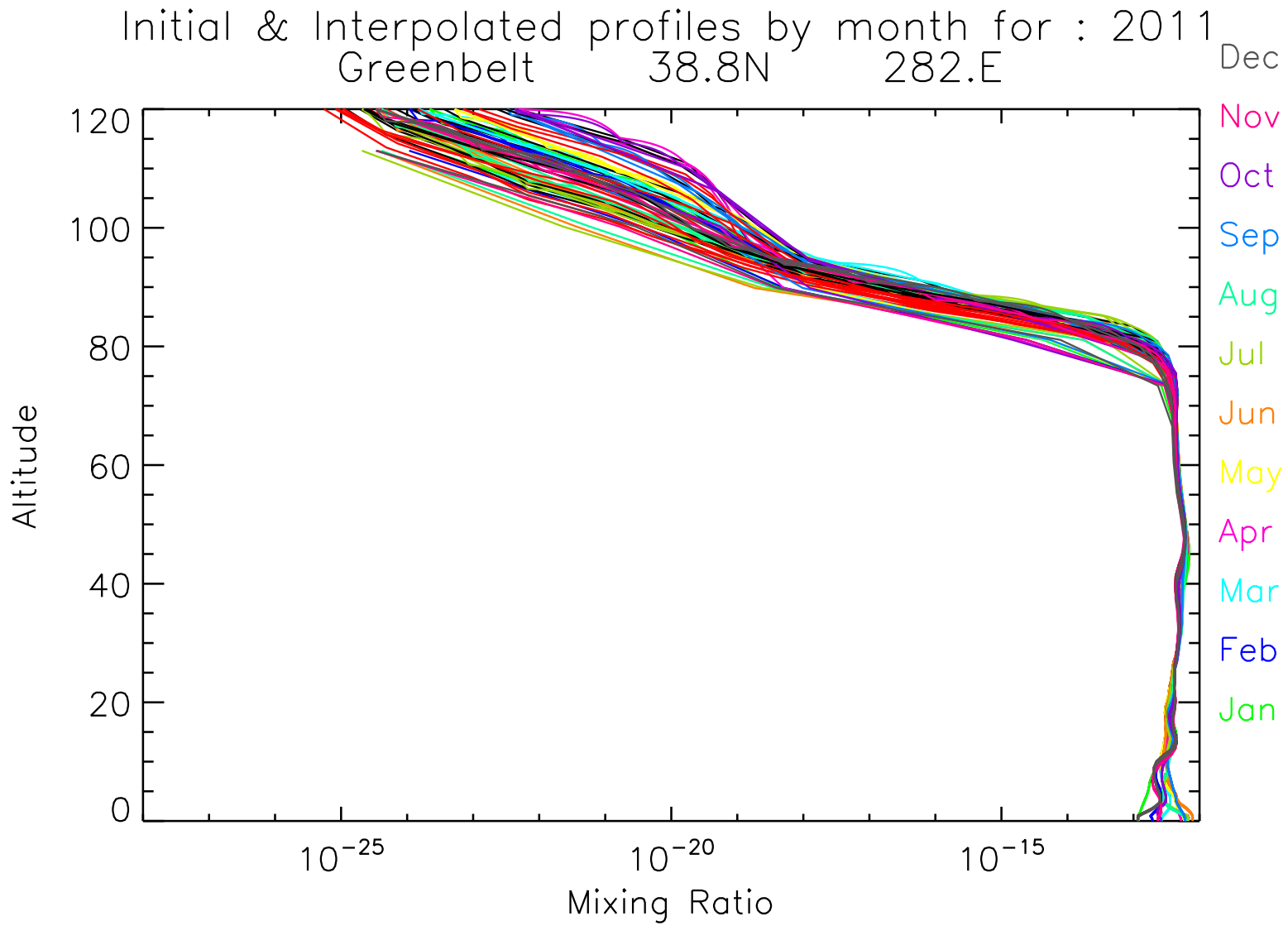
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 2011
Greenbelt 38.8N 282.E
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Altitude
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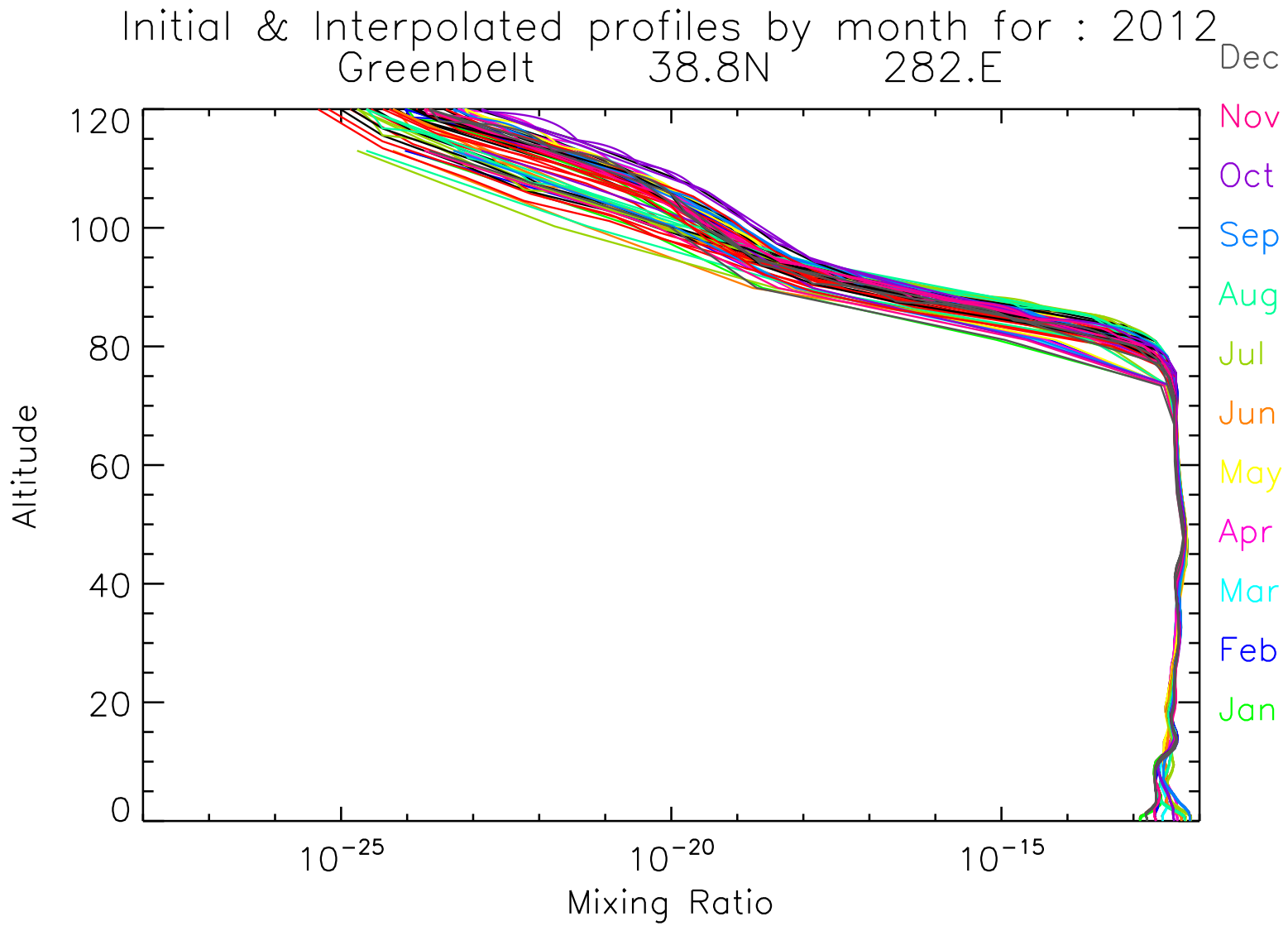
