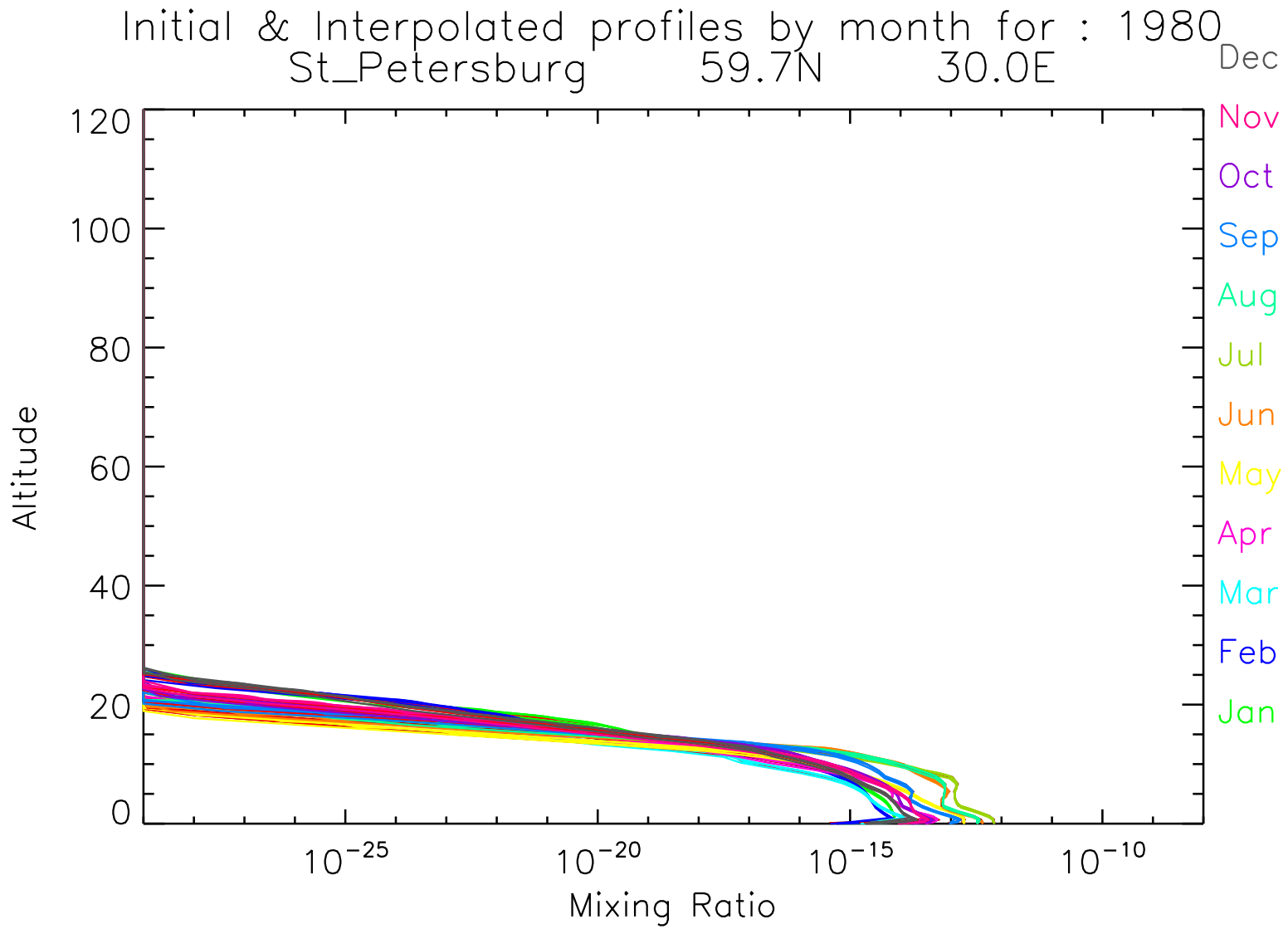
Initial & Interpolated profiles by month for : 1980
St_Petersburg 59.7N 30.0E
Dec
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120
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0
Altitude
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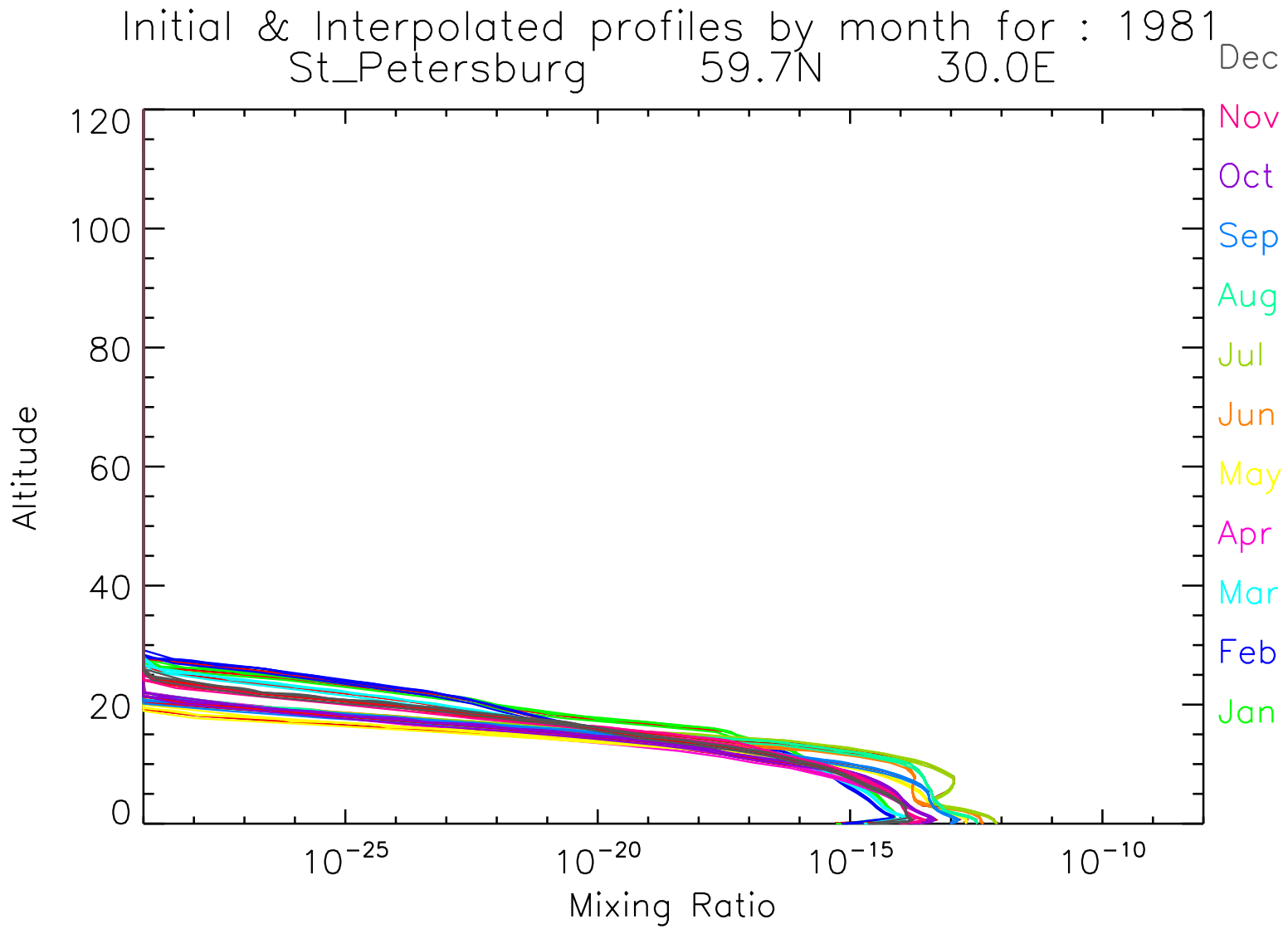
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1981
St_Petersburg 59.7N 30.0E
Dec
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Altitude
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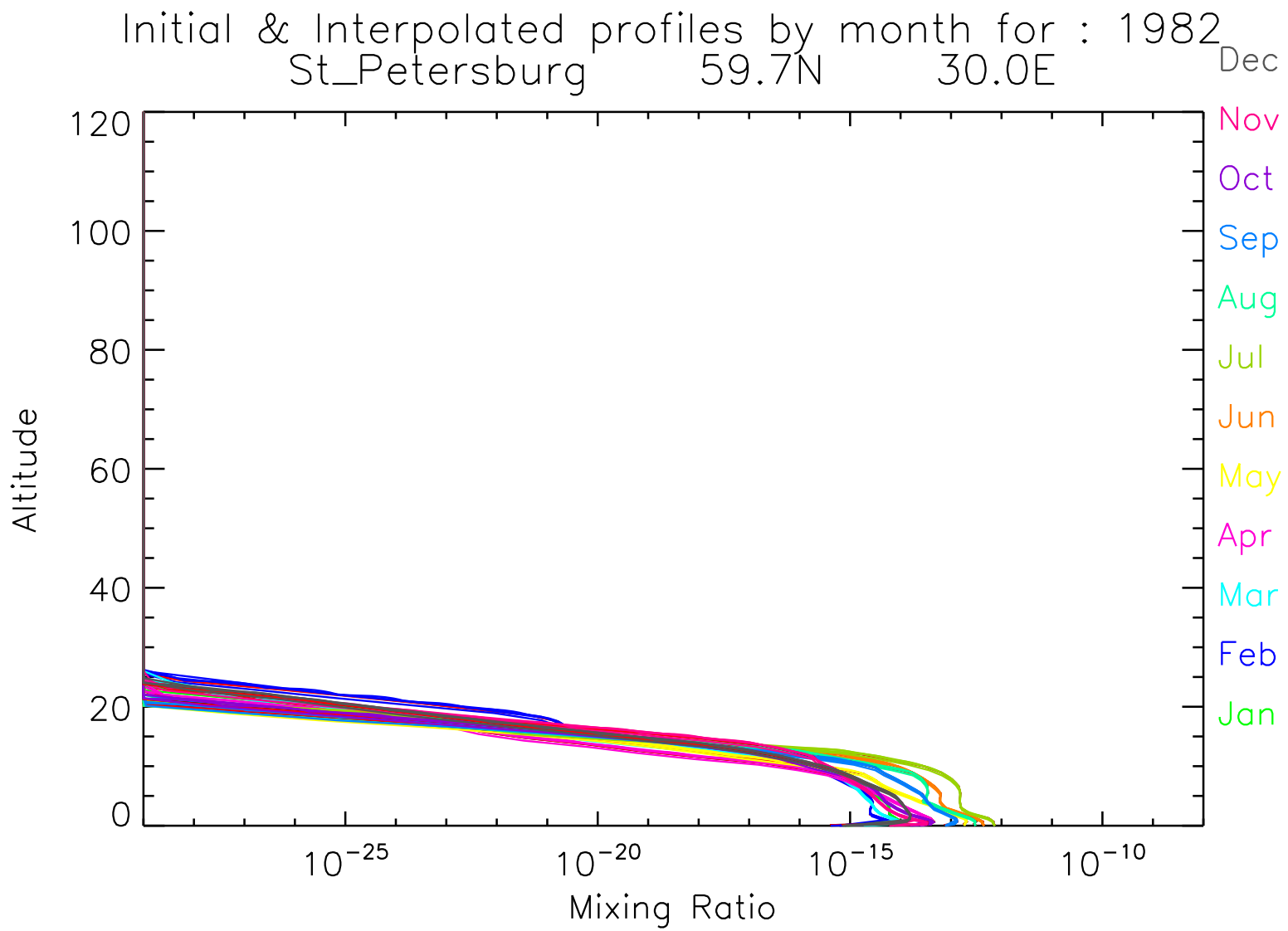
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1982
St_Petersburg 59.7N 30.0E
Dec
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120
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Altitude
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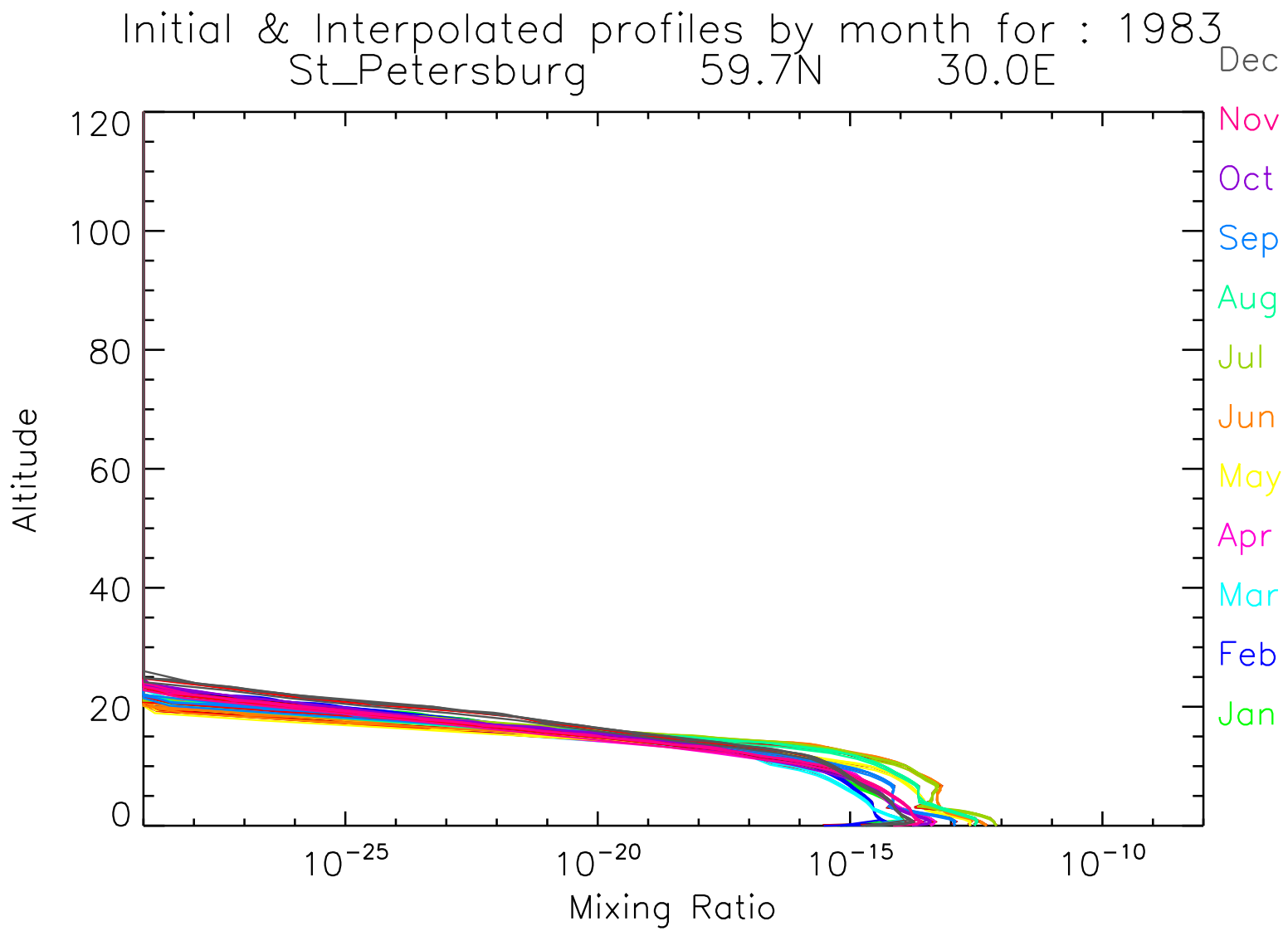
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1983
St_Petersburg 59.7N 30.0E
Dec
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Altitude
10^{-25}
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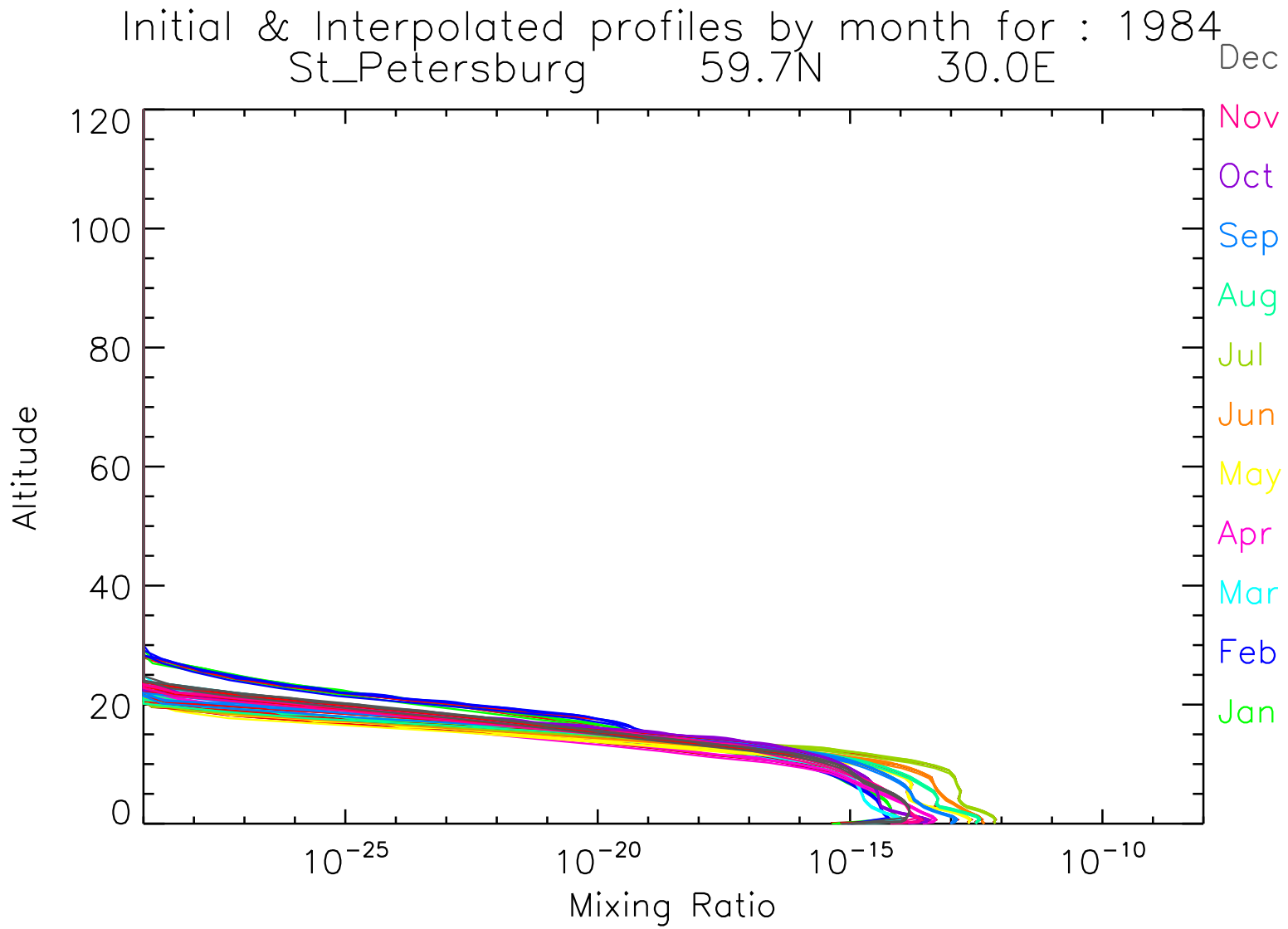
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1984
St_Petersburg 59.7N 30.0E
Dec
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Altitude
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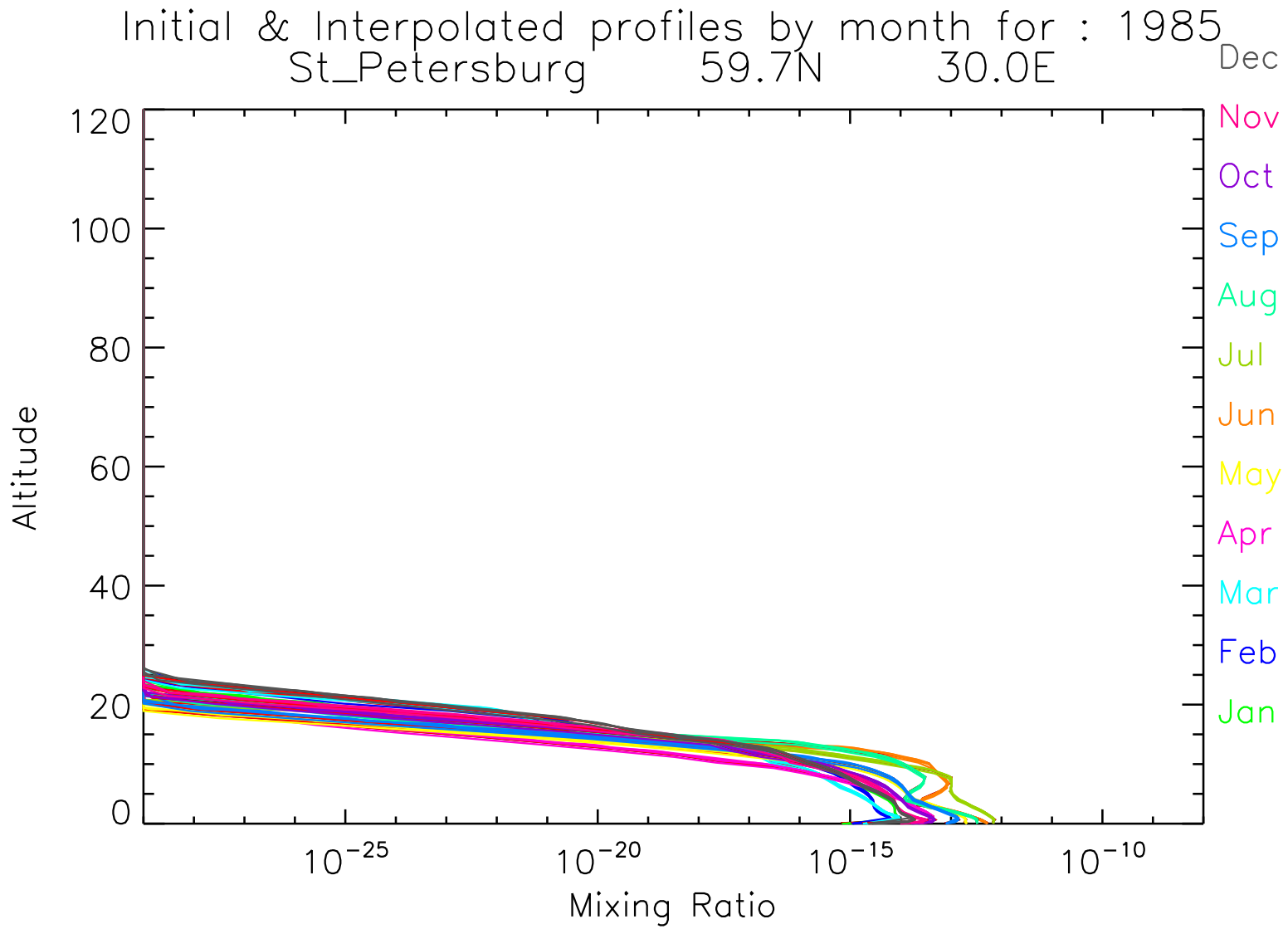
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1985
St_Petersburg 59.7N 30.0E
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Altitude
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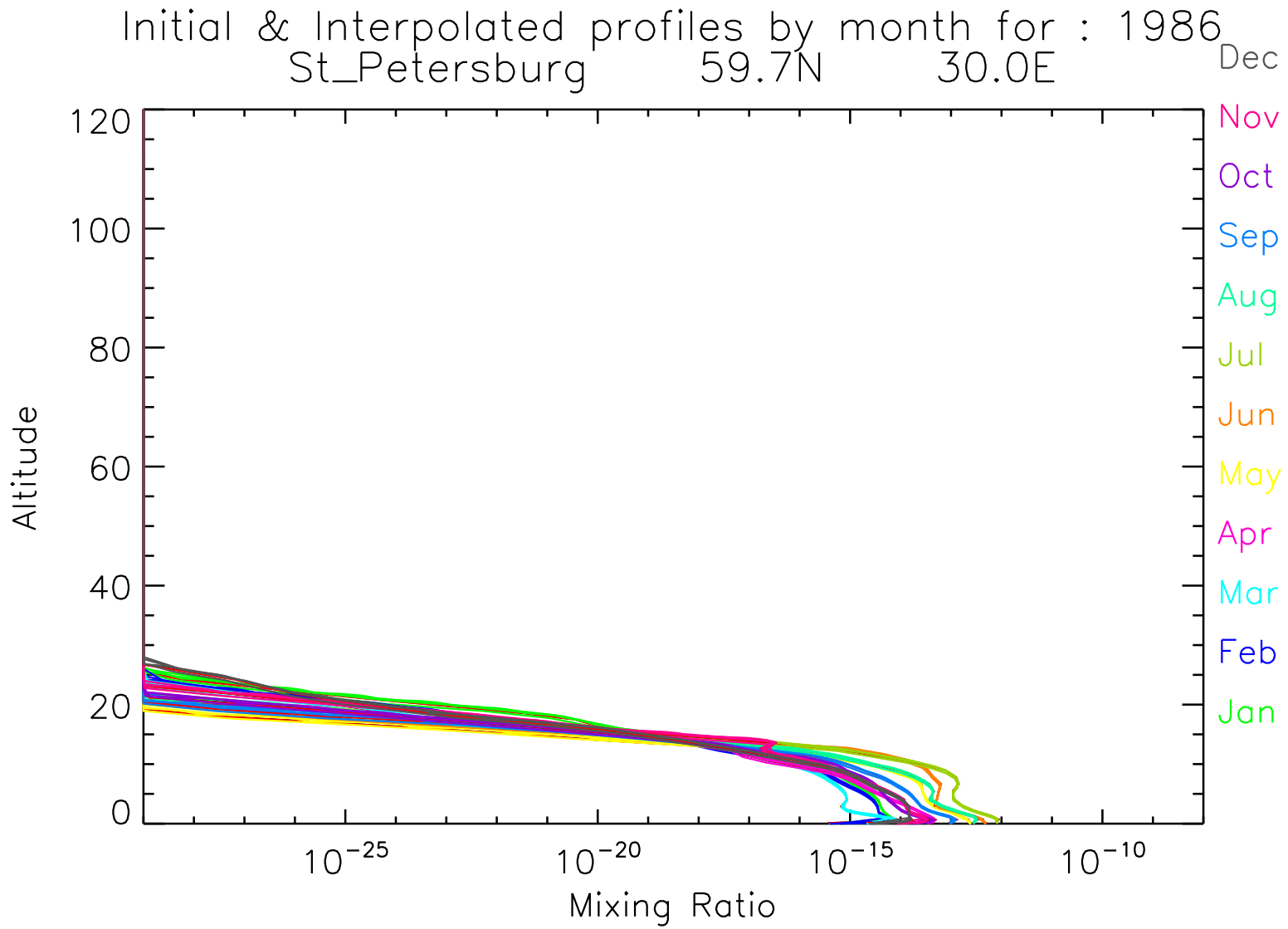
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1986
St_Petersburg 59.7N 30.0E
Dec
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Altitude
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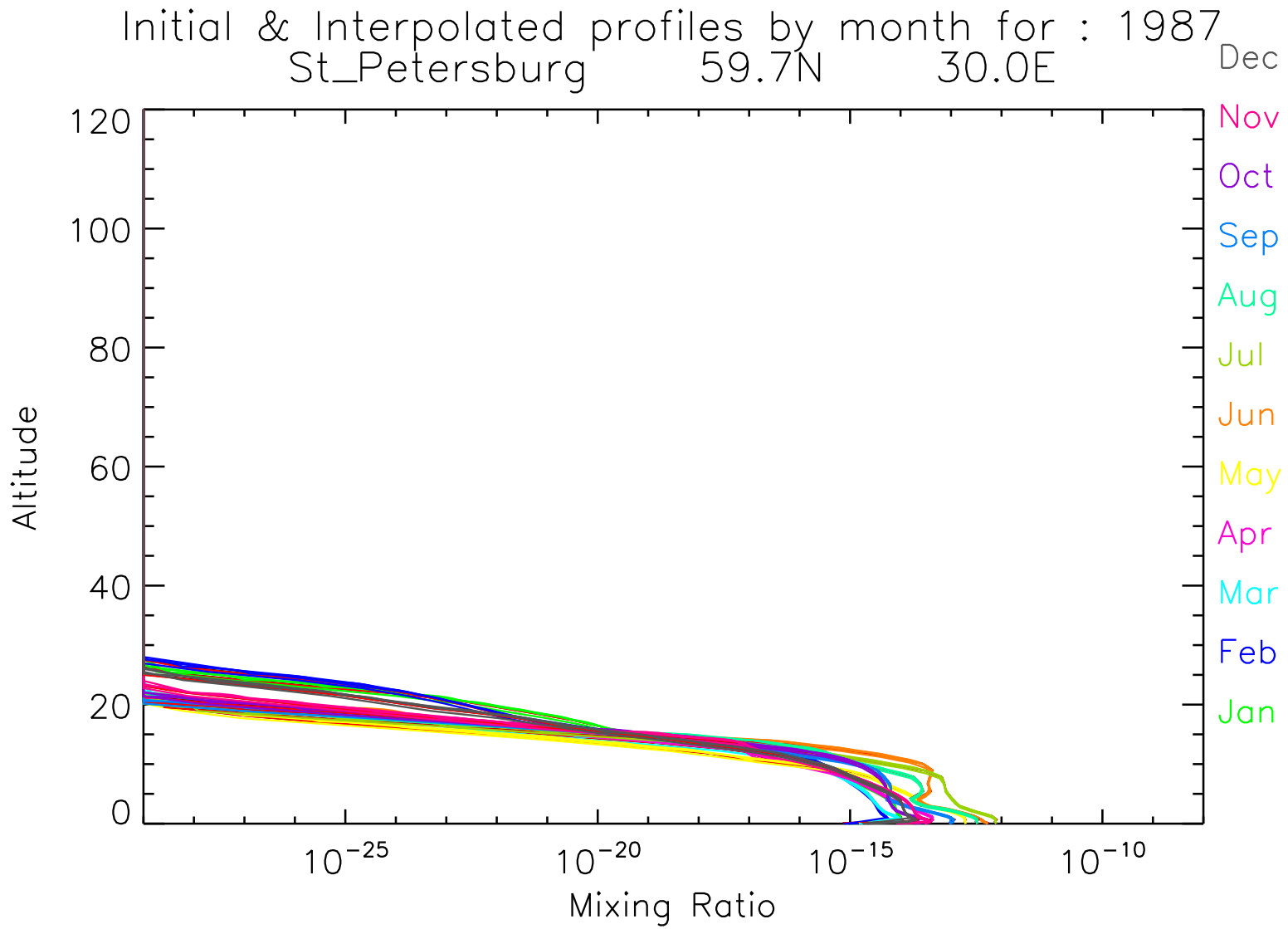
Mixing Ratio


