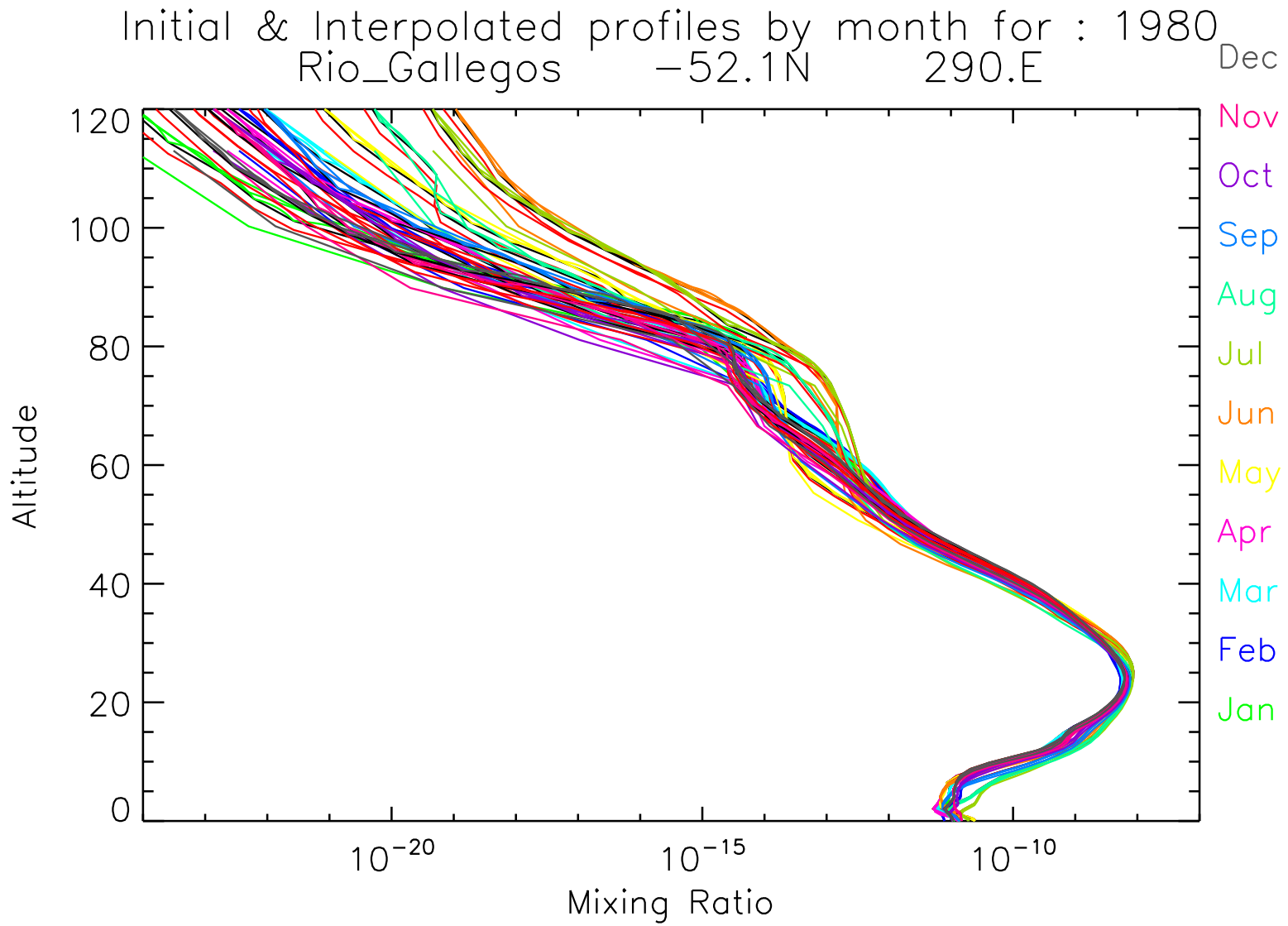
Initial & Interpolated profiles by month for : 1980
Rio_Gallegos −52.1N 290.E
Dec
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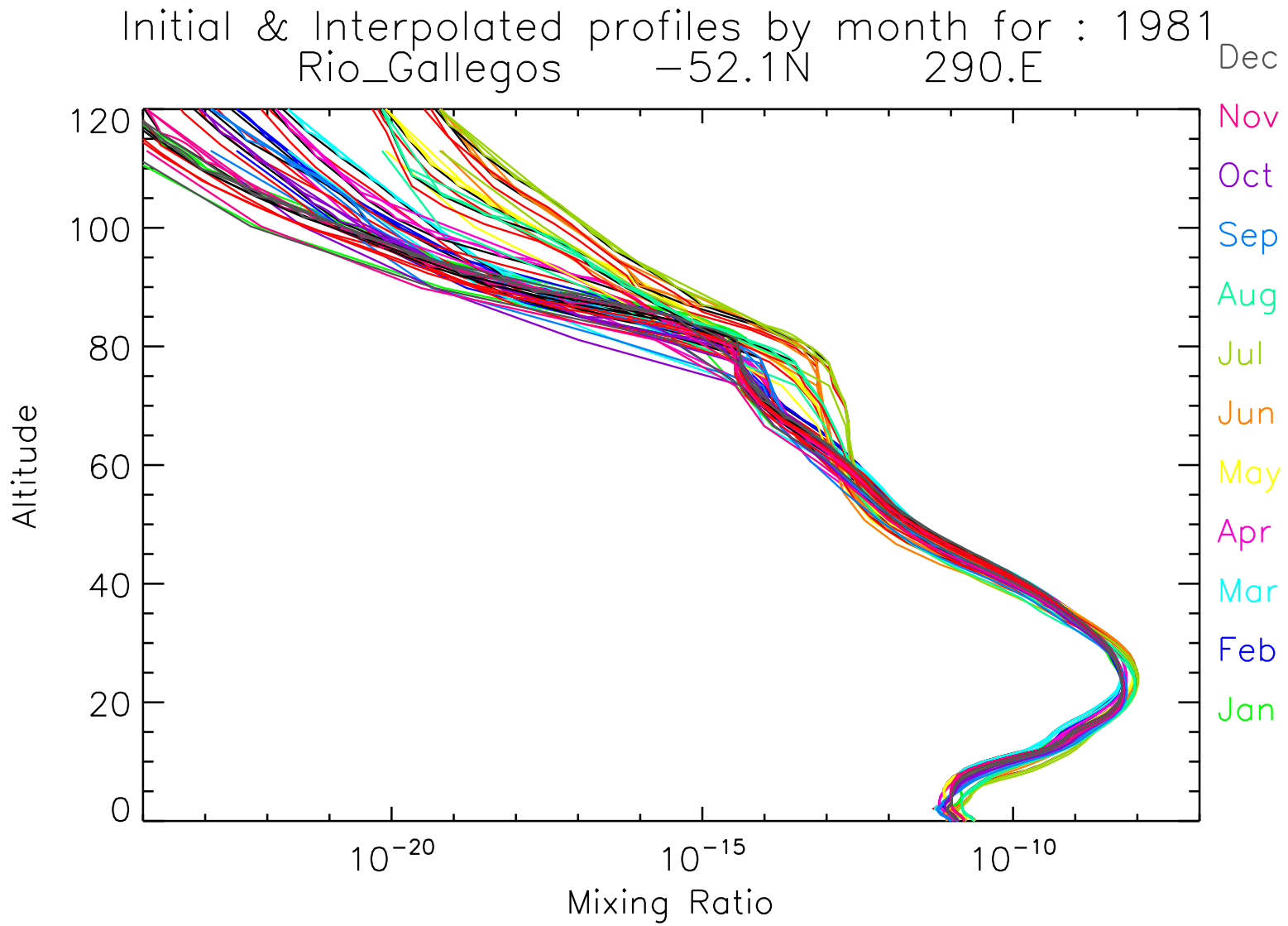
Altitude
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1981
Rio_Gallegos −52.1N 290.E
Dec
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Altitude
10^{-20}
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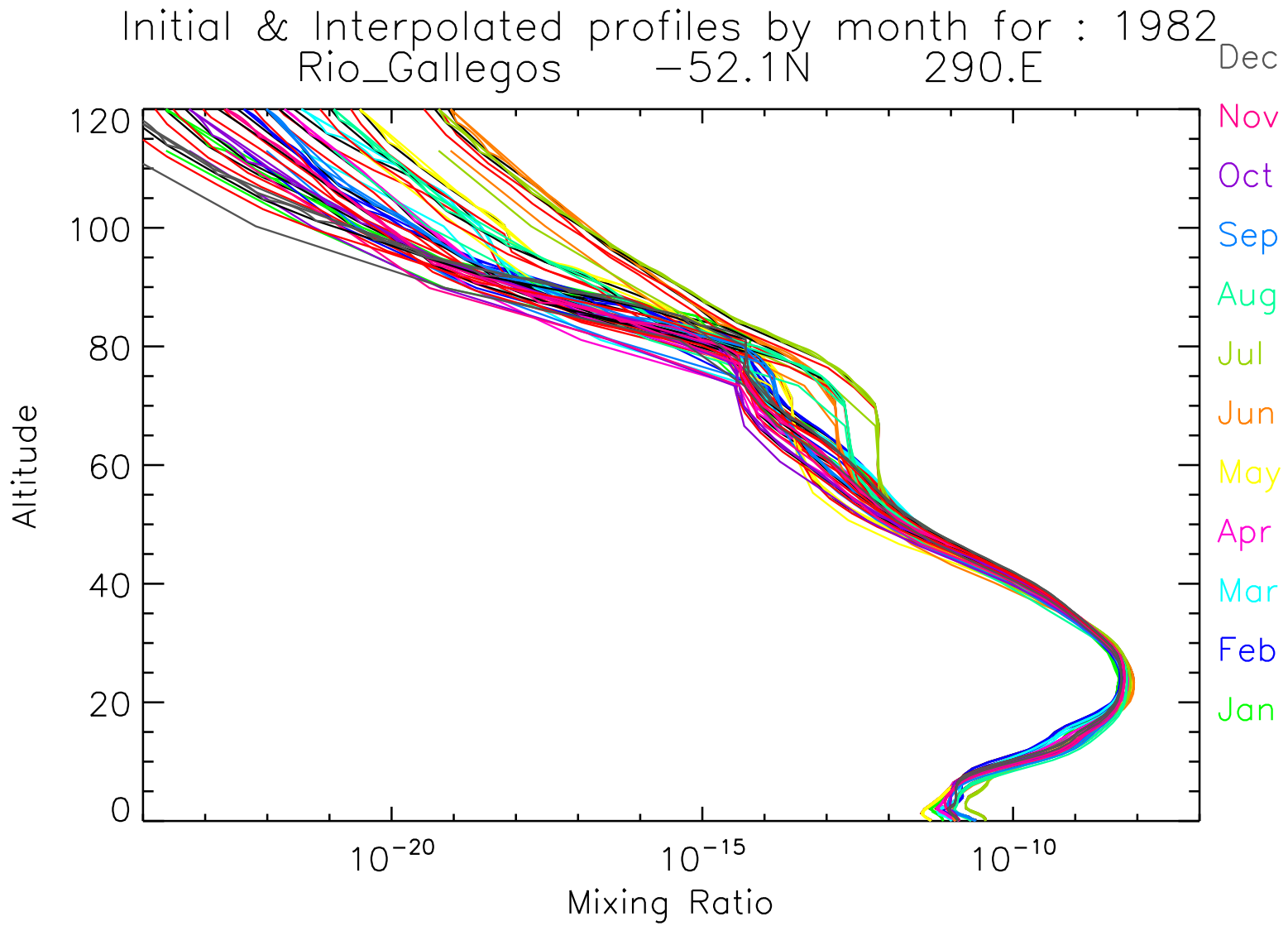
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1982
Rio_Gallegos −52.1N 290.E
Dec
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120
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0
Altitude
10^{-20}
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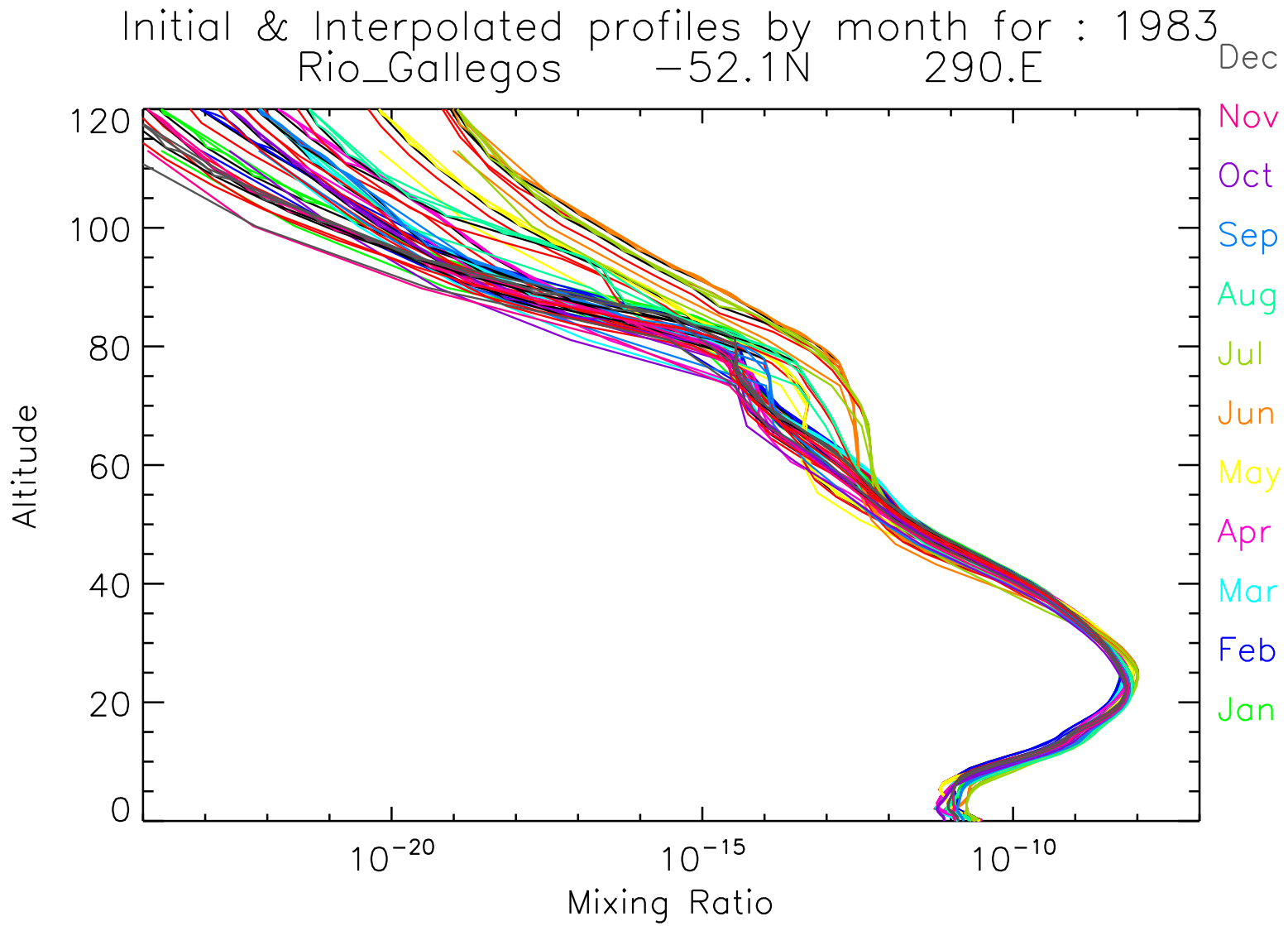
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1983
Rio_Gallegos −52.1N 290.E
Dec
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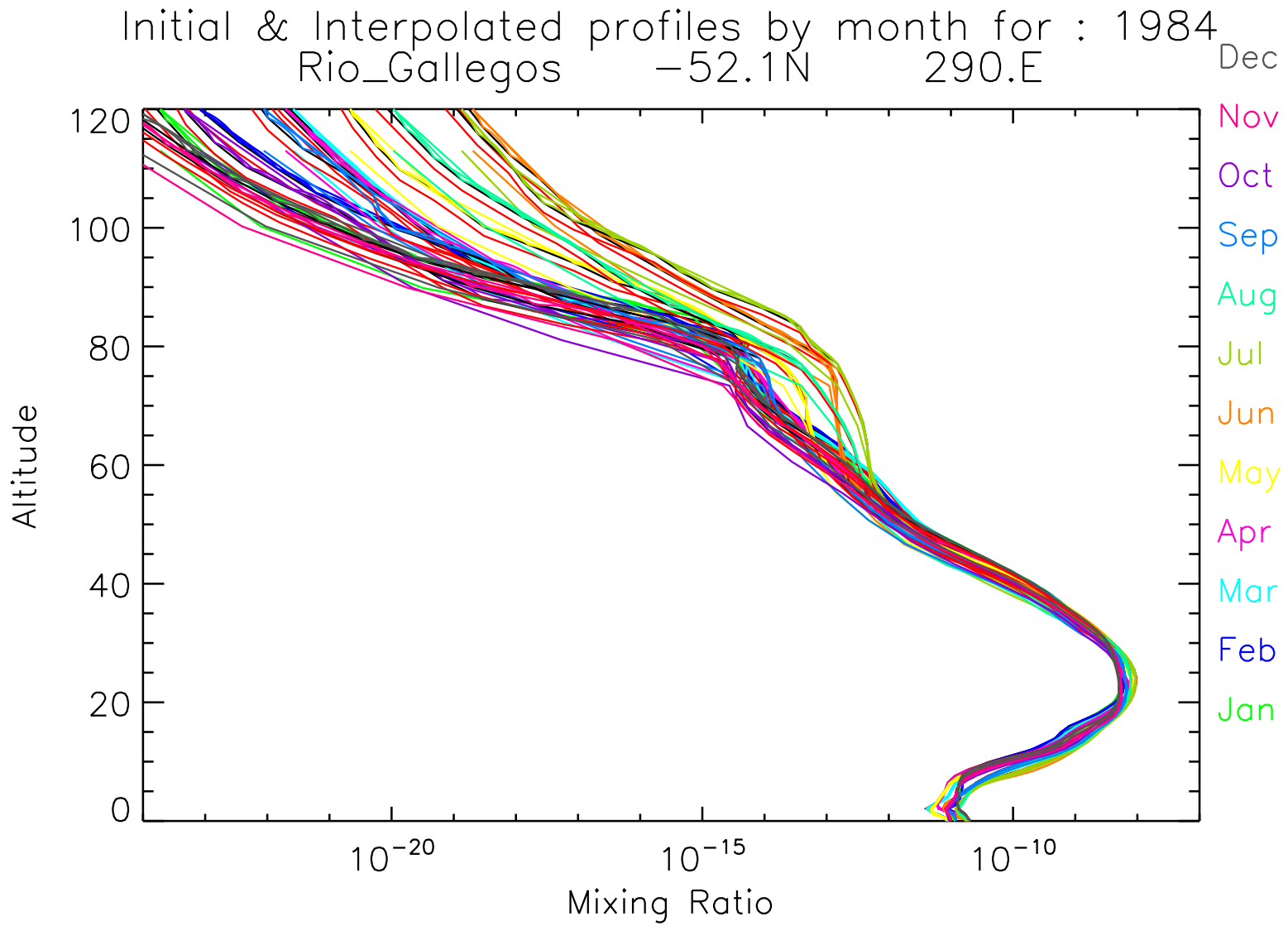
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1984
Rio_Gallegos −52.1N 290.E
Dec
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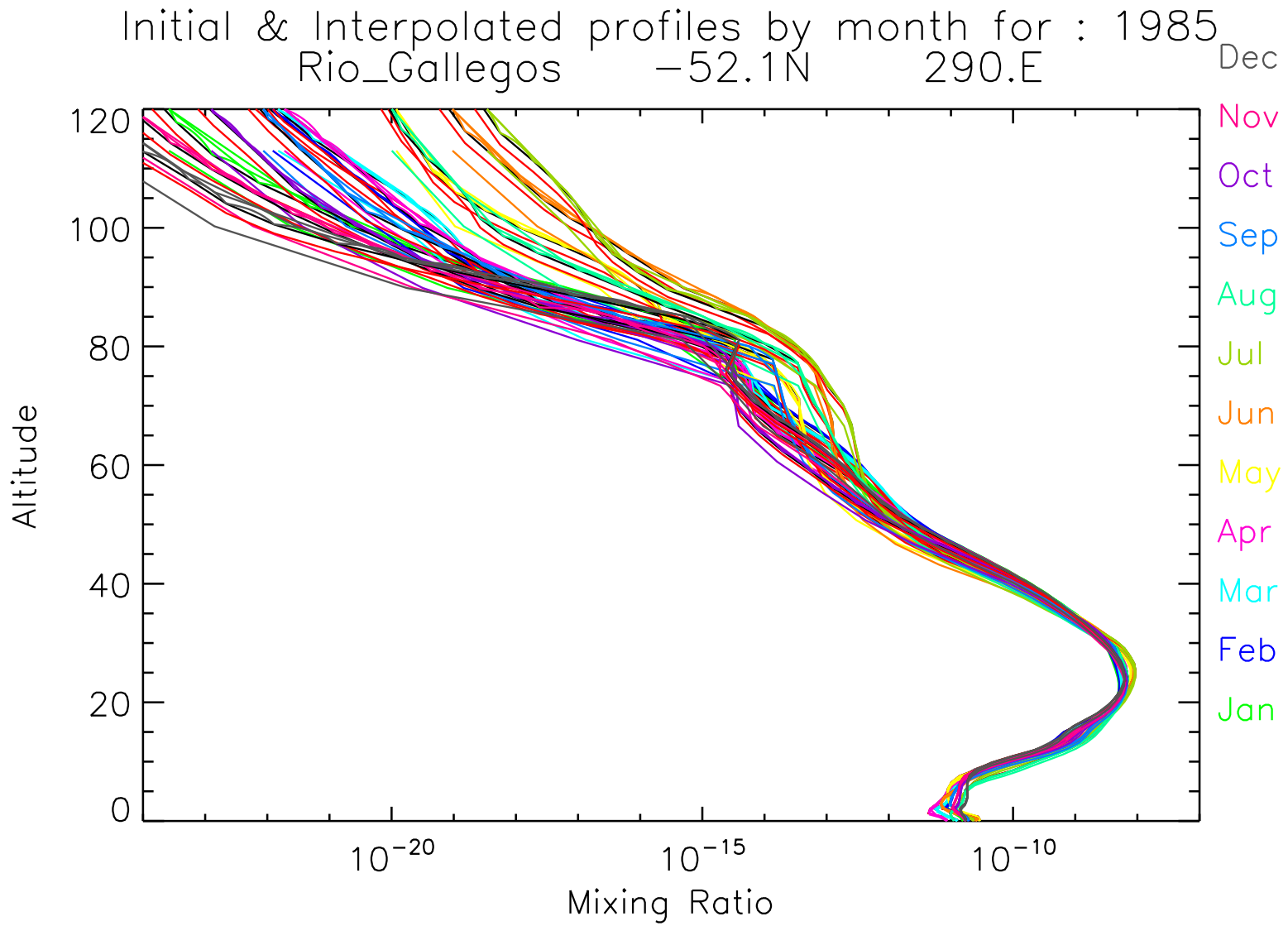
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1985
Rio_Gallegos −52.1N 290.E
Dec
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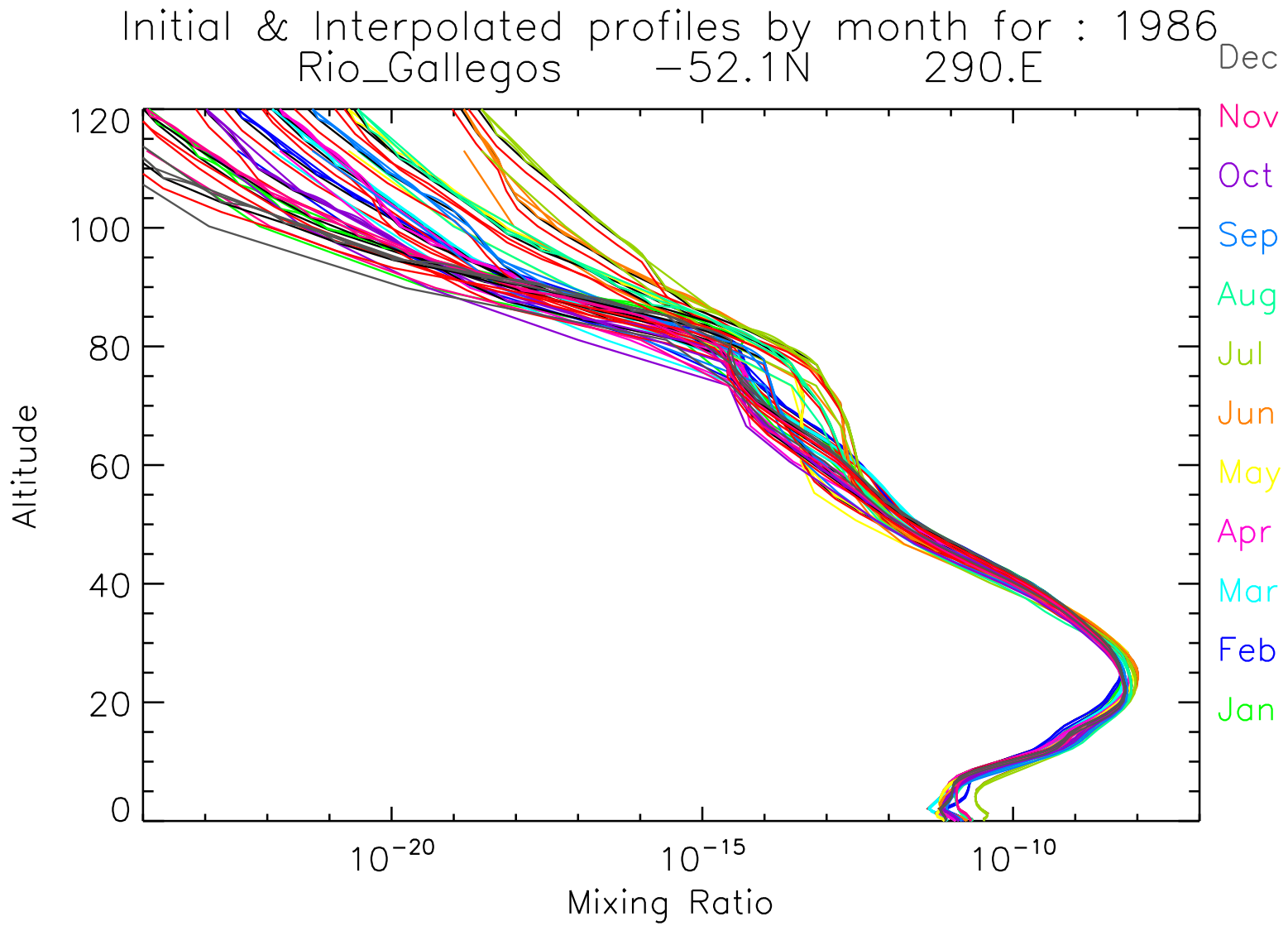
Mixing Ratio