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 2012
Greenbelt 38.8N 282.E
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Altitude
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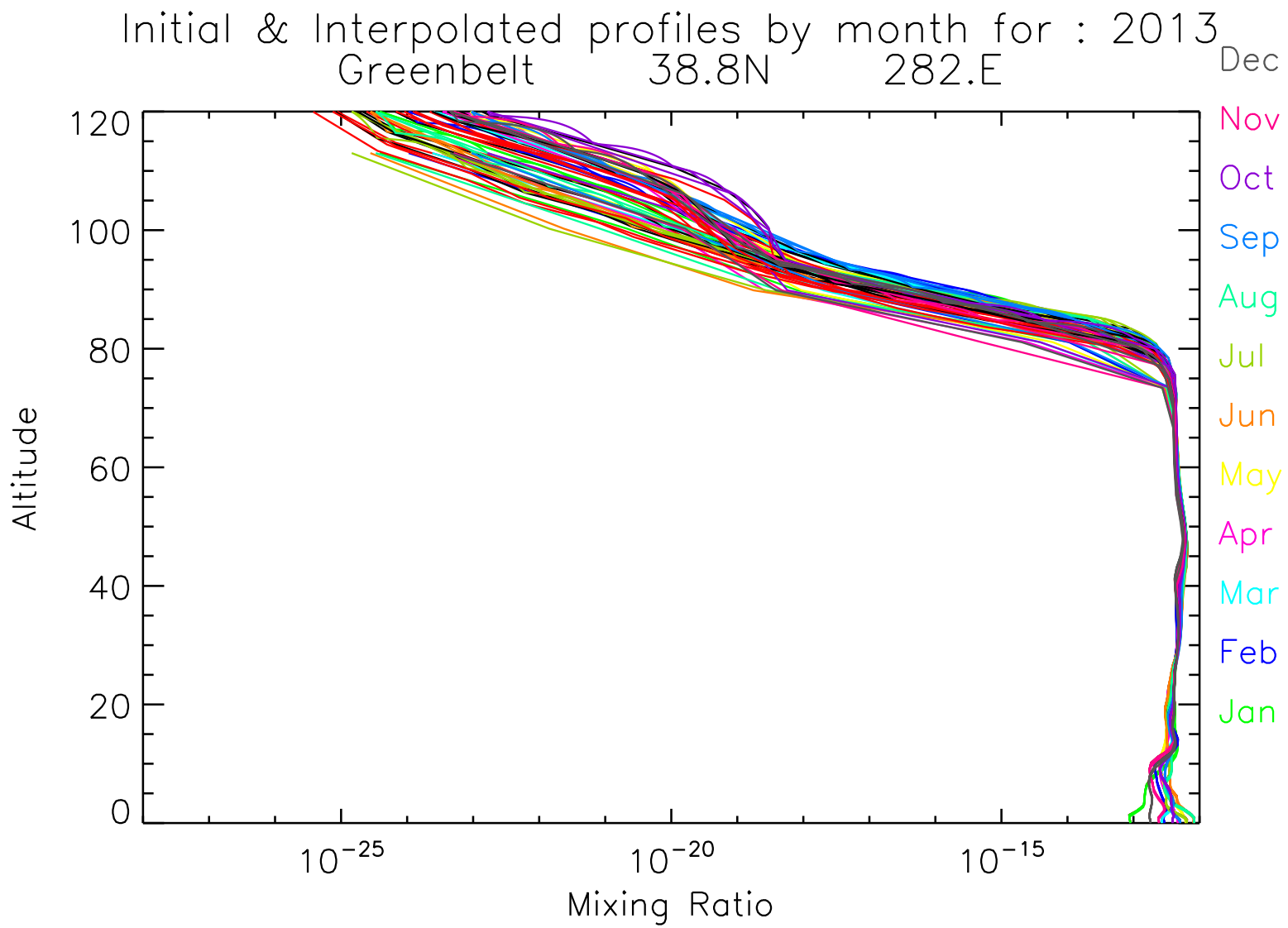
10^{-15}
Mixing Ratio