Initial & Interpolated profiles by month for : 1987
St_Petersburg 59.7N 30.0E
Dec
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Altitude
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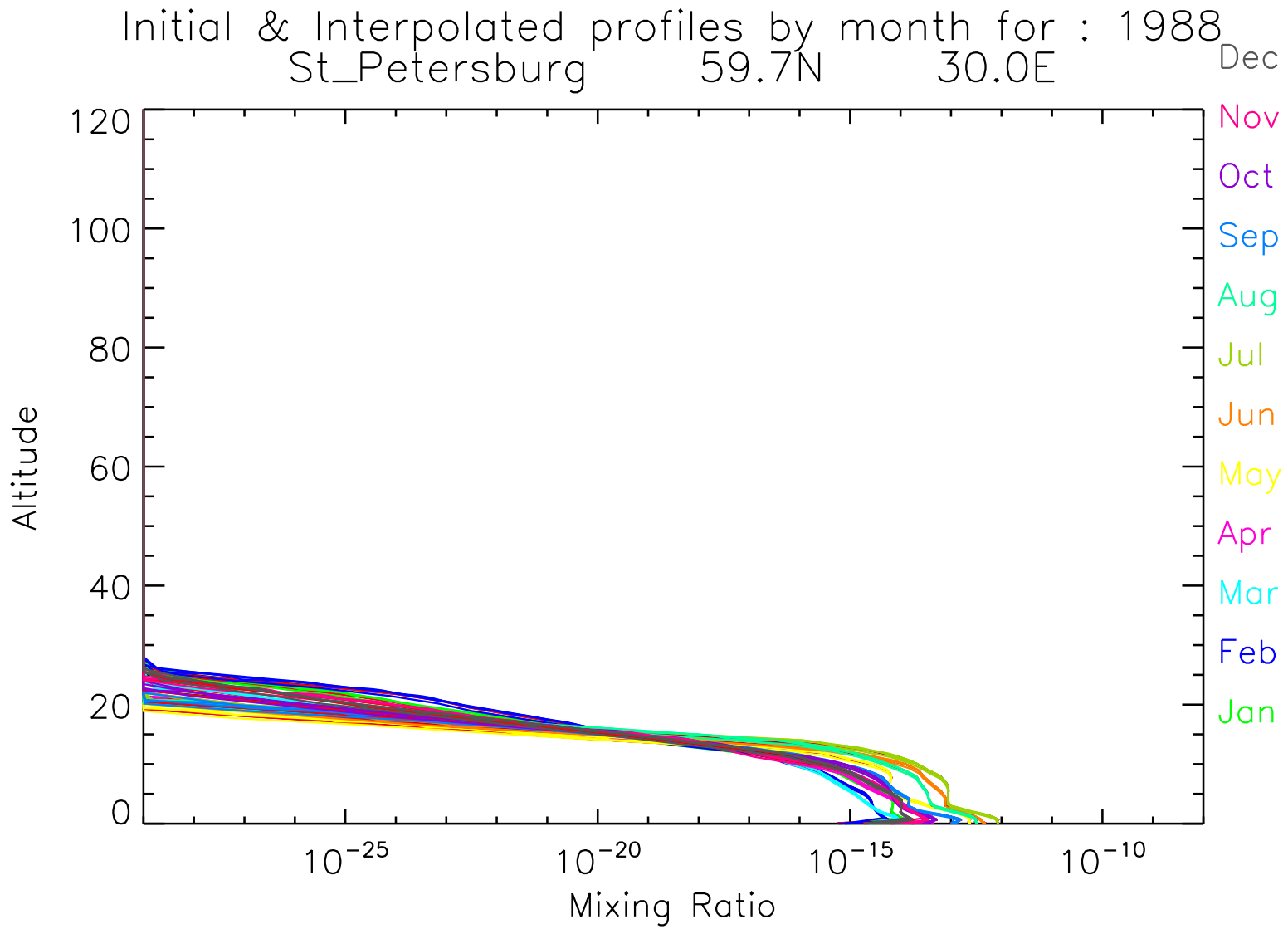
Mixing Ratio


Initial & Interpolated profiles by month for : 1988
St_Petersburg 59.7N 30.0E
Dec
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Altitude
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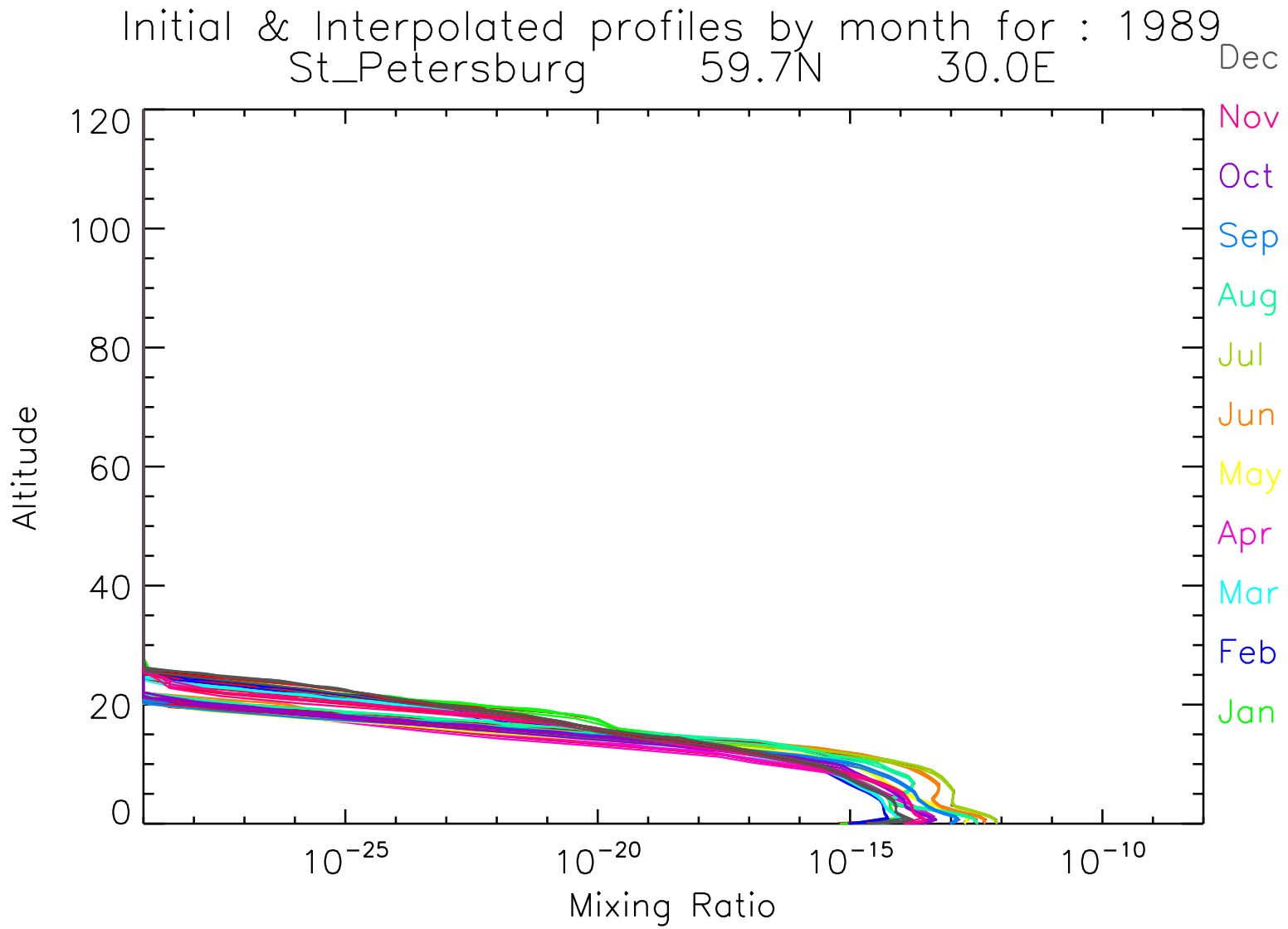
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1989
St_Petersburg 59.7N 30.0E
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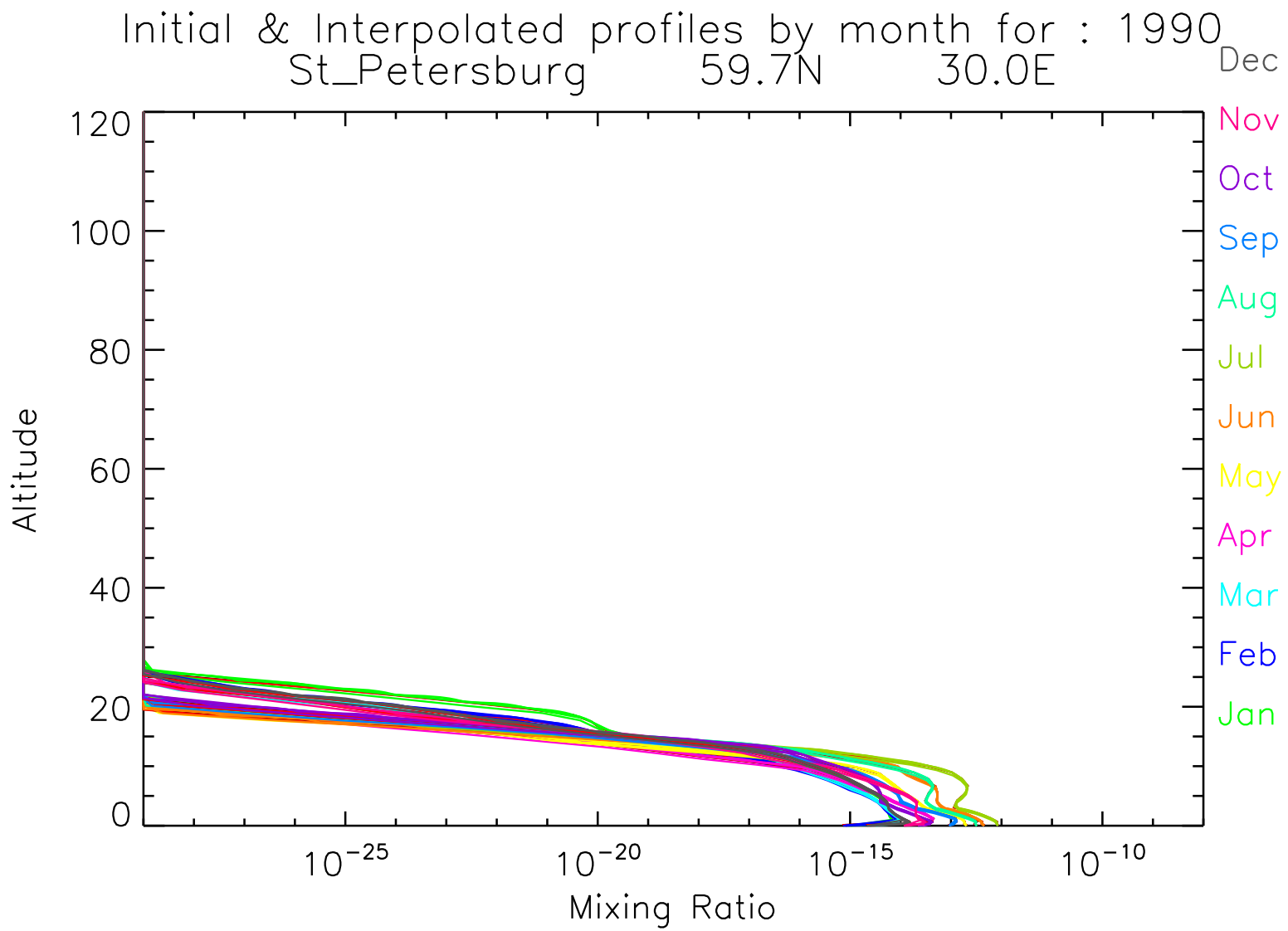
Mixing Ratio


Initial & Interpolated profiles by month for : 1990
St_Petersburg 59.7N 30.0E
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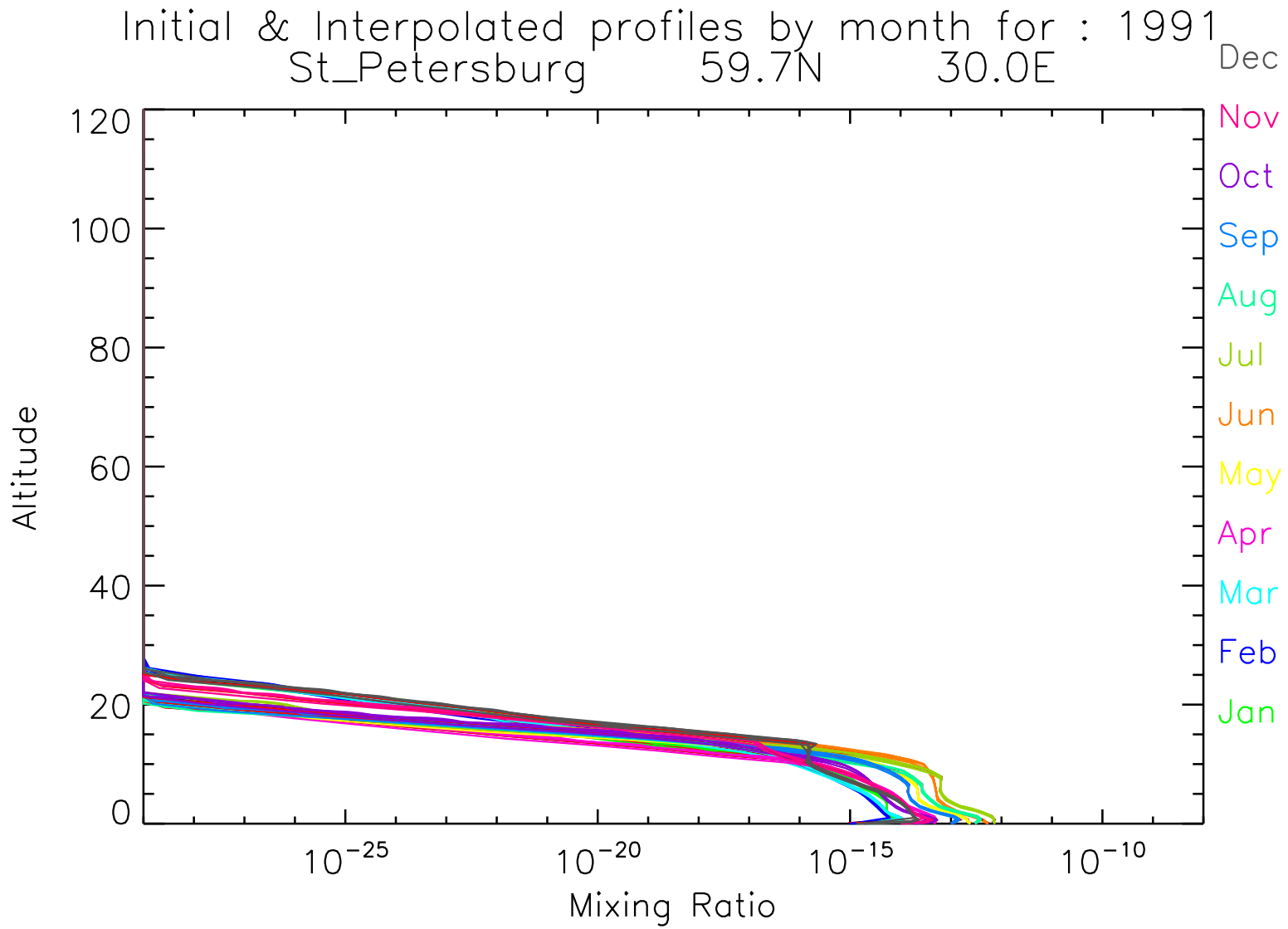
Mixing Ratio