Initial & Interpolated profiles by month for : 1986
Rio_Gallegos −52.1N 290.E
Dec
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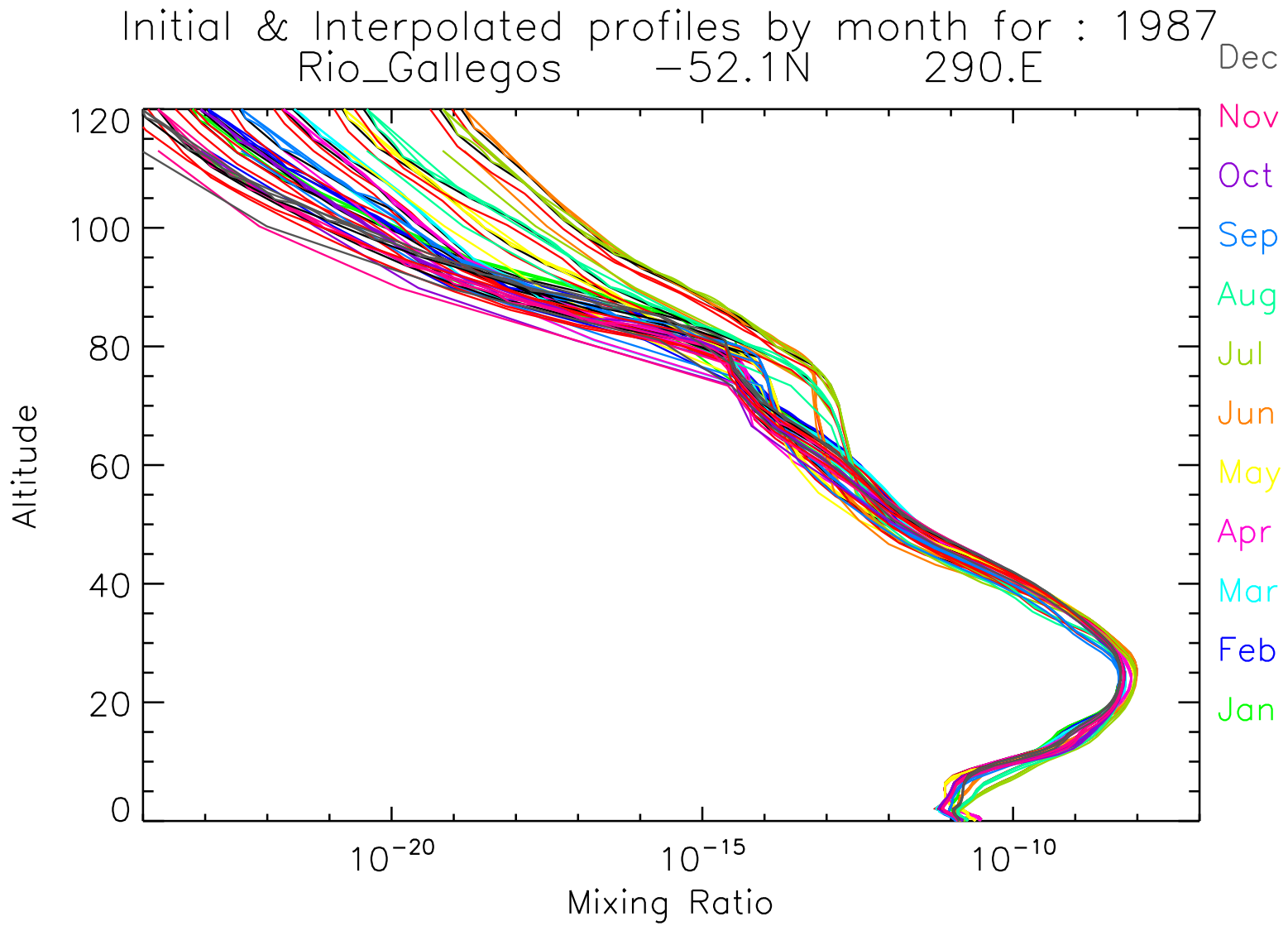
Mixing Ratio


Initial & Interpolated profiles by month for : 1987
Rio_Gallegos −52.1N 290.E
Dec
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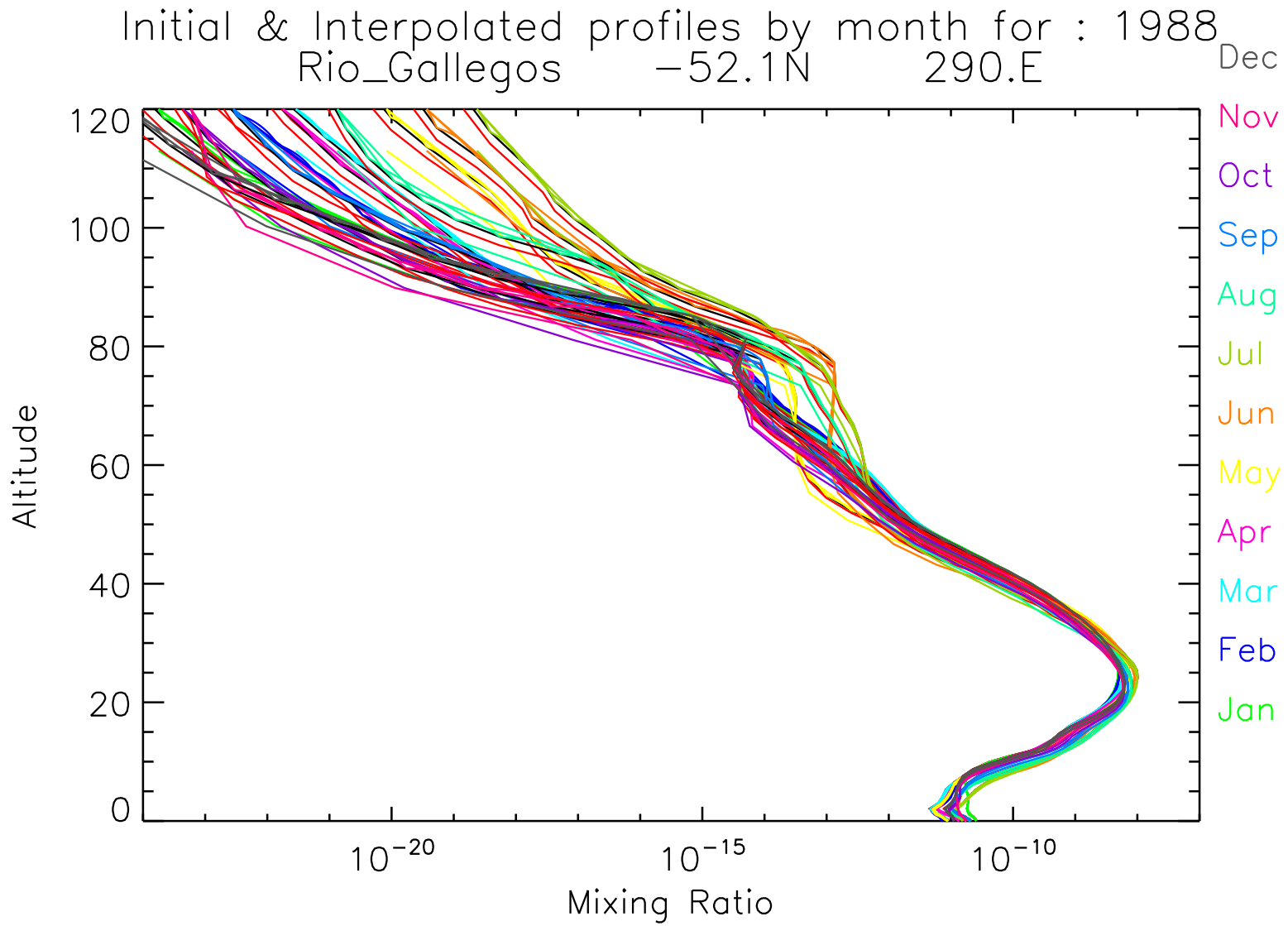
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1988
Rio_Gallegos −52.1N 290.E
Dec
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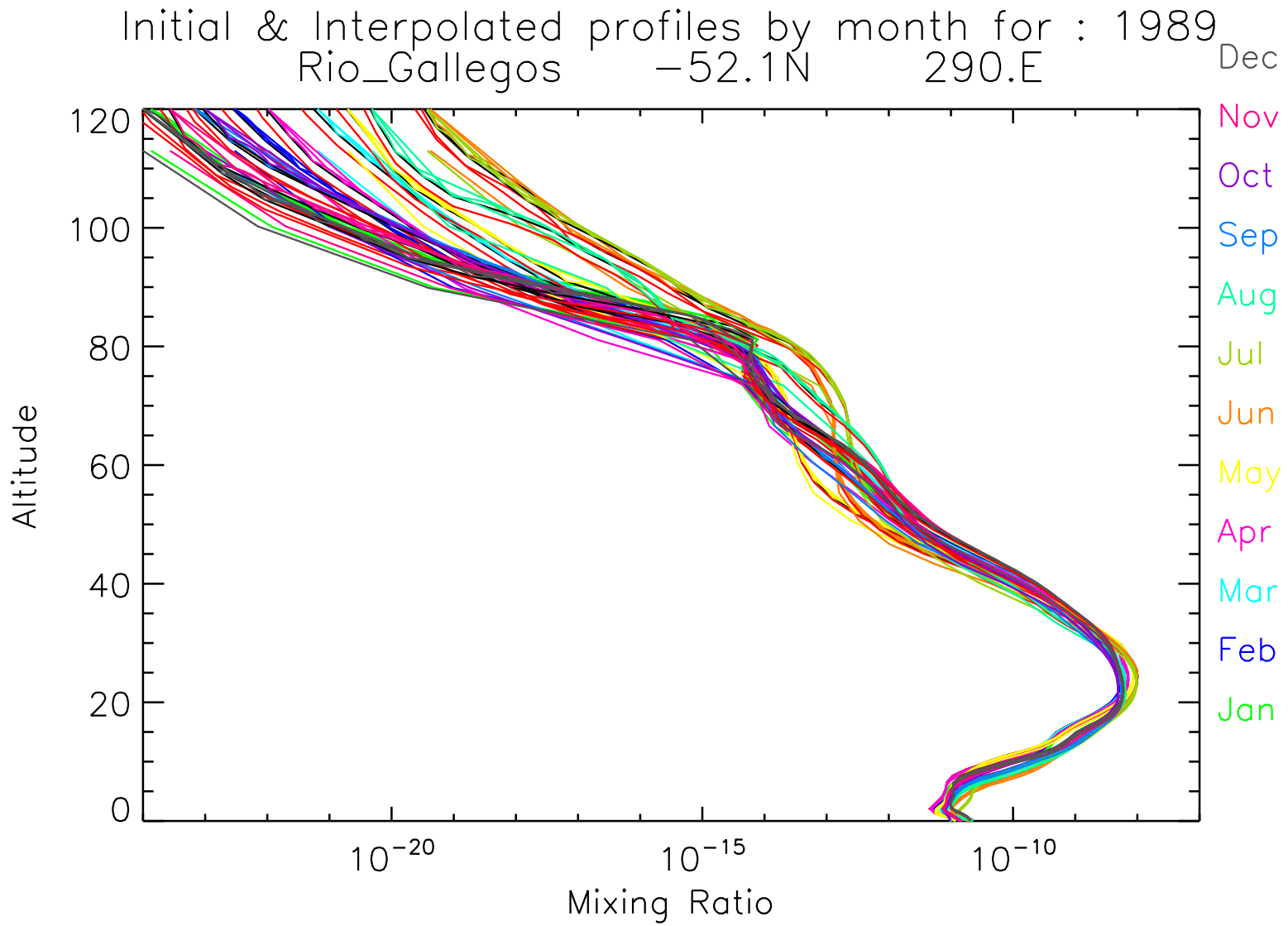
Mixing Ratio


Initial & Interpolated profiles by month for : 1989
Rio_Gallegos −52.1N 290.E
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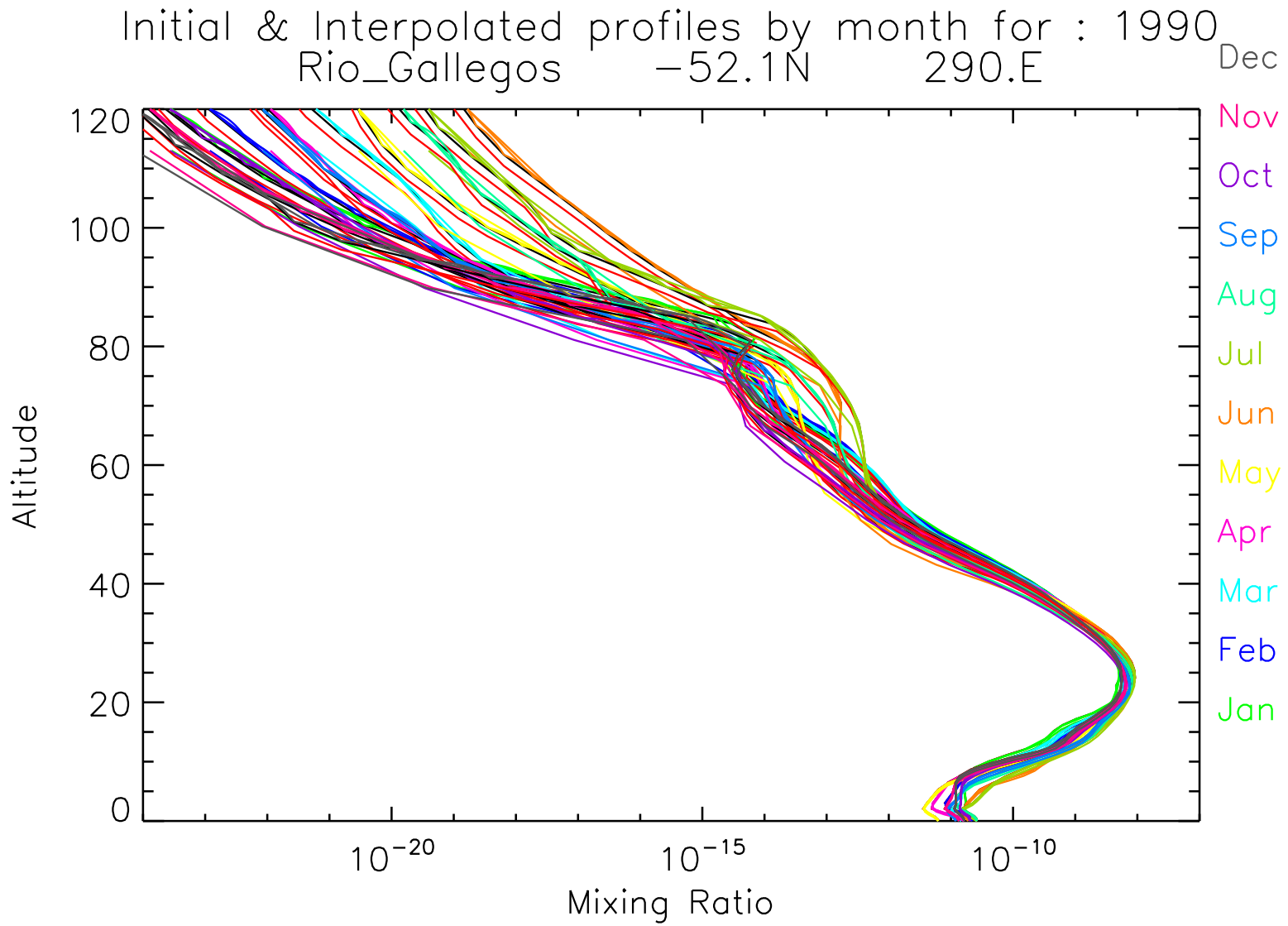
Mixing Ratio


Initial & Interpolated profiles by month for : 1990
Rio_Gallegos −52.1N 290.E
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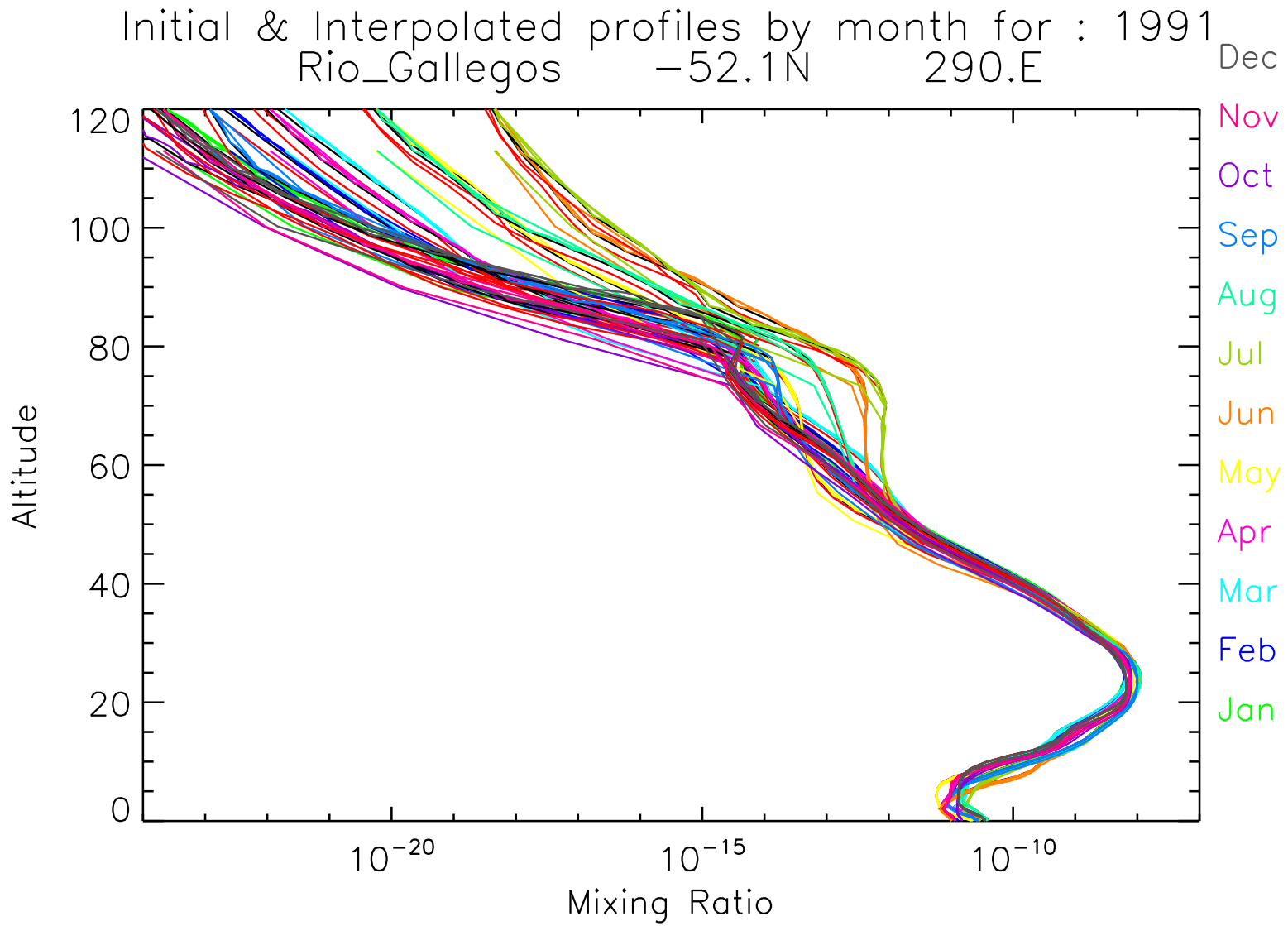
Mixing Ratio