Initial & Interpolated profiles by month for : 2013
Greenbelt 38.8N 282.E
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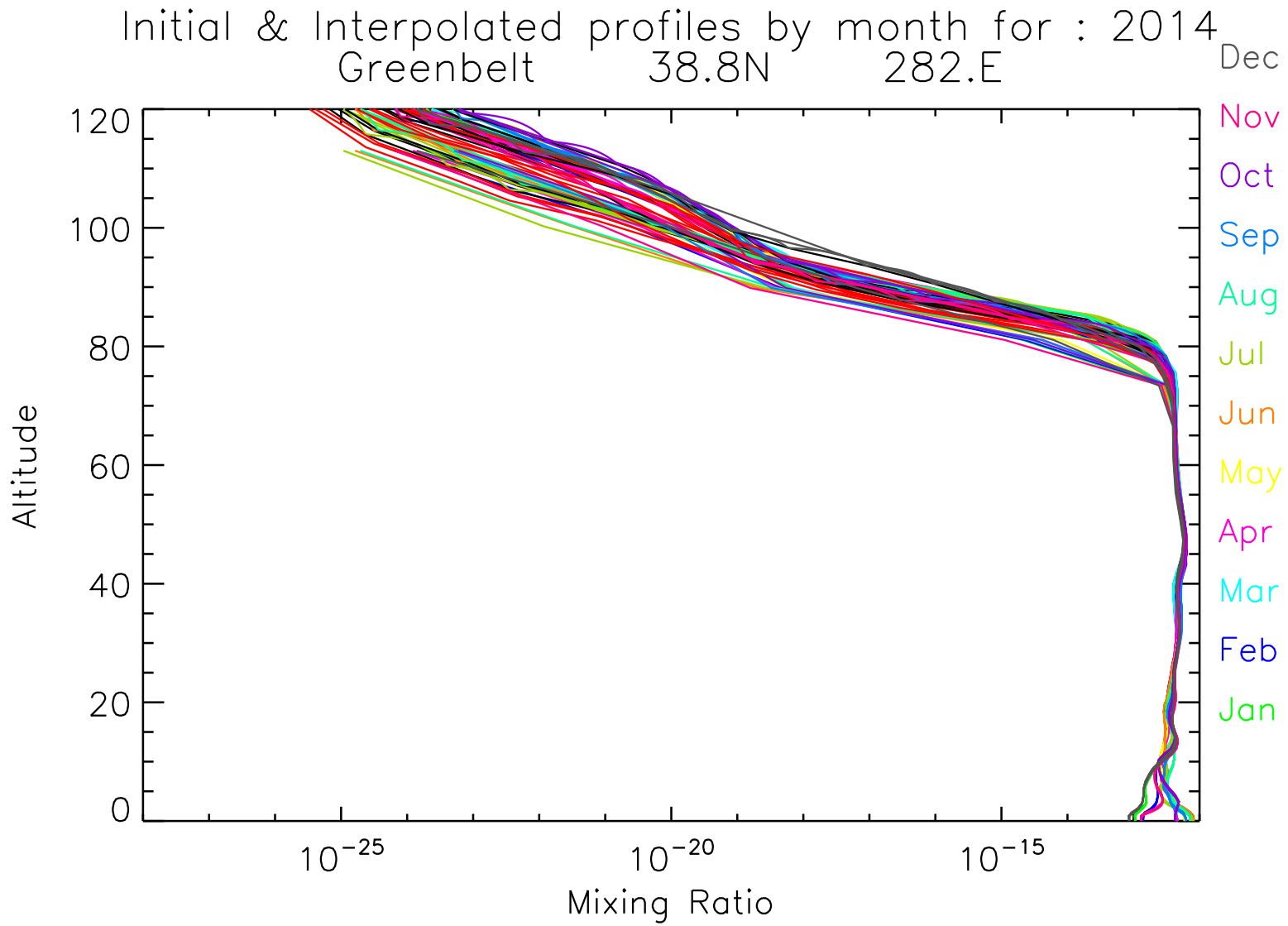
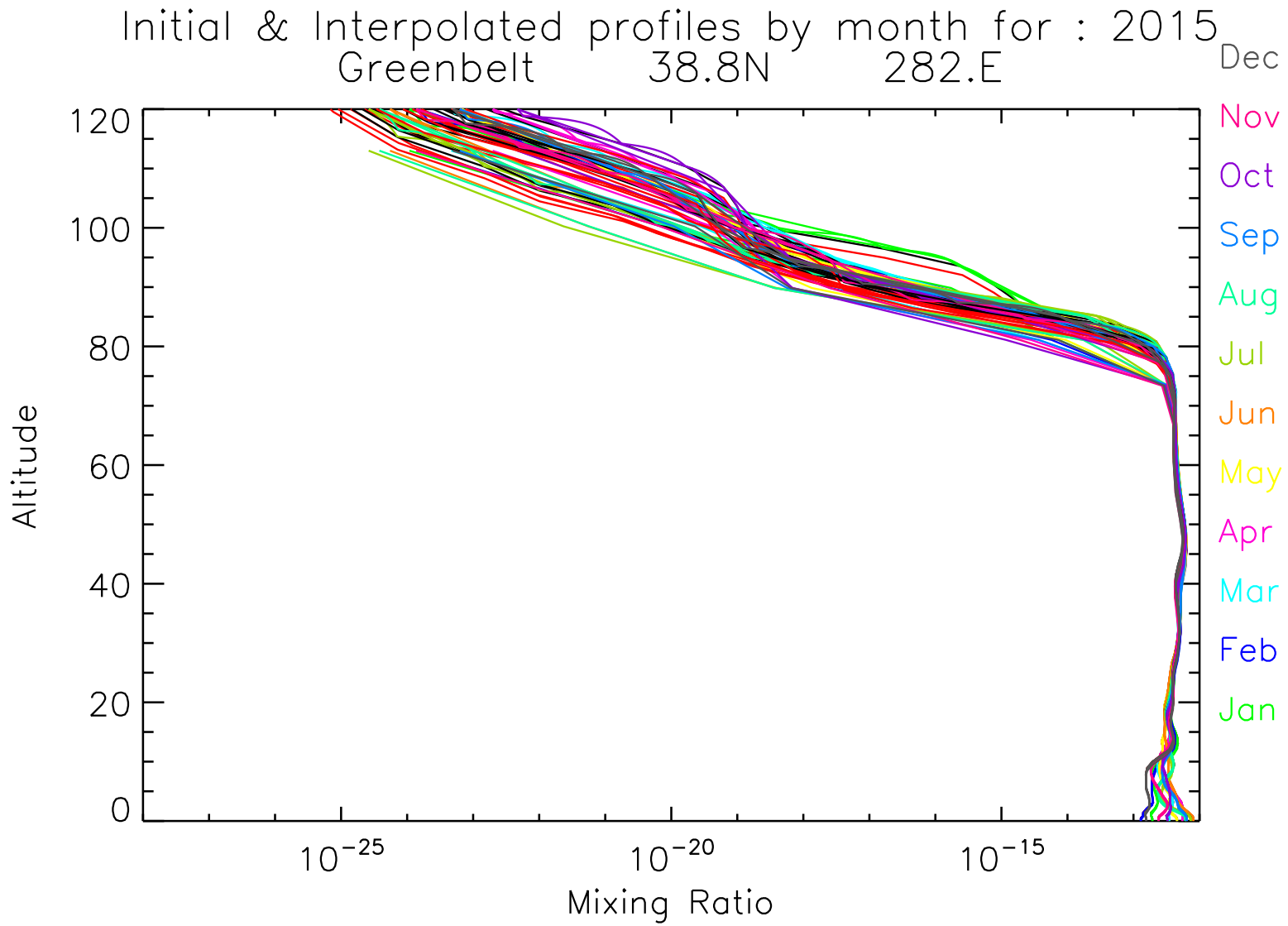