Initial & Interpolated profiles by month for : 1991
St_Petersburg 59.7N 30.0E
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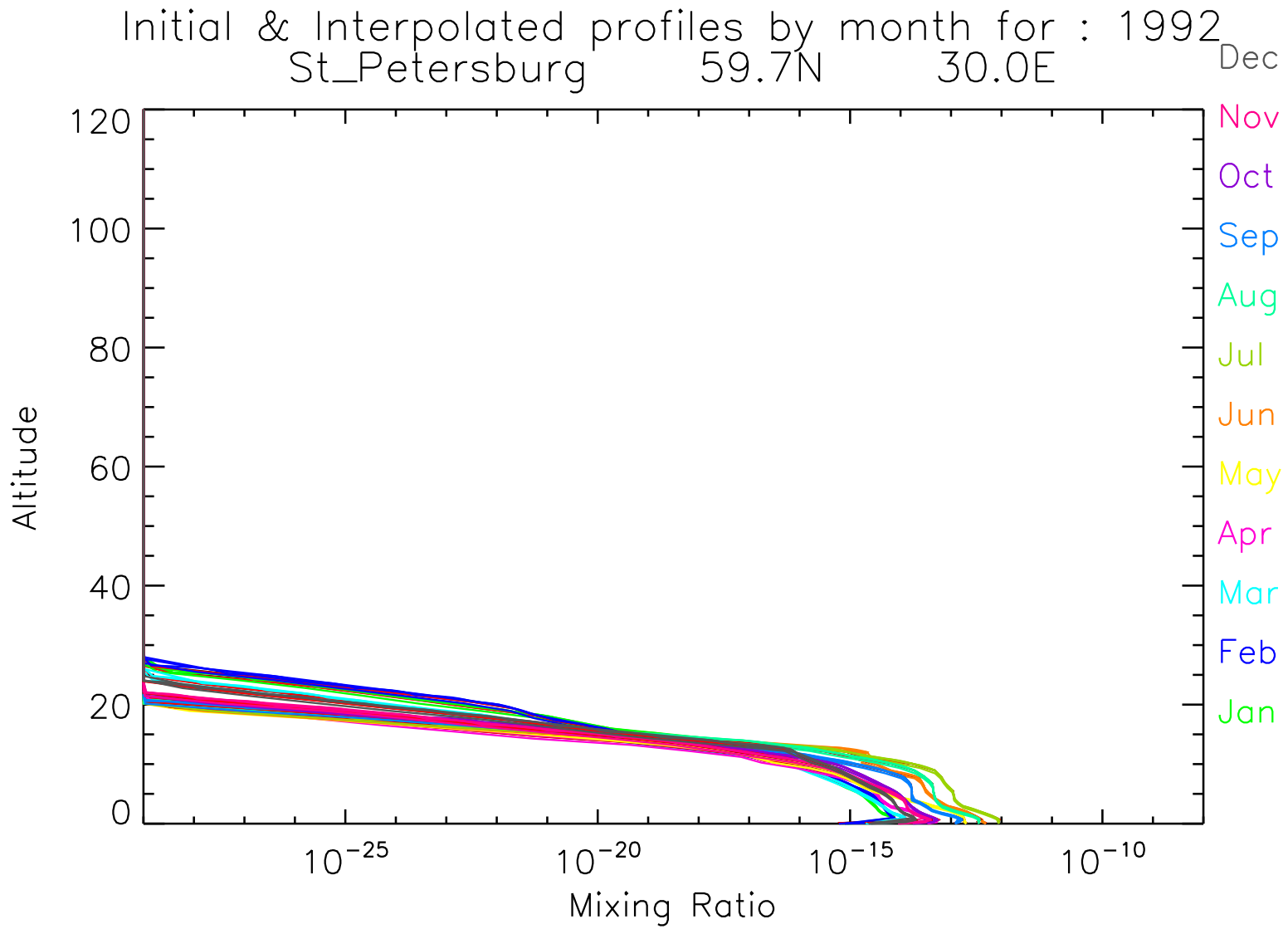
Mixing Ratio


Initial & Interpolated profiles by month for : 1992
St_Petersburg 59.7N 30.0E
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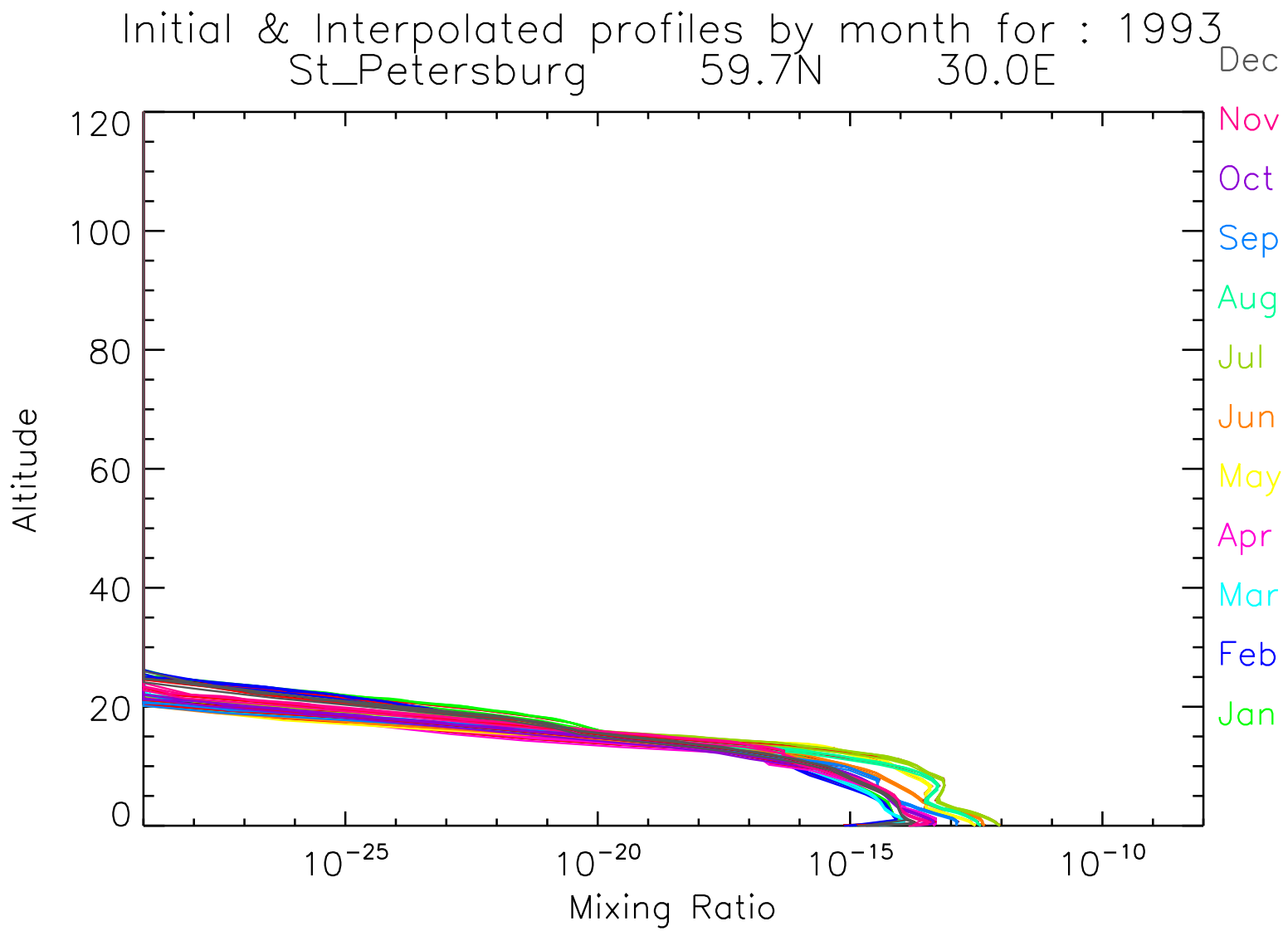
Mixing Ratio


Initial & Interpolated profiles by month for : 1993
St_Petersburg 59.7N 30.0E
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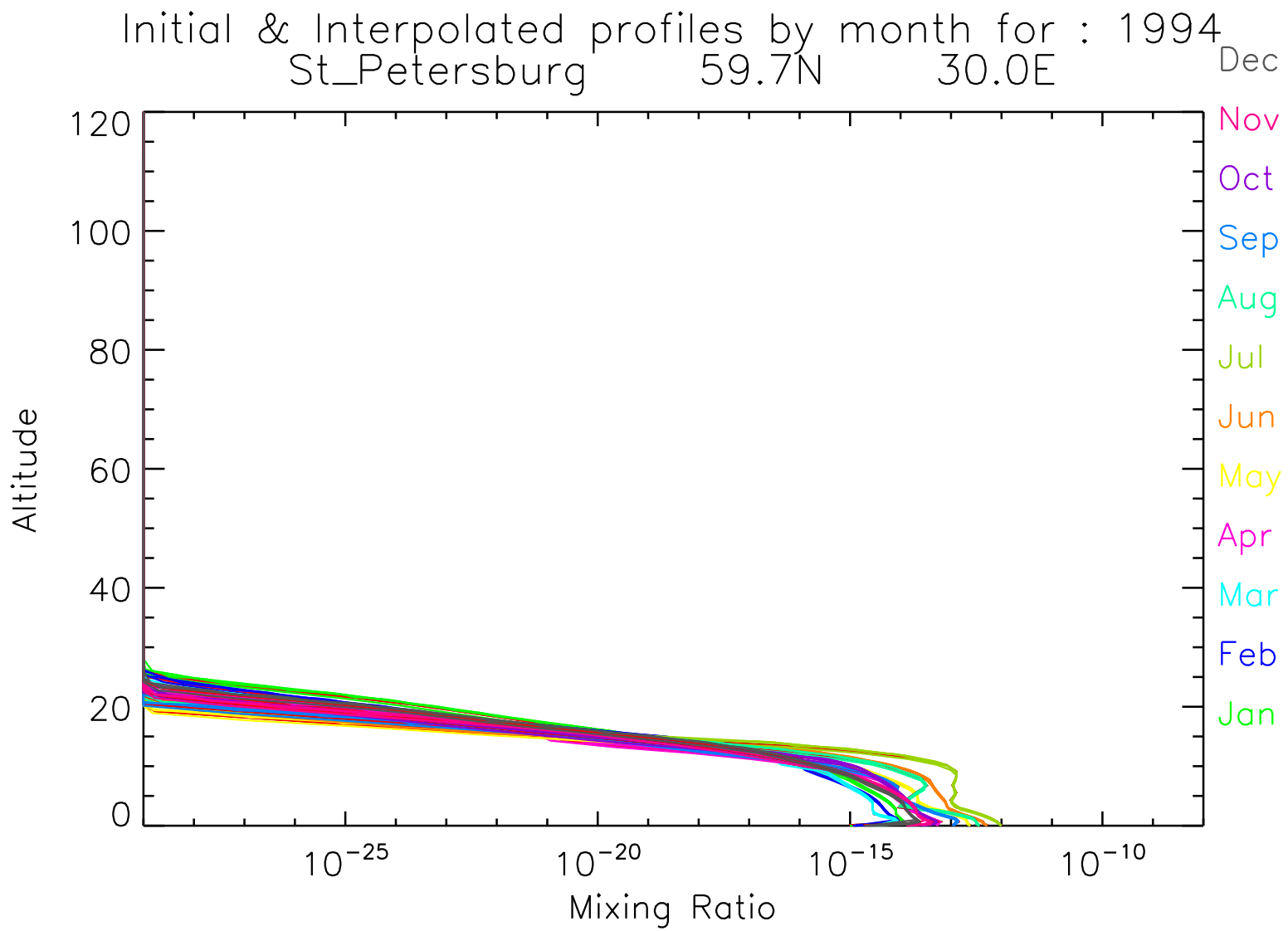
Mixing Ratio


Initial & Interpolated profiles by month for : 1994
St_Petersburg 59.7N 30.0E
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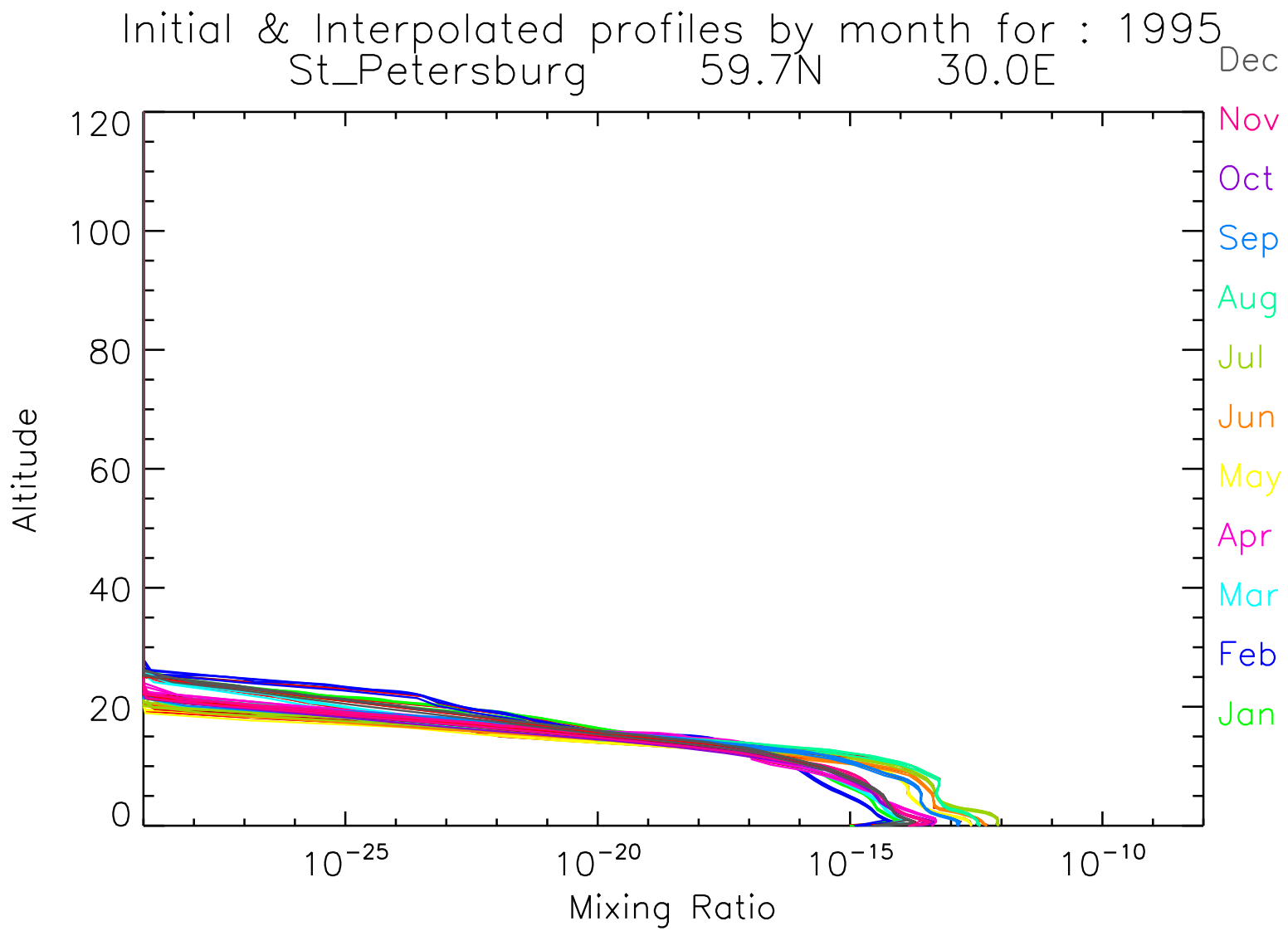
Mixing Ratio


Initial & Interpolated profiles by month for : 1995
St_Petersburg 59.7N 30.0E
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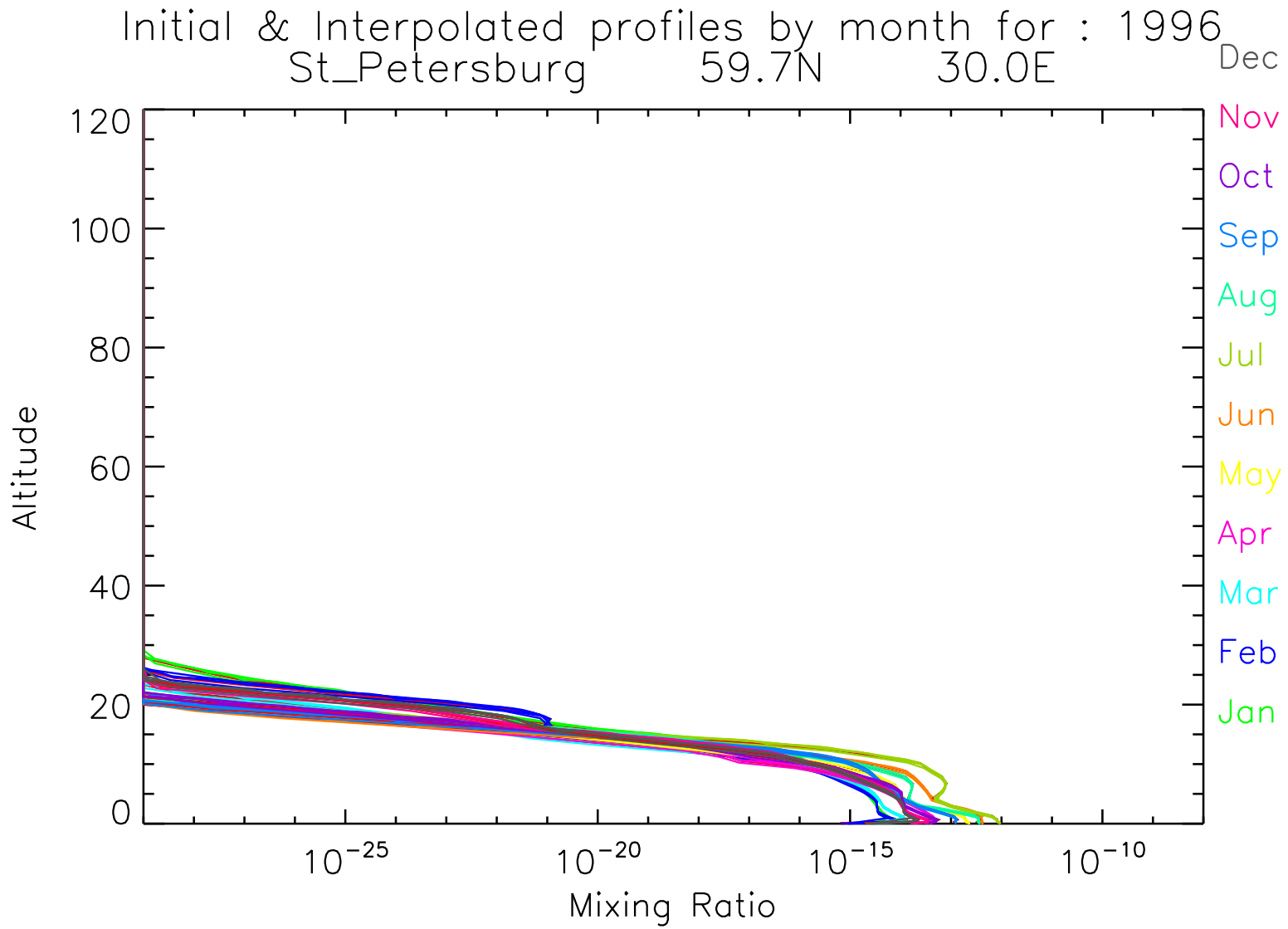
Mixing Ratio


Initial & Interpolated profiles by month for : 1996
St_Petersburg 59.7N 30.0E
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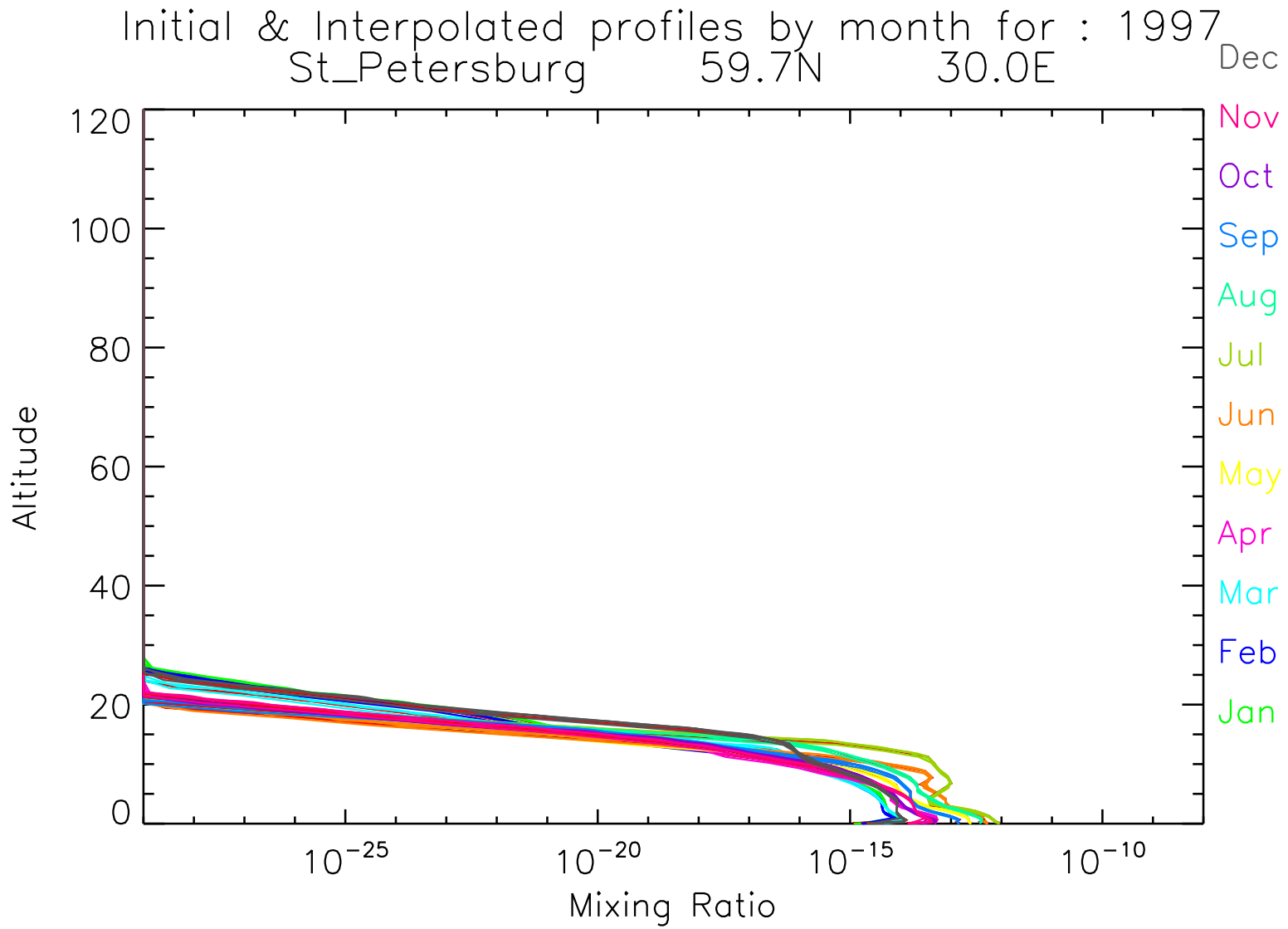
Mixing Ratio