Initial & Interpolated profiles by month for : 1991
Rio_Gallegos −52.1N 290.E
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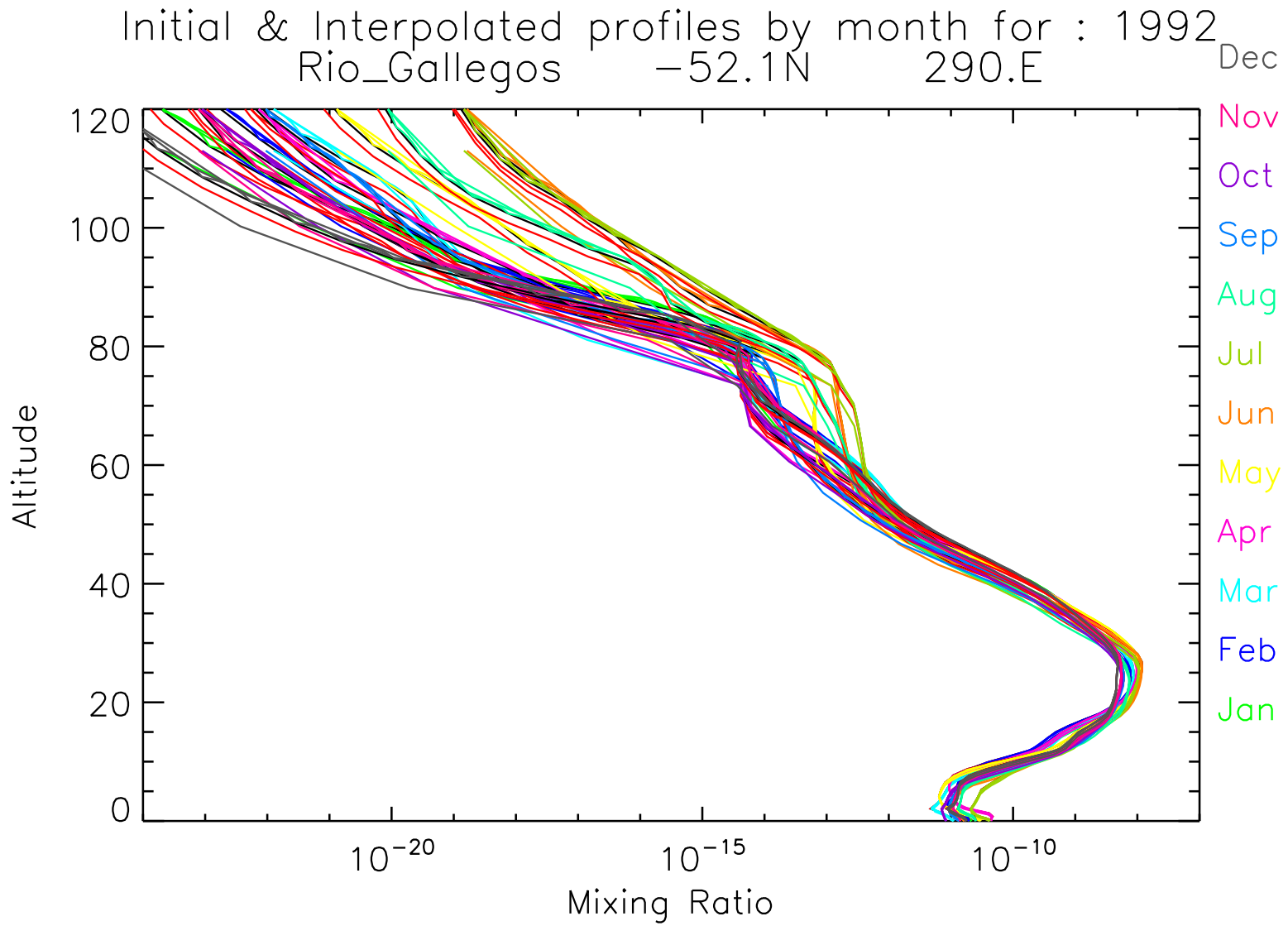
Mixing Ratio


Initial & Interpolated profiles by month for : 1992
Rio_Gallegos −52.1N 290.E
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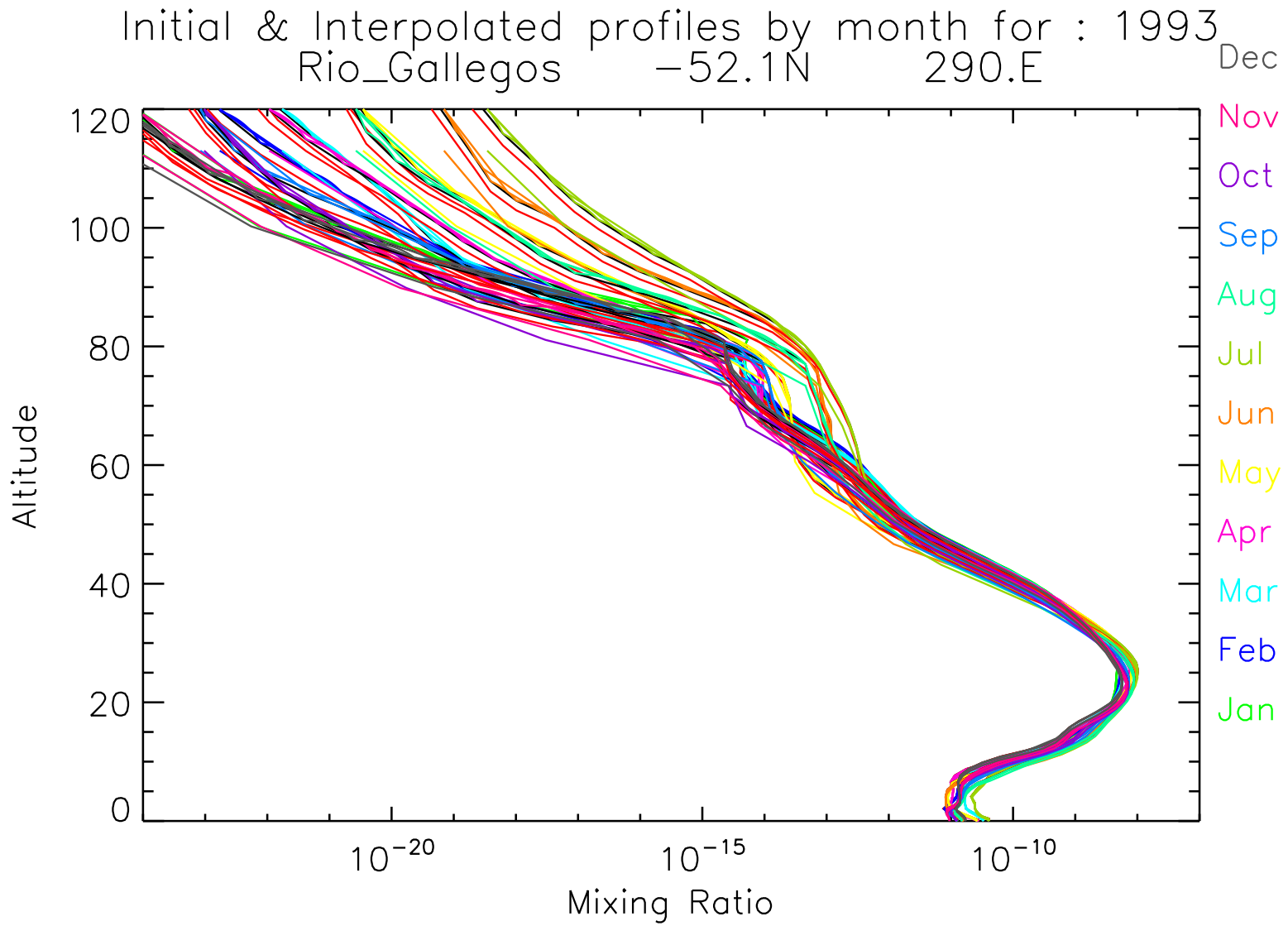
Mixing Ratio


Initial & Interpolated profiles by month for : 1993
Rio_Gallegos −52.1N 290.E
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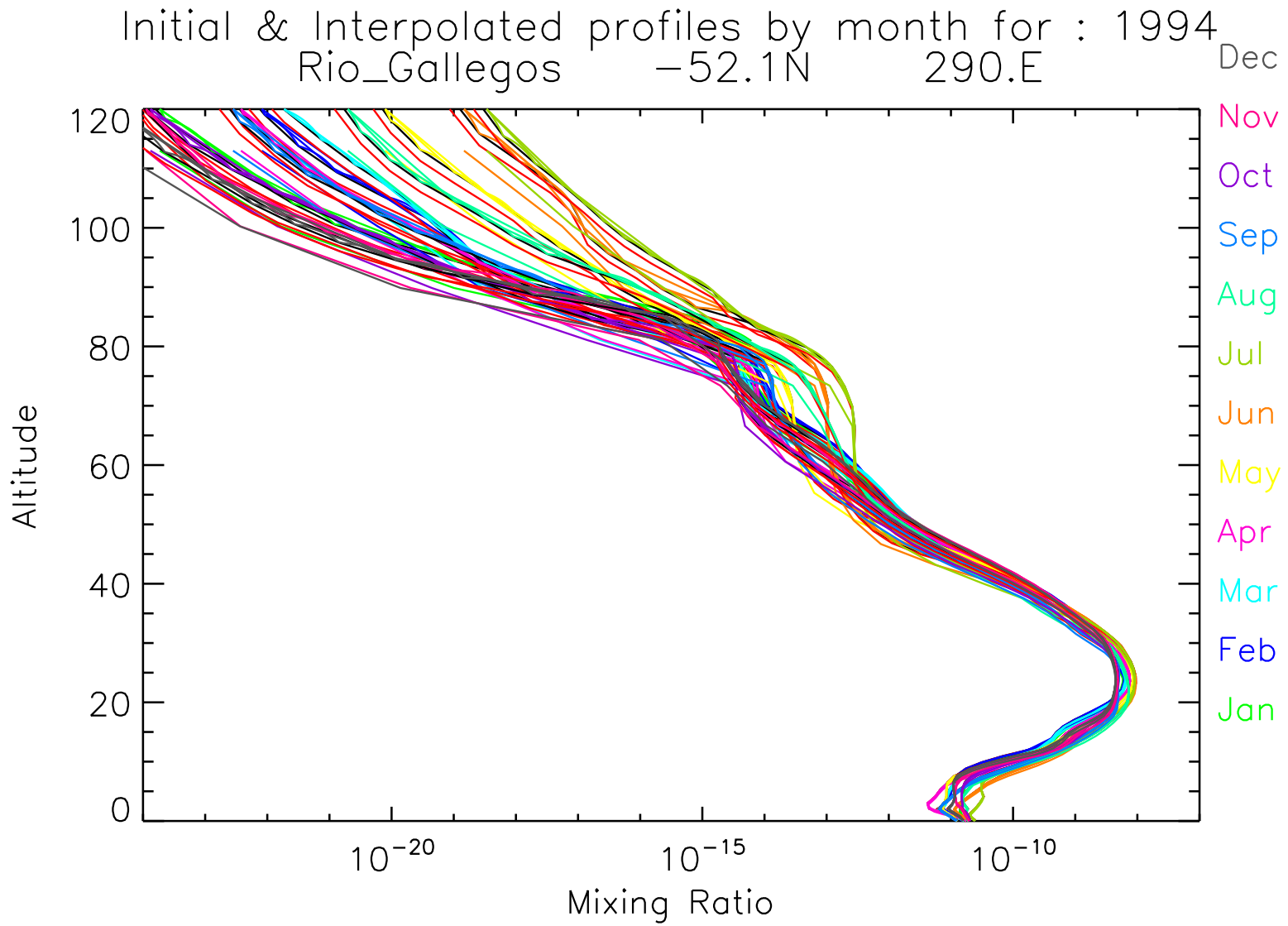
Mixing Ratio


Initial & Interpolated profiles by month for : 1994
Rio_Gallegos −52.1N 290.E
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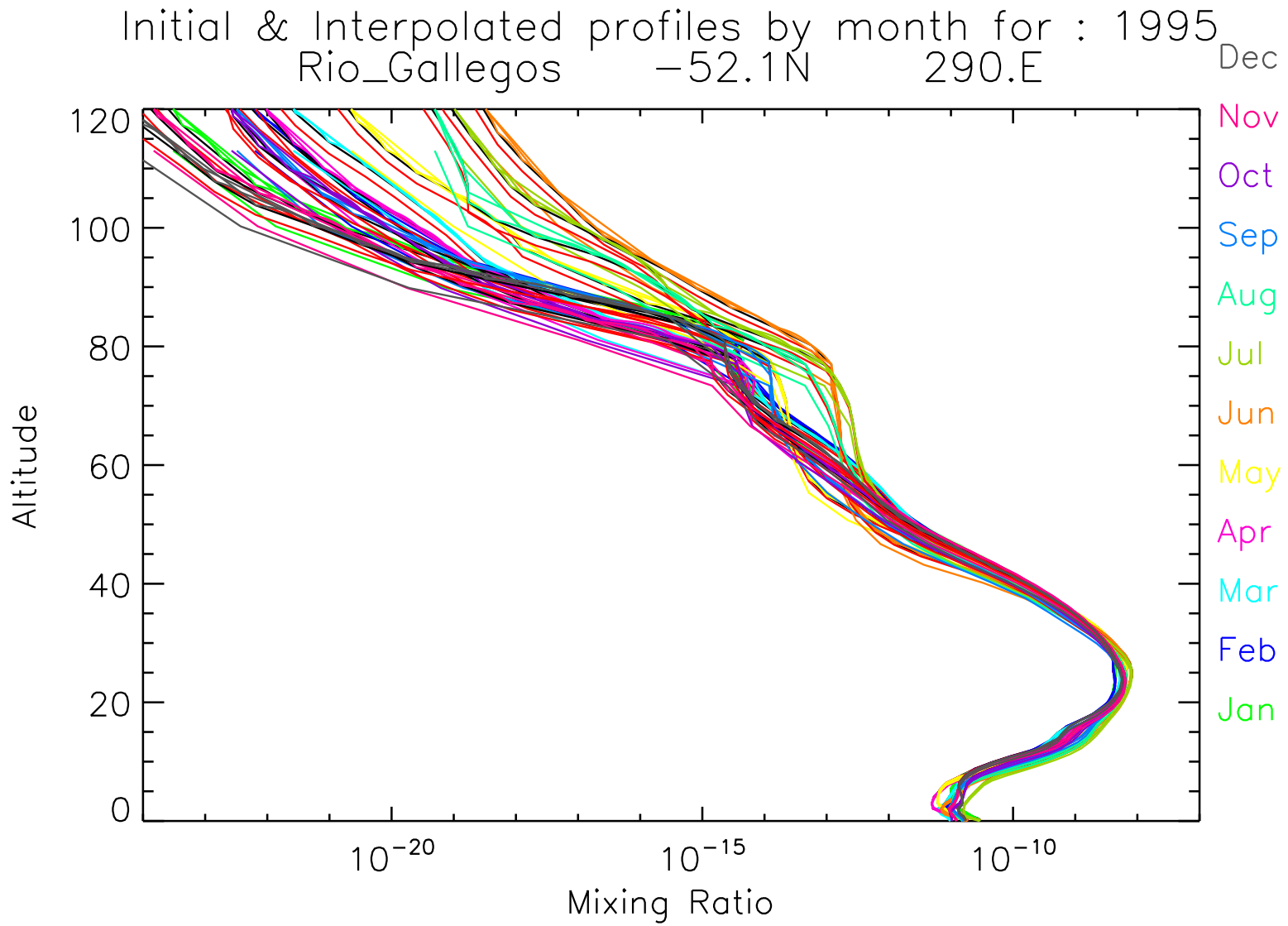
Mixing Ratio


Initial & Interpolated profiles by month for : 1995
Rio_Gallegos −52.1N 290.E
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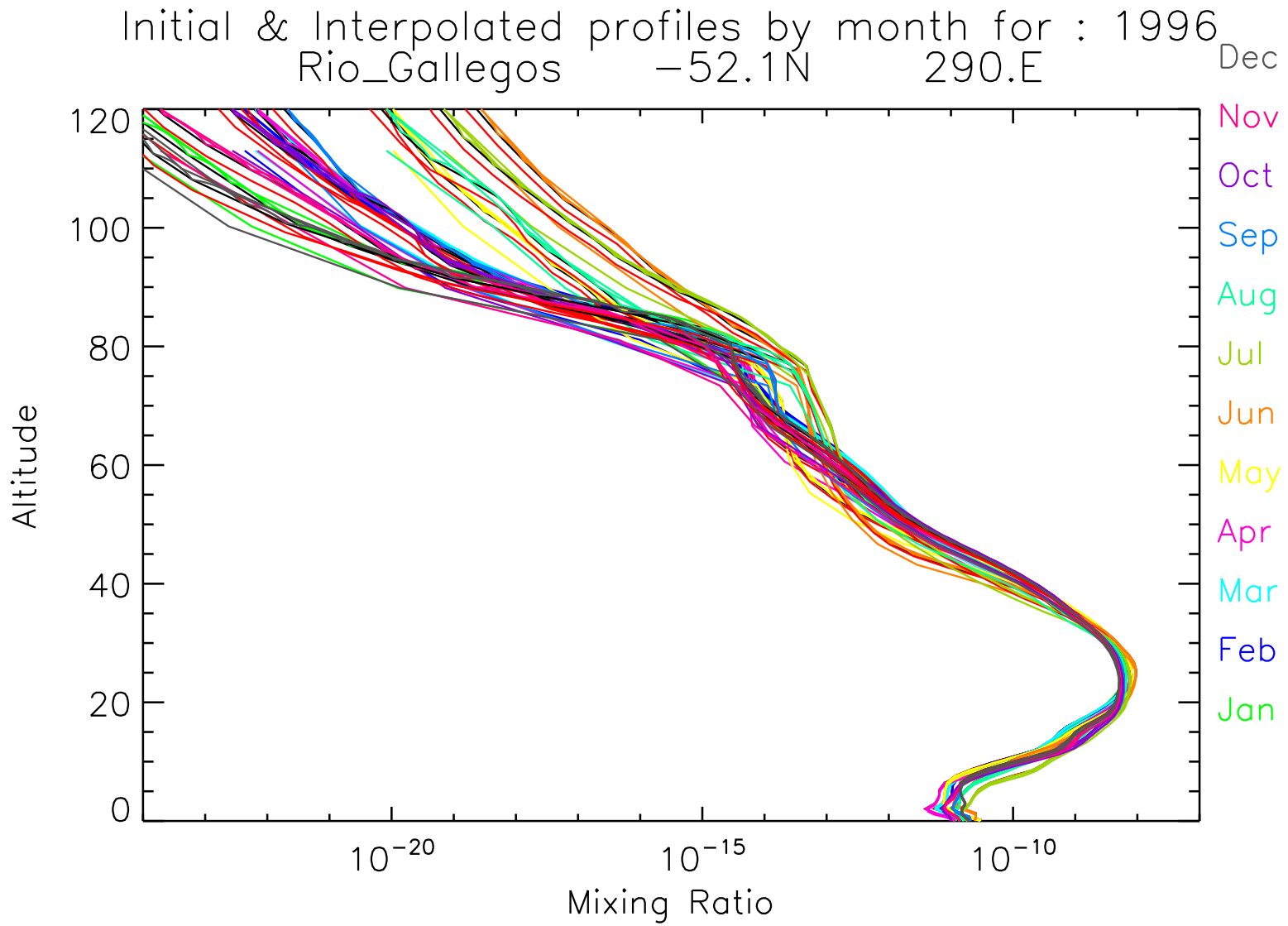
Mixing Ratio