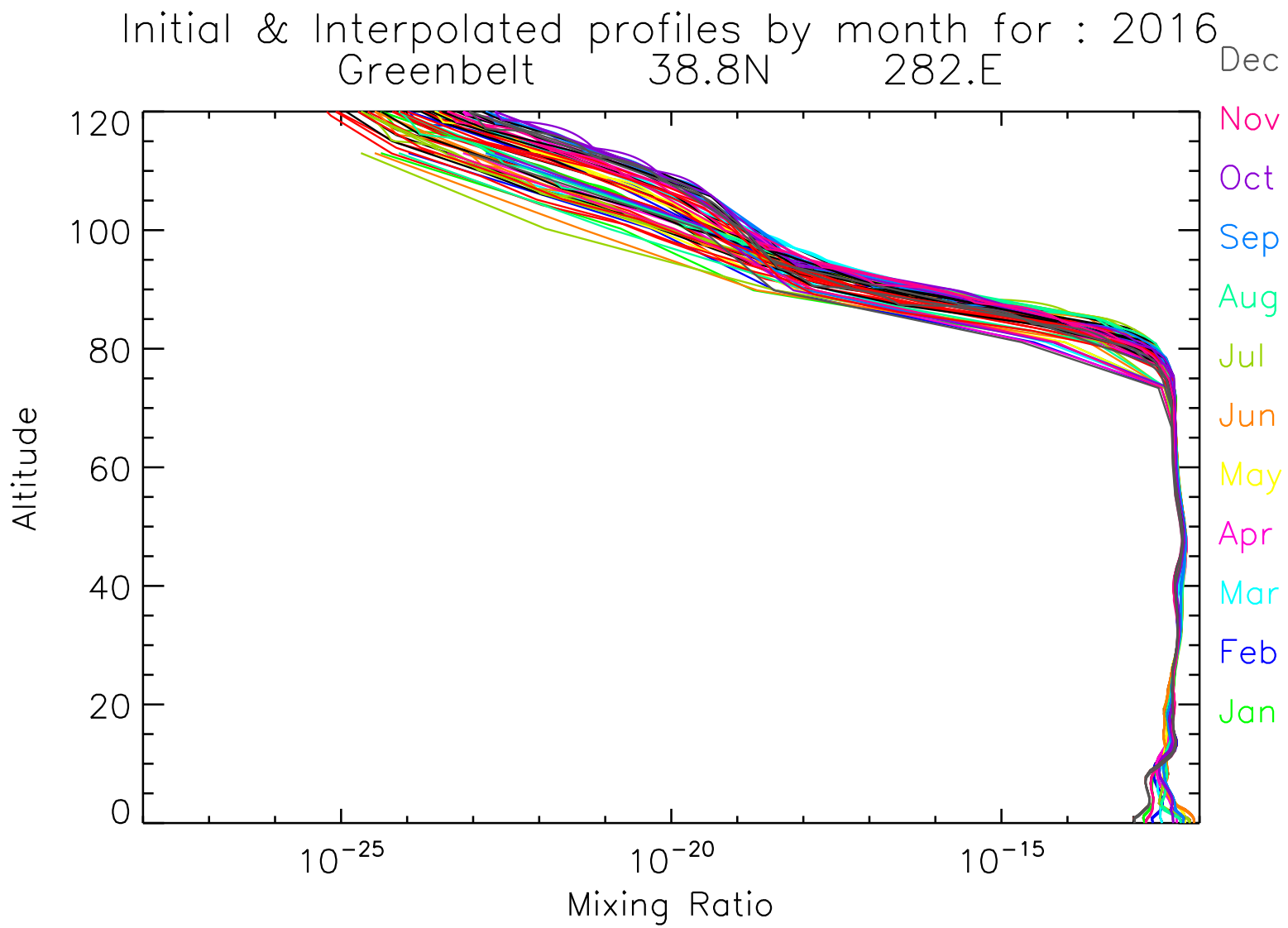
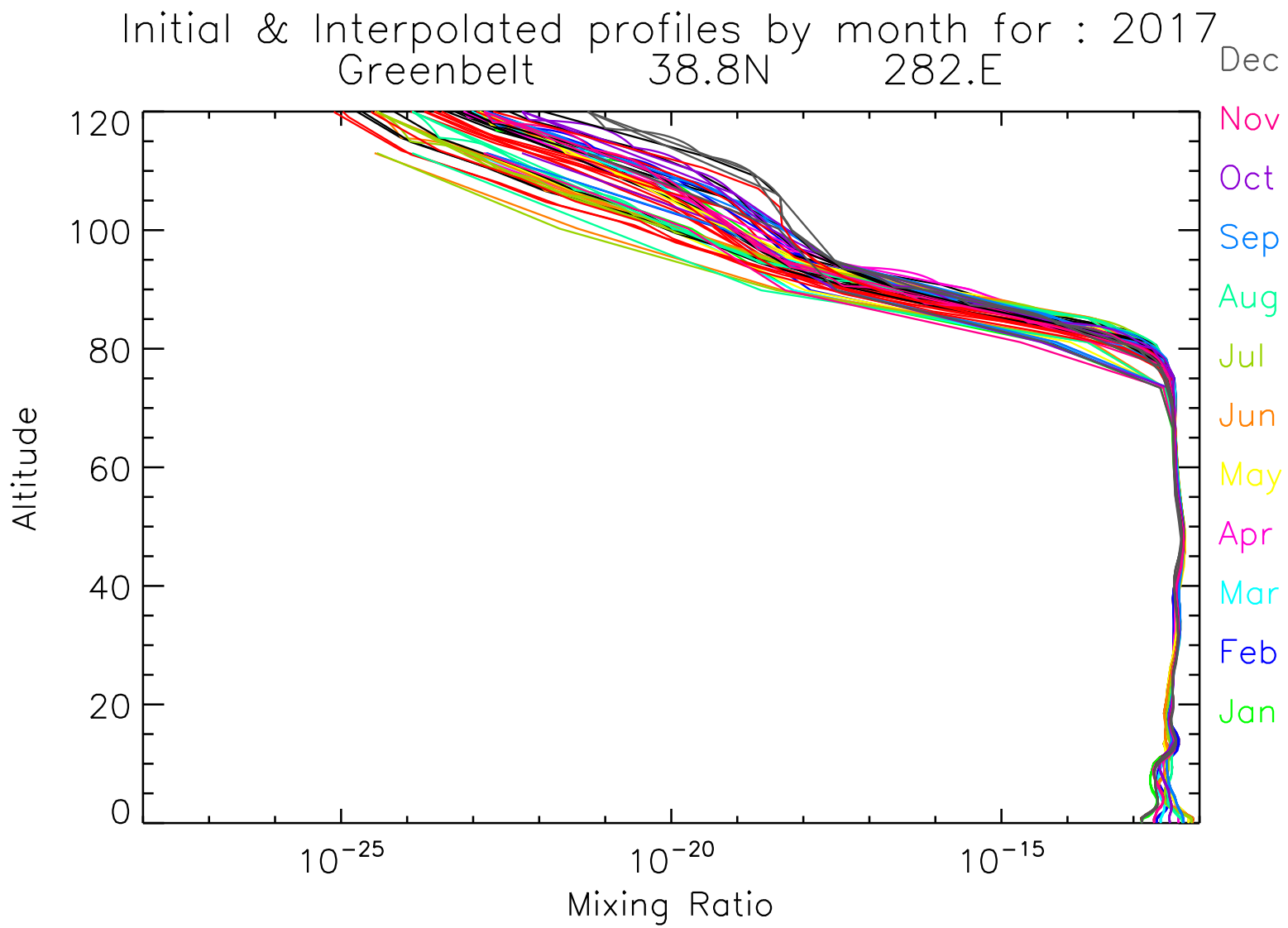
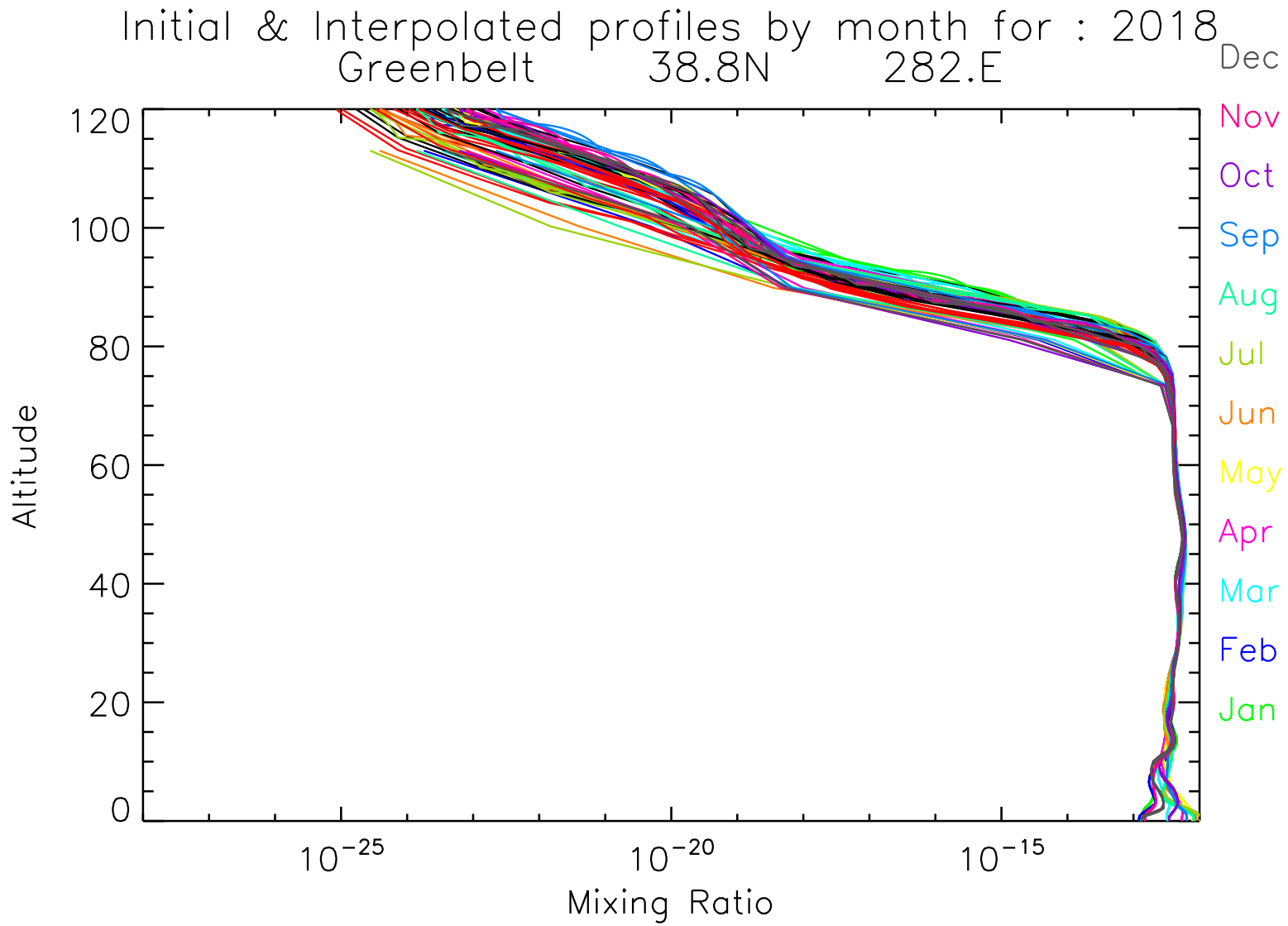
Altitude
10^{-25}
10^{-20}
10^{-15}
Mixing Ratio