Initial & Interpolated profiles by month for : 1997
St_Petersburg 59.7N 30.0E
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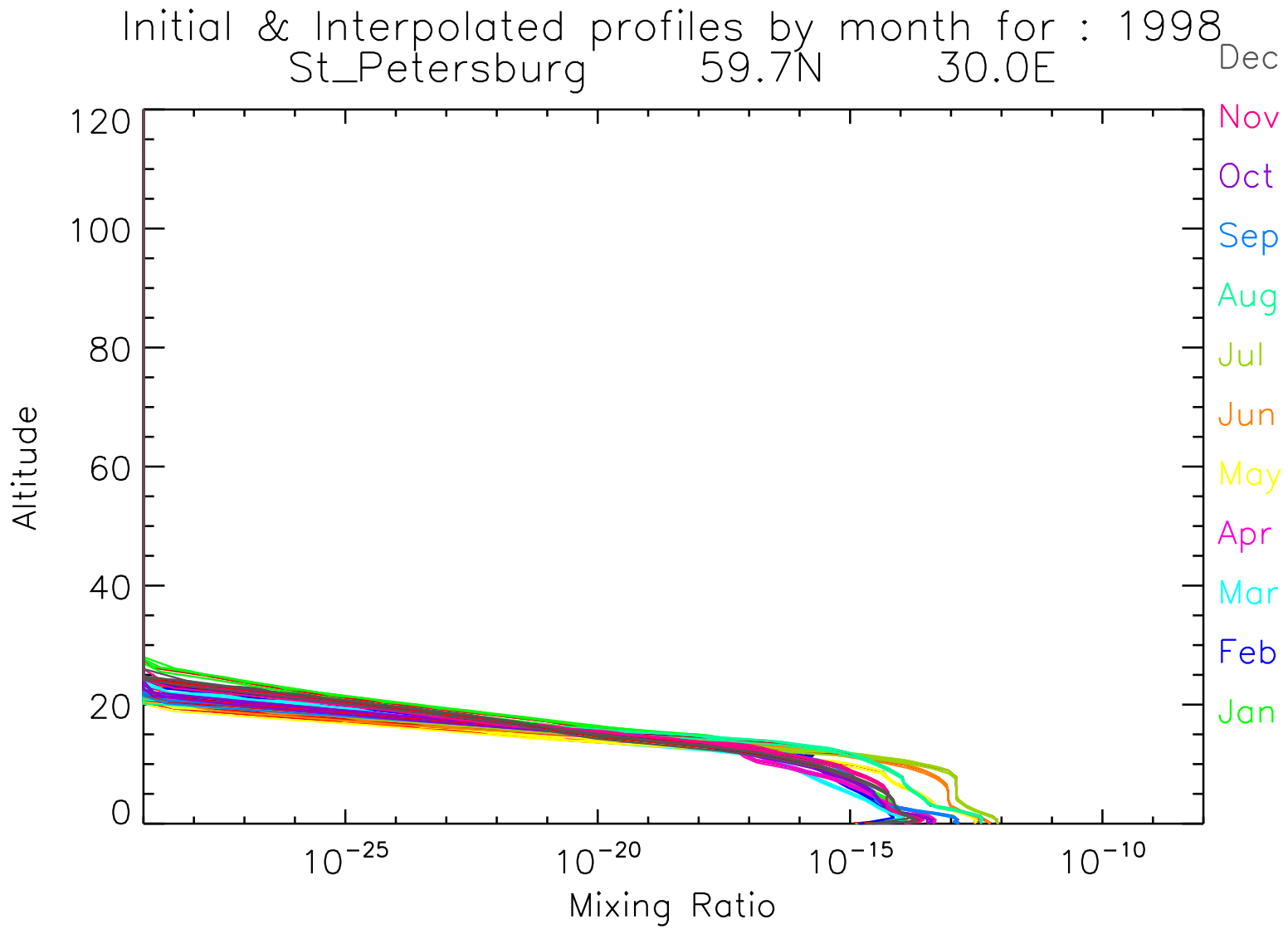
Mixing Ratio


Initial & Interpolated profiles by month for : 1998
St_Petersburg 59.7N 30.0E
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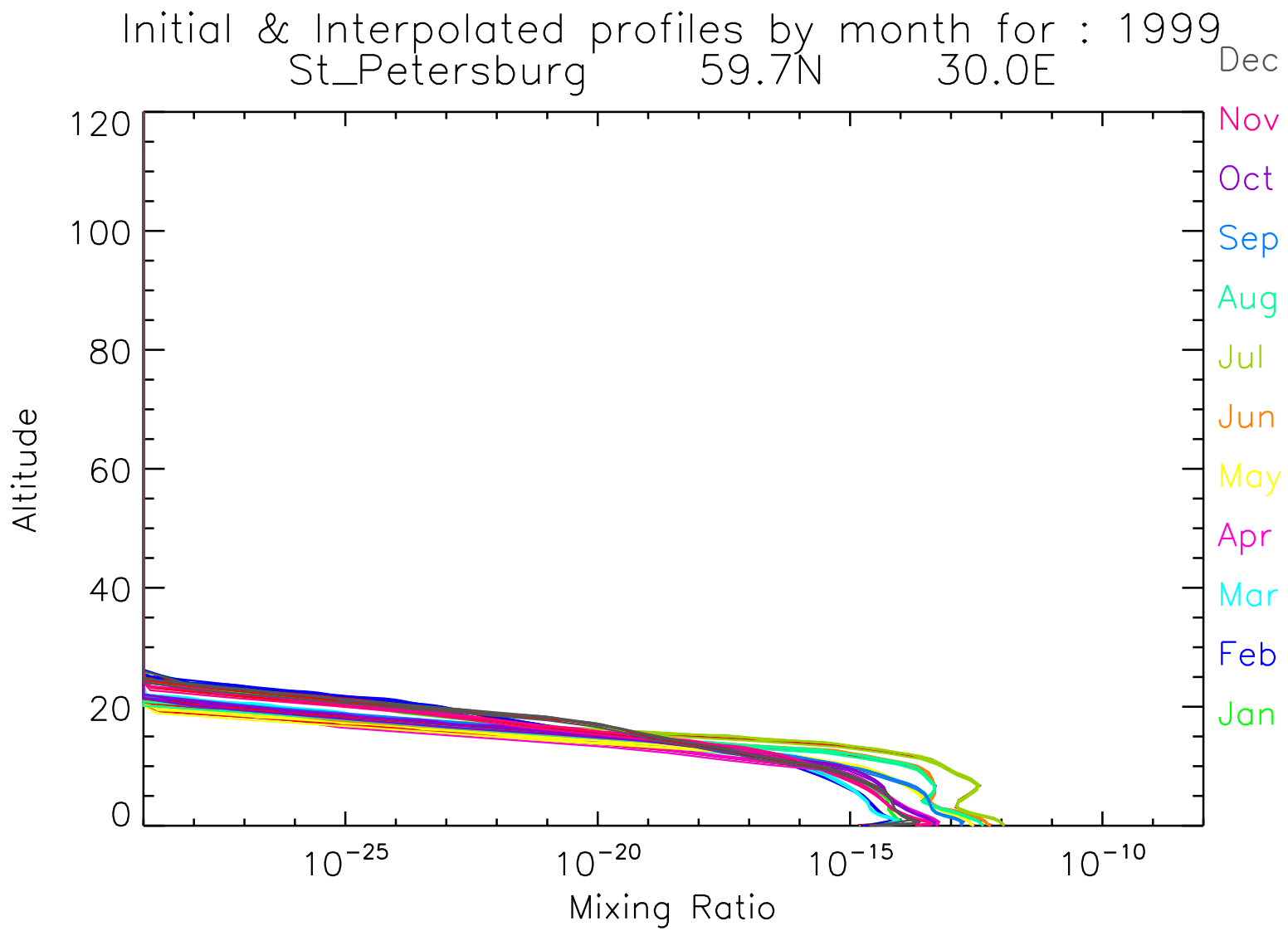
Mixing Ratio


Initial & Interpolated profiles by month for : 1999
St_Petersburg 59.7N 30.0E
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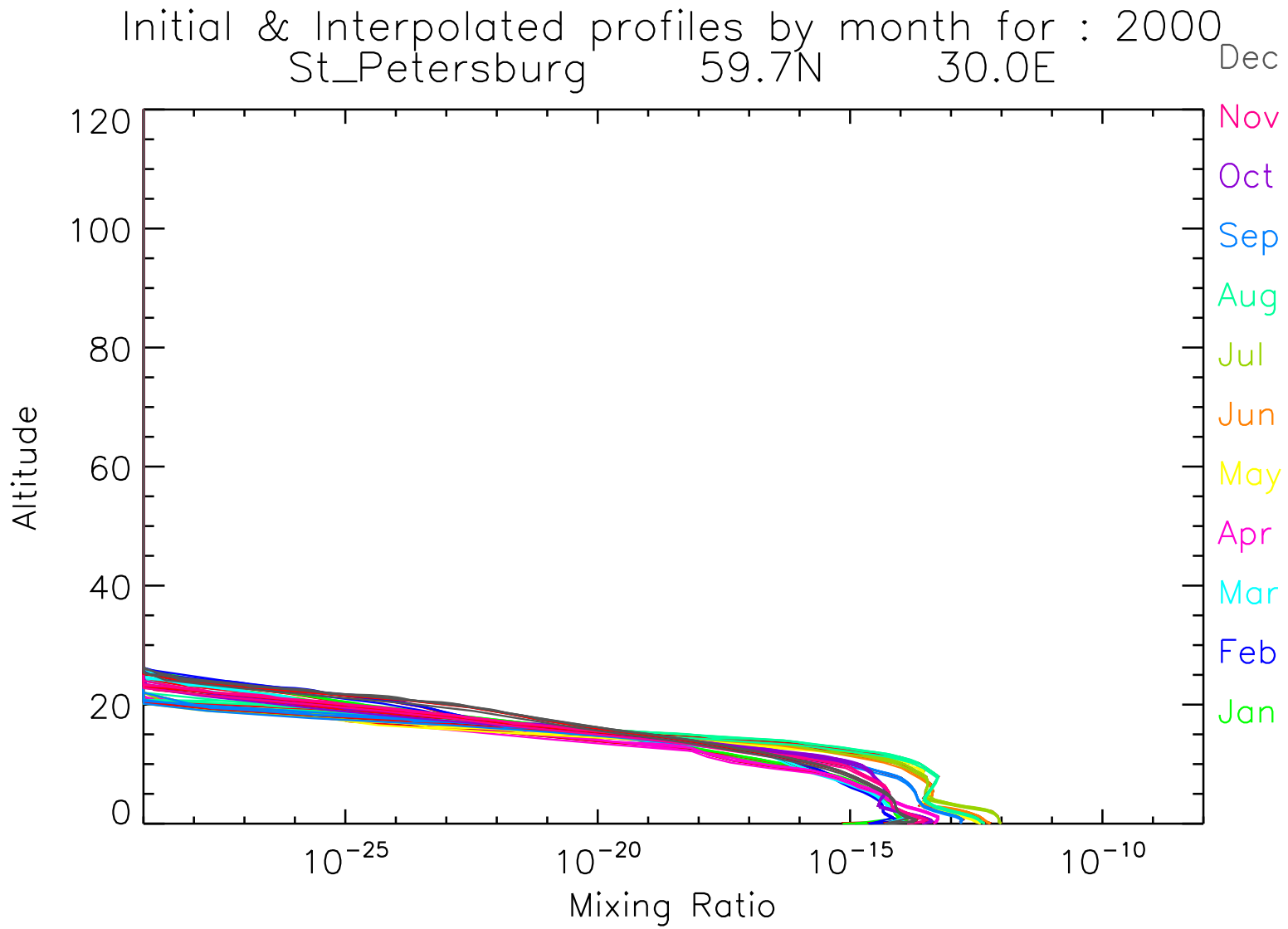
Mixing Ratio