Initial & Interpolated profiles by month for : 1996
Rio_Gallegos −52.1N 290.E
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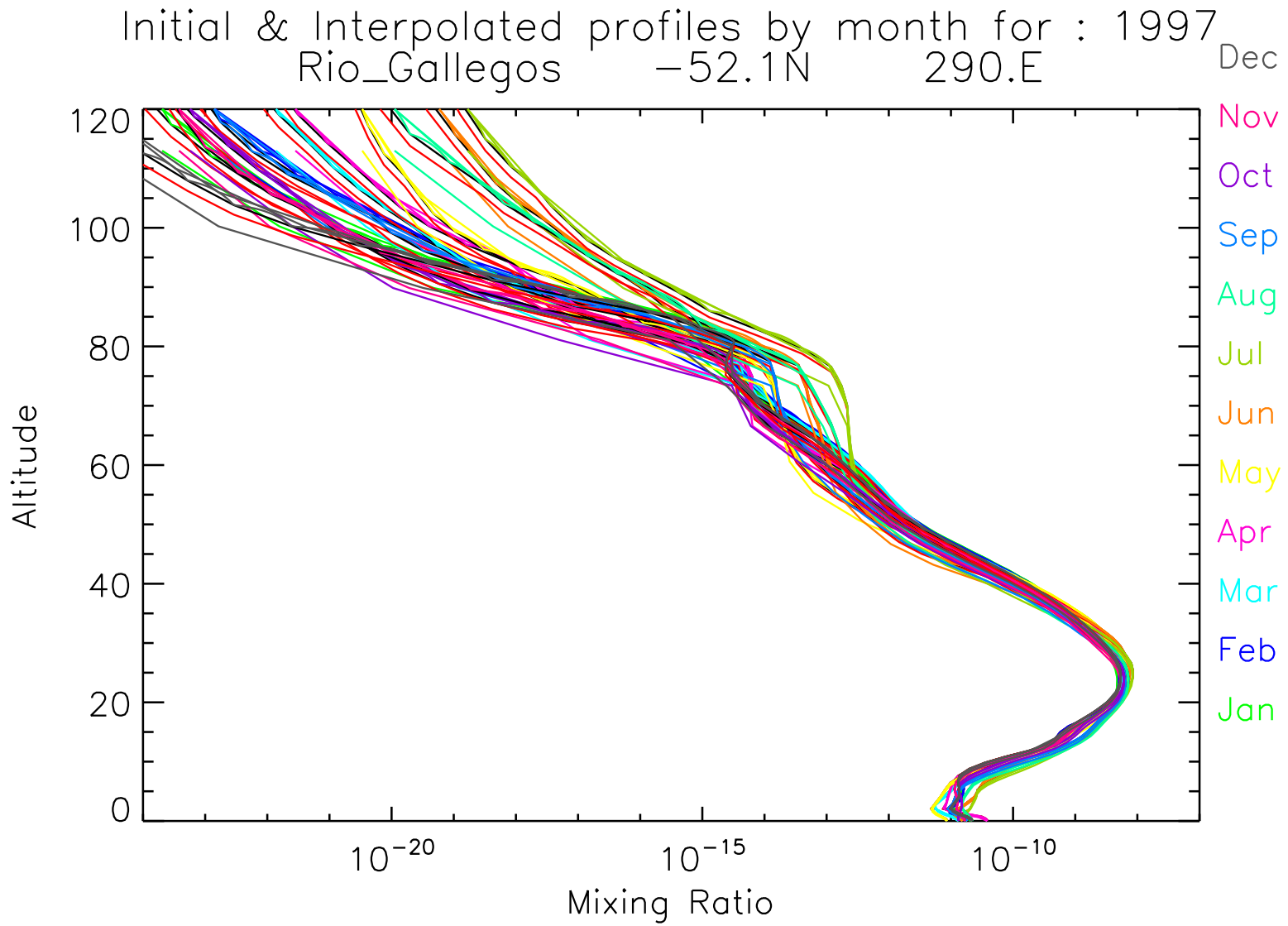
Mixing Ratio


Initial & Interpolated profiles by month for : 1997
Rio_Gallegos −52.1N 290.E
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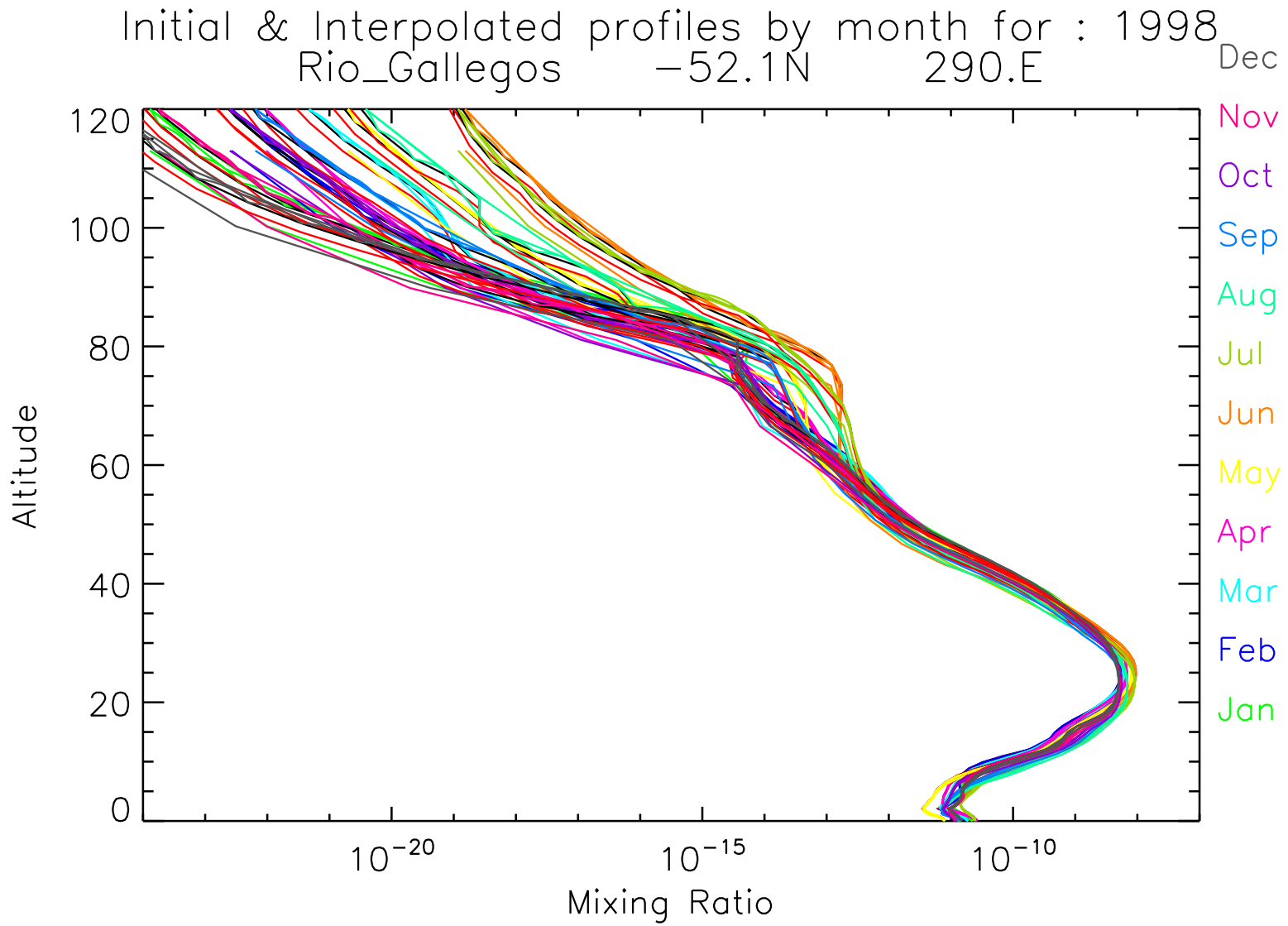
Mixing Ratio


Initial & Interpolated profiles by month for : 1998
Rio_Gallegos −52.1N 290.E
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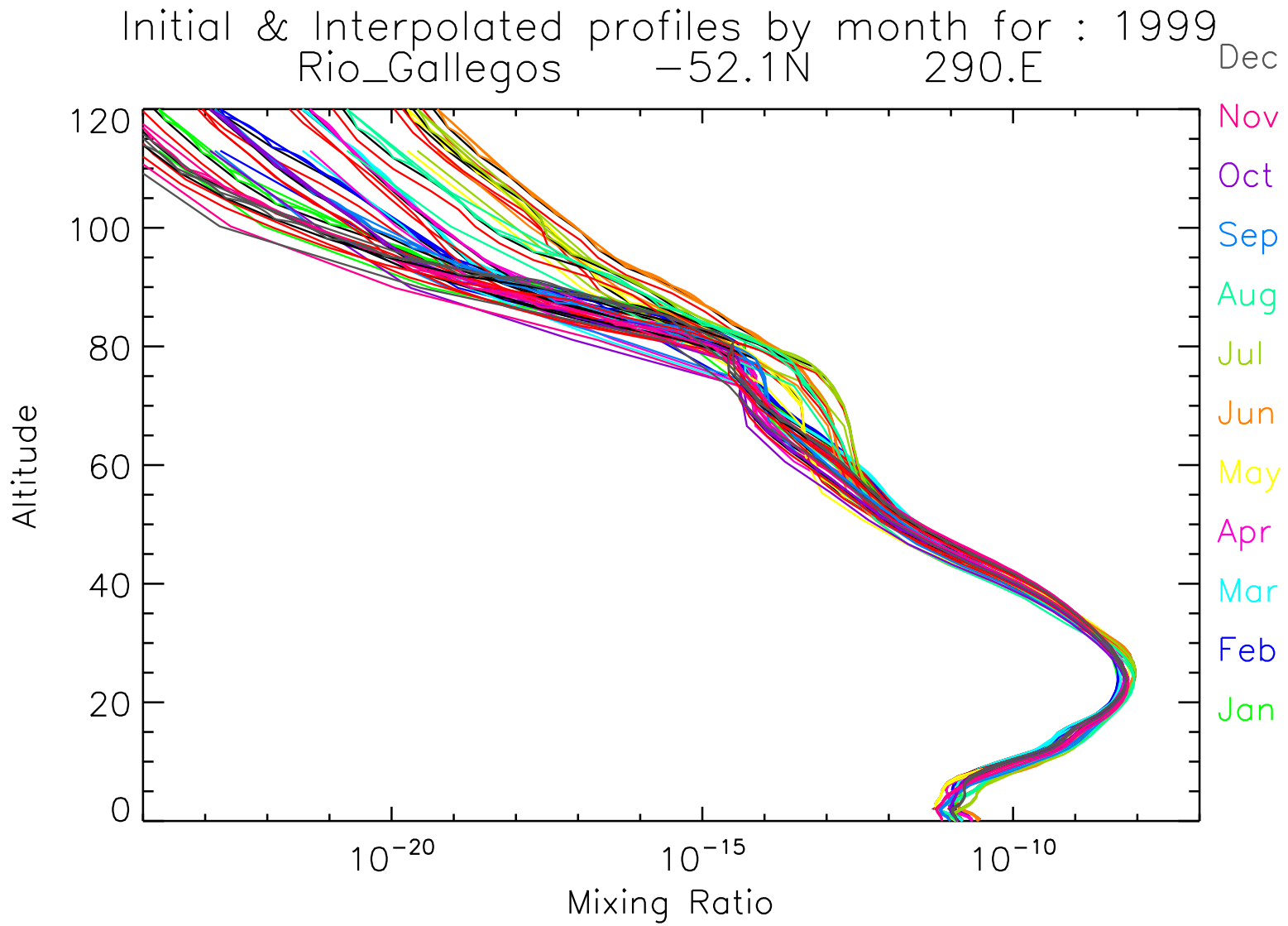
Mixing Ratio