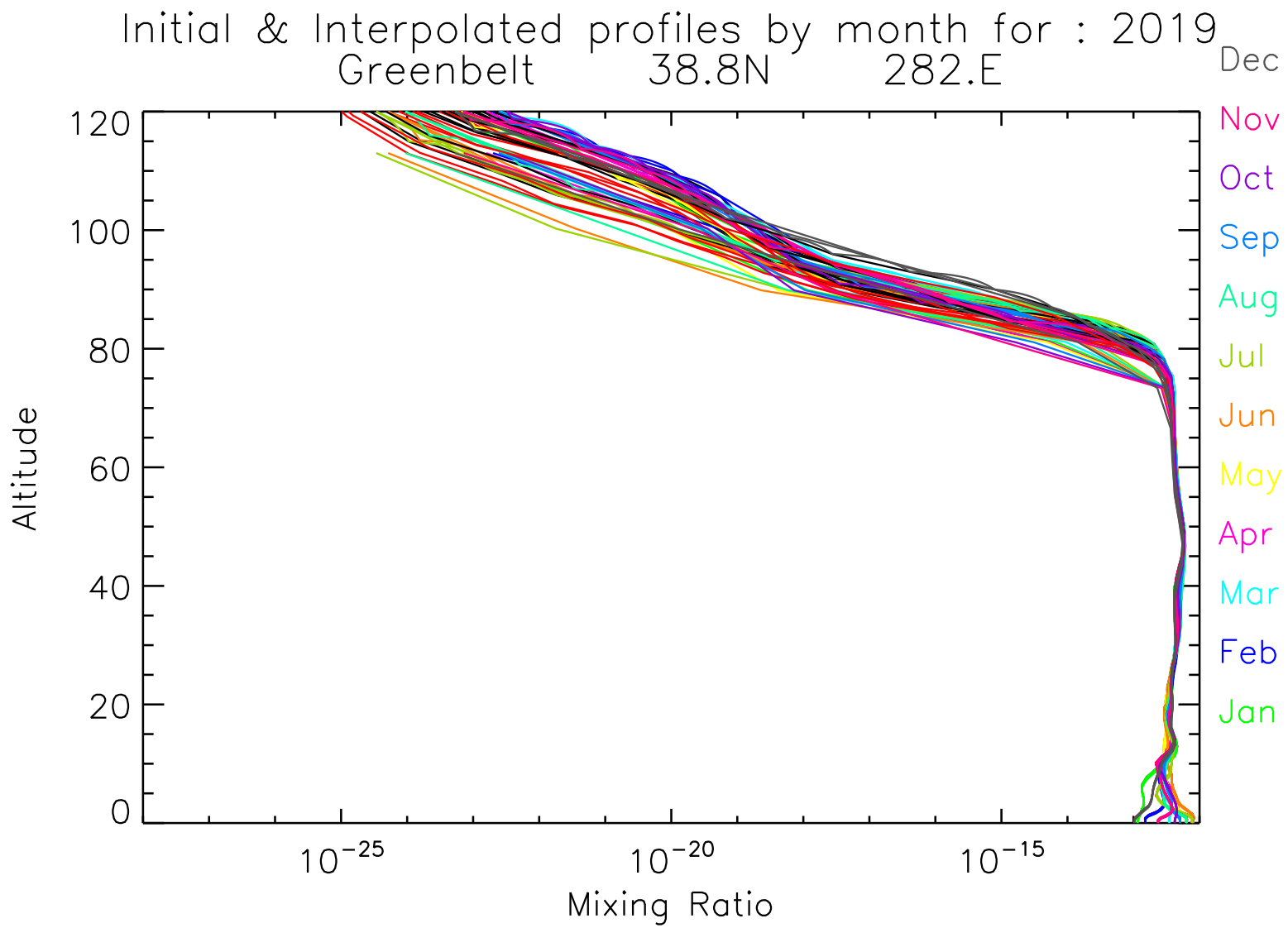

Initial & Interpolated profiles by month for : 2014
Greenbelt 38.8N 282.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
Mixing Ratio

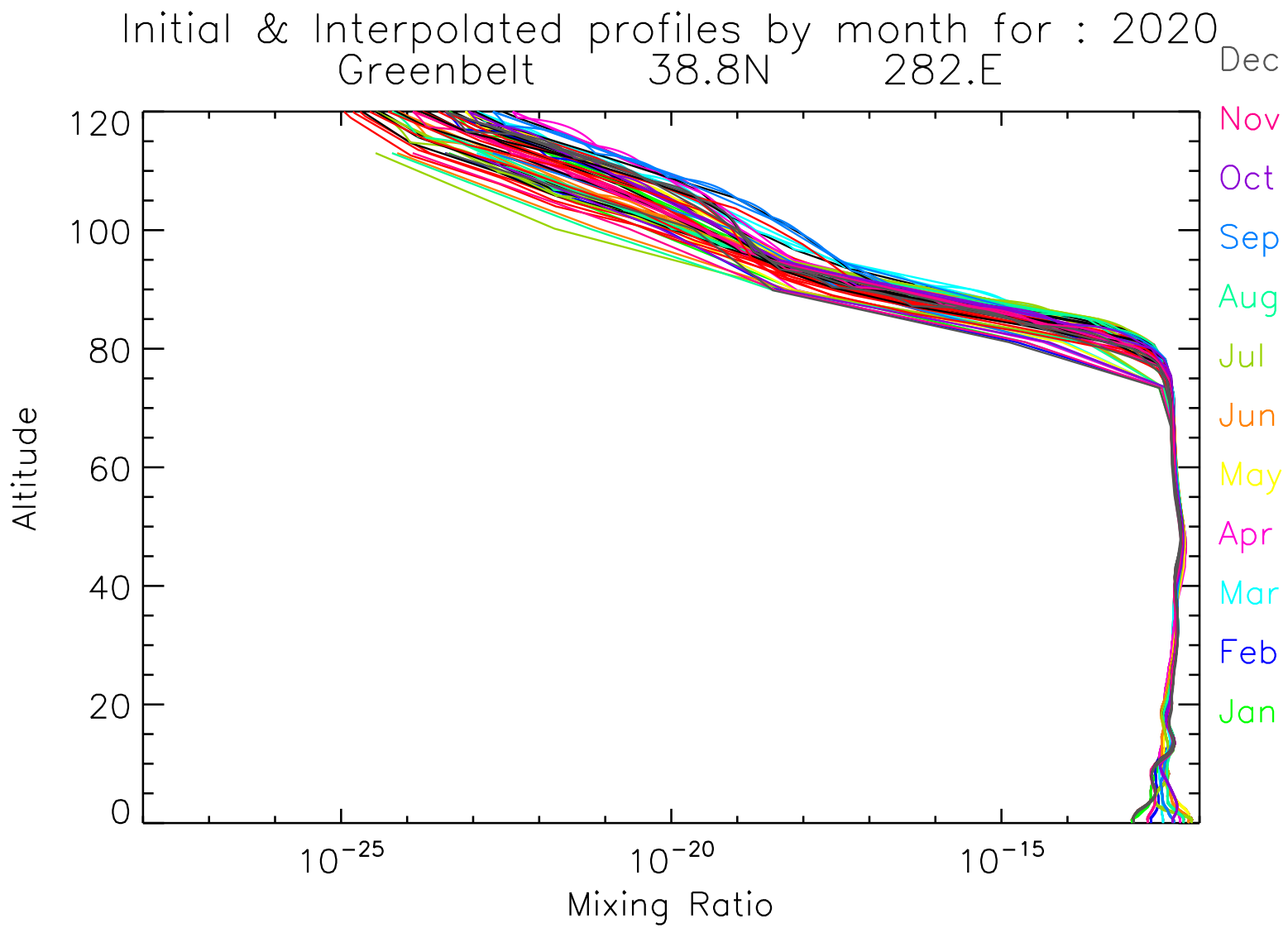

Initial & Interpolated profiles by month for : 2015
Greenbelt 38.8N 282.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
Mixing Ratio