Initial & Interpolated profiles by month for : 2000
St_Petersburg 59.7N 30.0E
Dec
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Altitude
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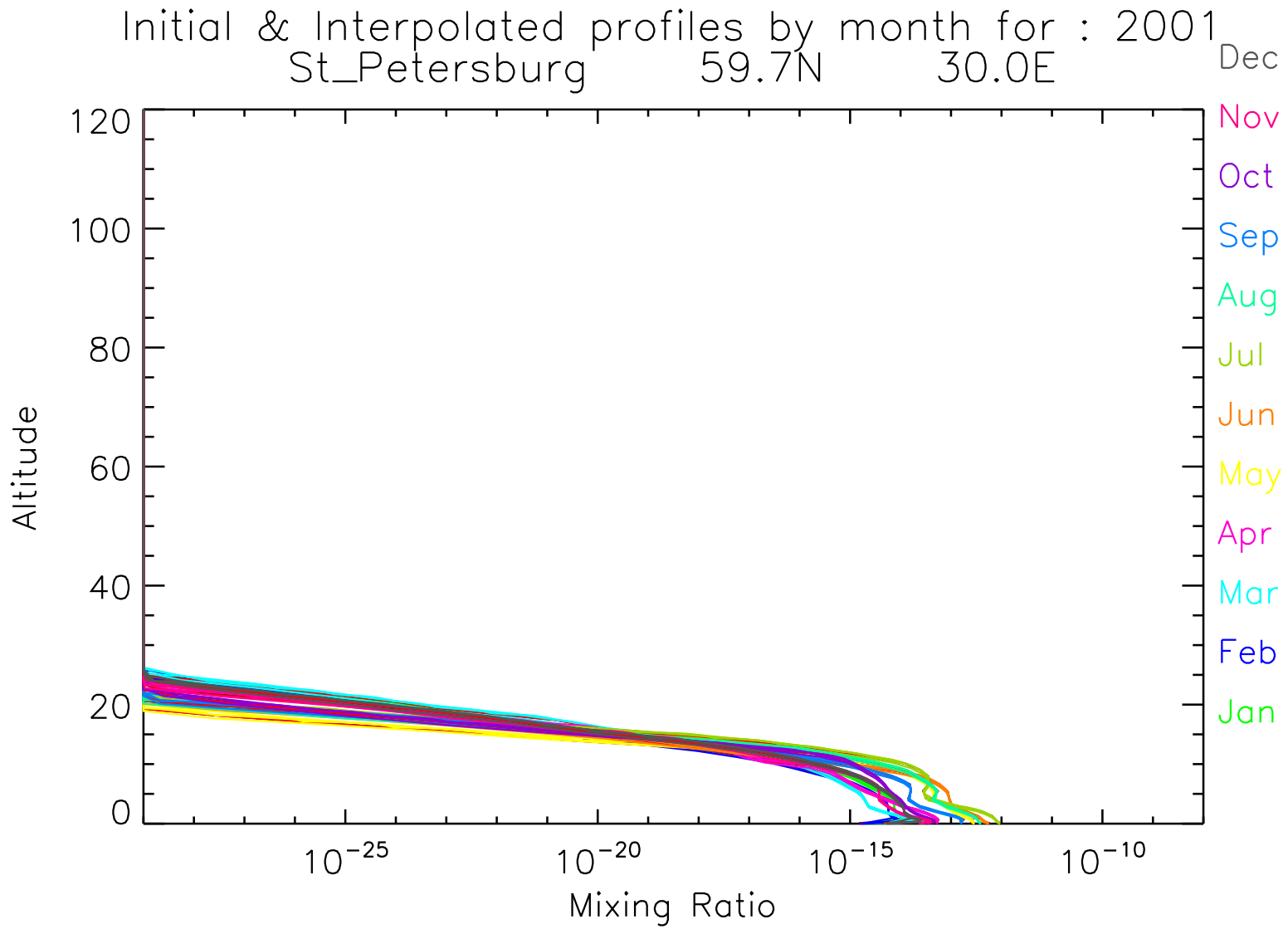
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2001
St_Petersburg 59.7N 30.0E
Dec
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Altitude
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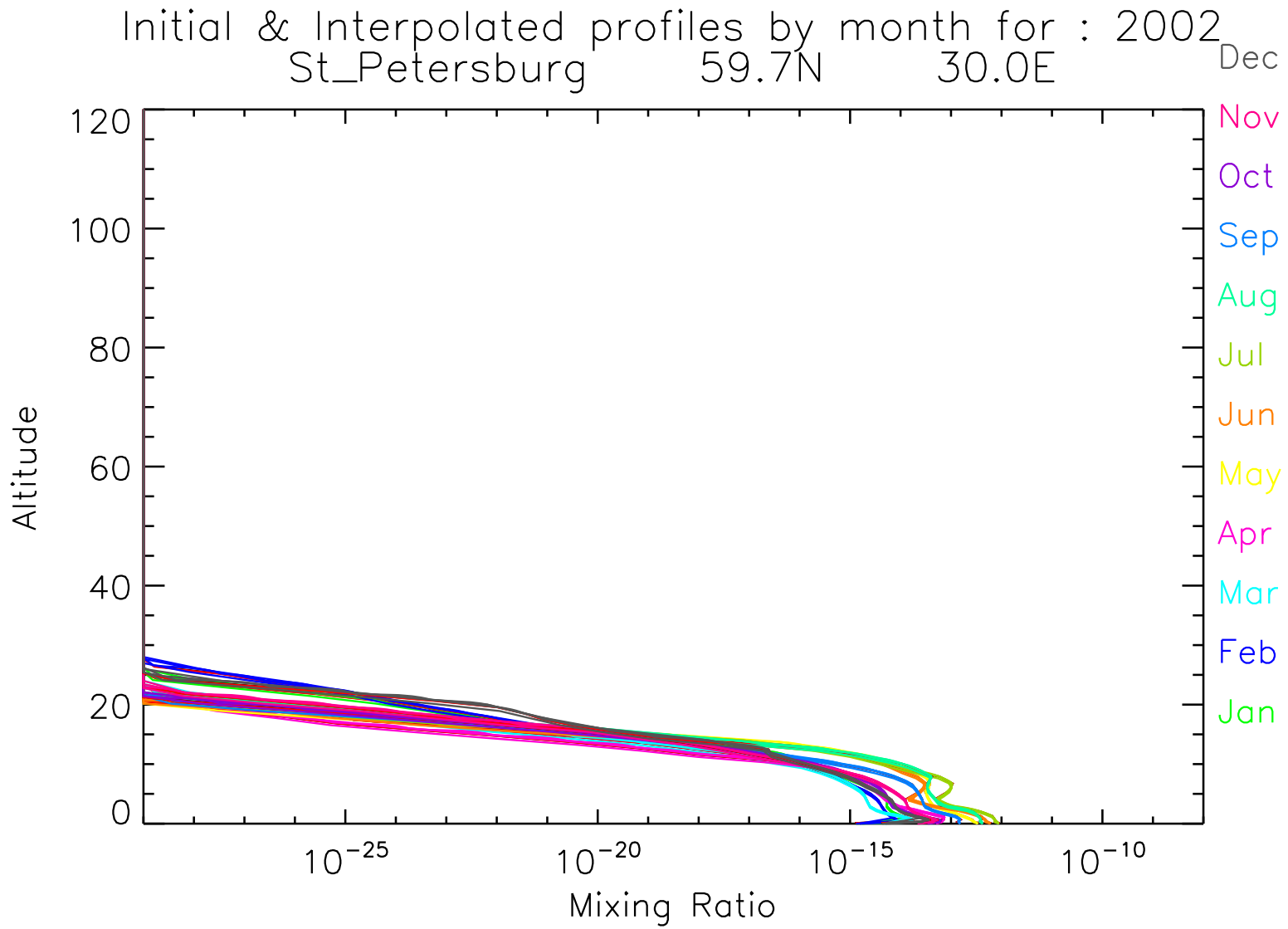
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2002
St_Petersburg 59.7N 30.0E
Dec
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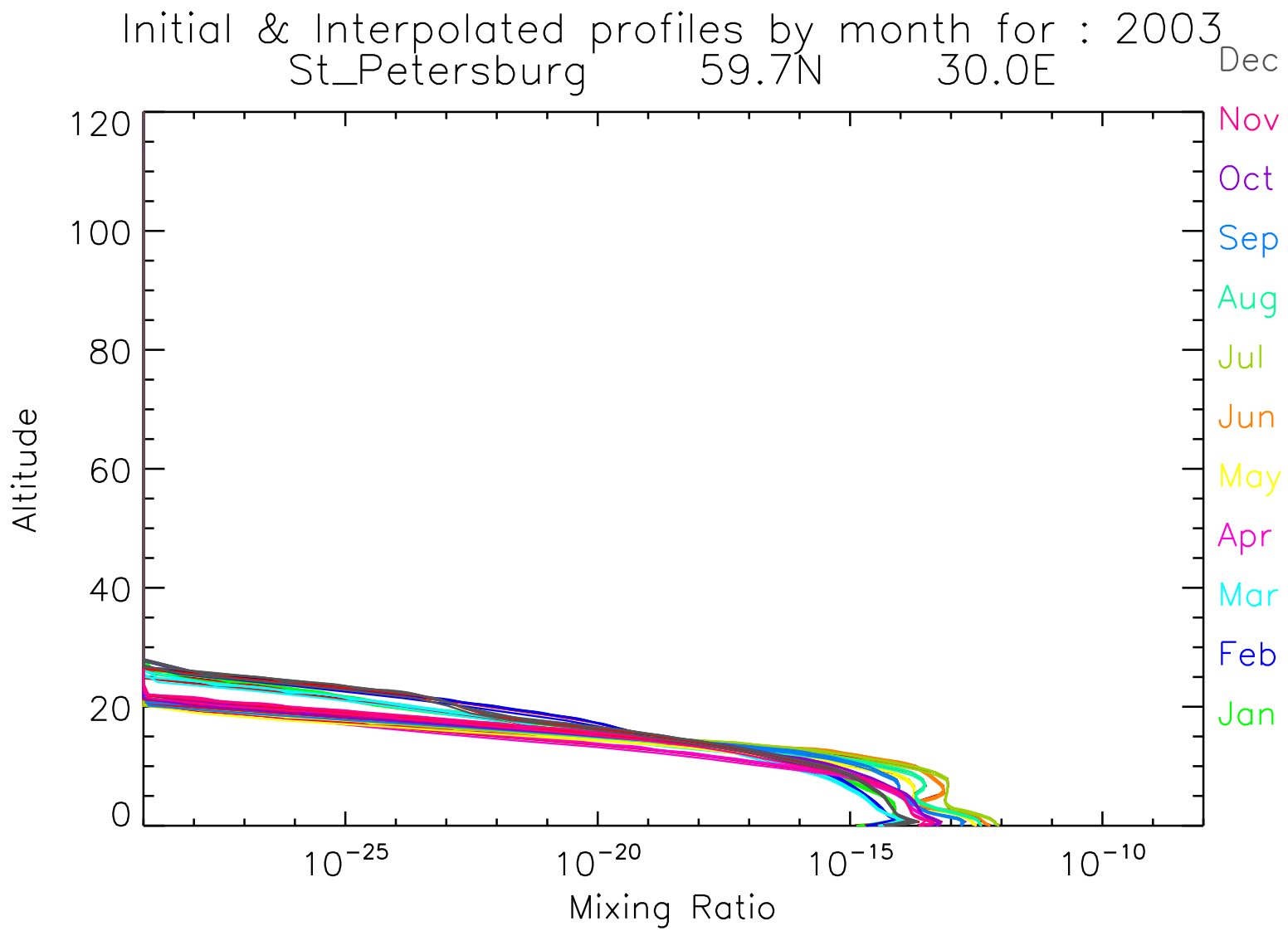
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2003
St_Petersburg 59.7N 30.0E
Dec
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Altitude
10^{-25}
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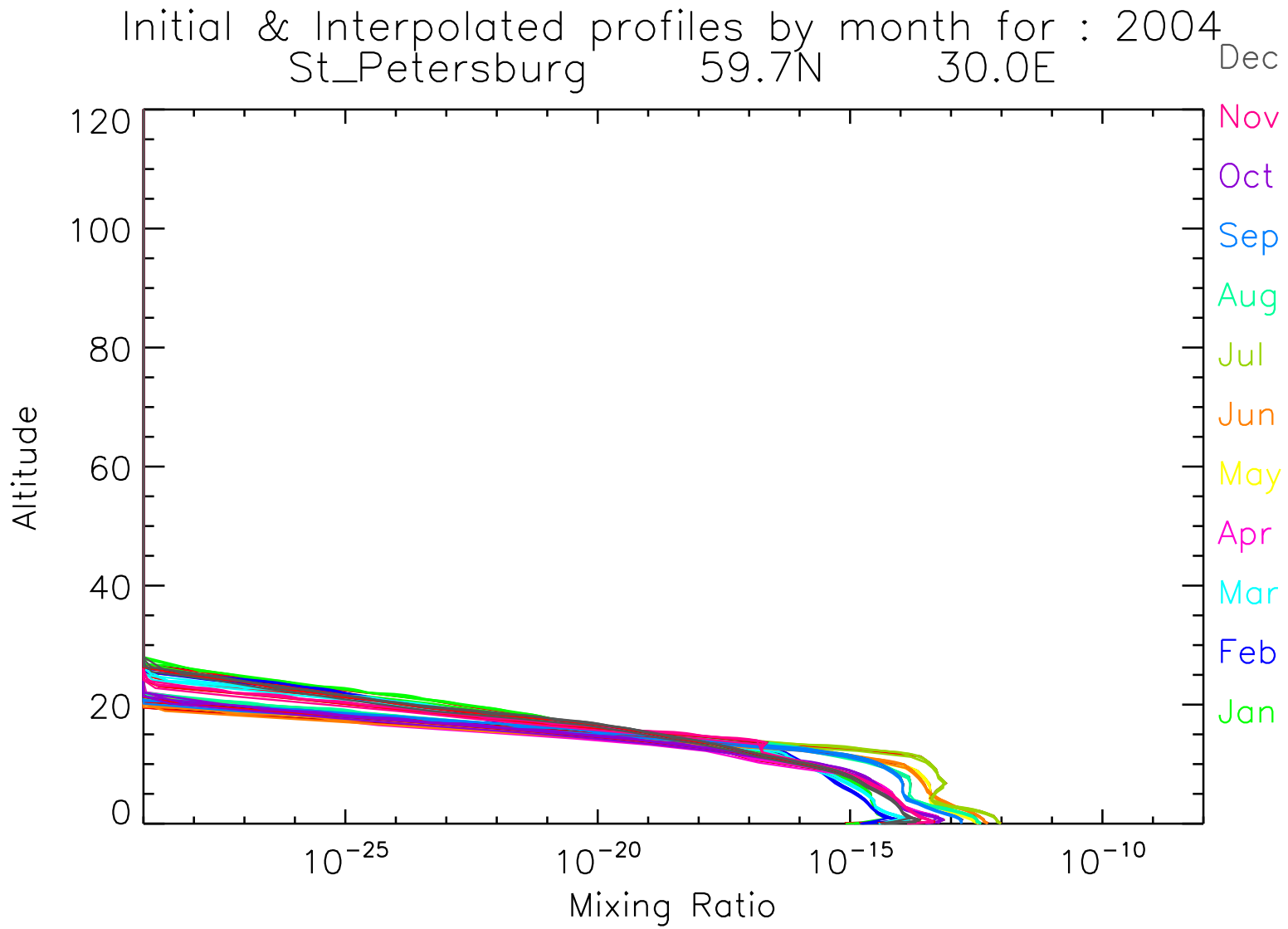
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2004
St_Petersburg 59.7N 30.0E
Dec
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Altitude
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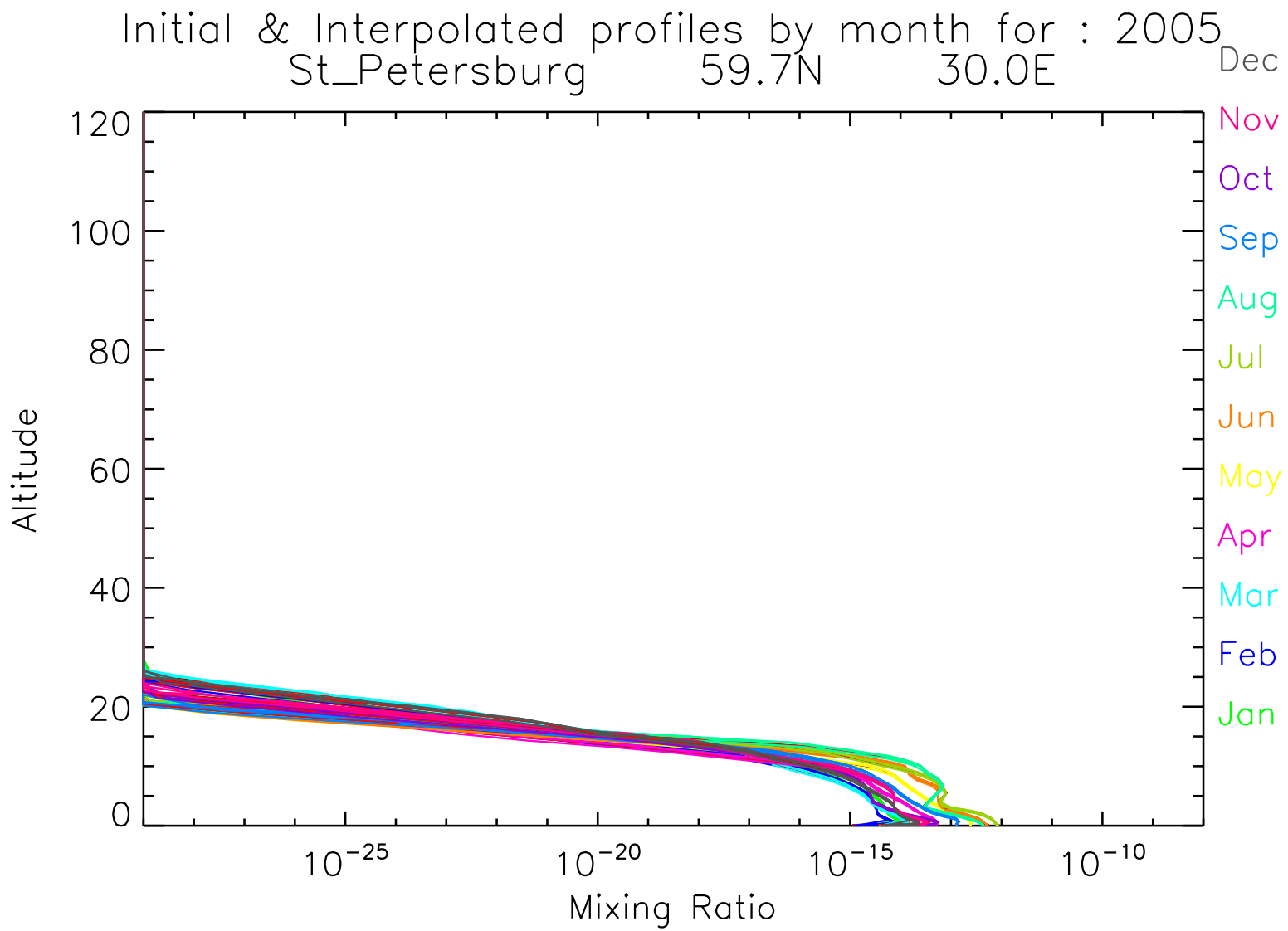
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2005
St_Petersburg 59.7N 30.0E
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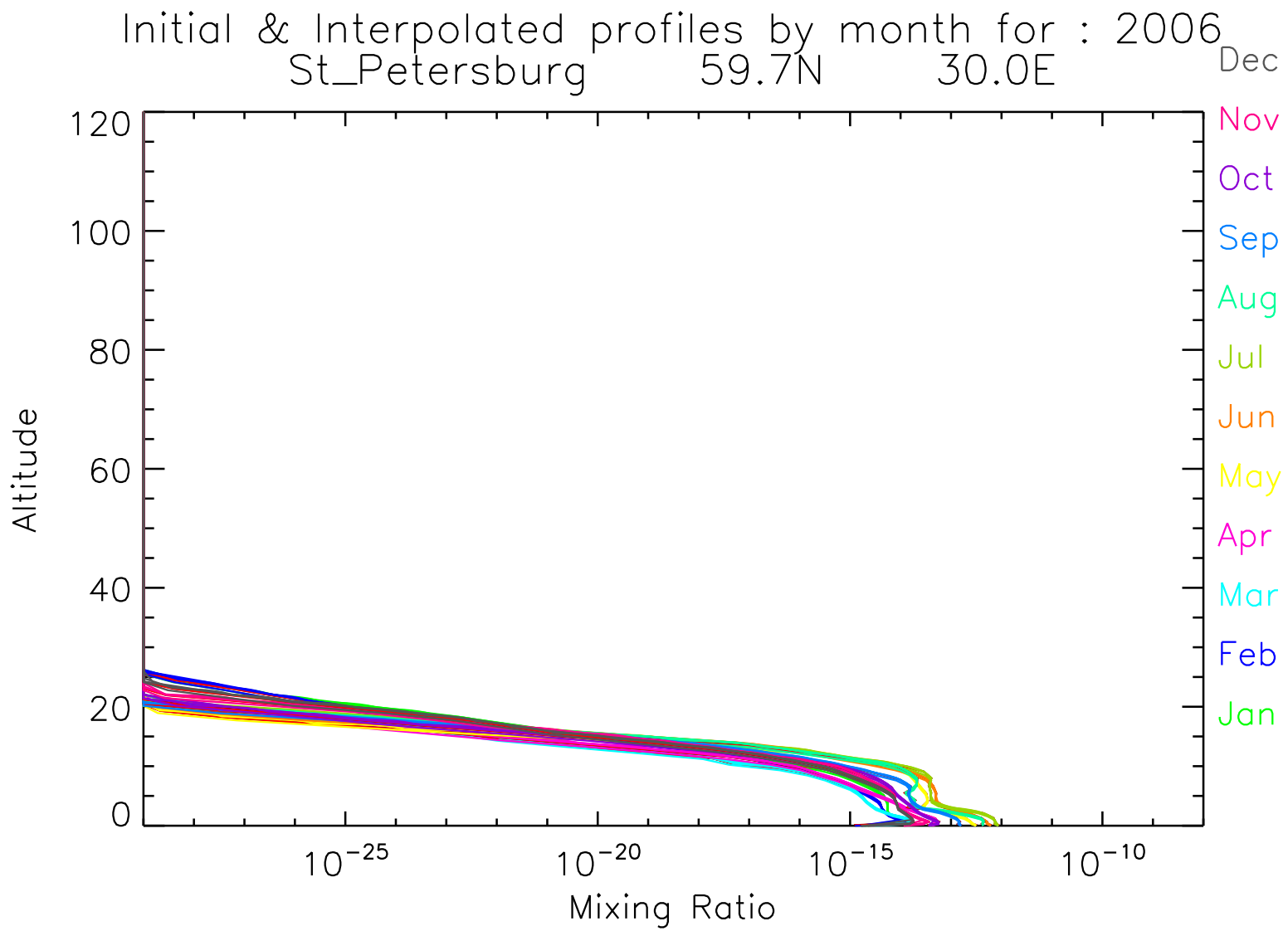
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2006
St_Petersburg 59.7N 30.0E
Dec
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Altitude
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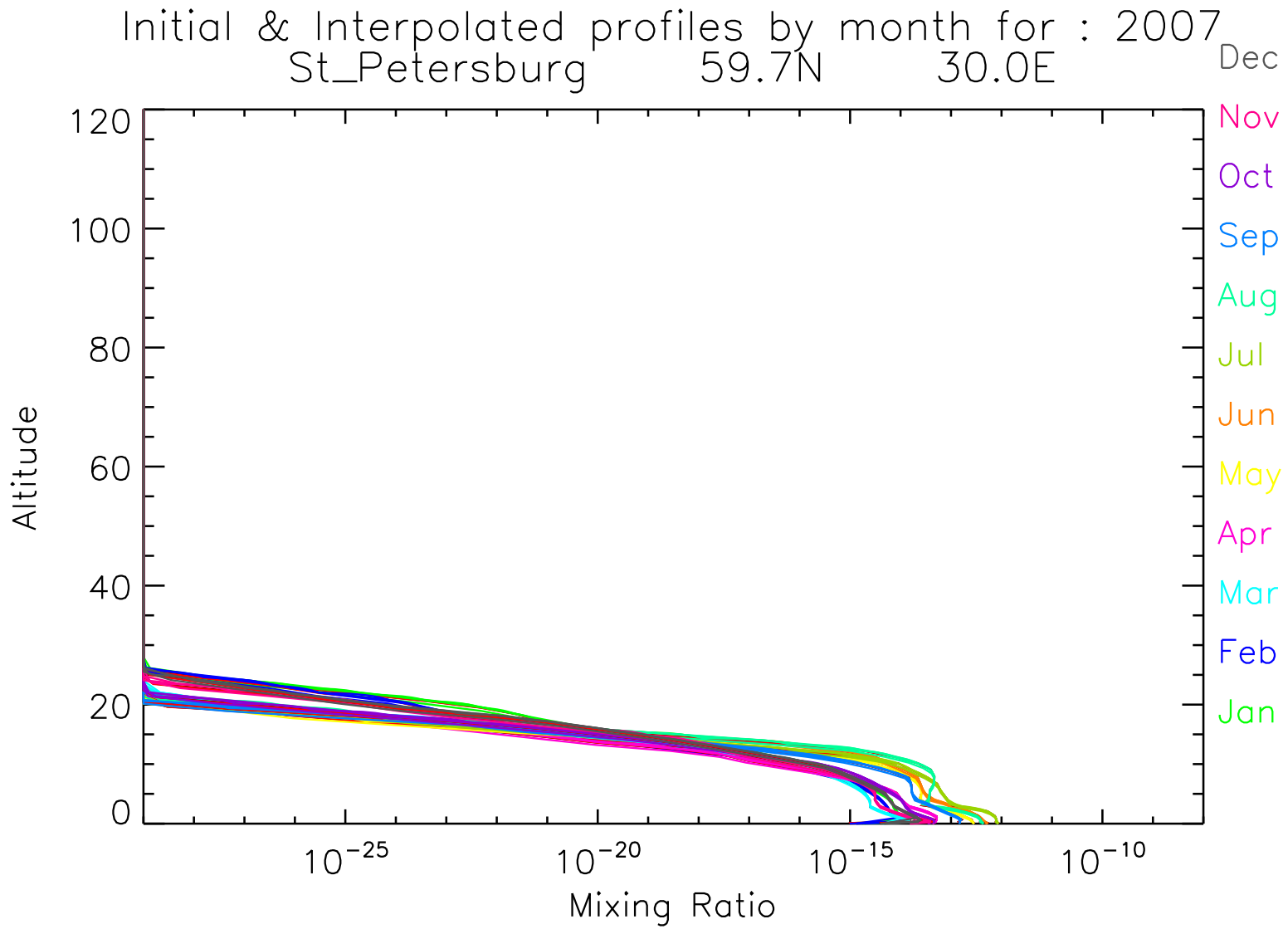
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2007
St_Petersburg 59.7N 30.0E
Dec
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Altitude
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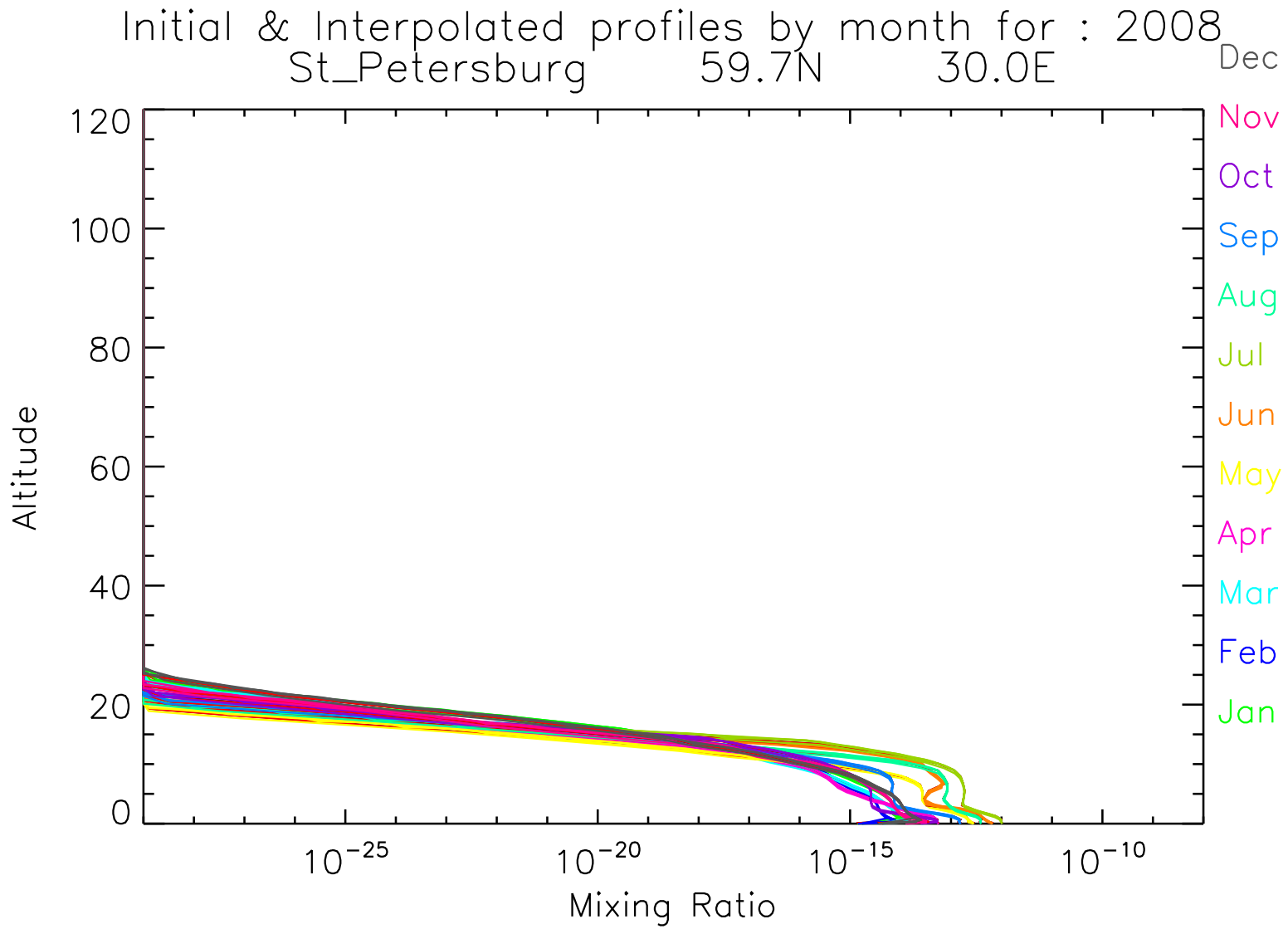
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2008
St_Petersburg 59.7N 30.0E
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Altitude
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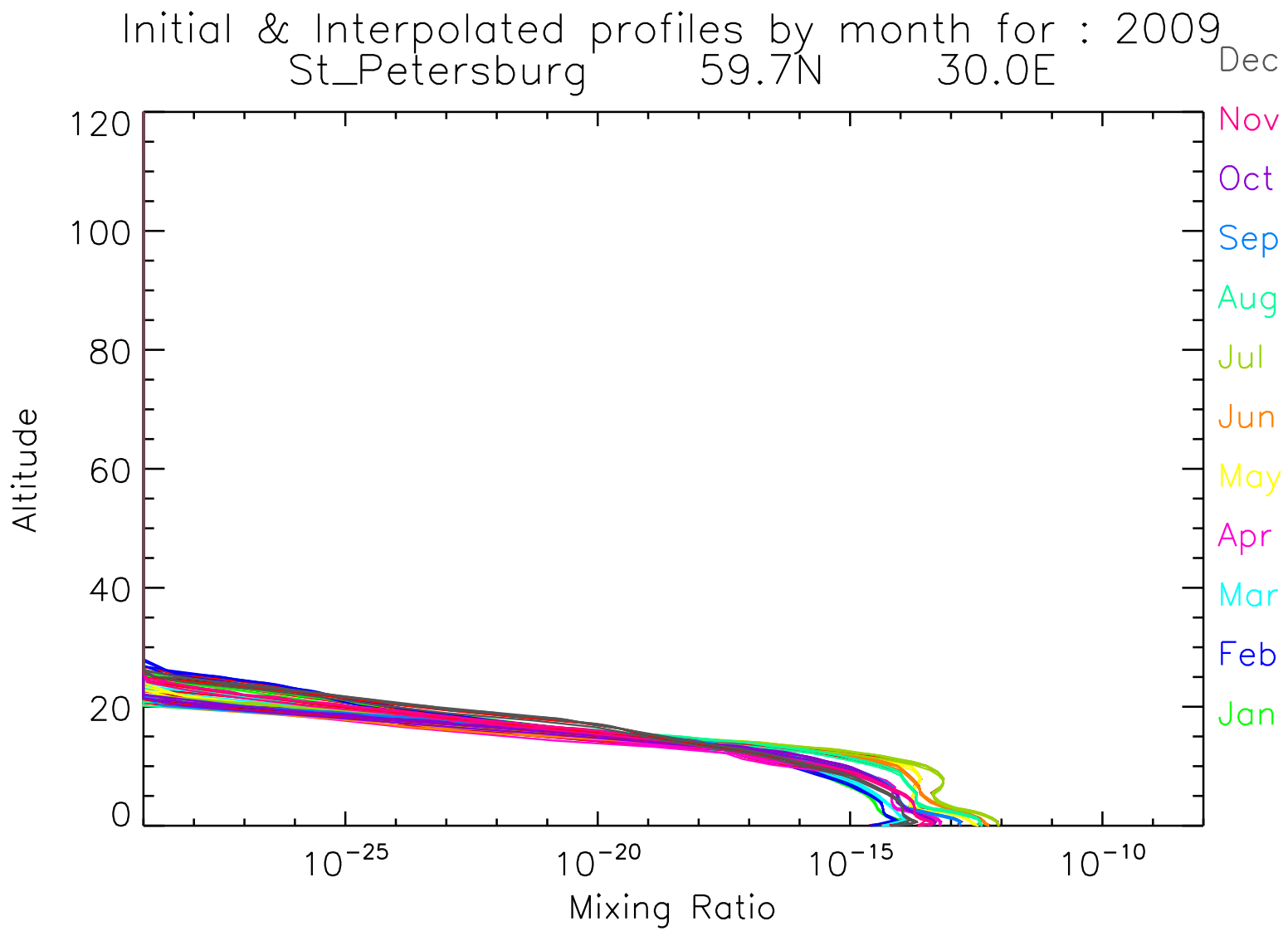
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2009
St_Petersburg 59.7N 30.0E
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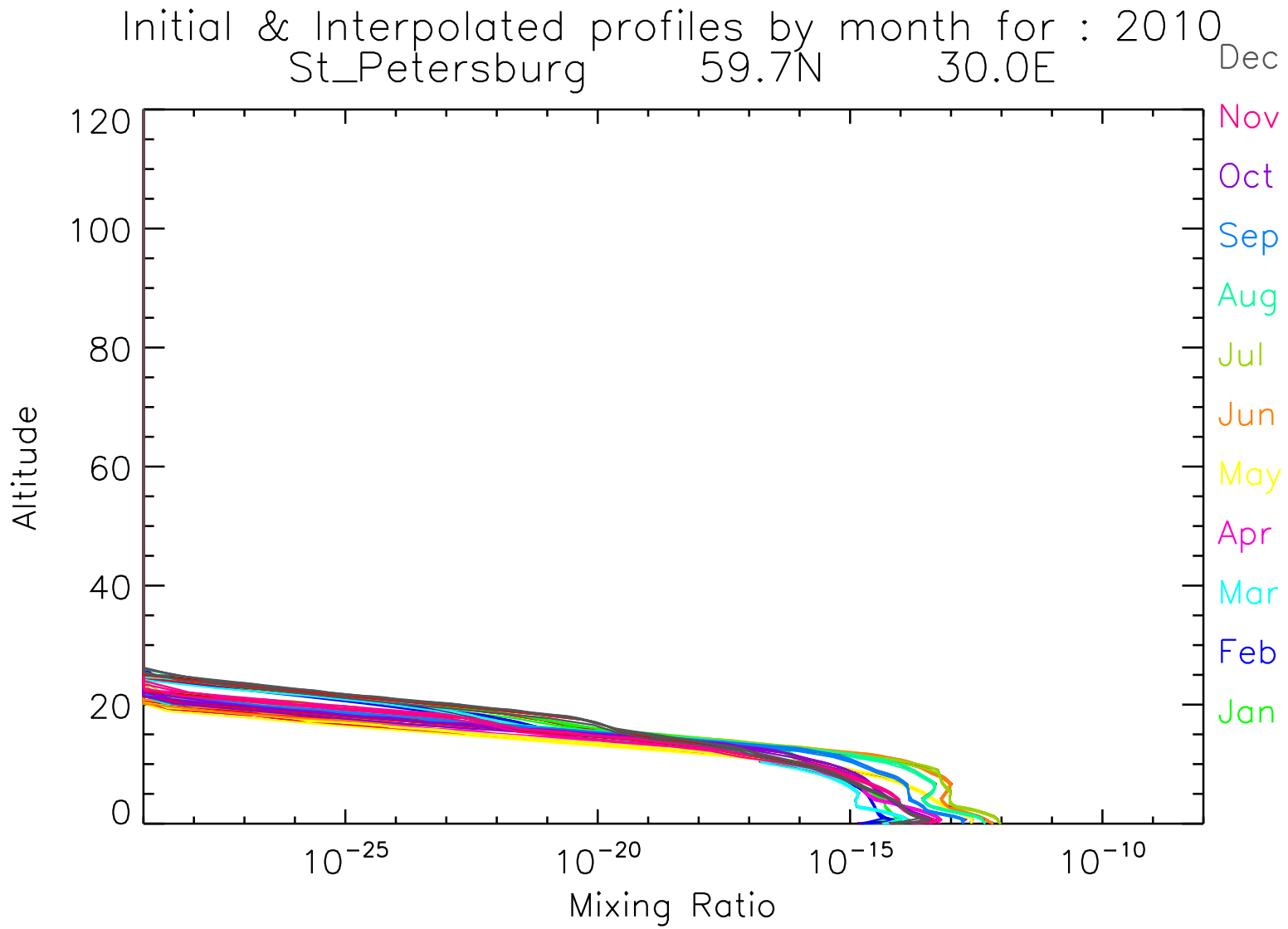
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2010
St_Petersburg 59.7N 30.0E
Dec
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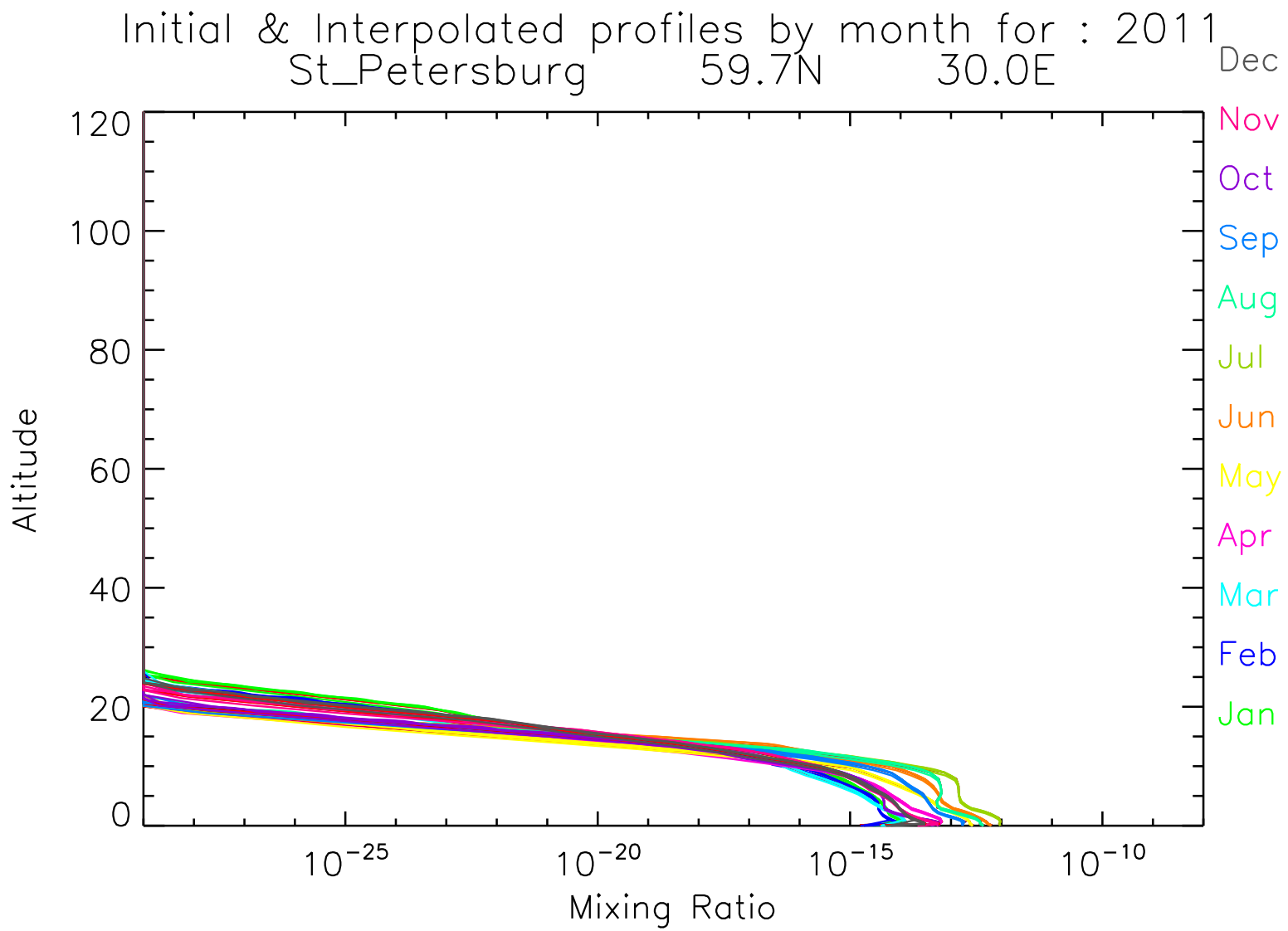
Mixing Ratio