Initial & Interpolated profiles by month for : 1999
Rio_Gallegos −52.1N 290.E
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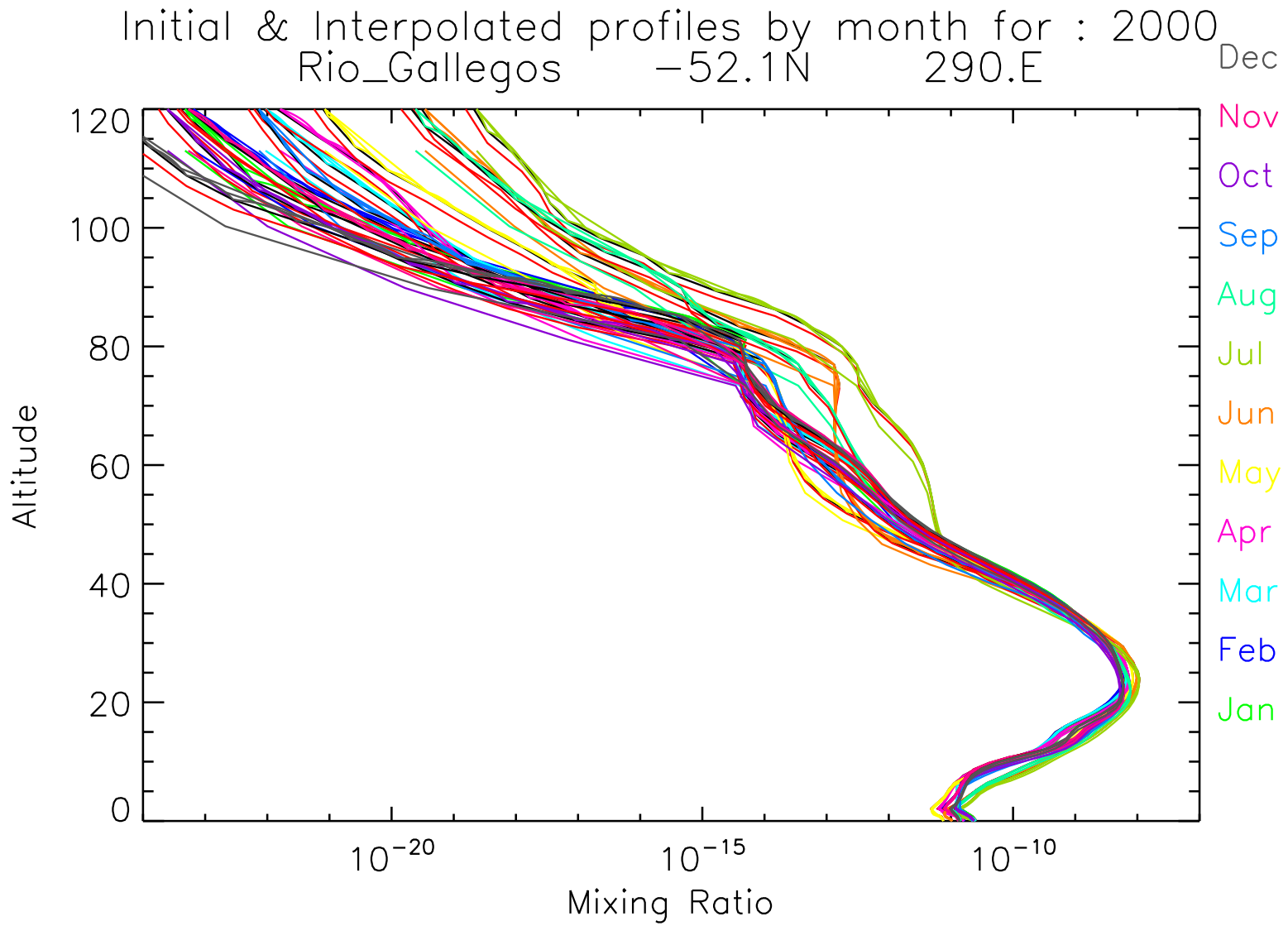
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2000
Rio_Gallegos −52.1N 290.E
Dec
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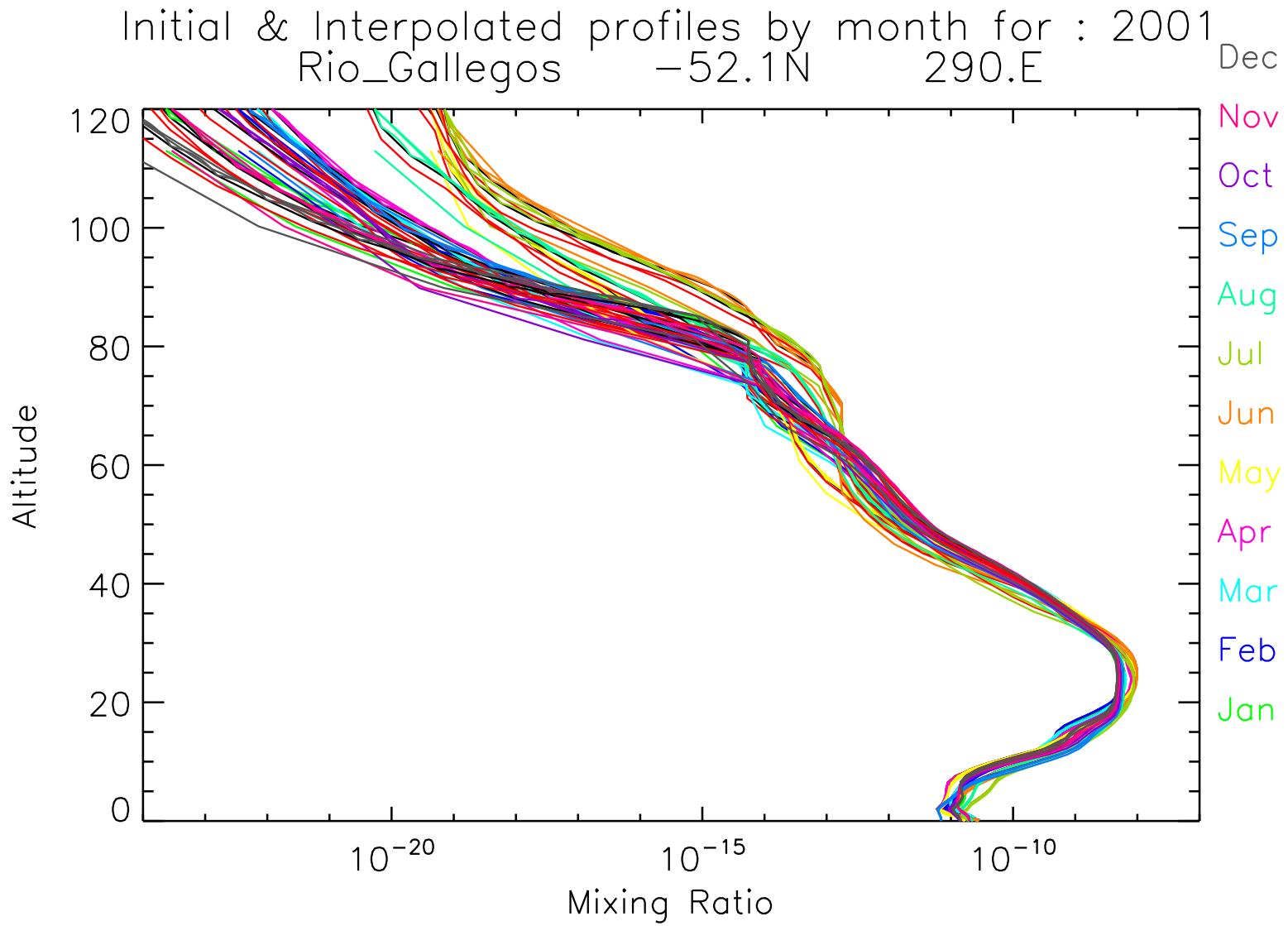
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2001
Rio_Gallegos −52.1N 290.E
Dec
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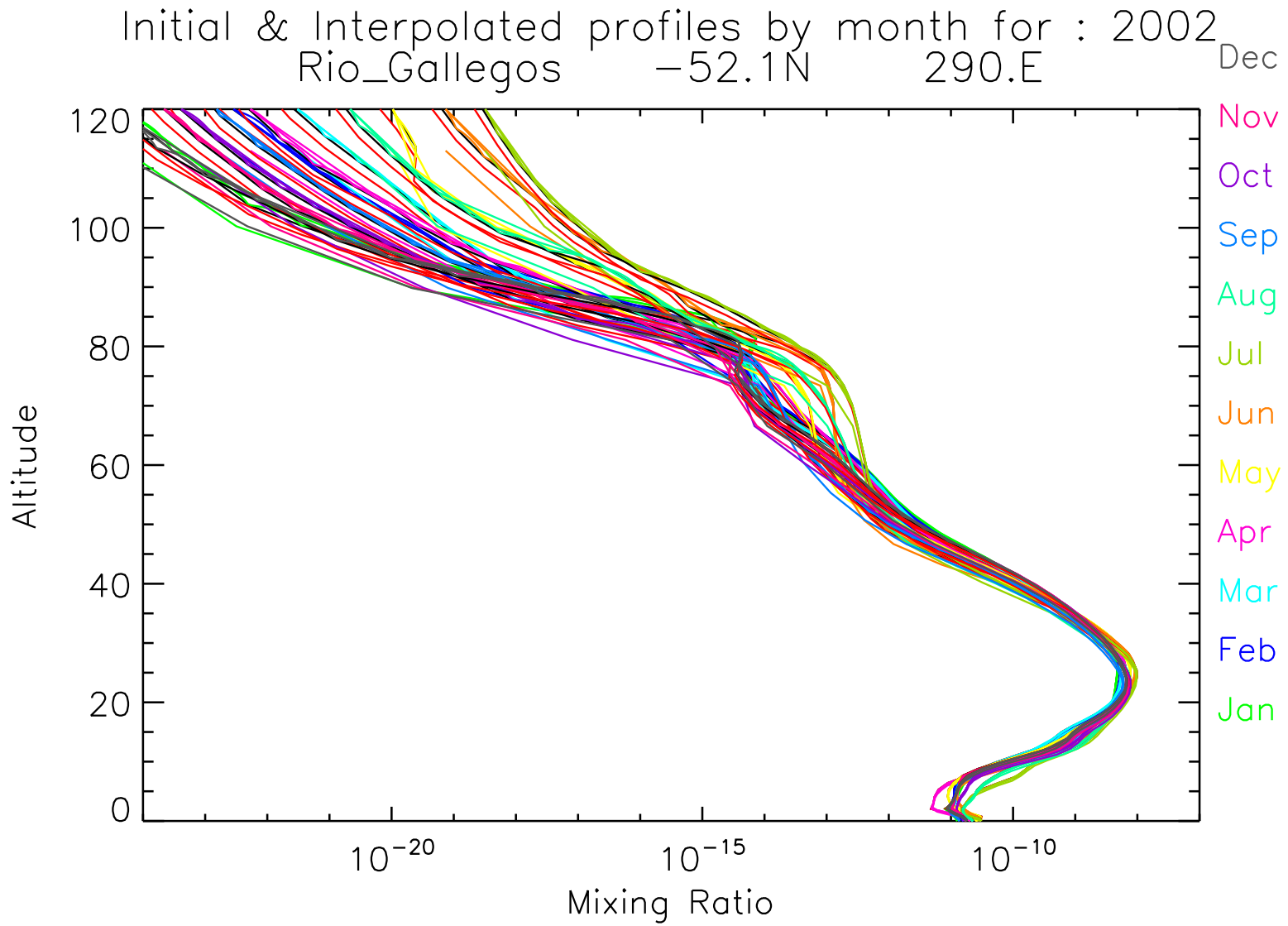
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2002
Rio_Gallegos −52.1N 290.E
Dec
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Altitude
10^{-20}
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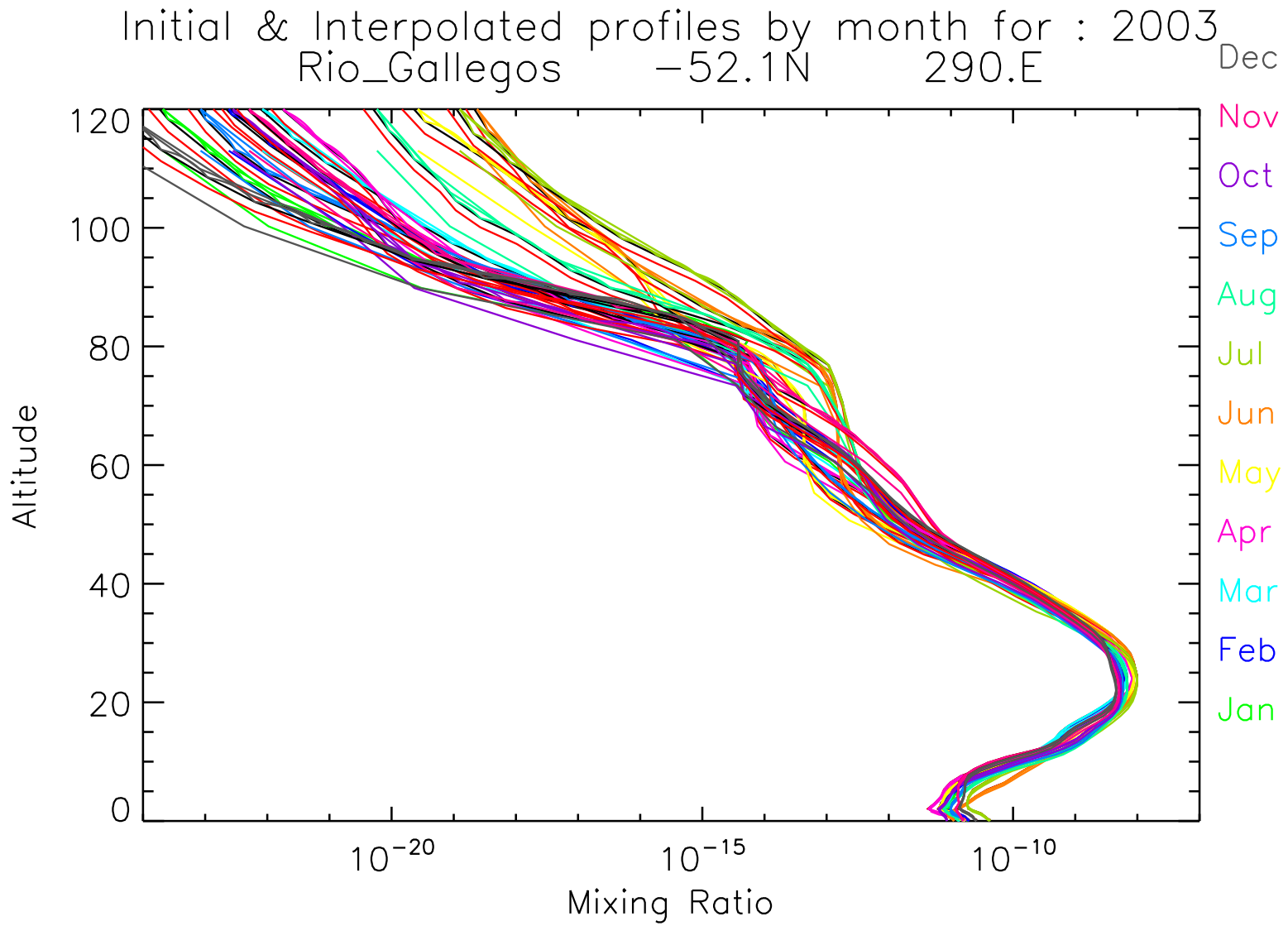
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2003
Rio_Gallegos −52.1N 290.E
Dec
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Altitude
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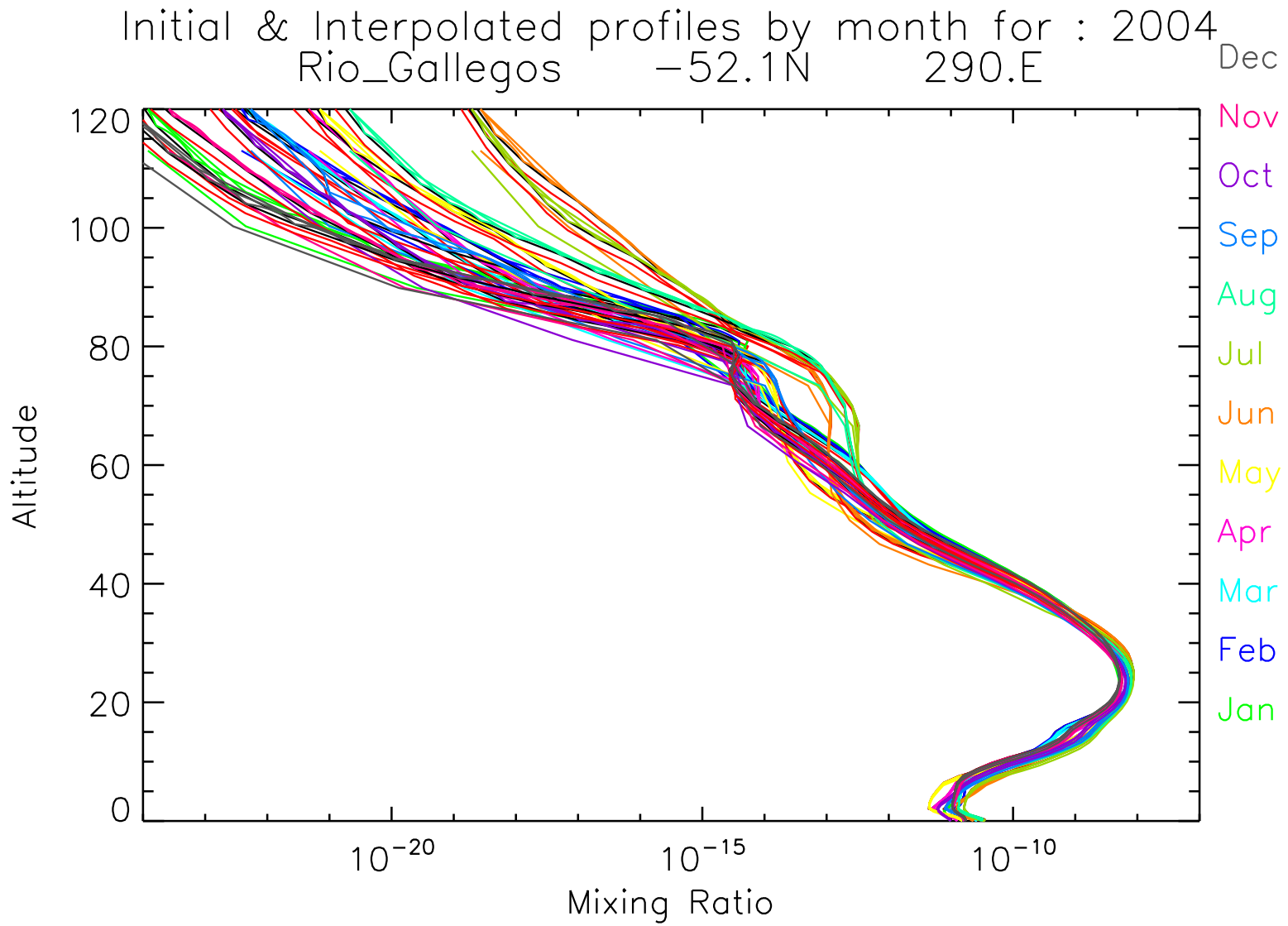
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2004
Rio_Gallegos −52.1N 290.E
Dec
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Altitude
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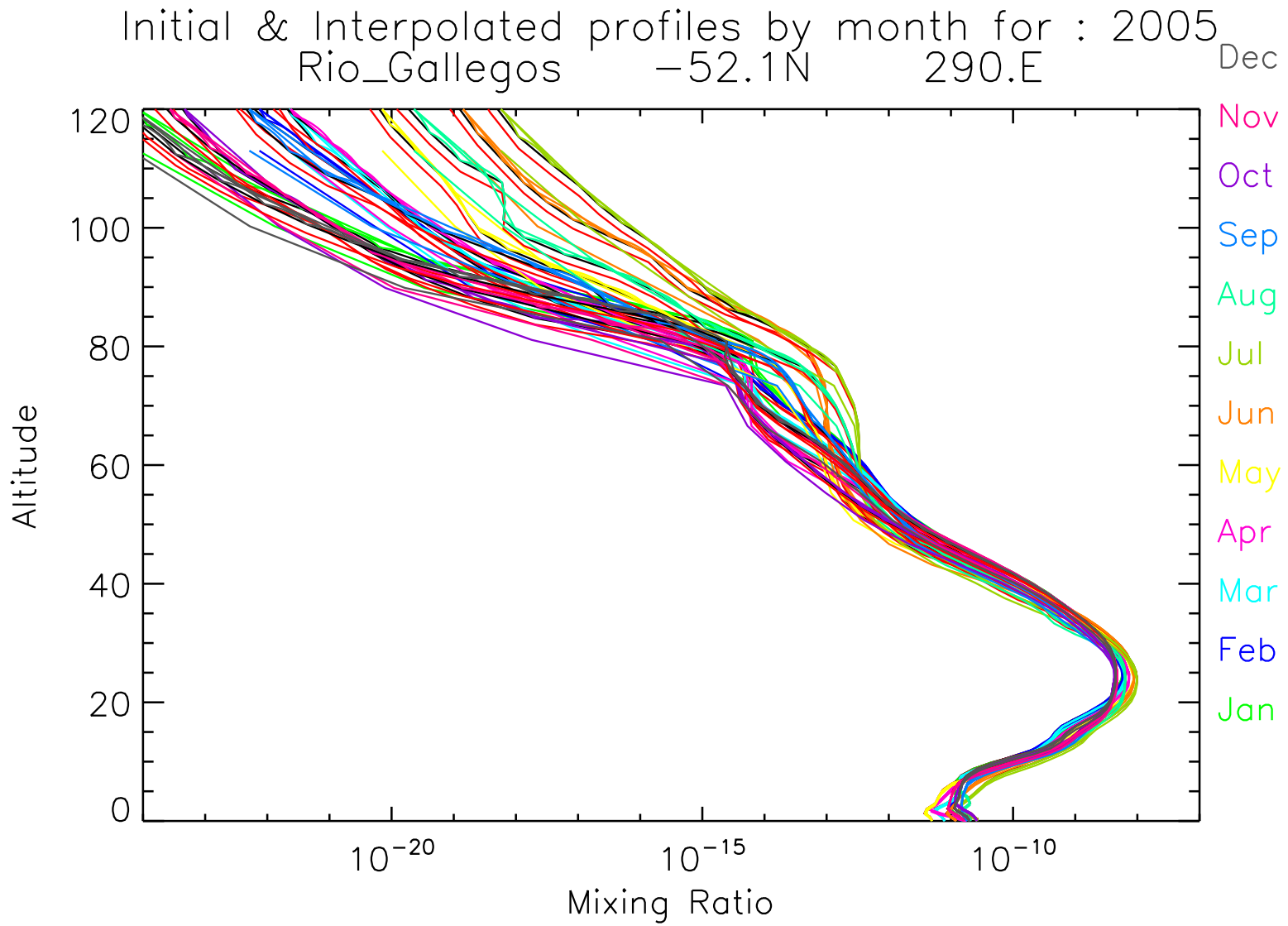
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2005
Rio_Gallegos −52.1N 290.E
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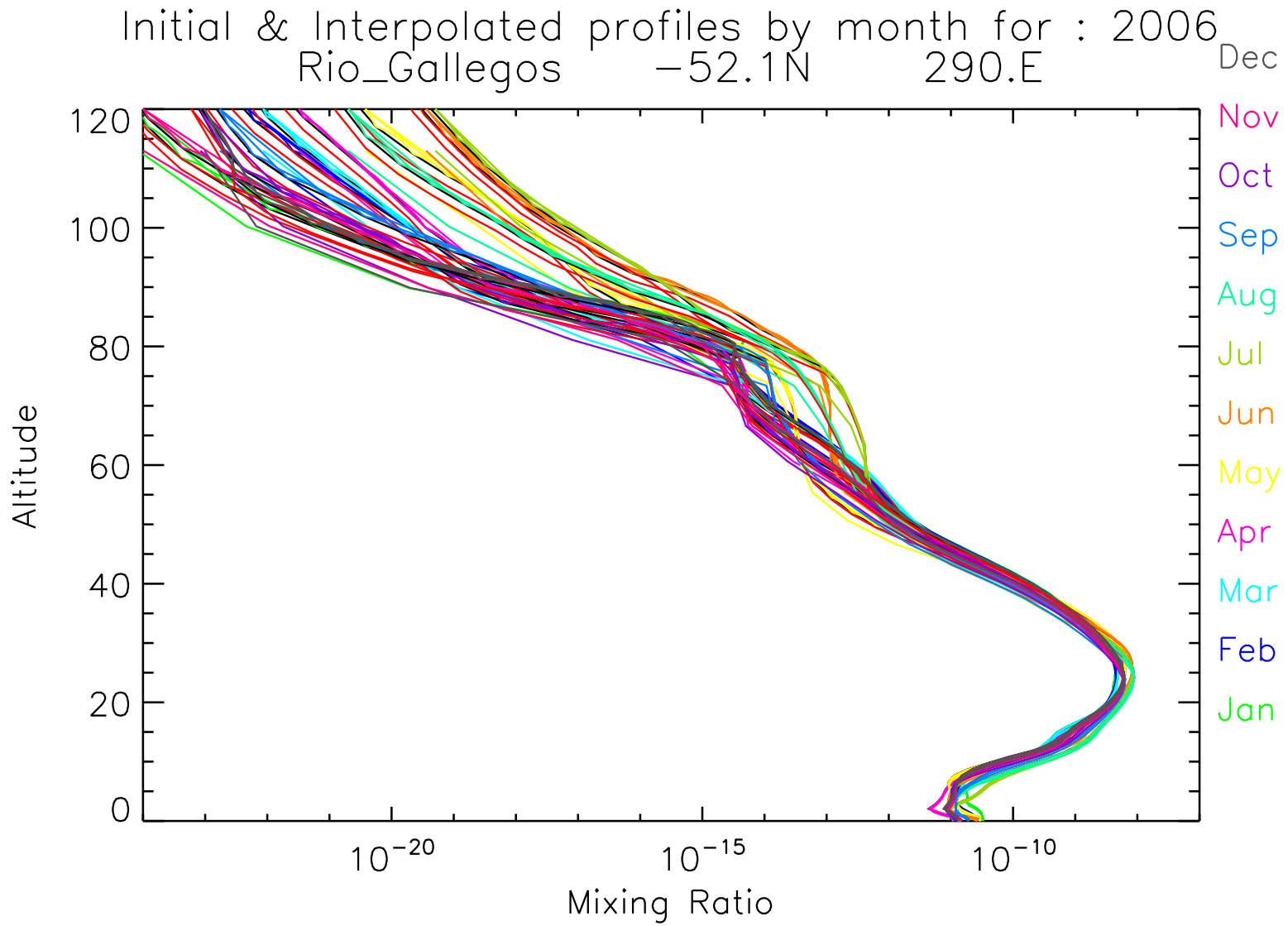
Mixing Ratio