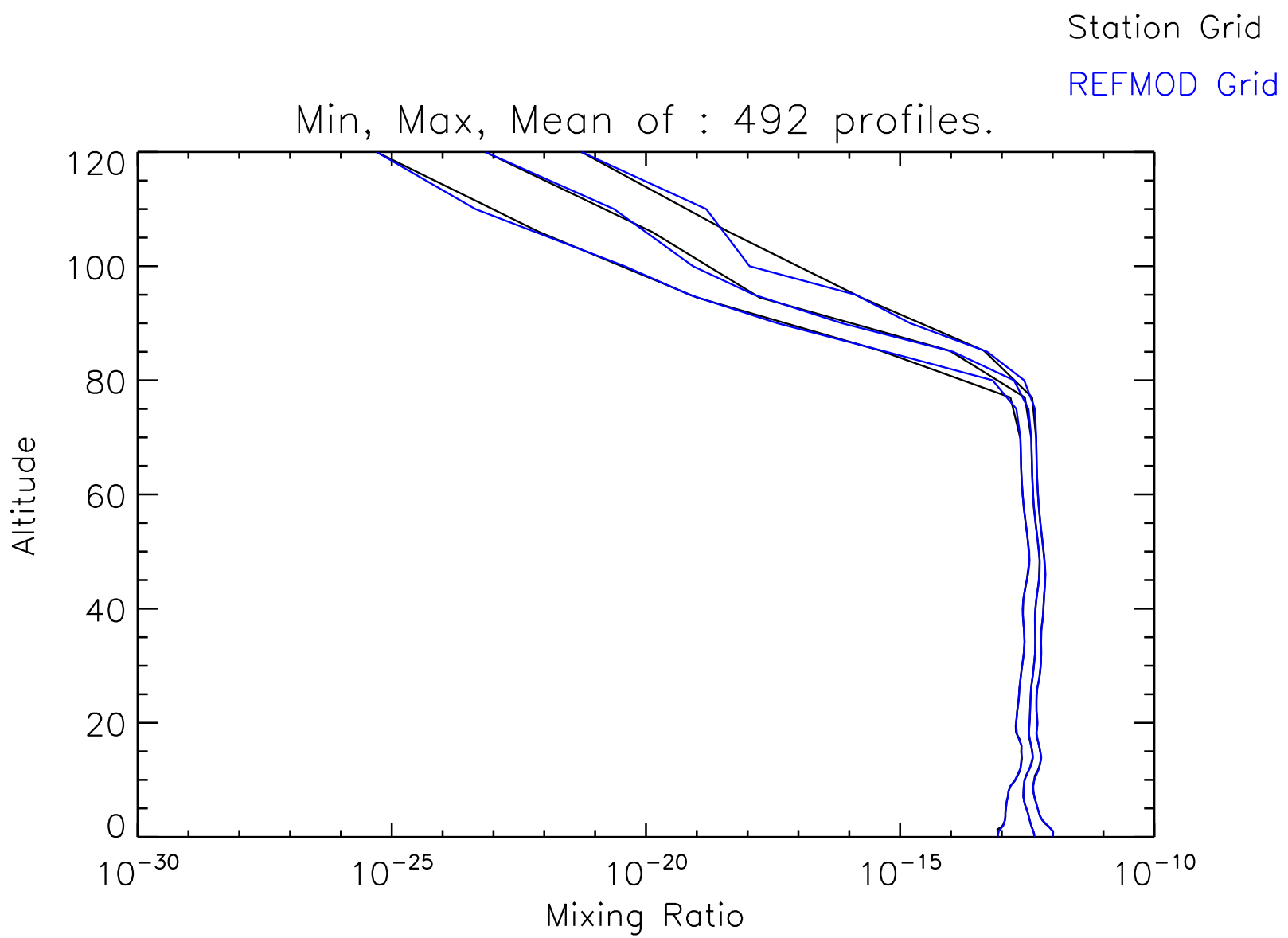

Initial & Interpolated profiles by month for : 2016
Greenbelt 38.8N 282.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
Mixing Ratio

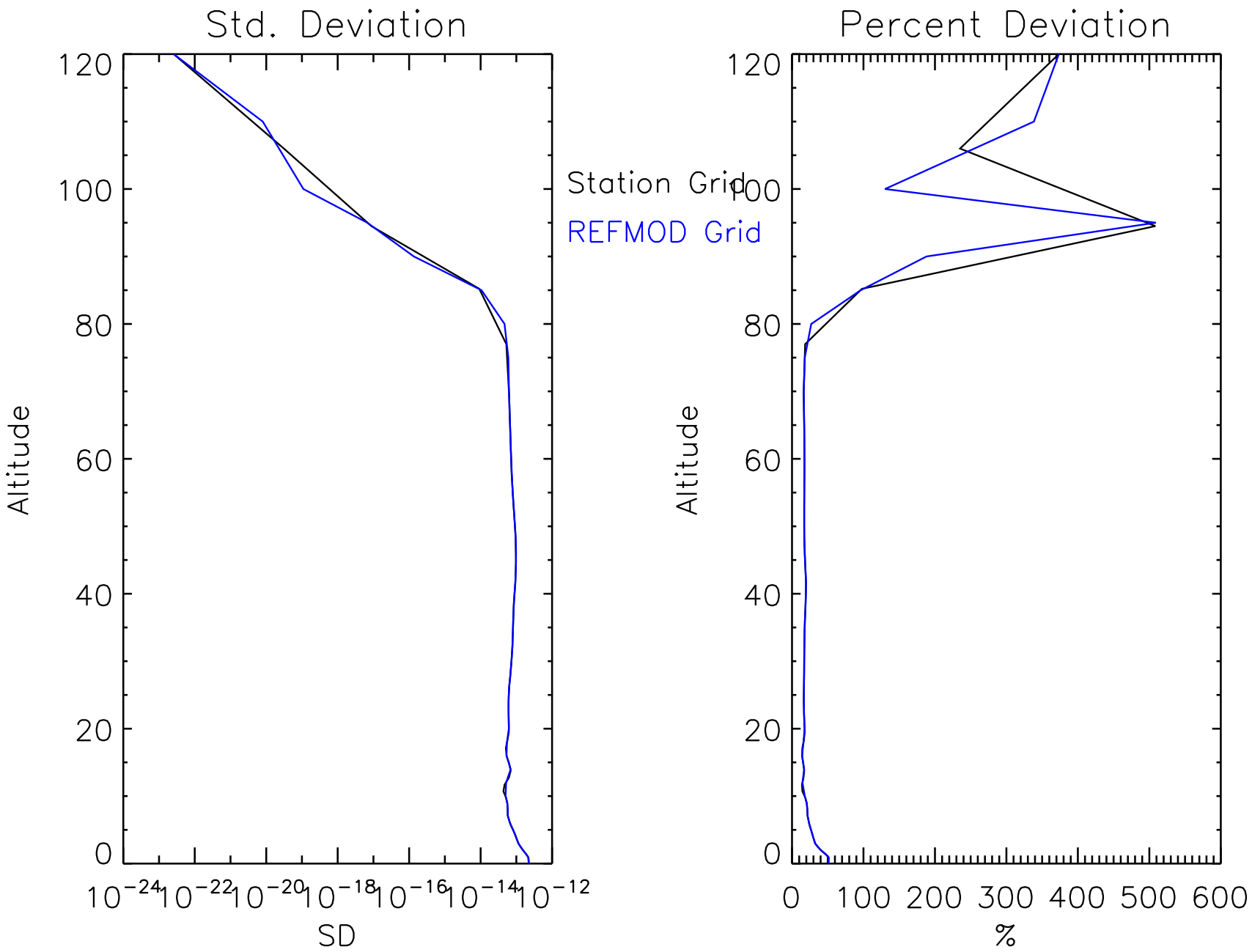

Initial & Interpolated profiles by month for : 2017
Greenbelt 38.8N 282.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
Mixing Ratio

