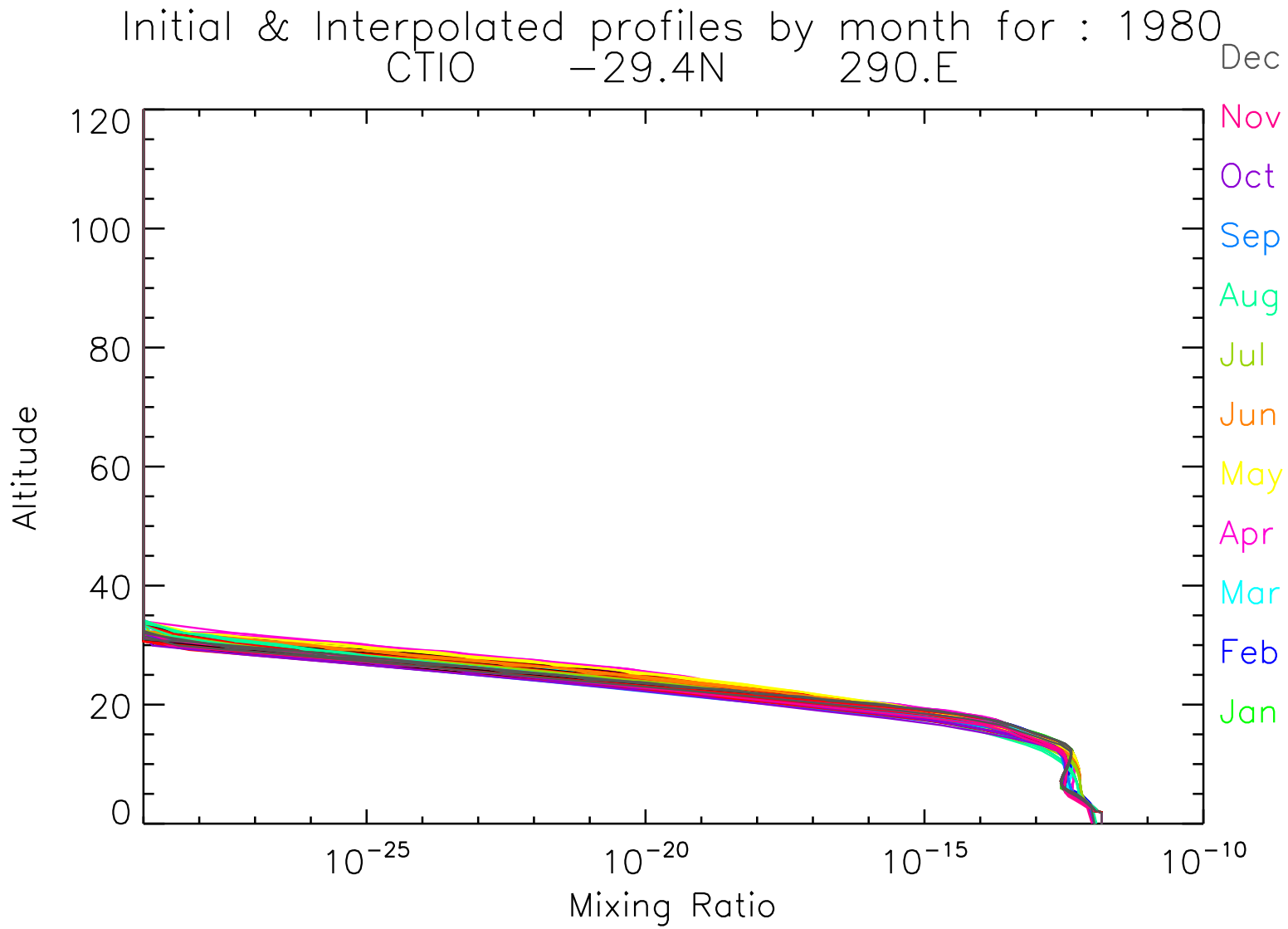
Initial & Interpolated profiles by month for : 1980
CTIO −29.4N 290.E
Dec
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Altitude