Initial & Interpolated profiles by month for : 2006
Rio_Gallegos −52.1N 290.E
Dec
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Altitude
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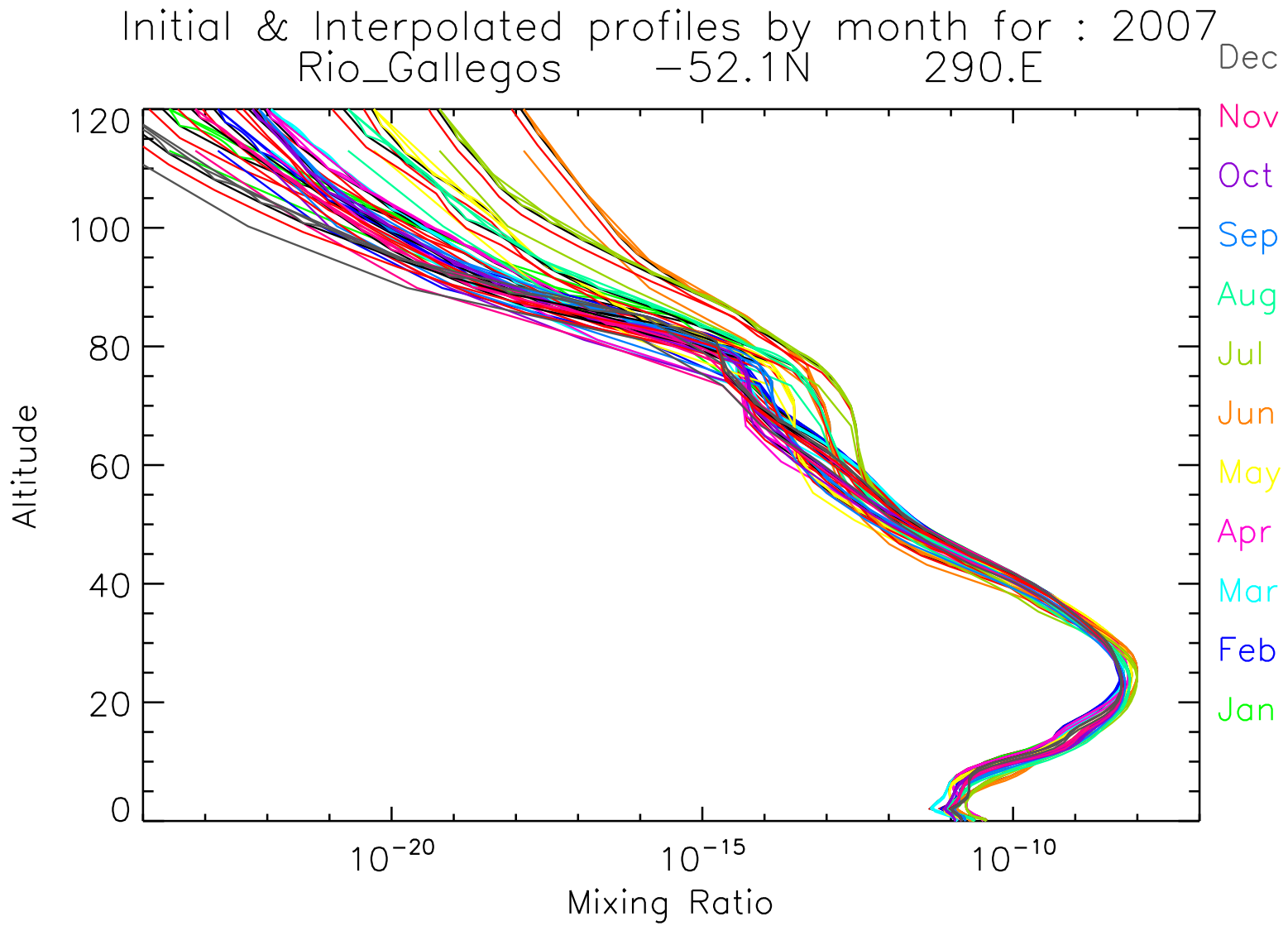
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2007
Rio_Gallegos −52.1N 290.E
Dec
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Altitude
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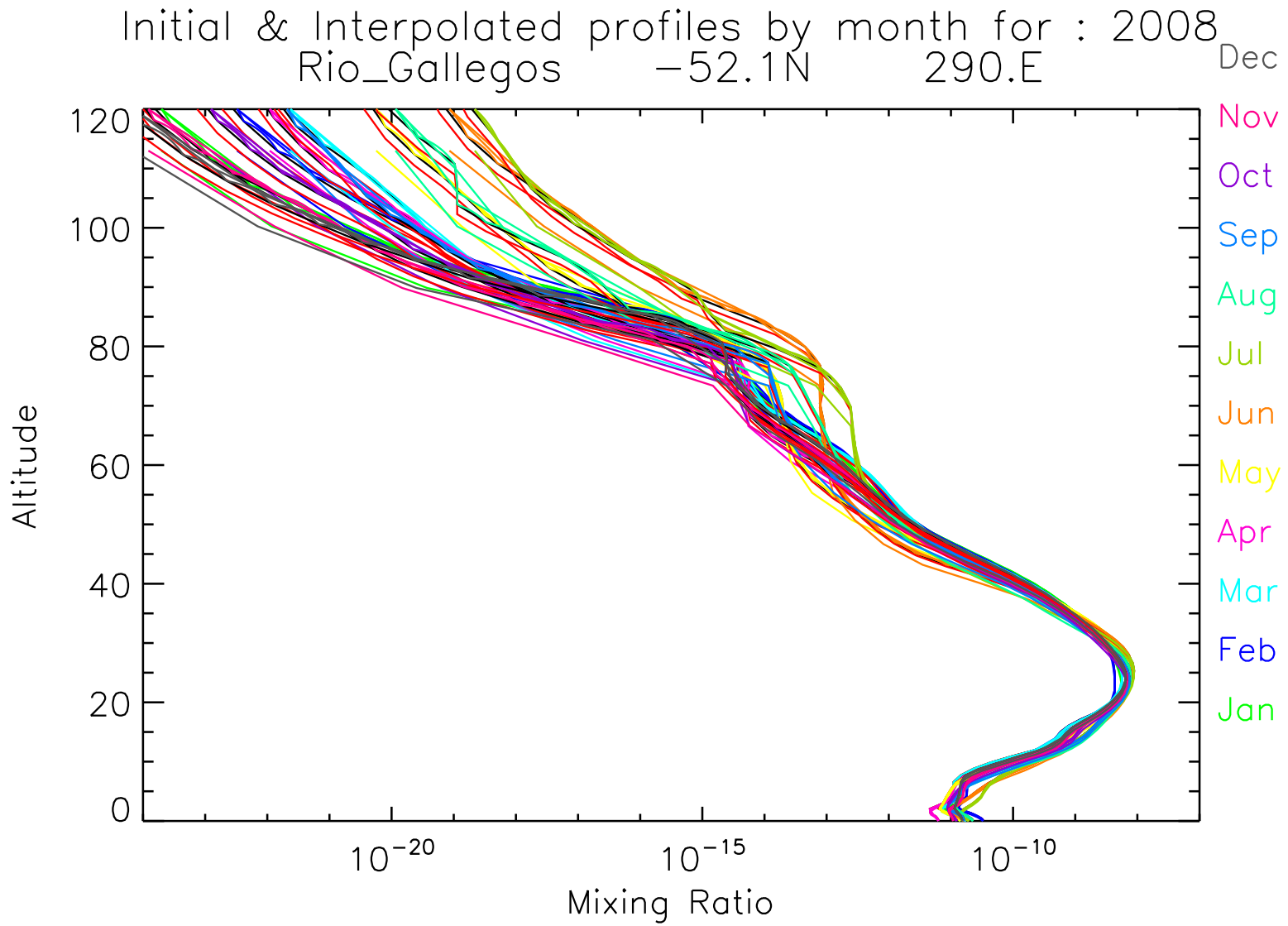
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2008
Rio_Gallegos −52.1N 290.E
Dec
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Altitude
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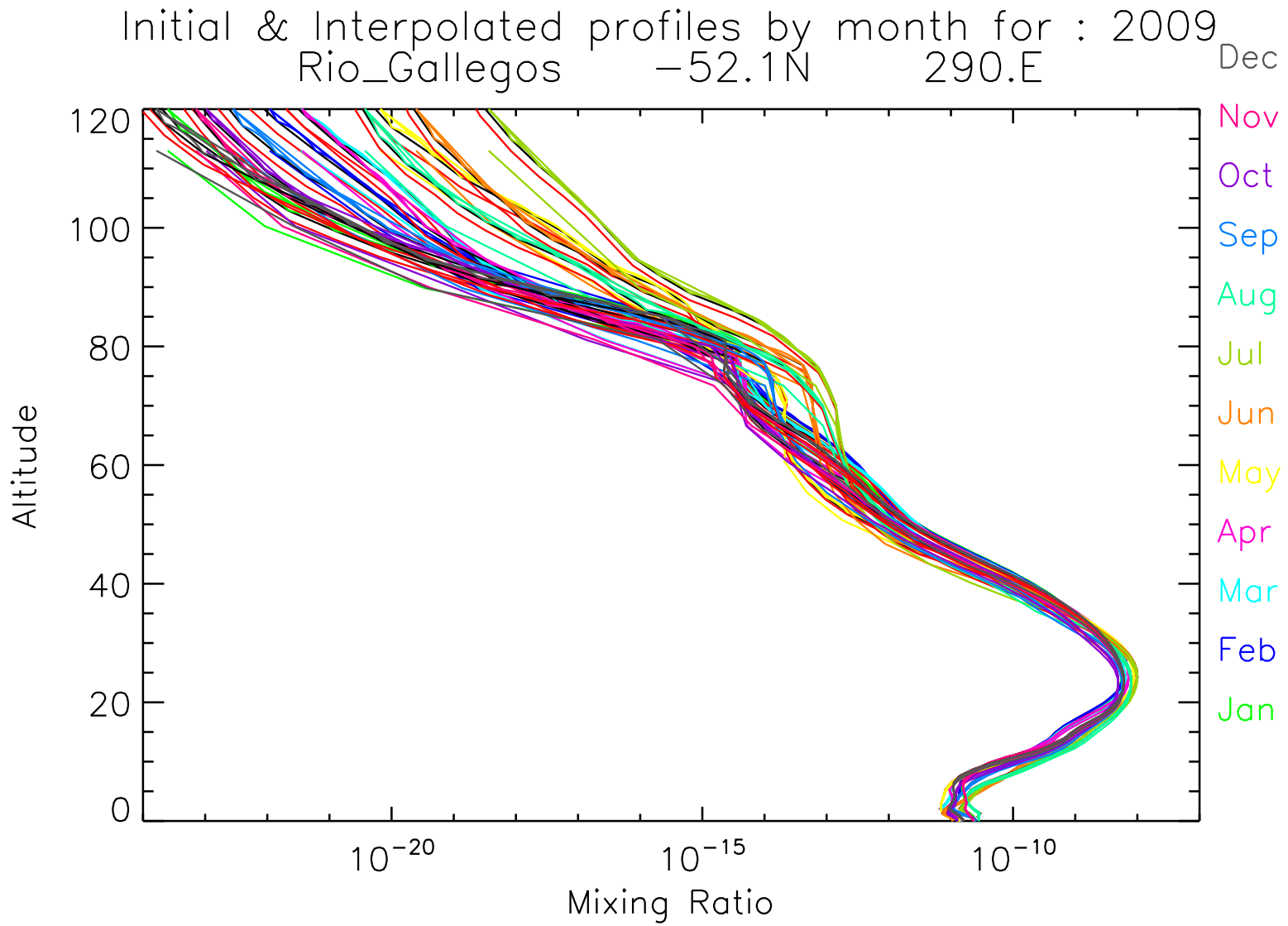
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2009
Rio_Gallegos −52.1N 290.E
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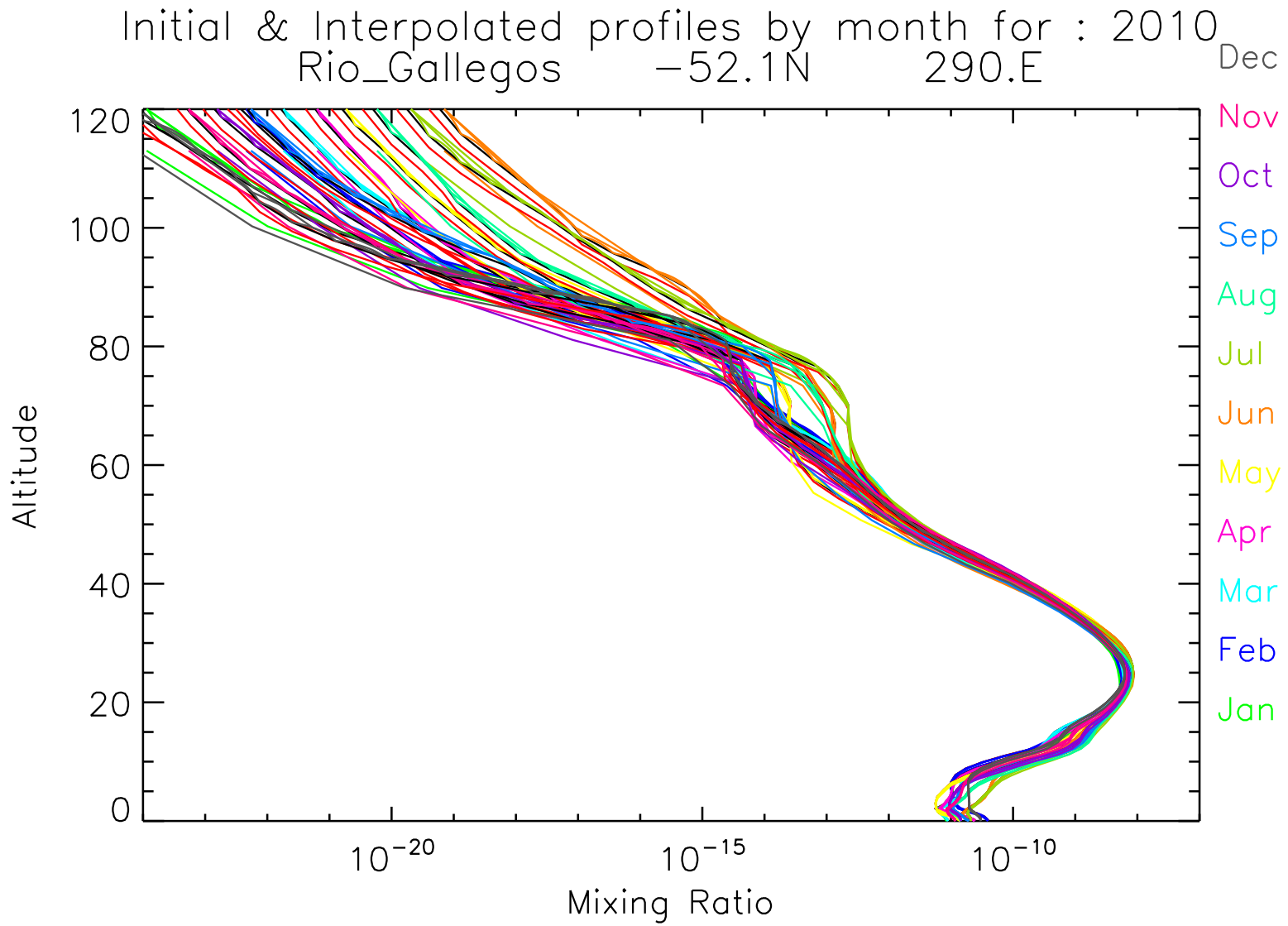
Mixing Ratio


Initial & Interpolated profiles by month for : 2010
Rio_Gallegos −52.1N 290.E
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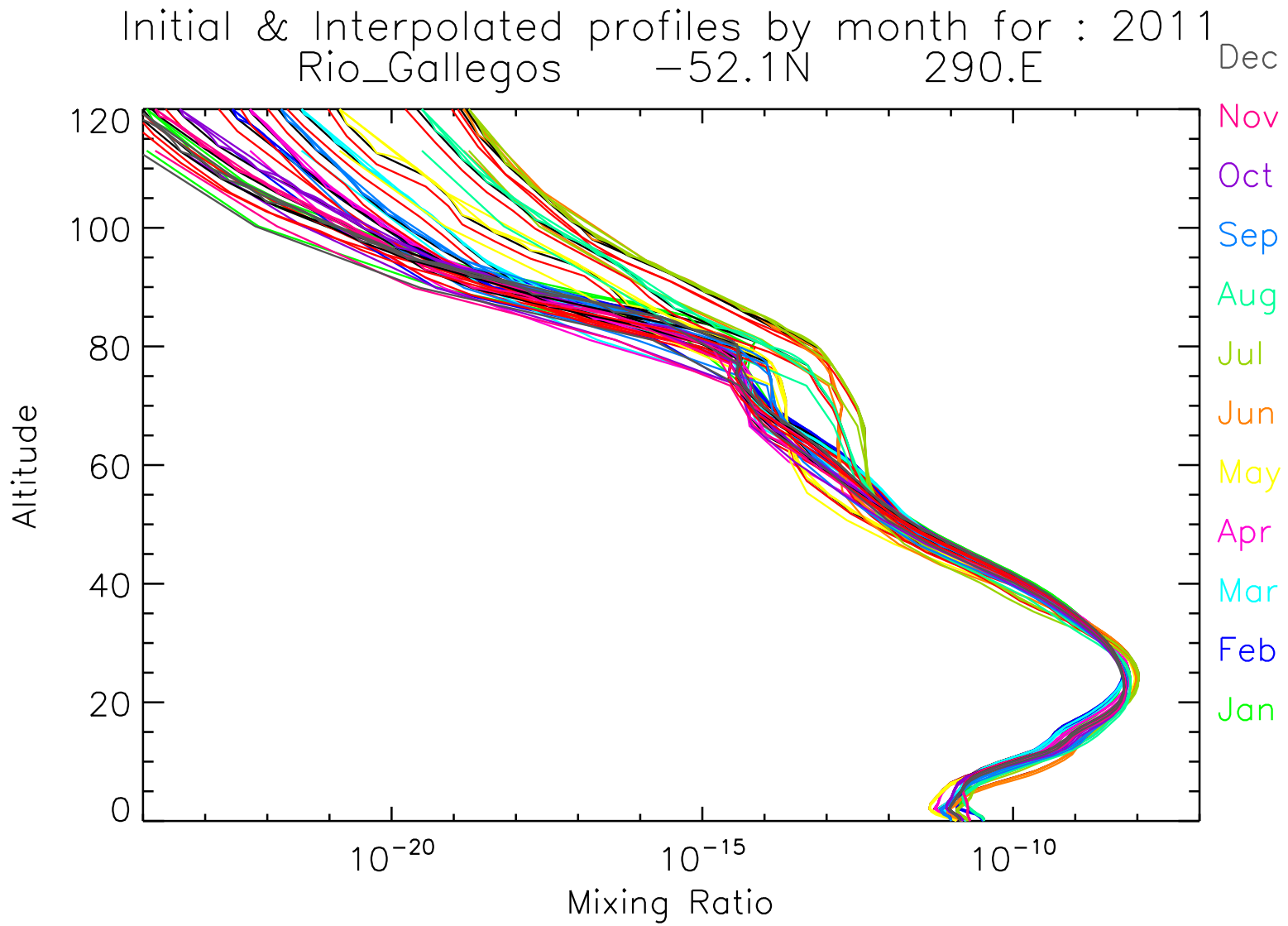
Mixing Ratio


Initial & Interpolated profiles by month for : 2011
Rio_Gallegos −52.1N 290.E
Dec
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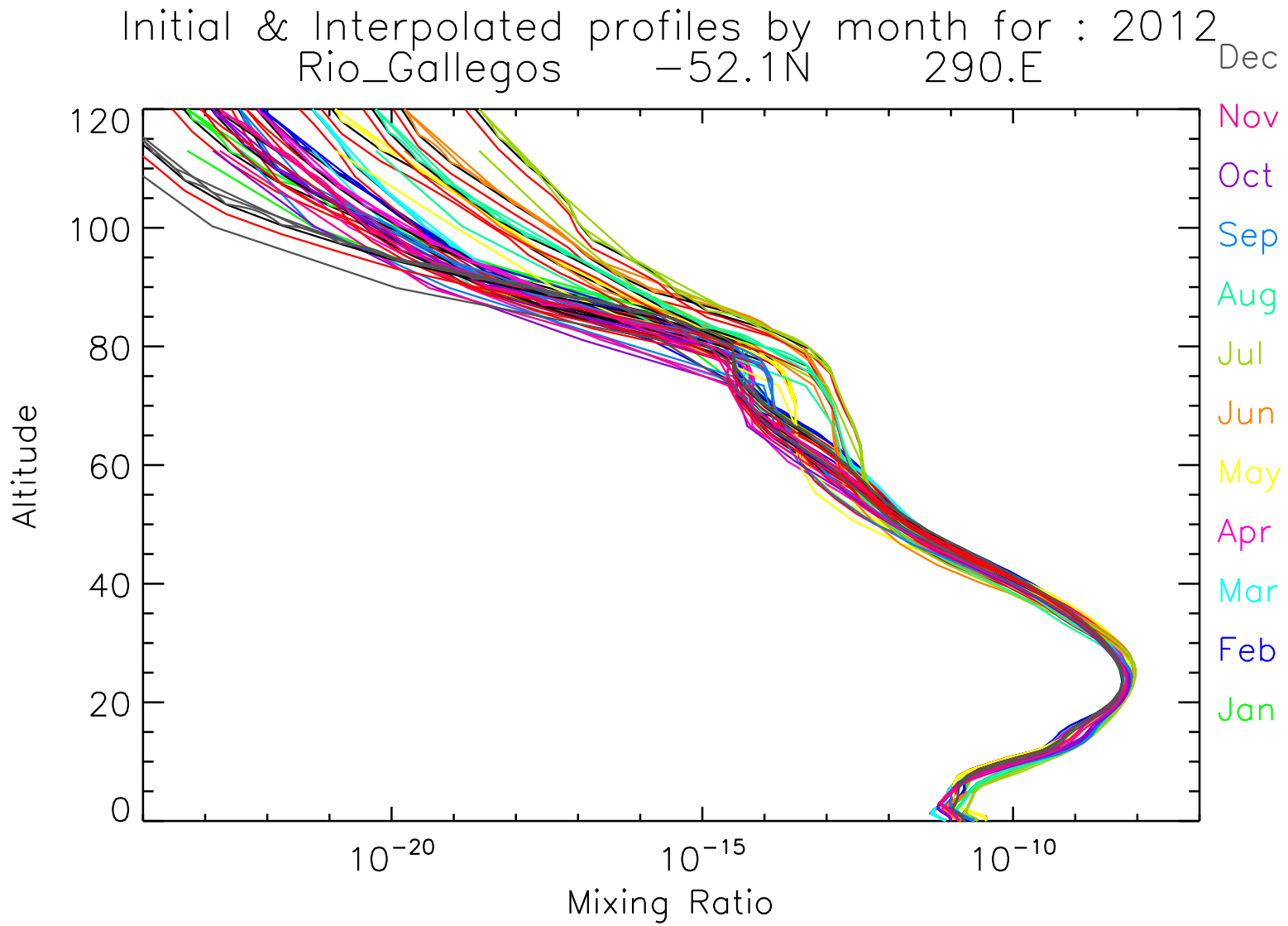
Mixing Ratio