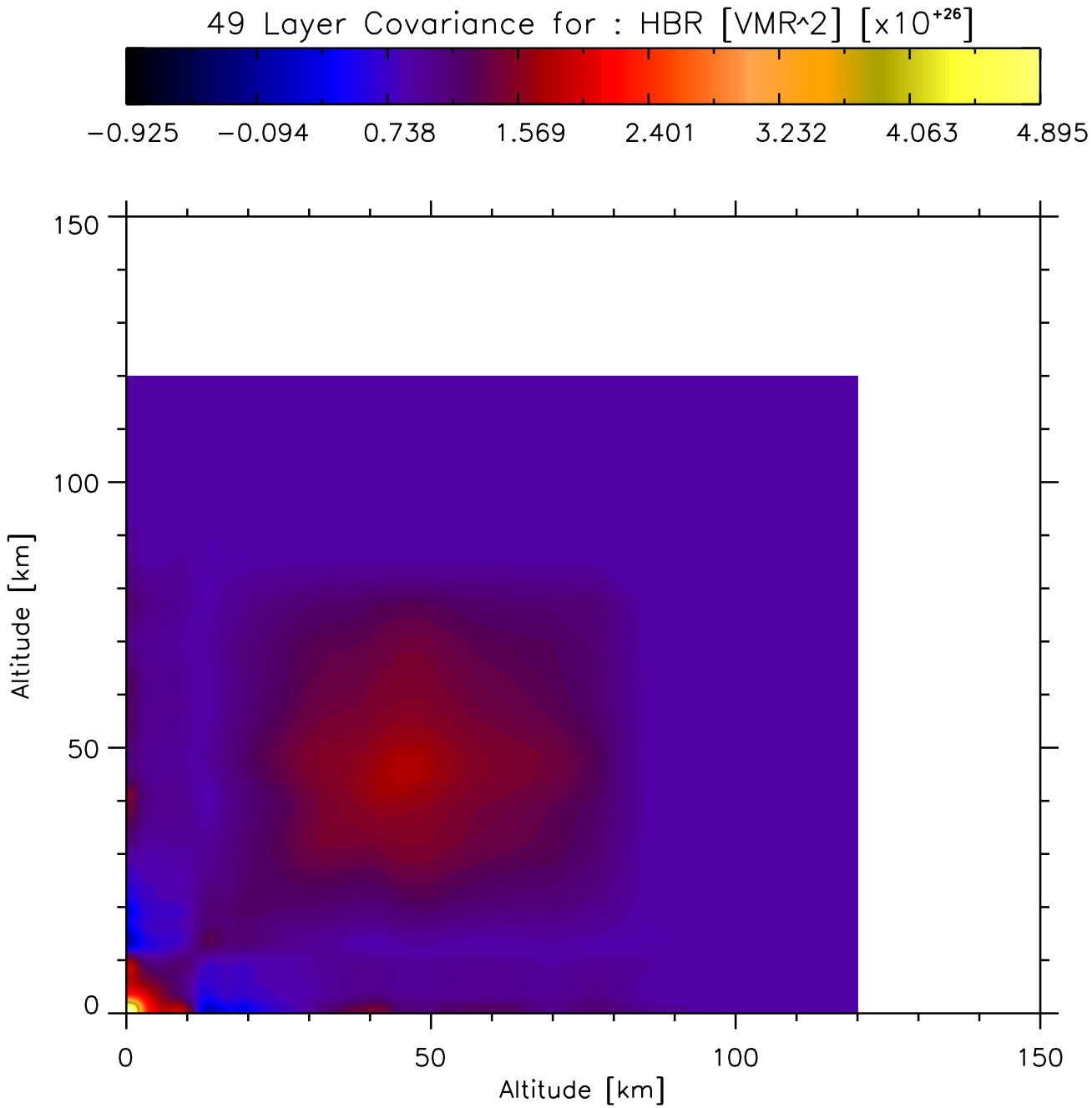

Initial & Interpolated profiles by month for : 2018
Greenbelt 38.8N 282.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
Mixing Ratio

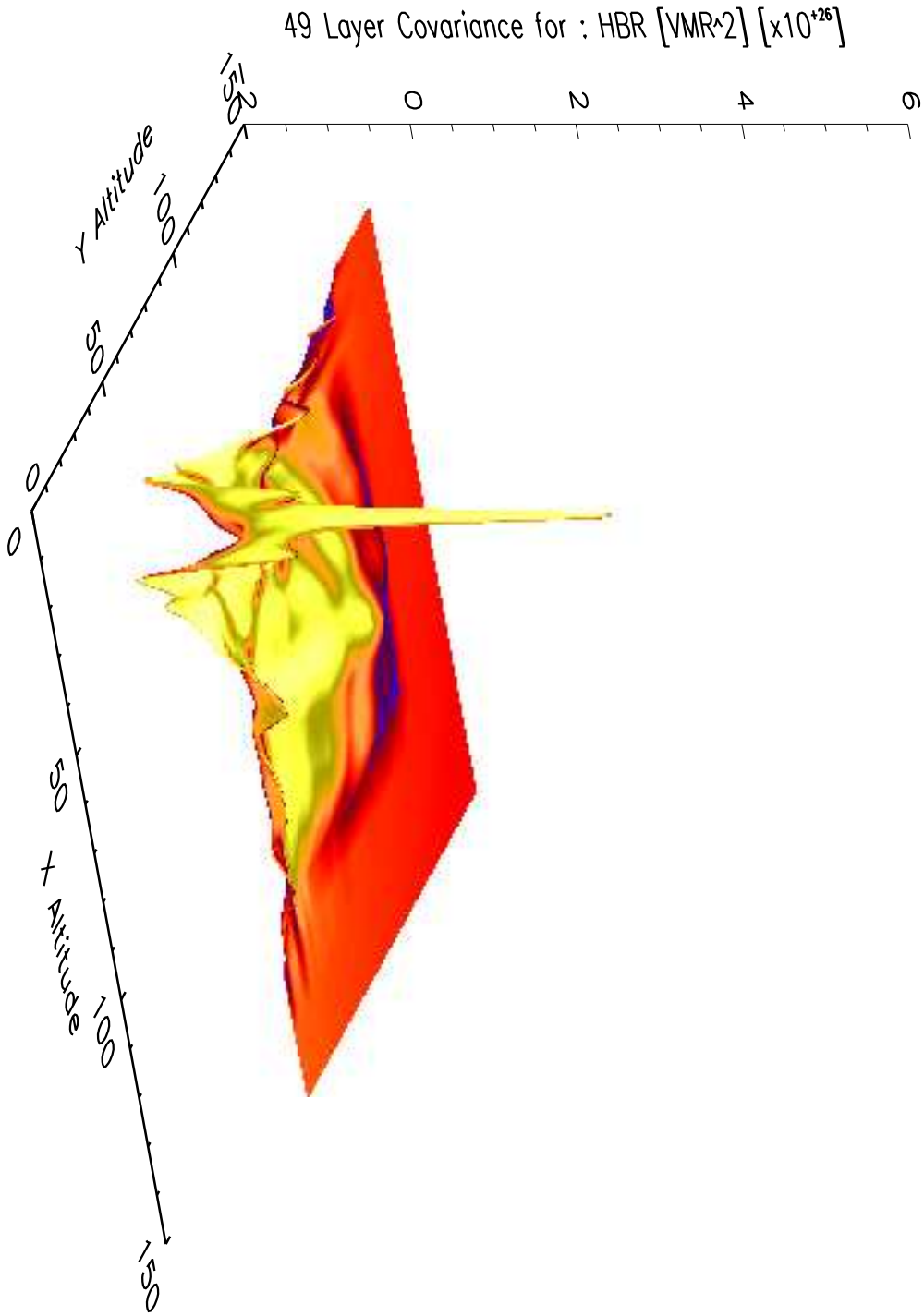

Initial & Interpolated profiles by month for : 2019
Greenbelt 38.8N 282.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
Mixing Ratio