Initial & Interpolated profiles by month for : 2011
St_Petersburg 59.7N 30.0E
Dec
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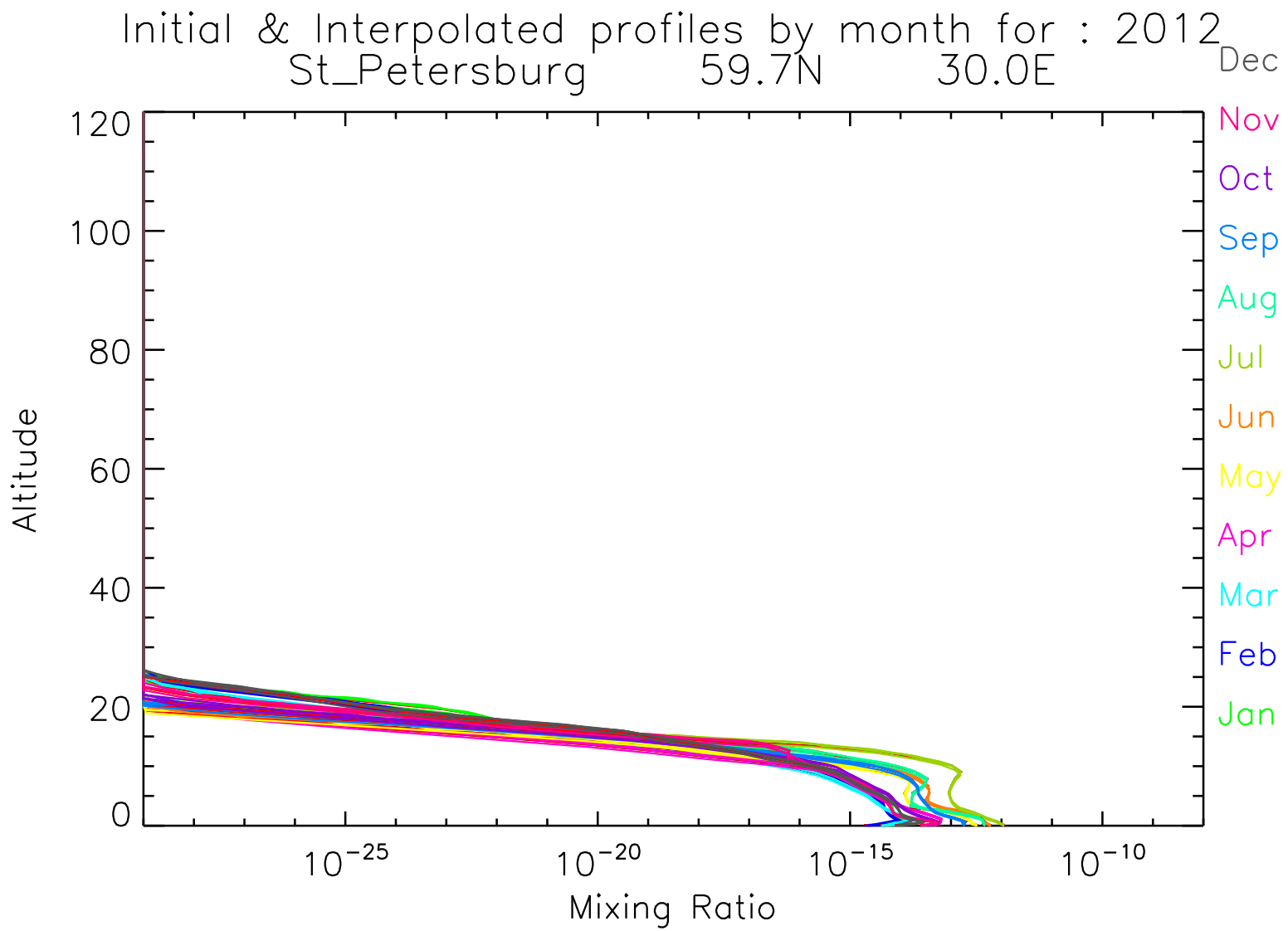
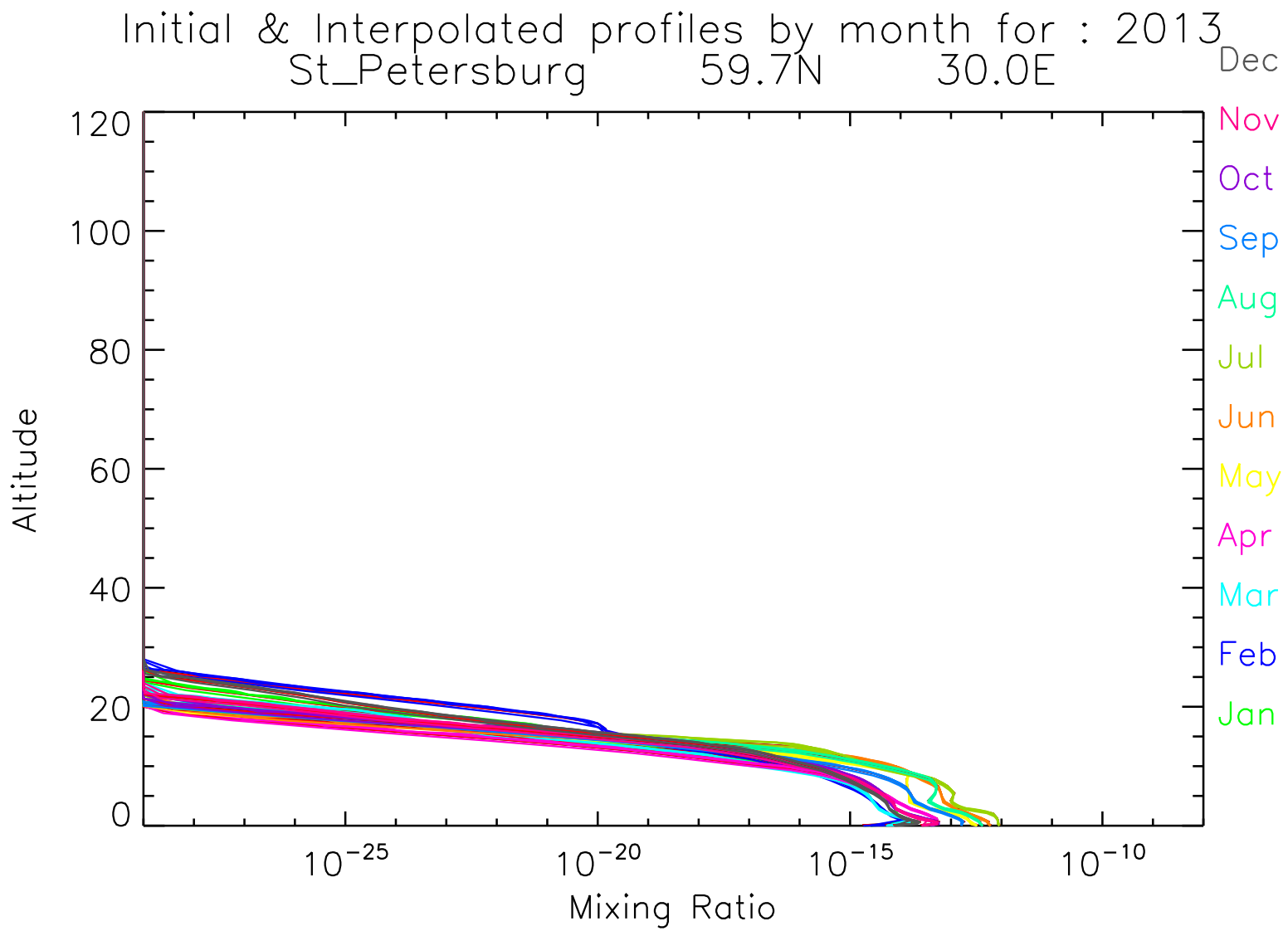
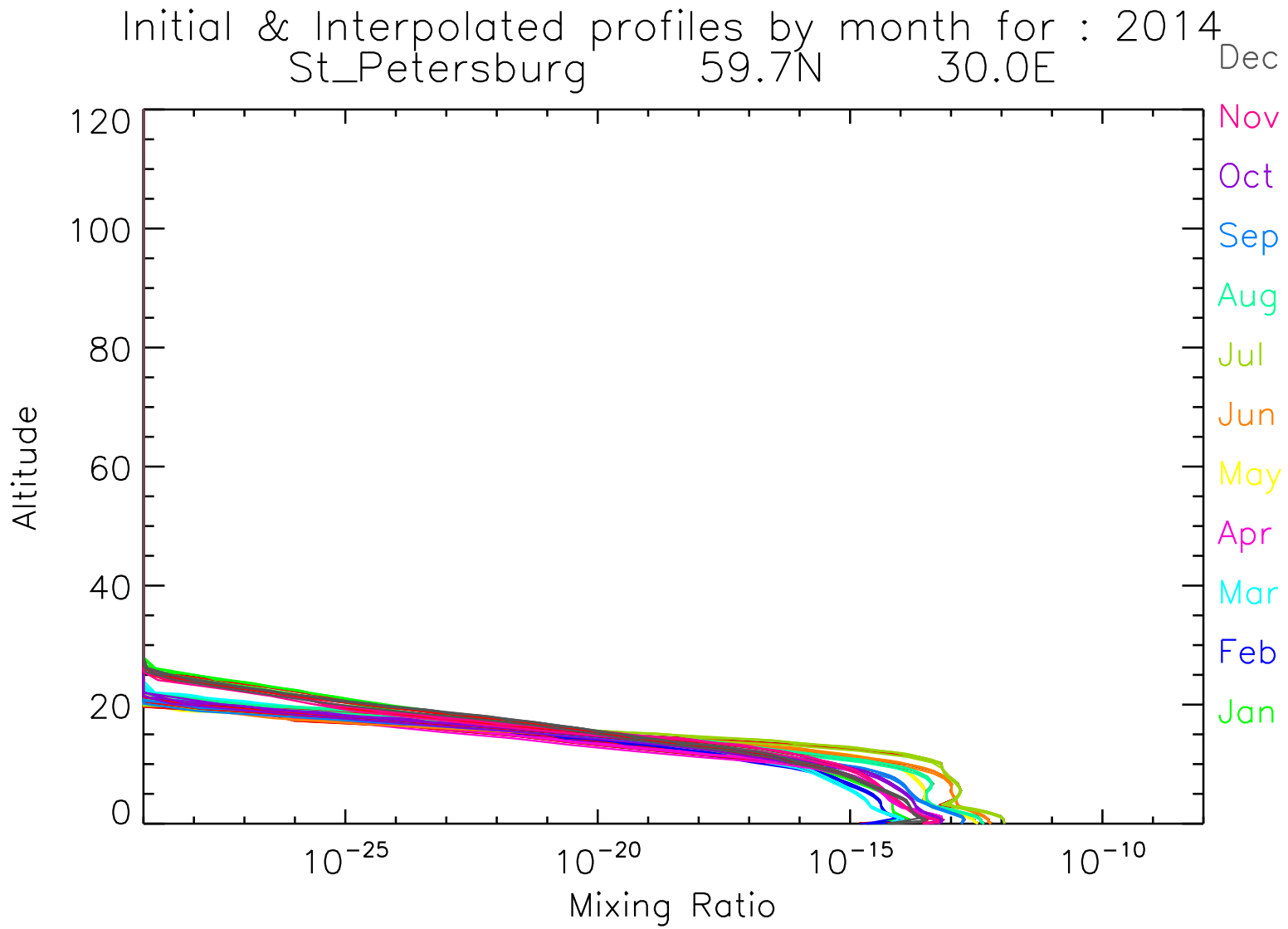
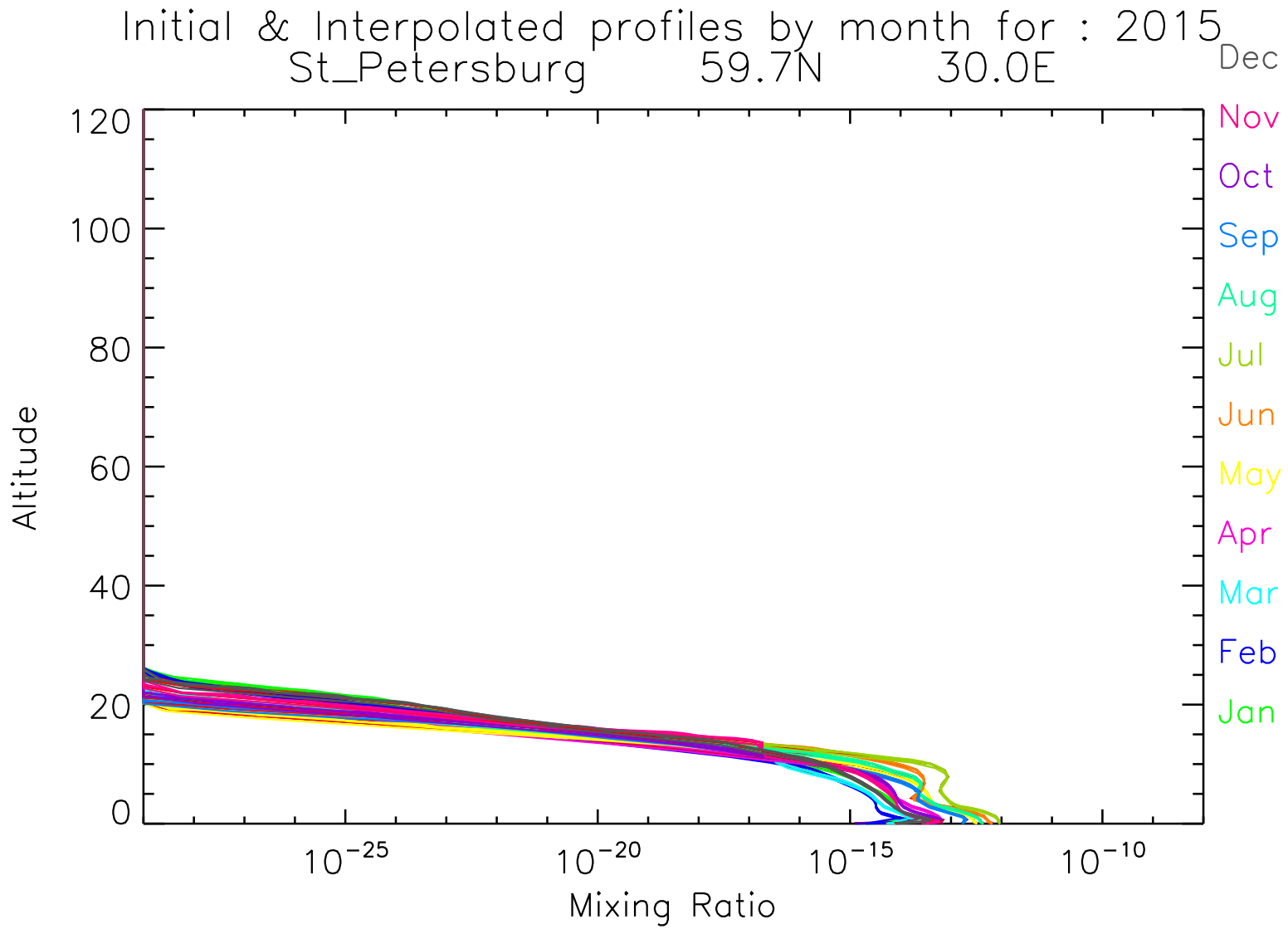
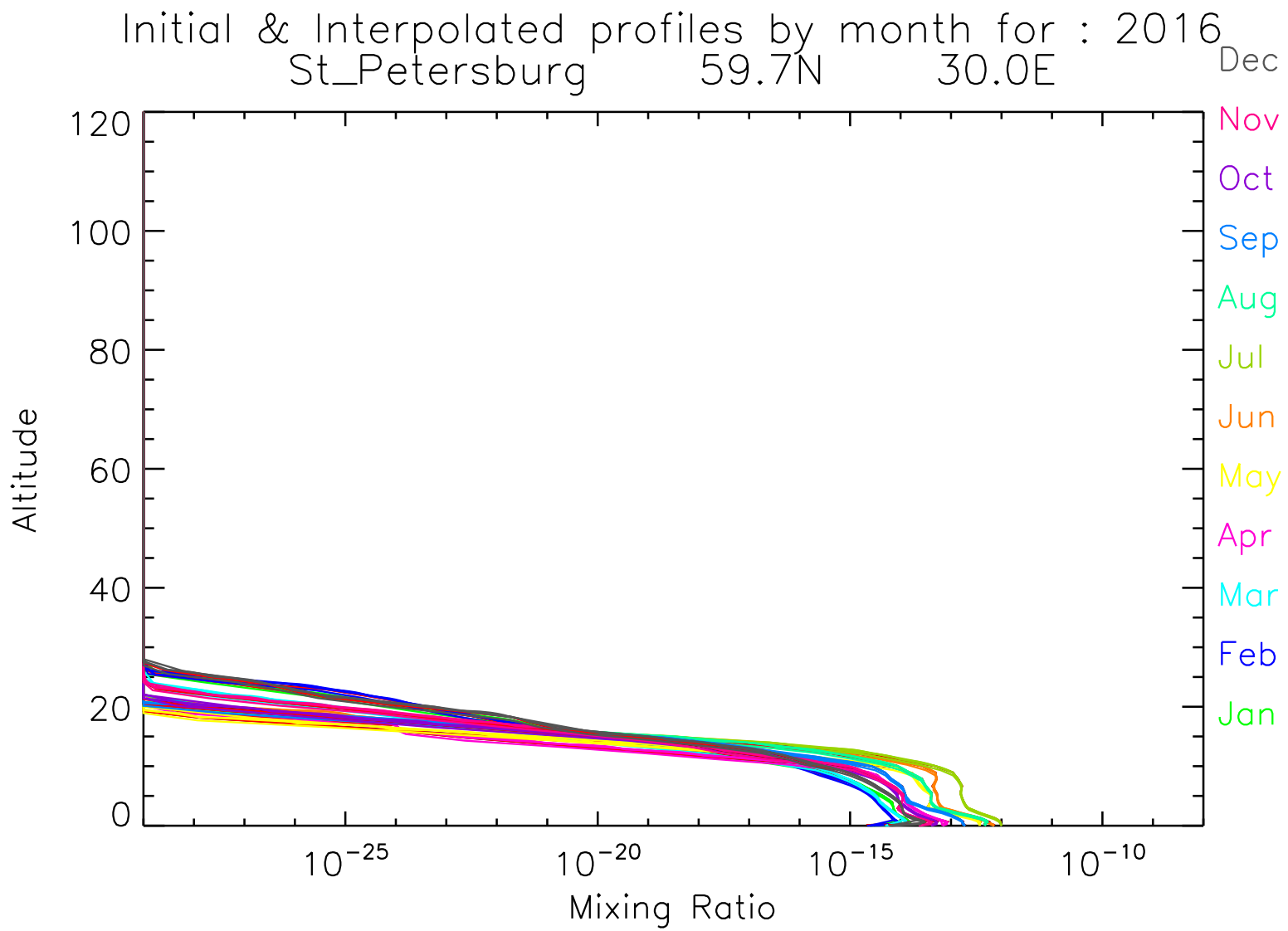
10^{-10}
Mixing Ratio