Initial & Interpolated profiles by month for : 2012
Rio_Gallegos −52.1N 290.E
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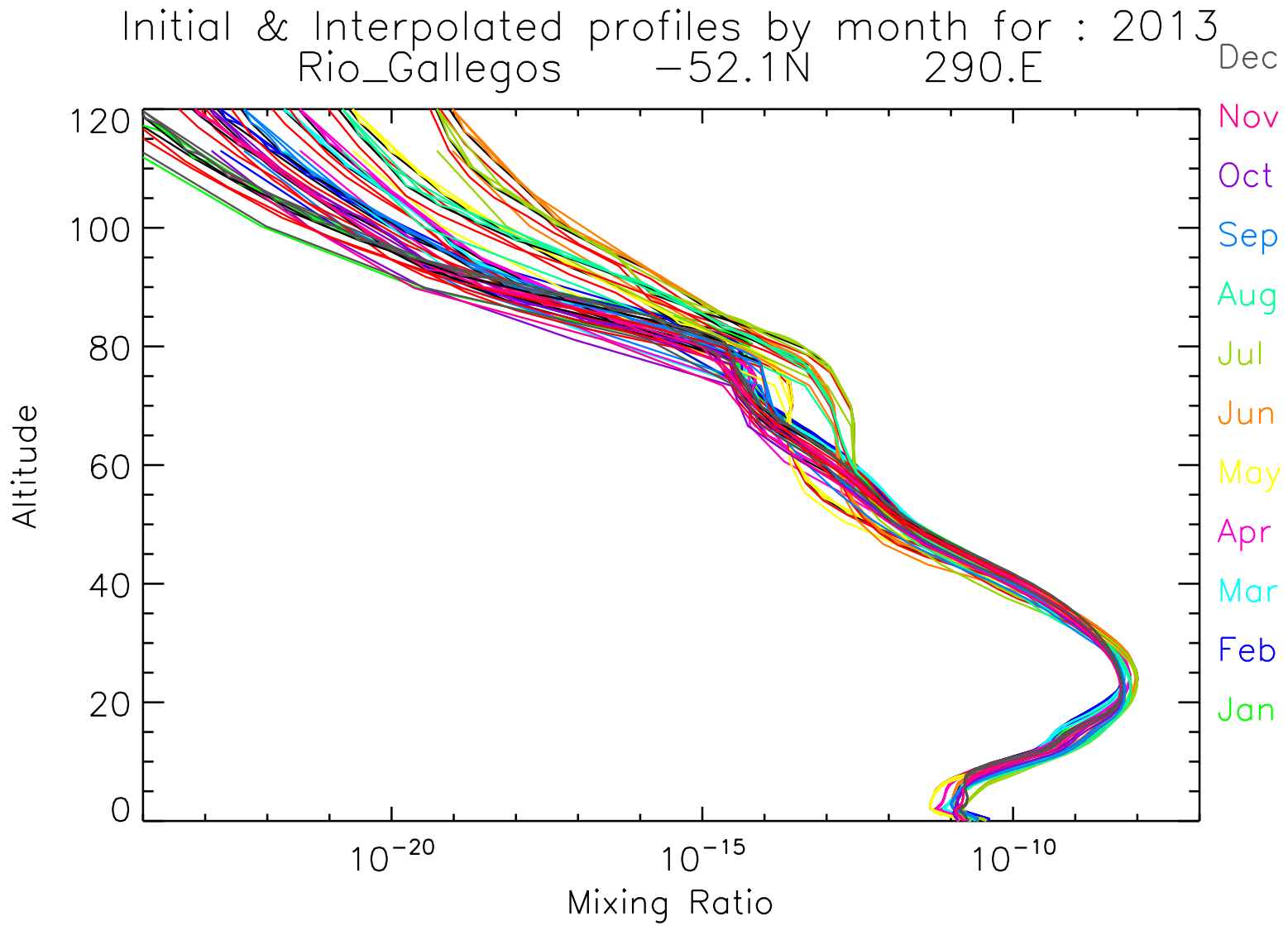
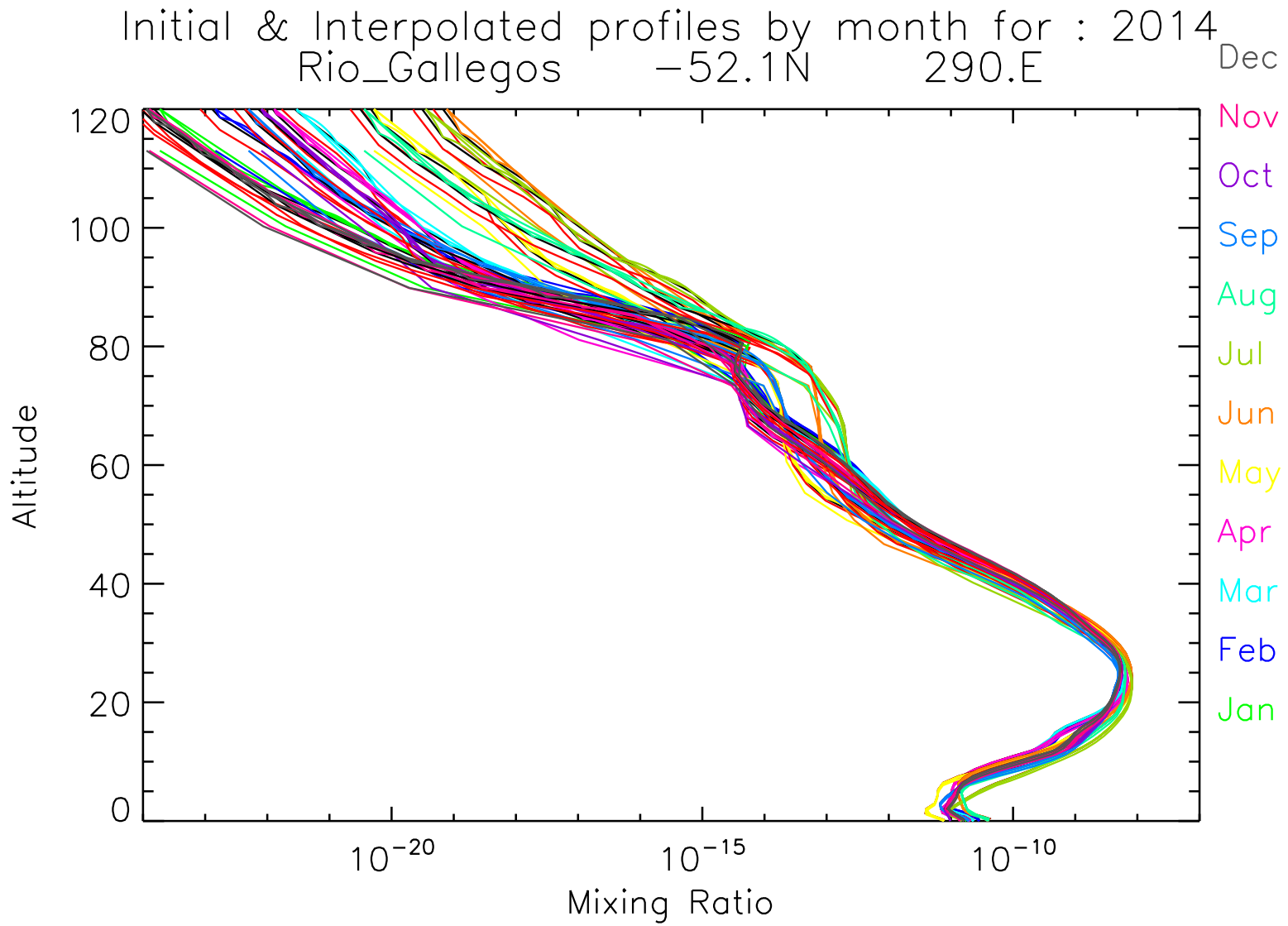
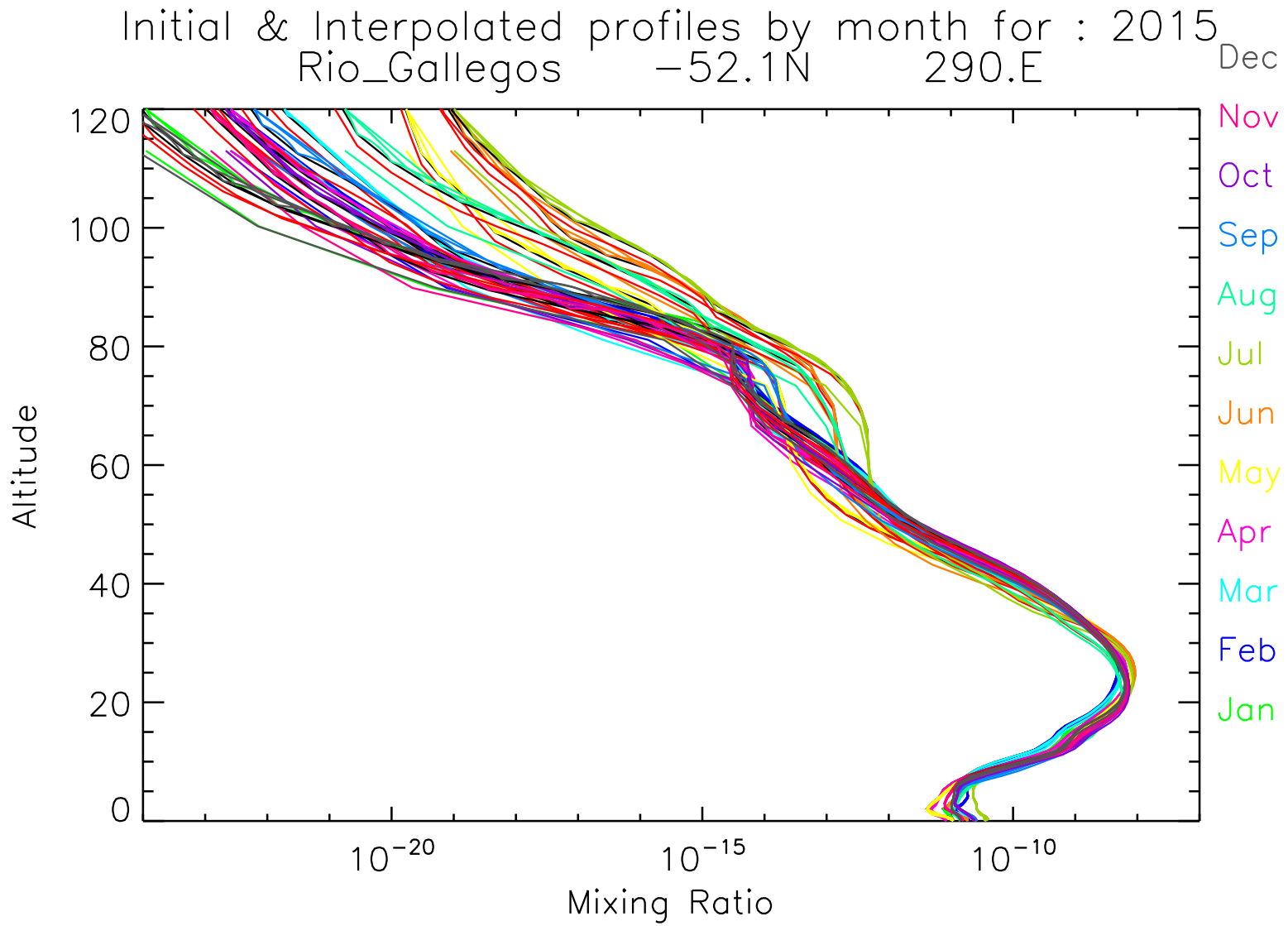
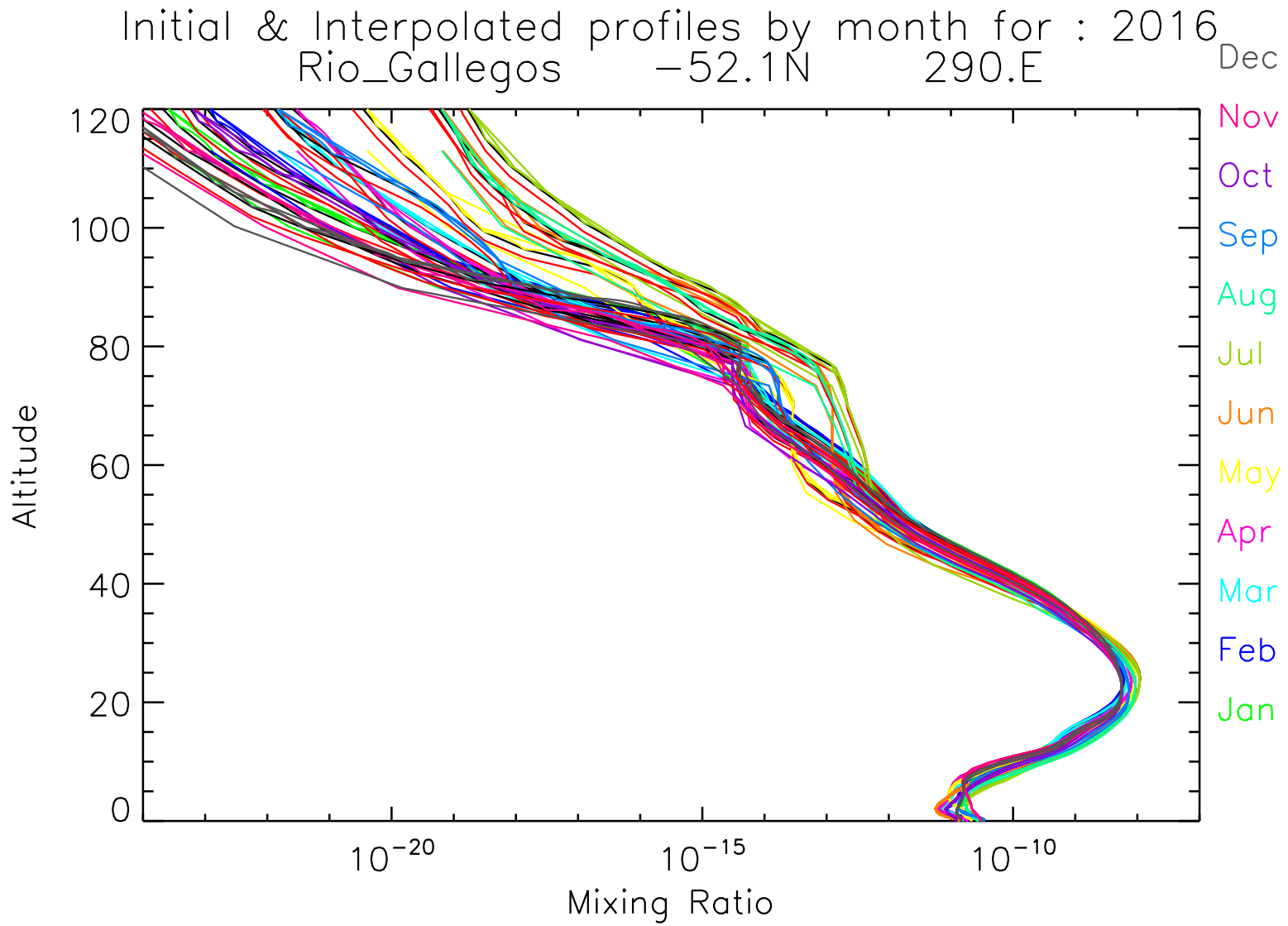
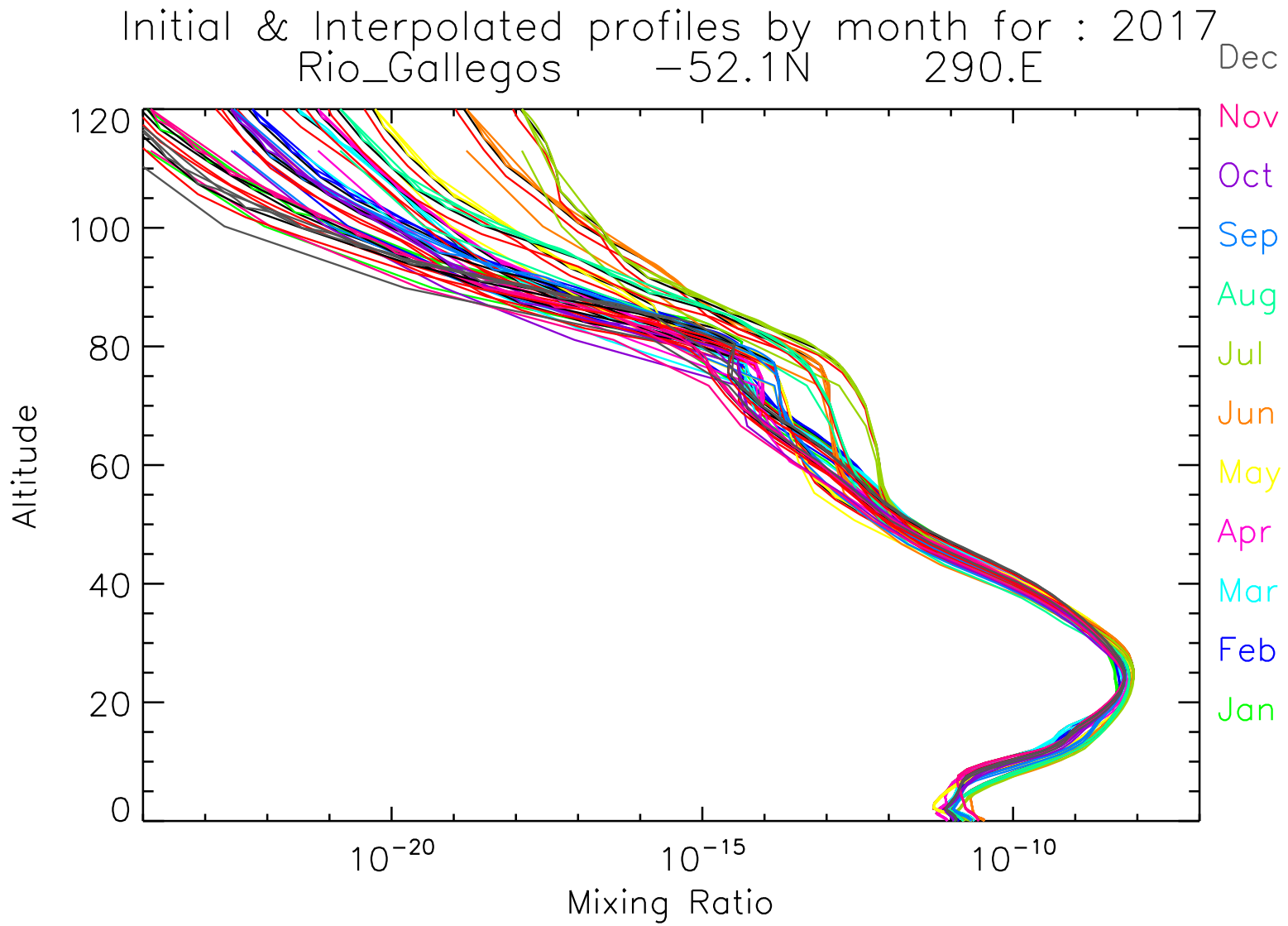
10^{-10}
Mixing Ratio

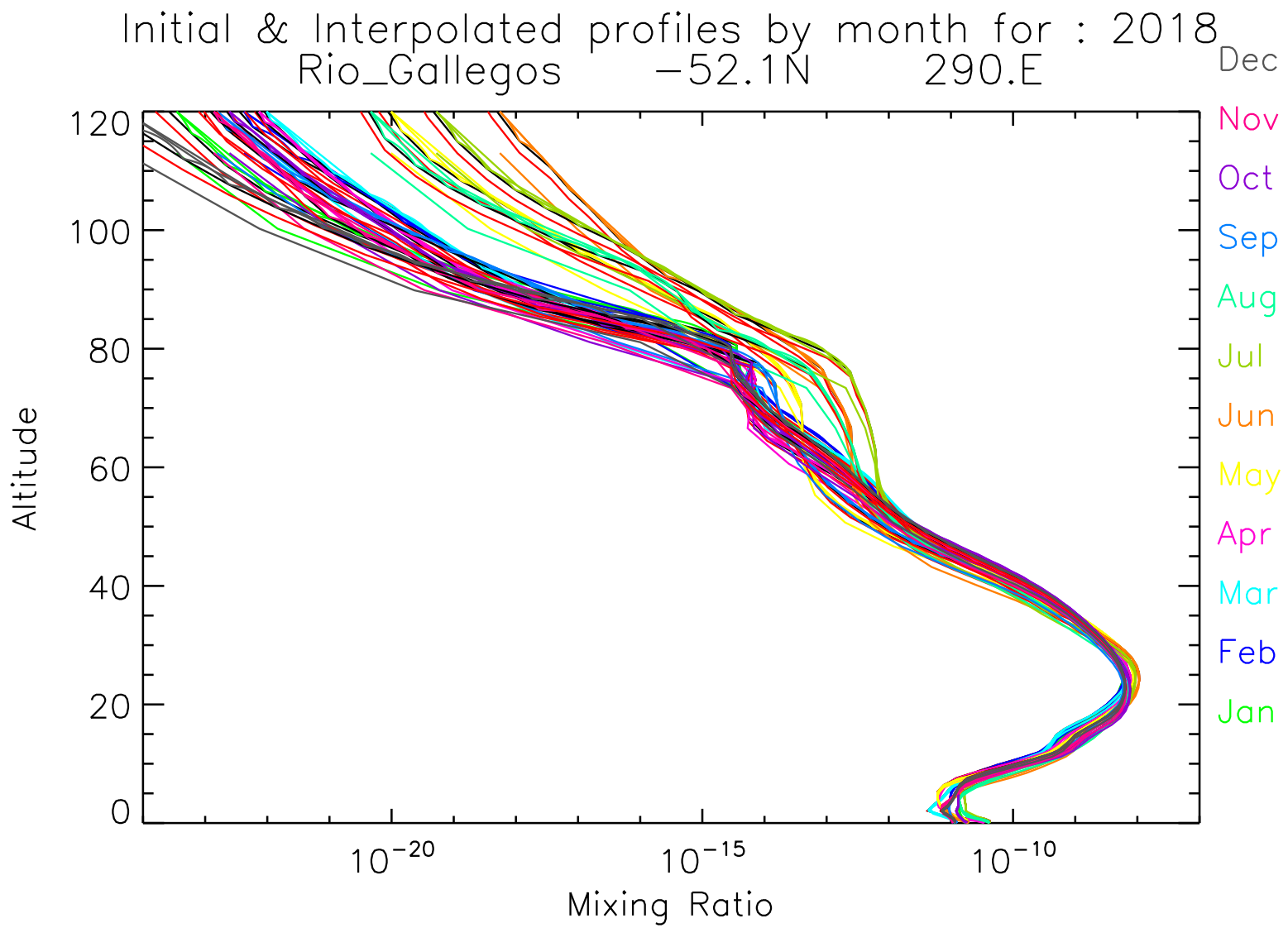

Initial & Interpolated profiles by month for : 2013
Rio_Gallegos −52.1N 290.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

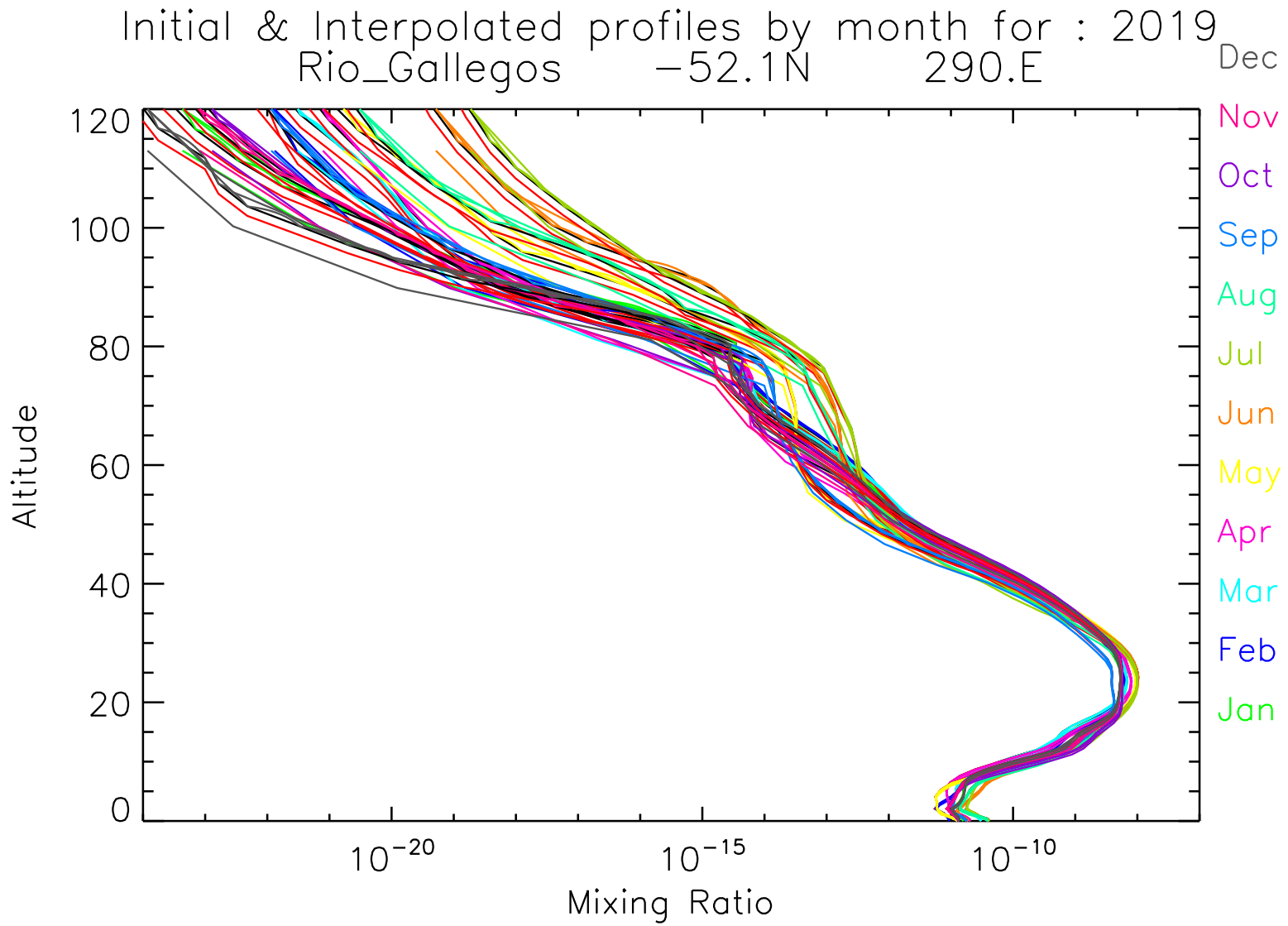

Initial & Interpolated profiles by month for : 2014
Rio_Gallegos −52.1N 290.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