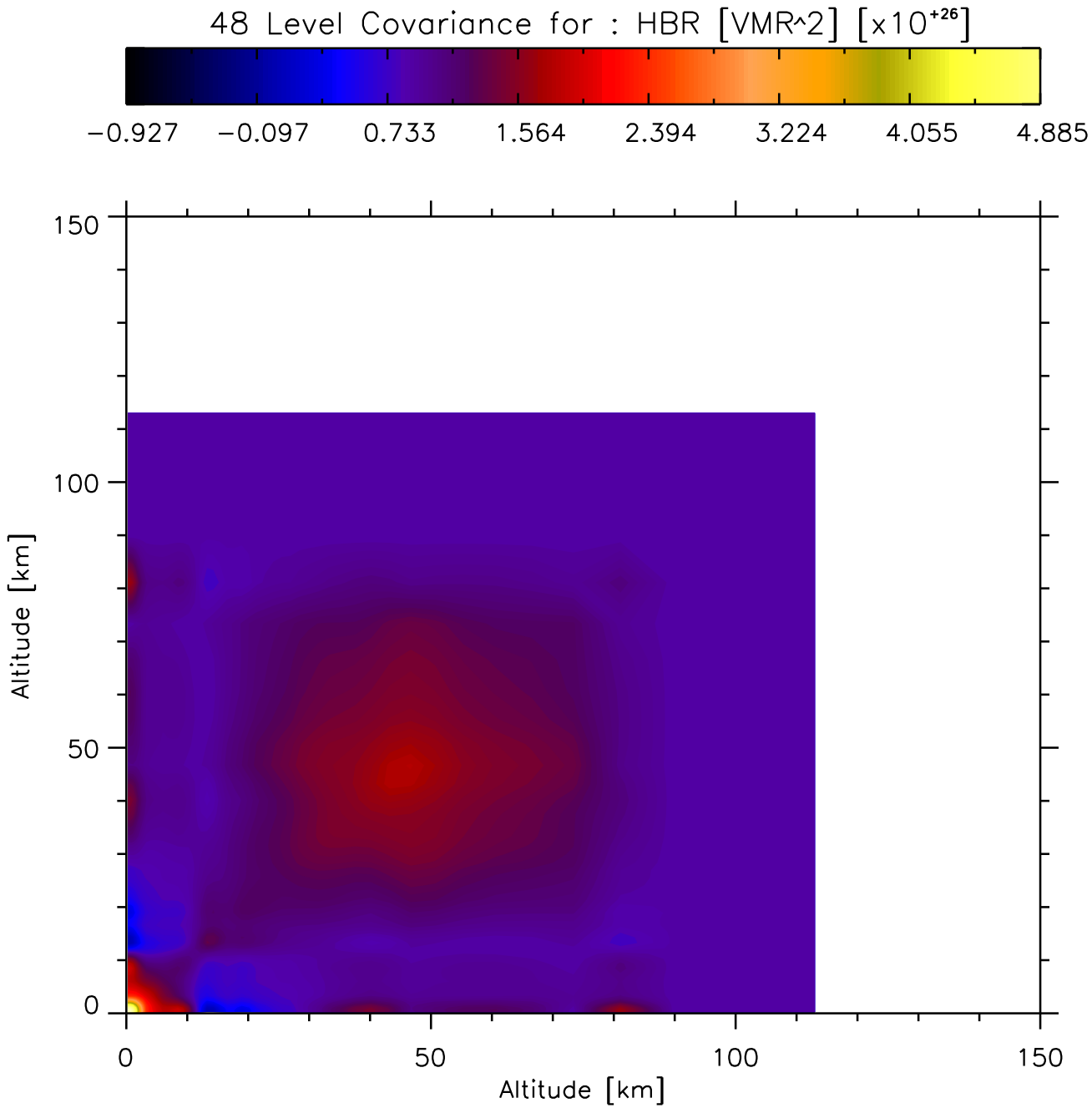

Initial & Interpolated profiles by month for : 2020
Greenbelt 38.8N 282.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
Mixing Ratio

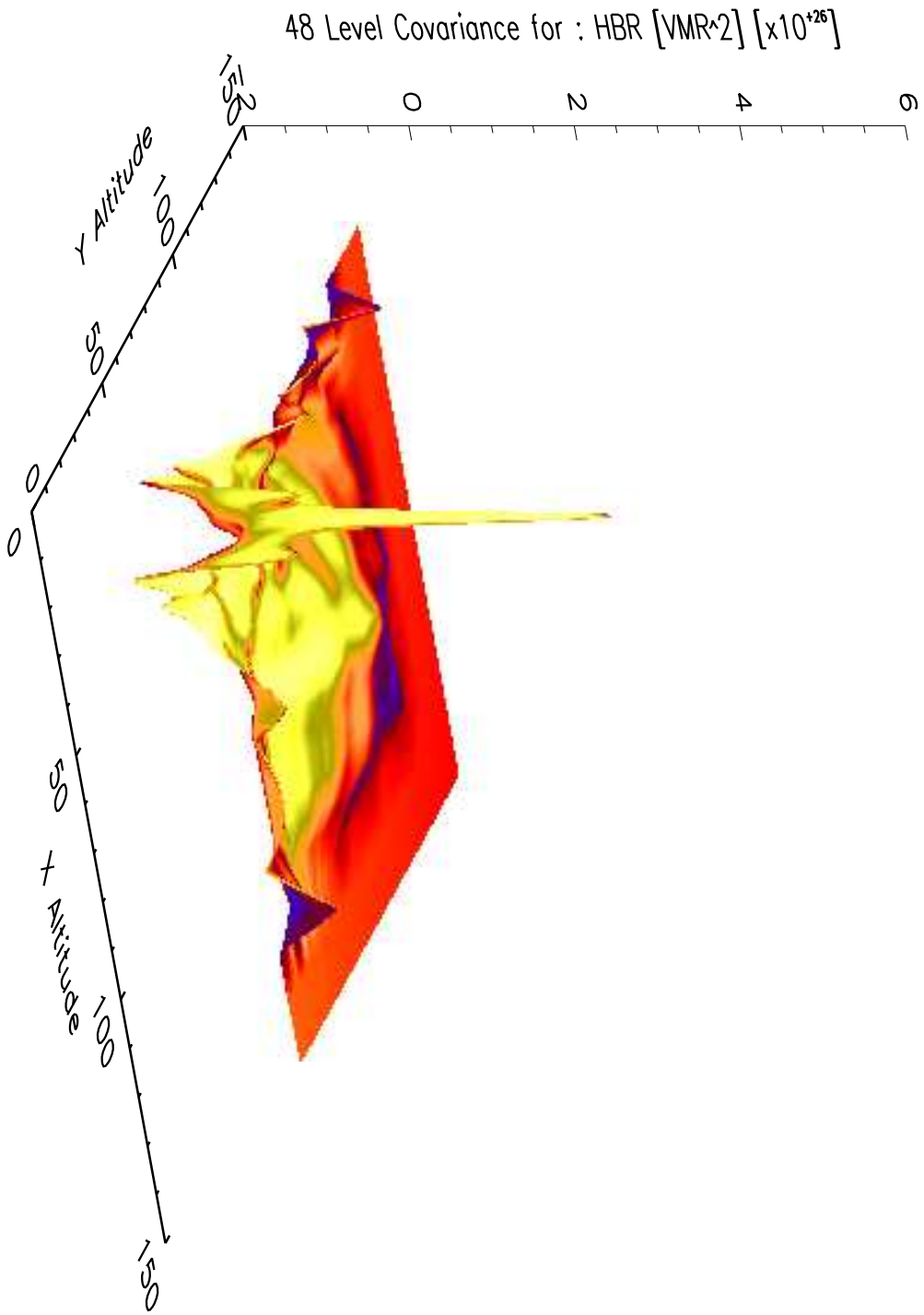

Station Grid
REFMOD Grid
Min, Max, Mean of : 492 profiles.
Altitude
120
100
80
60
40
20
0
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Std. Deviation
Percent Deviation
Station Grid
REFMOD Grid
Altitude
Altitude
120
100
80
60
40
20
0
10^{-24} 10^{-22} 10^{-20} 10^{-18} 10^{-16} 10^{-14} 10^{-12}
SD
0 100 200 300 400 500 600
%


49 Layer Covariance for : HBR [VMR^2] [x10^+26]
−0.925
−0.094
0.738
1.569
2.401
3.232
4.063
4.895
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]


49 Layer Covariance for : HBR [VMR^2] [x10^+26]
0
2
4
6
Y Altitude
150
100
50
0
X Altitude
0
50
100
150


48 Level Covariance for : HBR [VMR^2] [x10^+26]
−0.927
−0.097
0.733
1.564
2.394
3.224
4.055
4.885
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]


48 Level Covariance for : HBR [VMR^2] [x10^+26]
Y Altitude
X Altitude
0
50
100
150
0
2
4
6