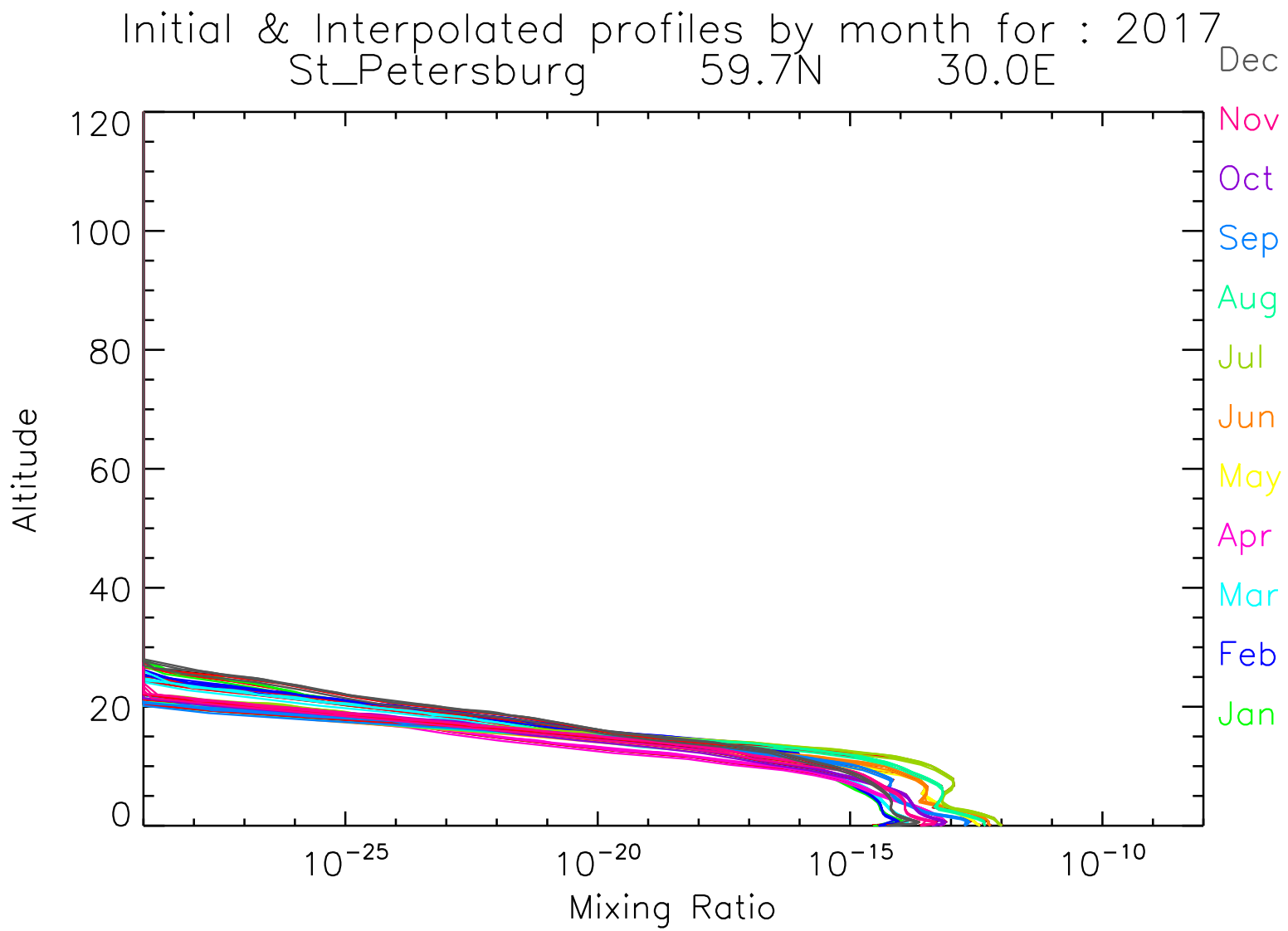

Initial & Interpolated profiles by month for : 2012
St_Petersburg 59.7N 30.0E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

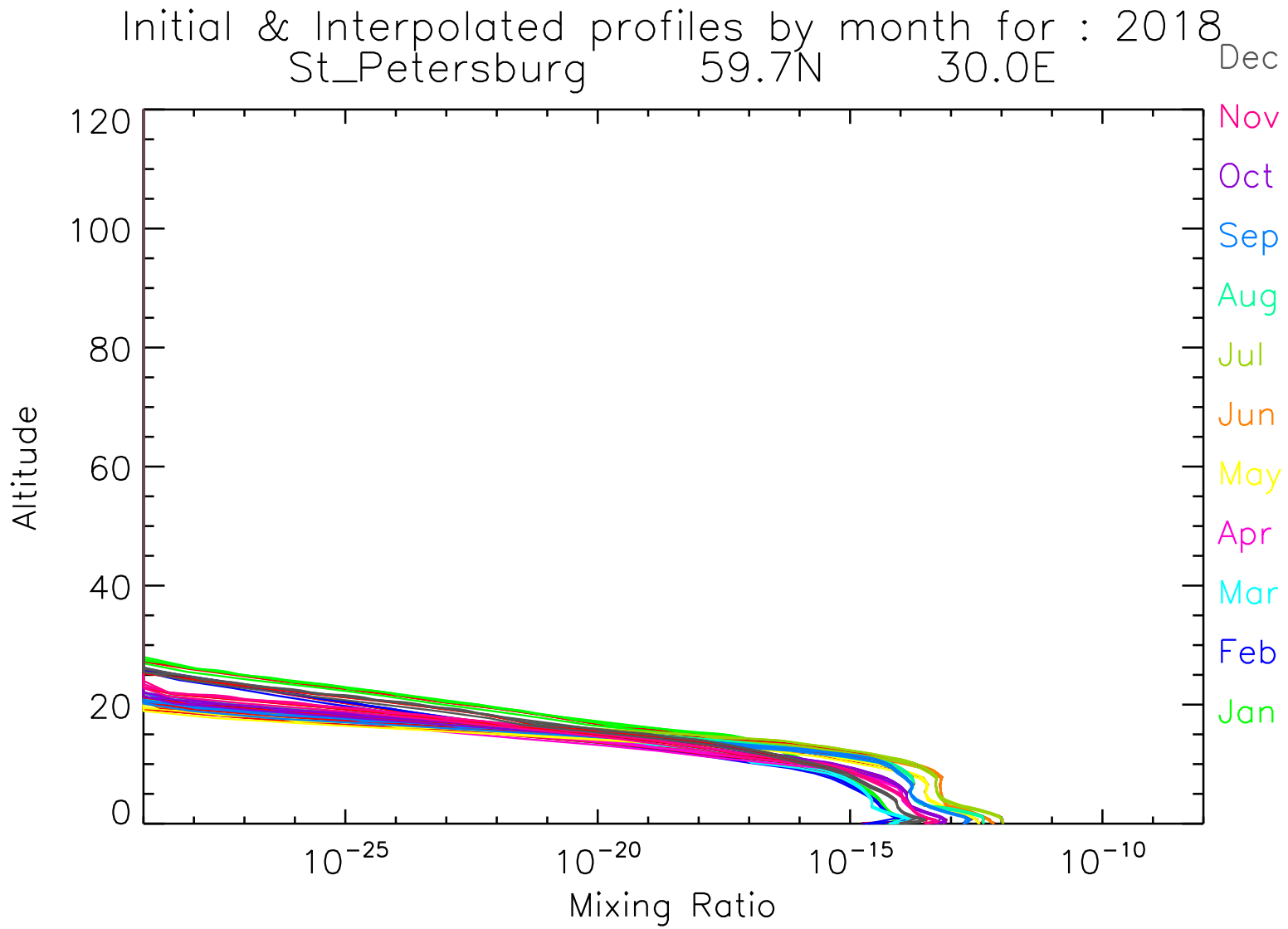

Initial & Interpolated profiles by month for : 2013
St_Petersburg 59.7N 30.0E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

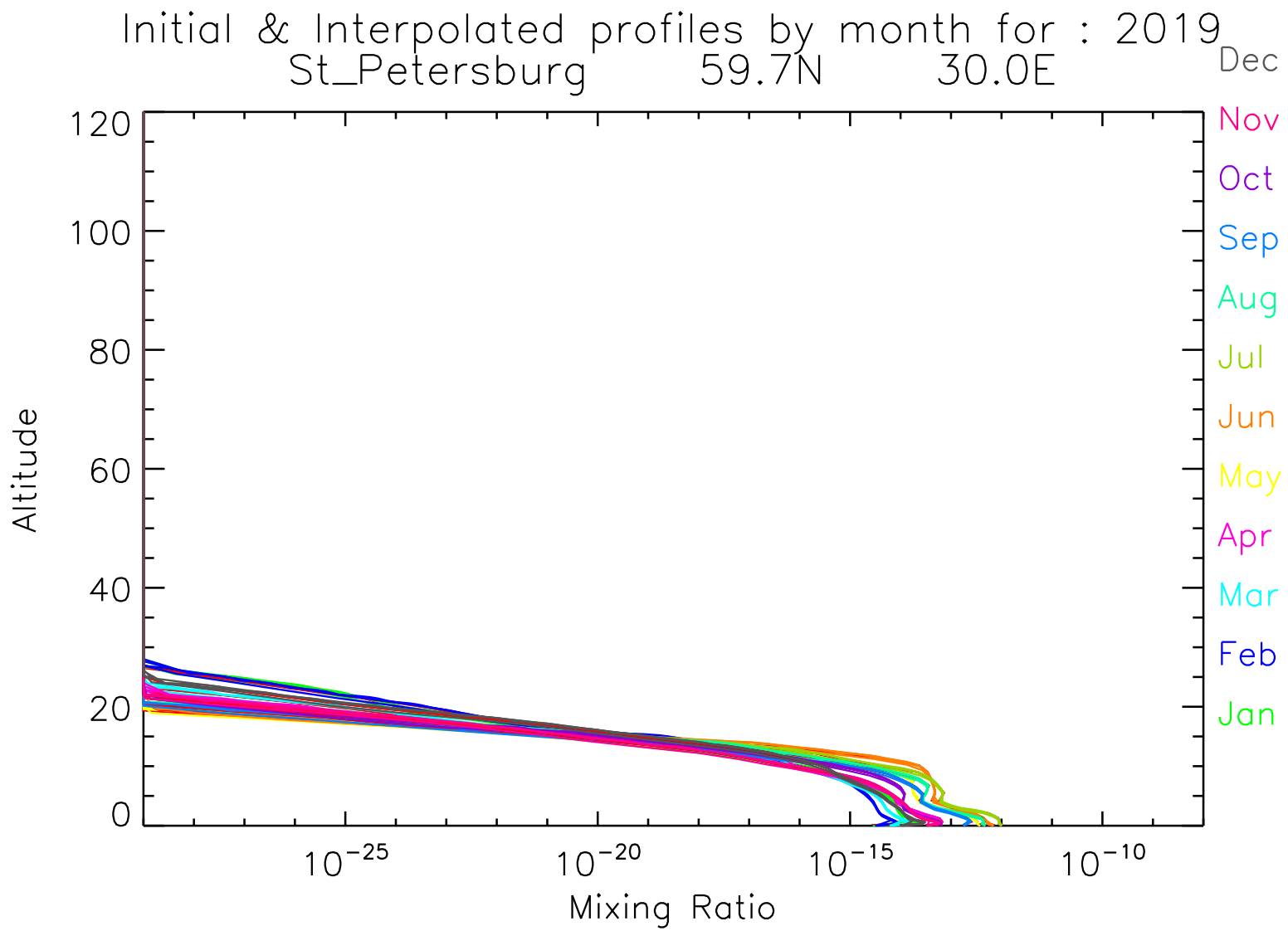

Initial & Interpolated profiles by month for : 2014
St_Petersburg 59.7N 30.0E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

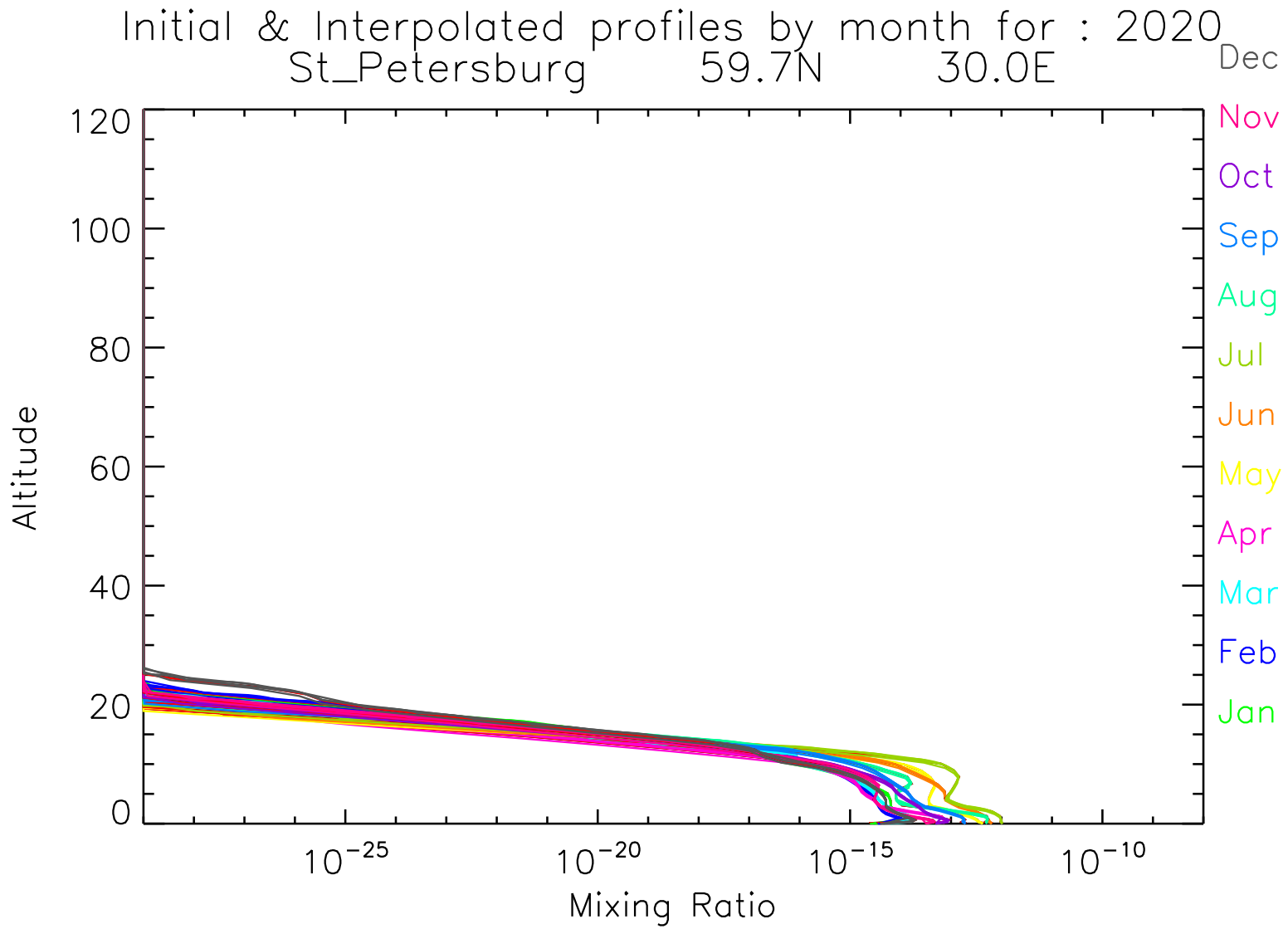

Initial & Interpolated profiles by month for : 2015
St_Petersburg 59.7N 30.0E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