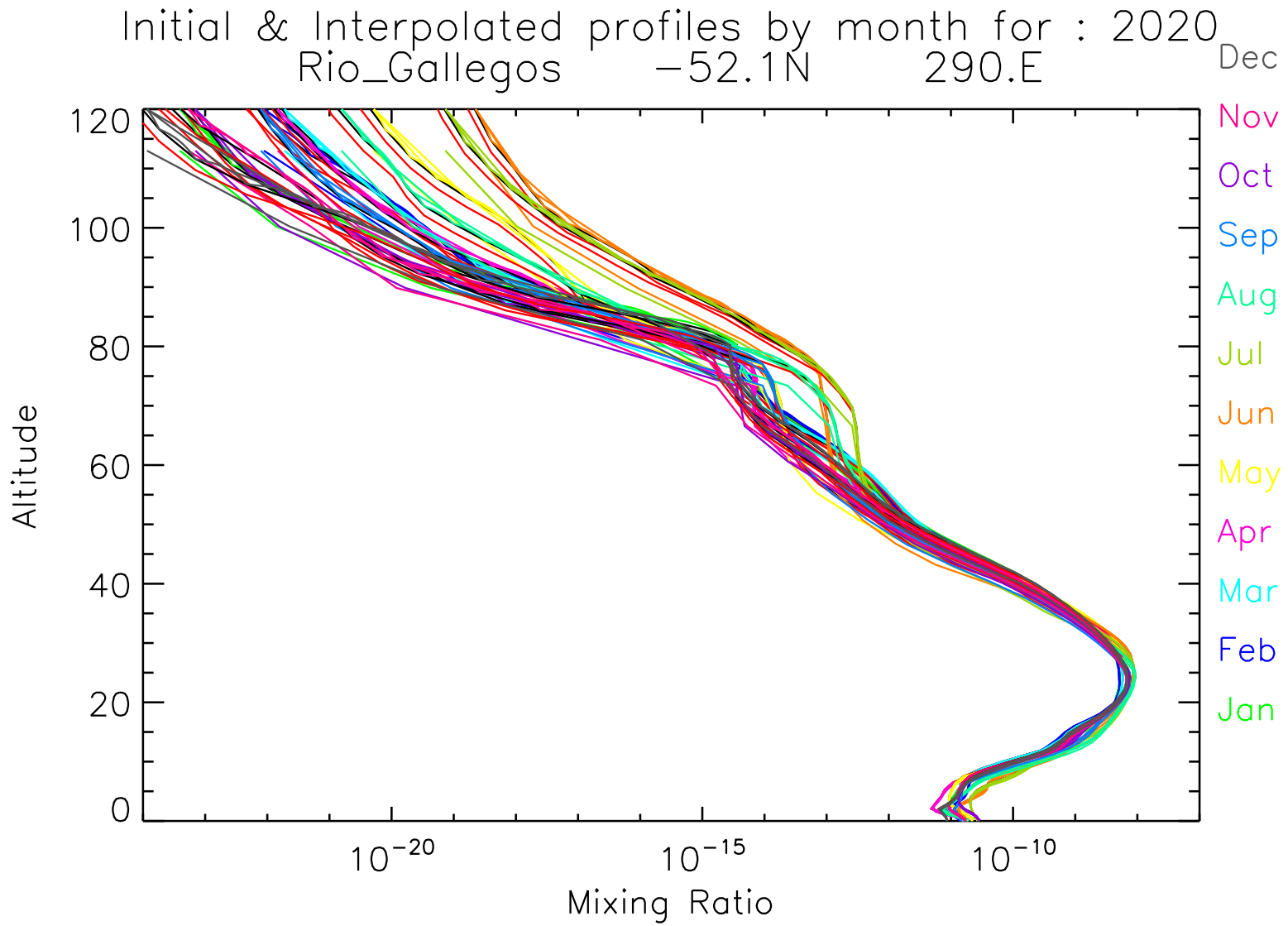

Initial & Interpolated profiles by month for : 2015
Rio_Gallegos −52.1N 290.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

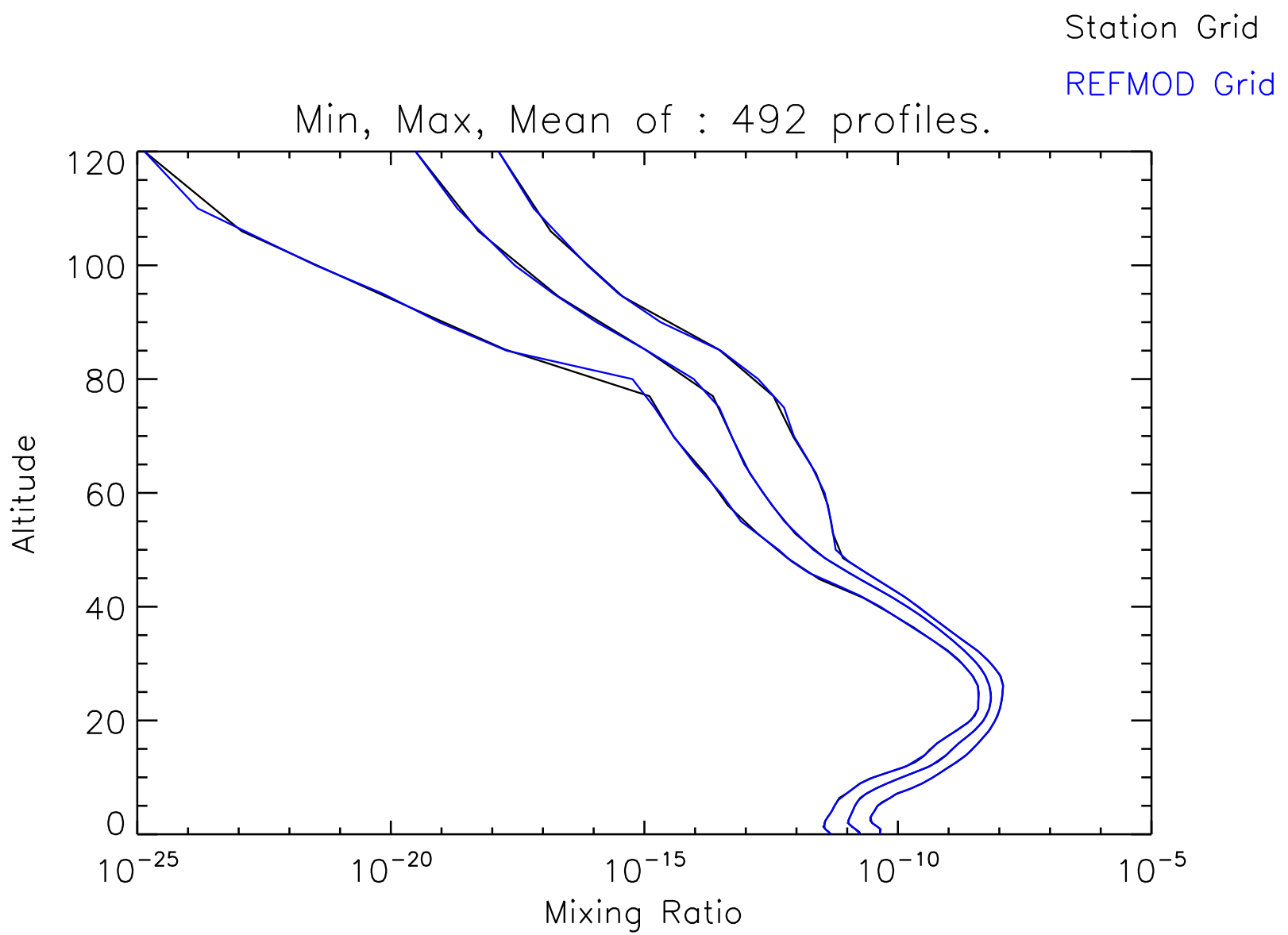

Initial & Interpolated profiles by month for : 2016
Rio_Gallegos −52.1N 290.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

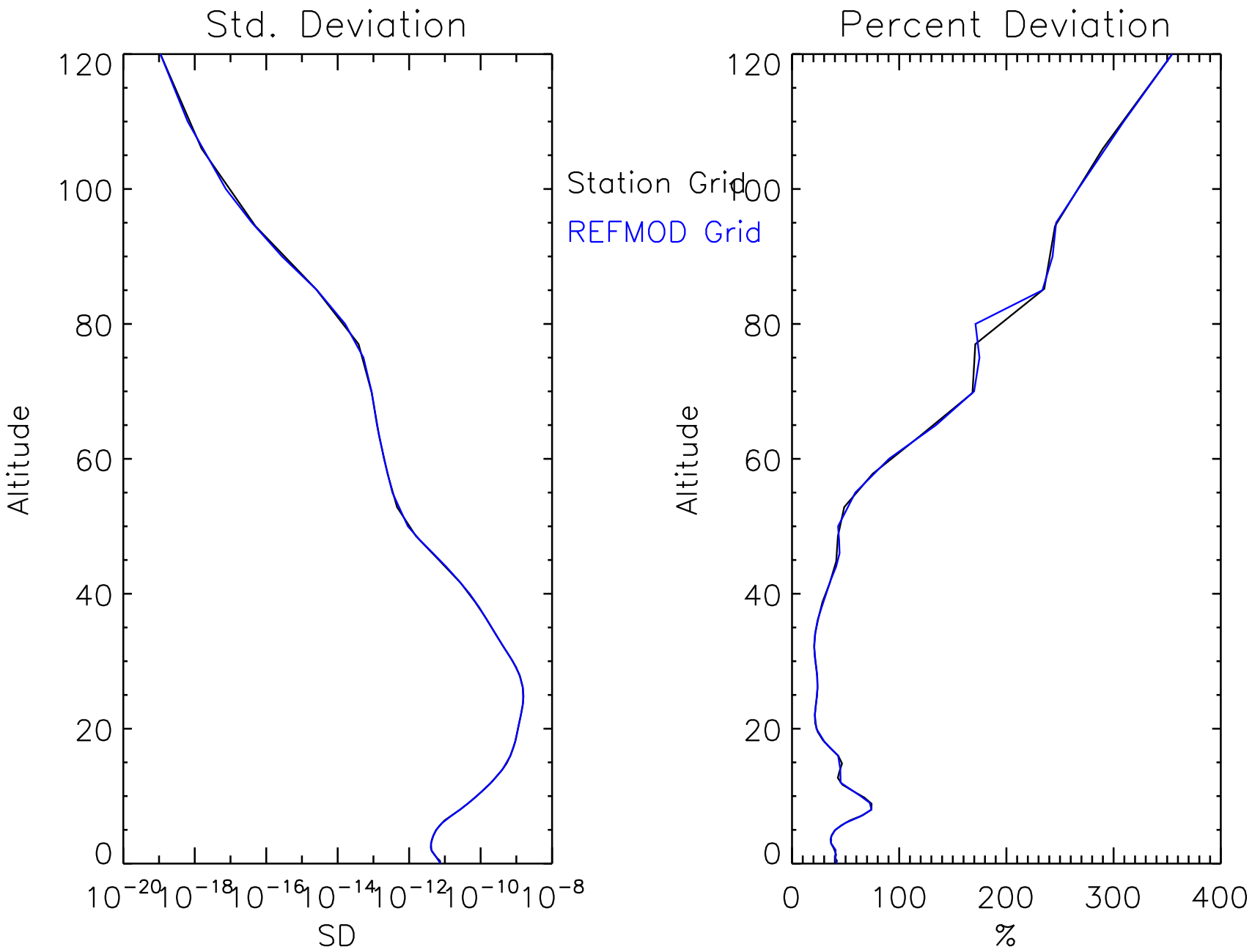

Initial & Interpolated profiles by month for : 2017
Rio_Gallegos −52.1N 290.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

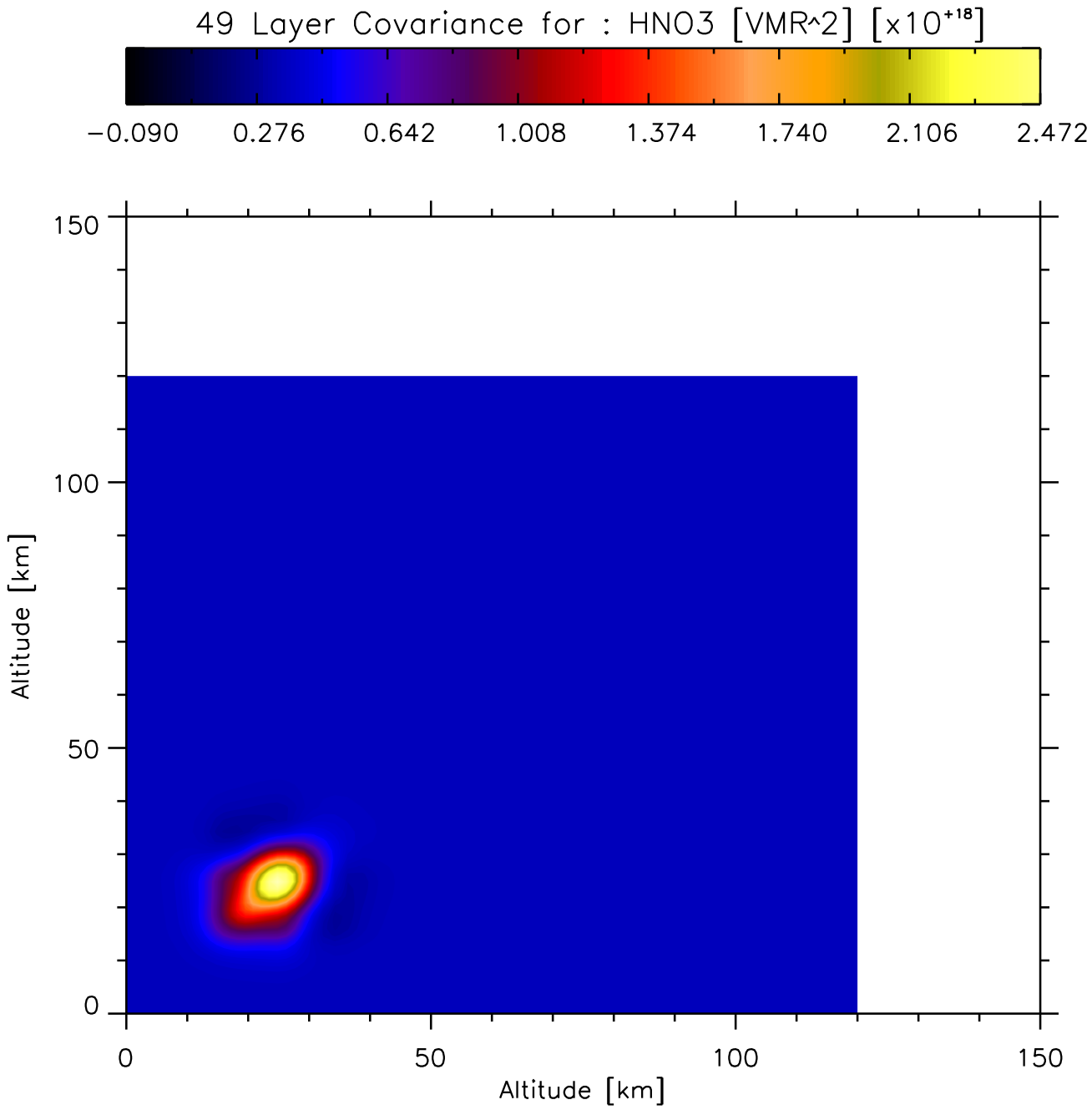

Initial & Interpolated profiles by month for : 2018
Rio_Gallegos −52.1N 290.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2019
Rio_Gallegos −52.1N 290.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

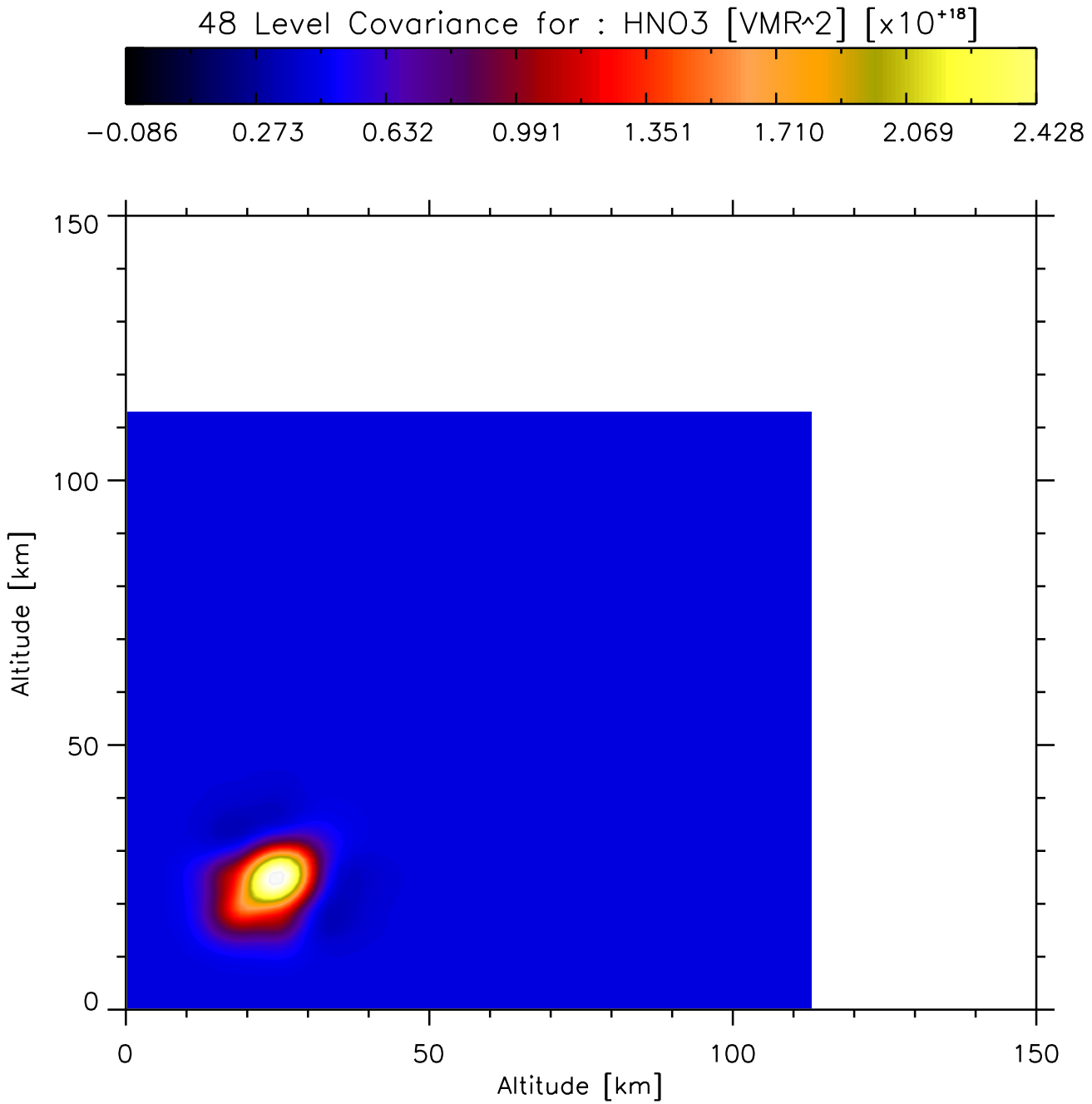

Initial & Interpolated profiles by month for : 2020
Rio_Gallegos −52.1N 290.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

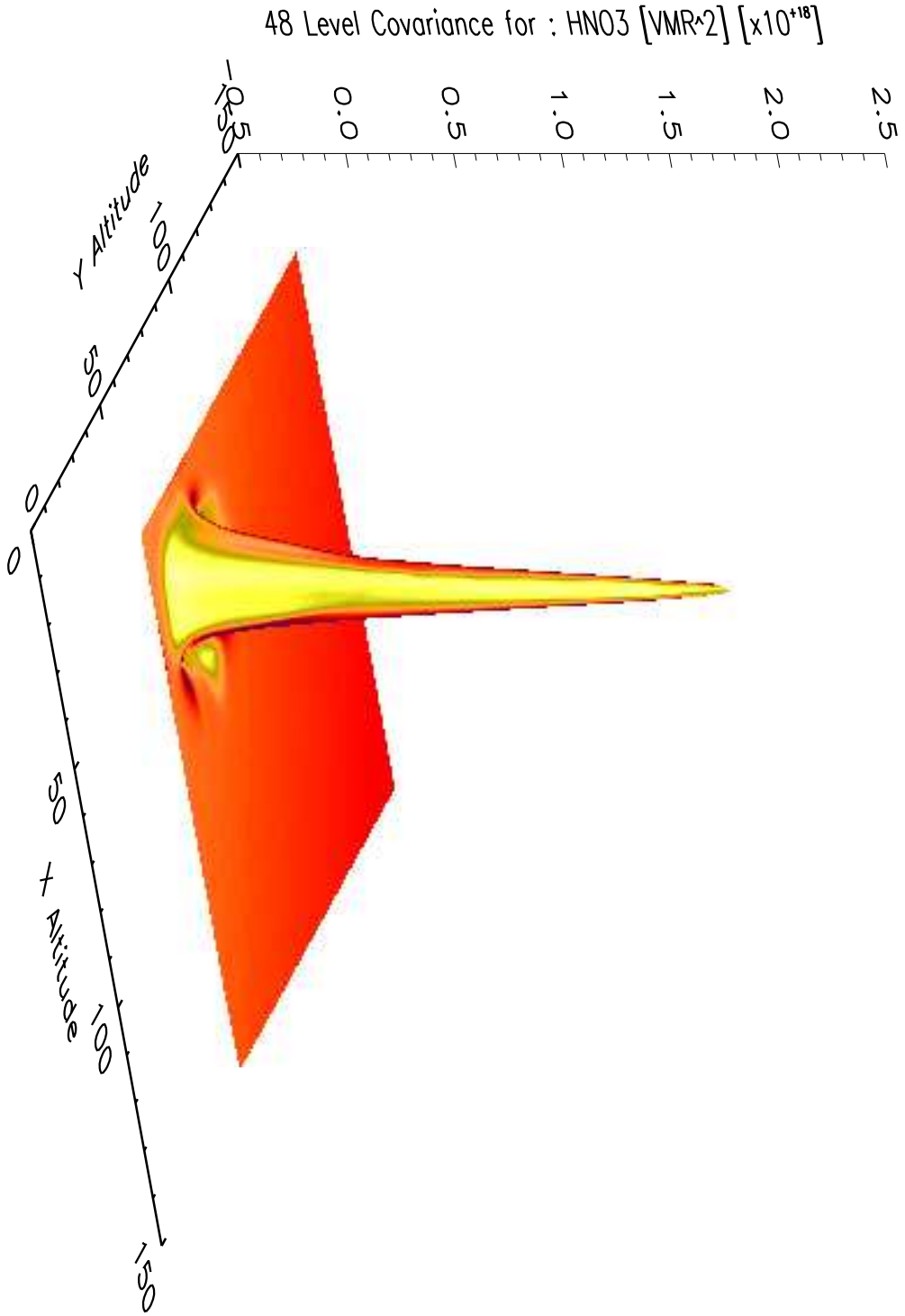

Station Grid
REFMOD Grid
Min, Max, Mean of : 492 profiles.
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
10^{-10}
10^{-5}
Mixing Ratio


Std. Deviation
Percent Deviation
Station Grid
REFMOD Grid
Altitude
Altitude
120
100
80
60
40
20
0
10^{-20} 10^{-18} 10^{-16} 10^{-14} 10^{-12} 10^{-10} 10^{-8}
SD
0
100
200
300
400
%


49 Layer Covariance for : HNO3 [VMR^2] [x10+18]
−0.090
0.276
0.642
1.008
1.374
1.740
2.106
2.472
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]

49 Layer Covariance for : HNO3 [VMR^2] [x10^18]
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Y Altitude
0
20
40
60
X Altitude
0
50
100
150


48 Level Covariance for : HNO3 [VMR^2] [x10^+18]
−0.086
0.273
0.632
0.991
1.351
1.710
2.069
2.428
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]


48 Level Covariance for : HNO3 [VMR^2] [x10^+18]
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
Y Altitude
0
50
100
0
50
100
X Altitude