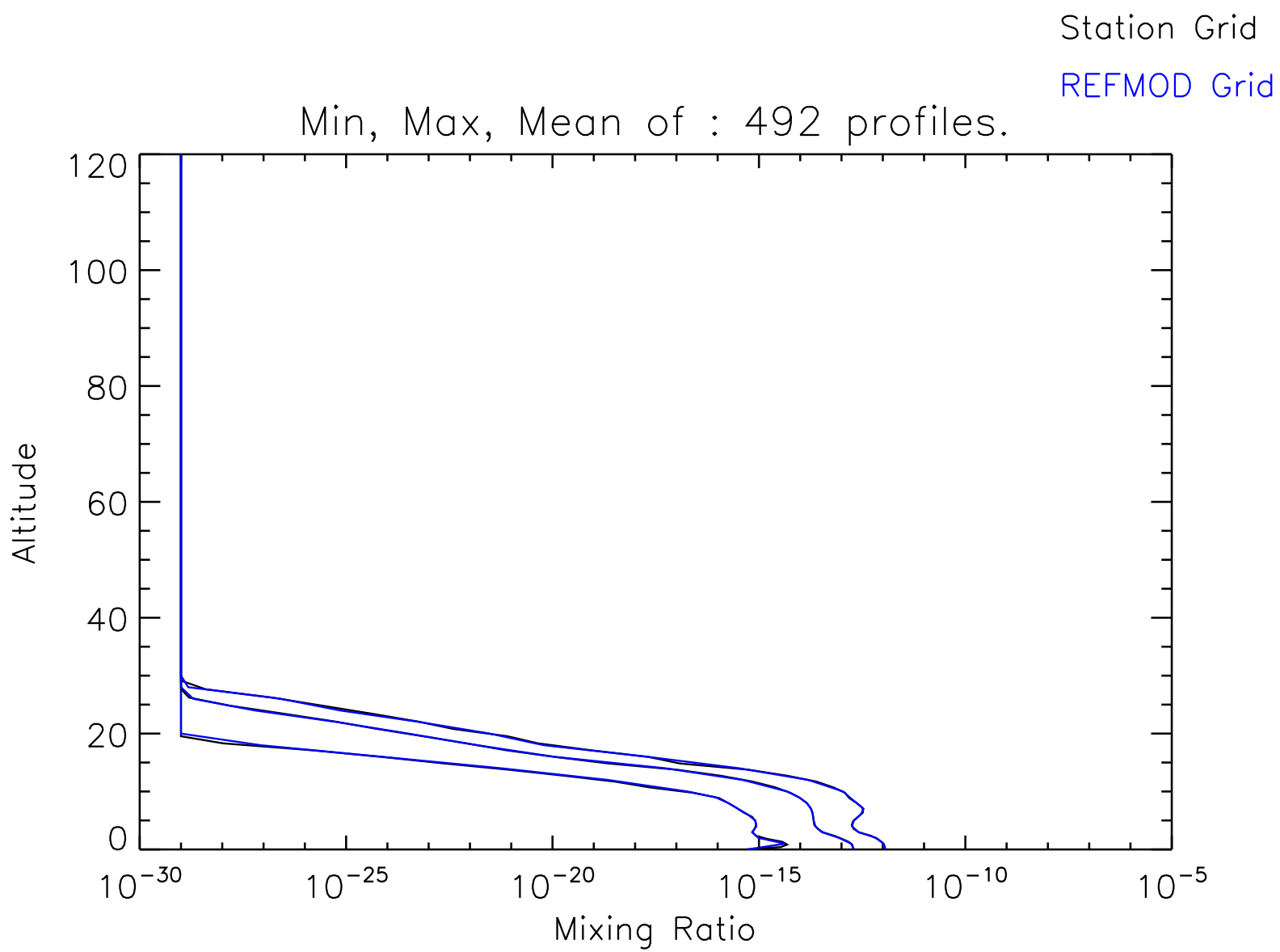

Initial & Interpolated profiles by month for : 2016
St_Petersburg 59.7N 30.0E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

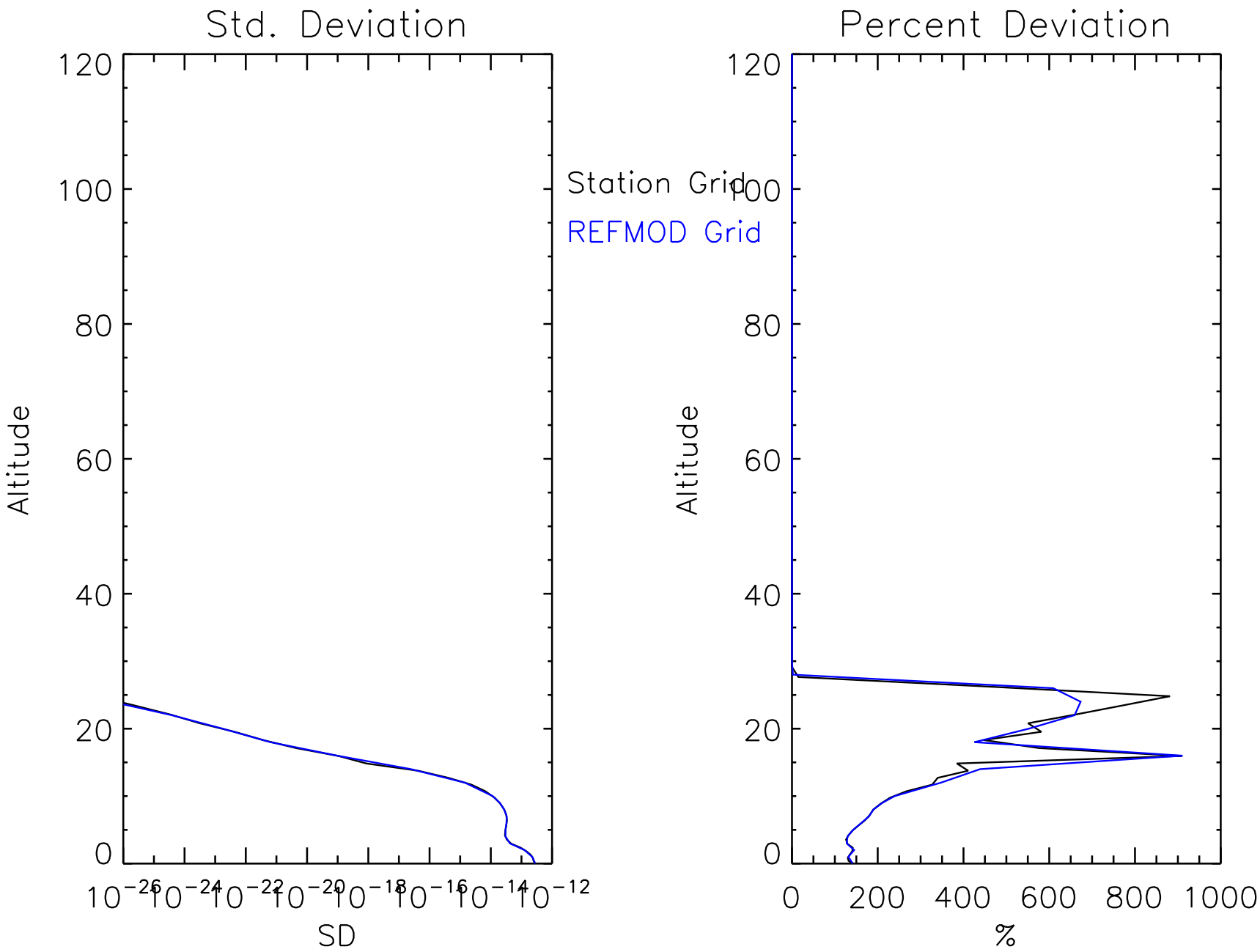

Initial & Interpolated profiles by month for : 2017
St_Petersburg 59.7N 30.0E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

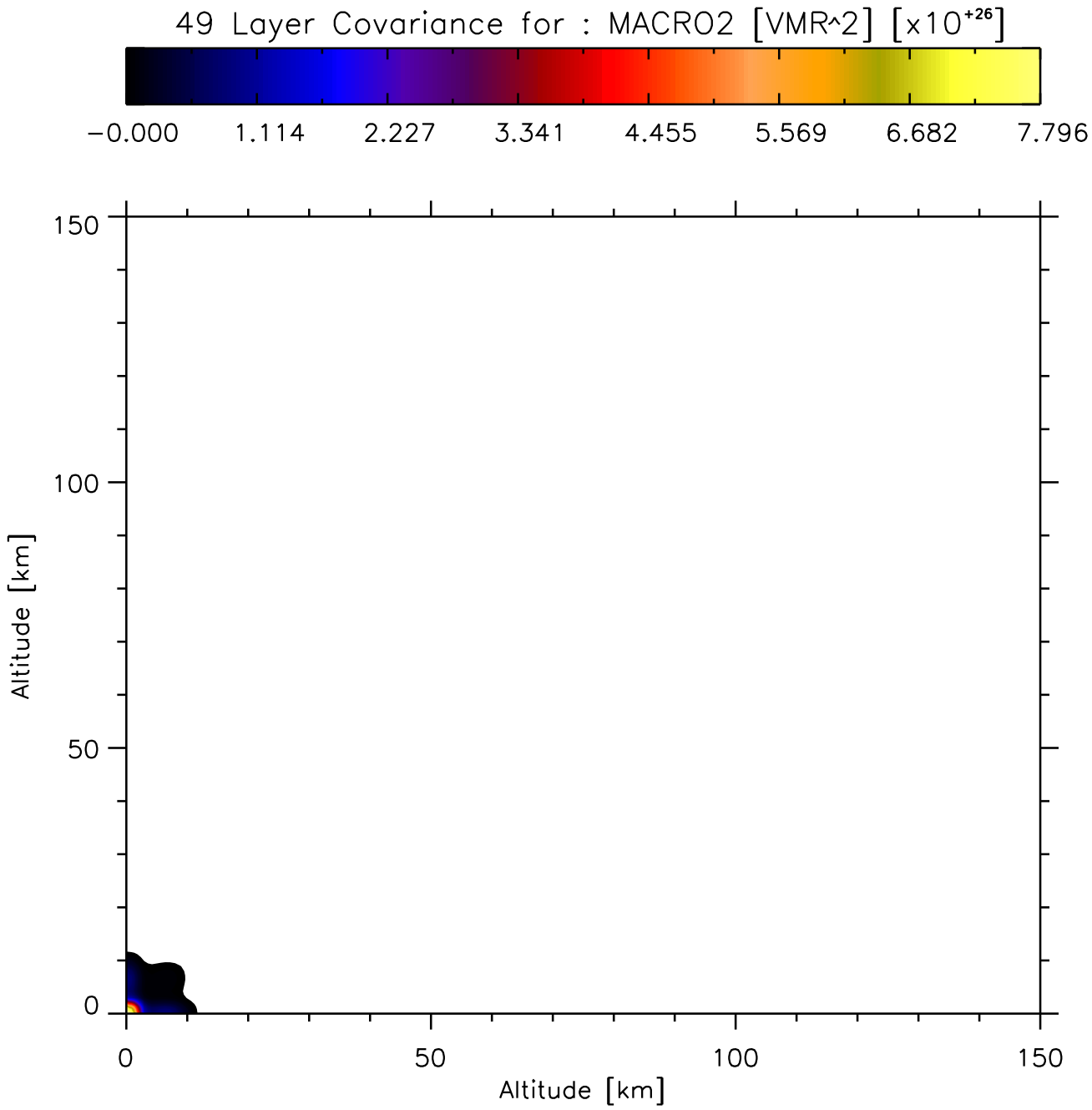

Initial & Interpolated profiles by month for : 2018
St_Petersburg 59.7N 30.0E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

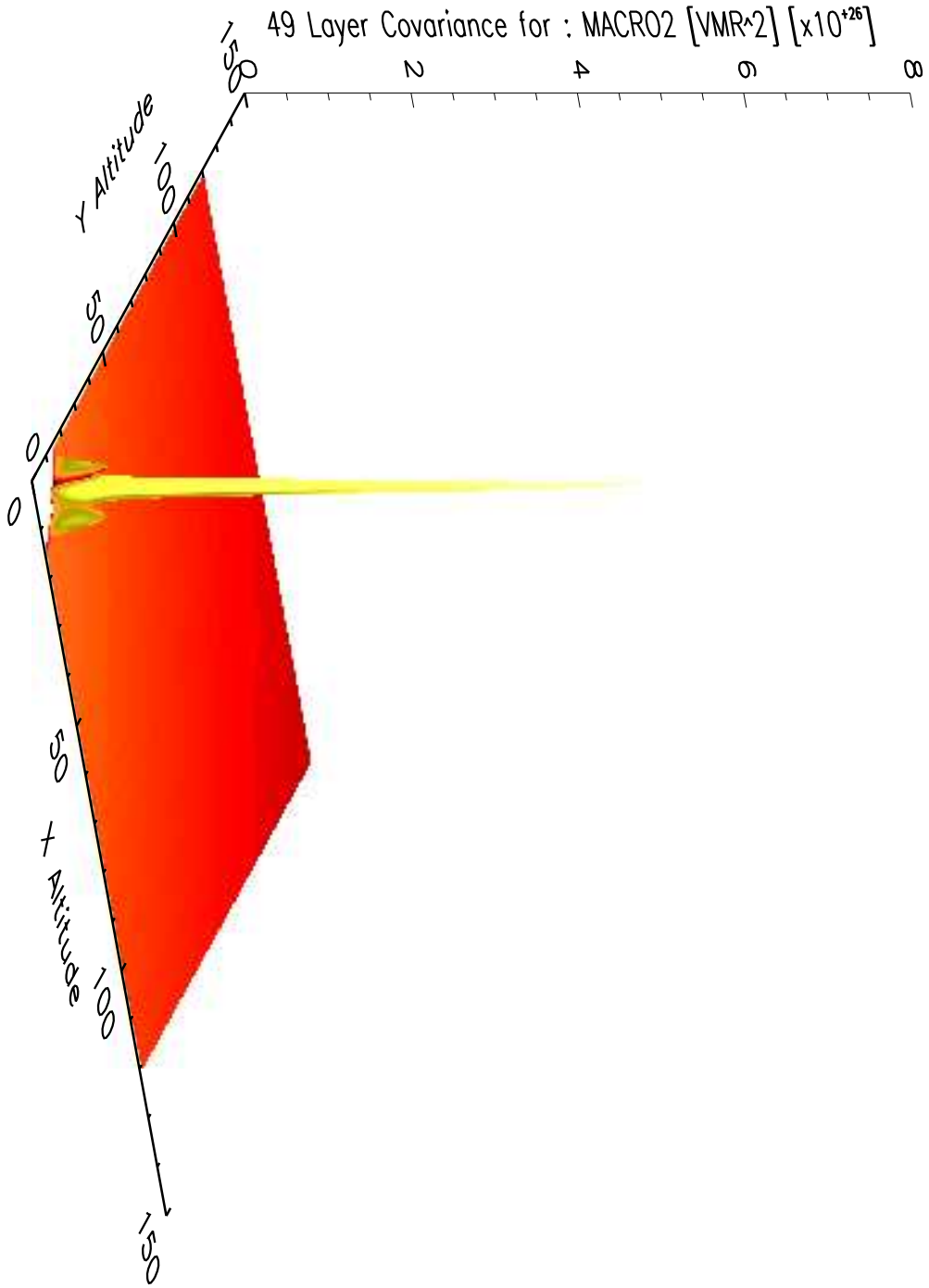

Initial & Interpolated profiles by month for : 2019
St_Petersburg 59.7N 30.0E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

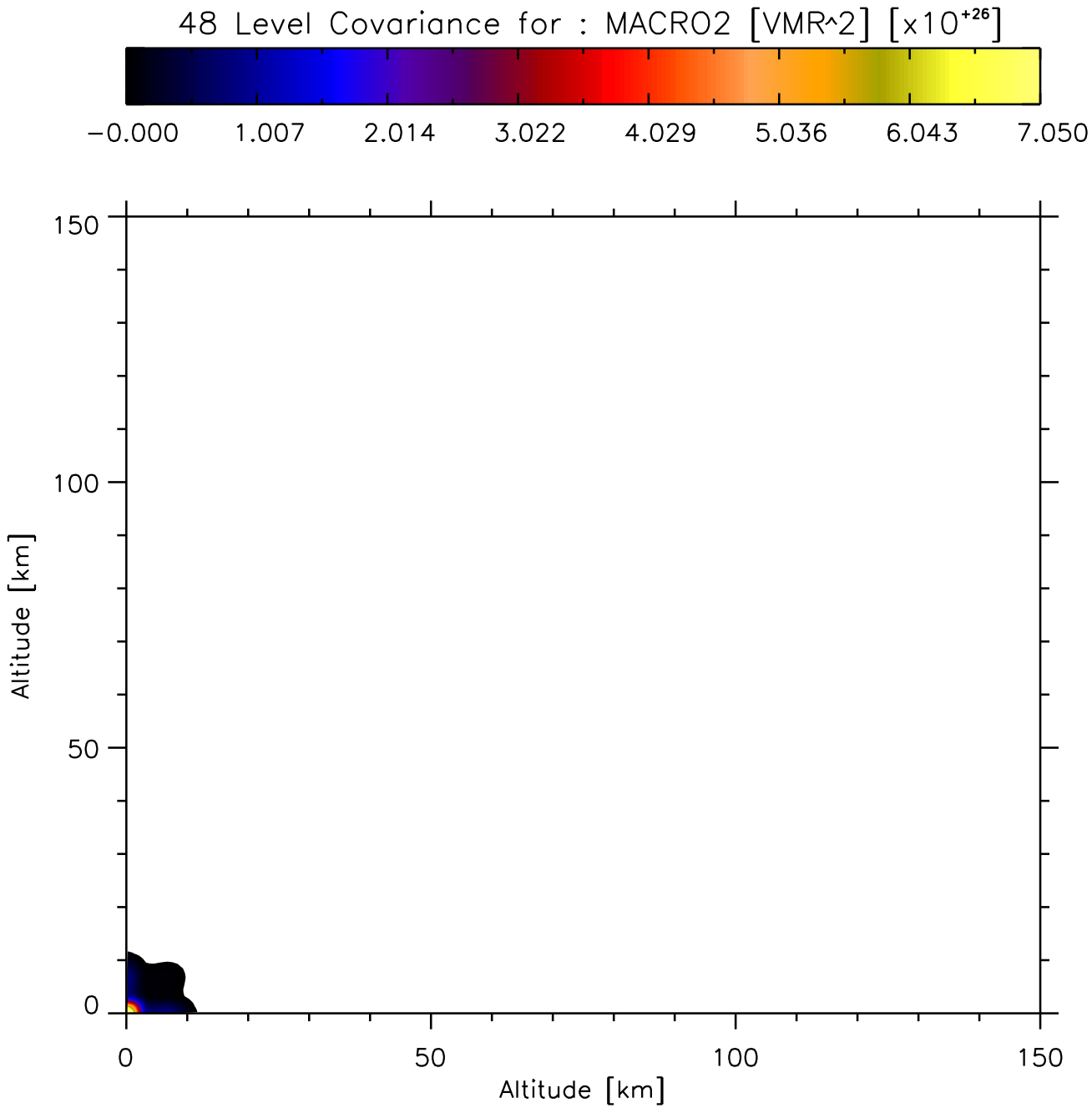

Initial & Interpolated profiles by month for : 2020
St_Petersburg 59.7N 30.0E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

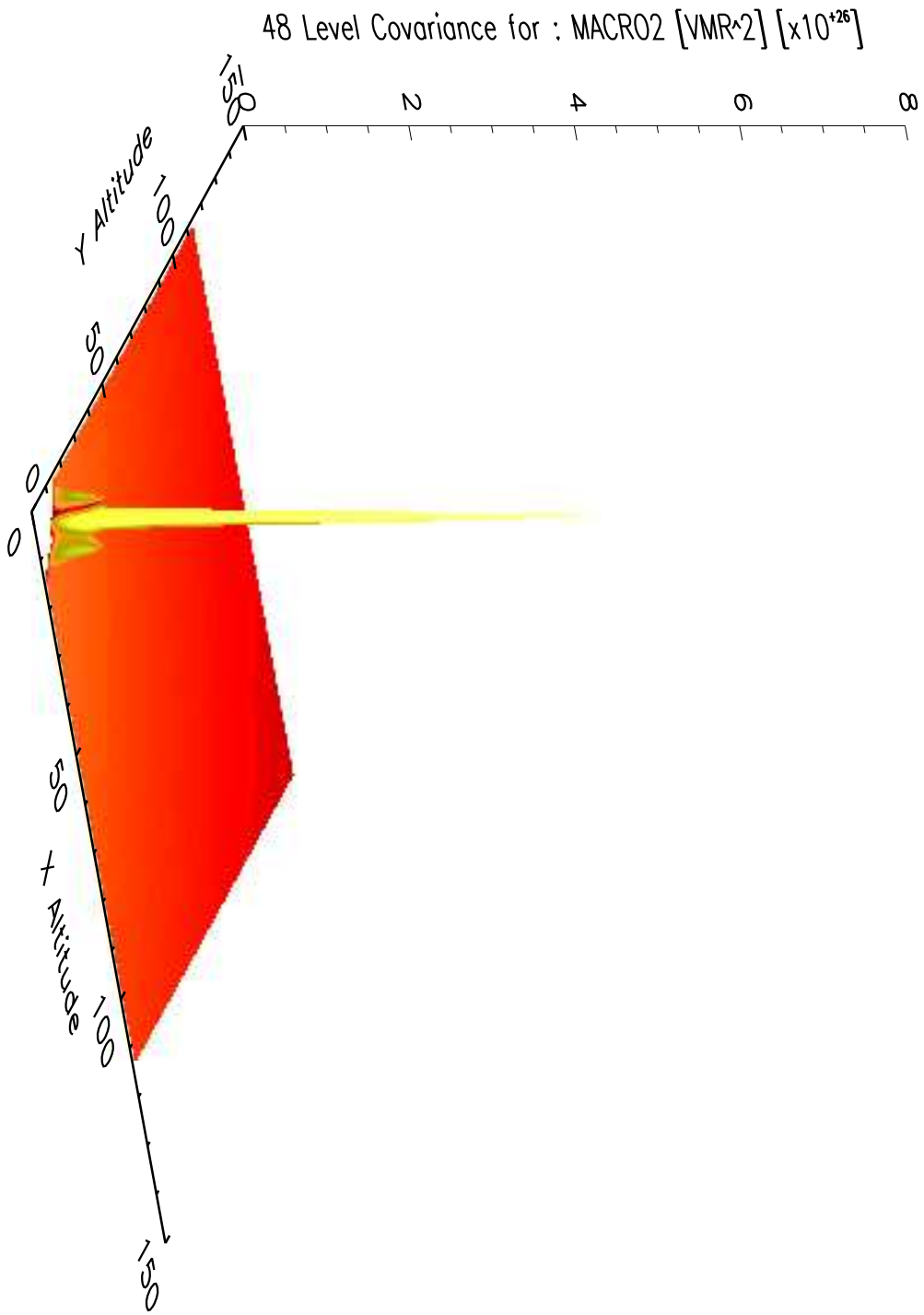

Station Grid
REFMOD Grid
Min, Max, Mean of : 492 profiles.
Altitude
120
100
80
60
40
20
0
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
10^{-5}
Mixing Ratio


Std. Deviation
Percent Deviation
Station Grid
REFMOD Grid
Altitude
Altitude
120
100
80
60
40
20
0
10^{-26} 10^{-24} 10^{-22} 10^{-20} 10^{-18} 10^{-16} 10^{-14} 10^{-12}
SD
0 200 400 600 800 1000
%


49 Layer Covariance for : MACRO2 [VMR^2] [x10^+26]
−0.000
1.114
2.227
3.341
4.455
5.569
6.682
7.796
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]


49 Layer Covariance for : MACRO2 [VMR^2] [x10^+26]
150
100
50
0
0
50
100
150
Y Altitude
X Altitude
0
2
4
6
8


48 Level Covariance for : MACRO2 [VMR^2] [x10^+26]
−0.000
1.007
2.014
3.022
4.029
5.036
6.043
7.050
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]


48 Level Covariance for : MACRO2 [VMR^2] [x10^+26]
0
2
4
6
8
Y Altitude
0
50
100
X Altitude
0
50
100