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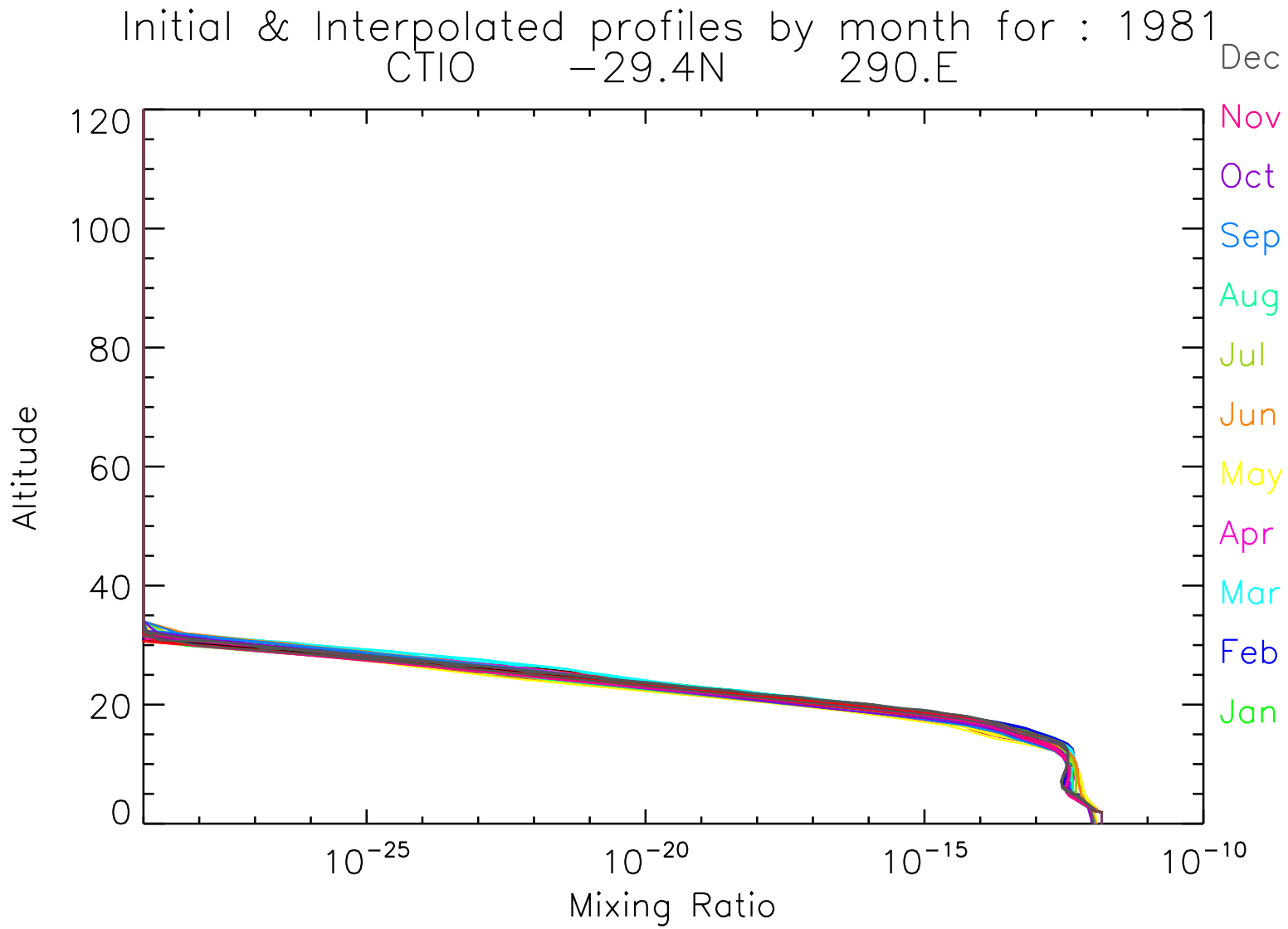
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1981
CTIO −29.4N 290.E
Dec
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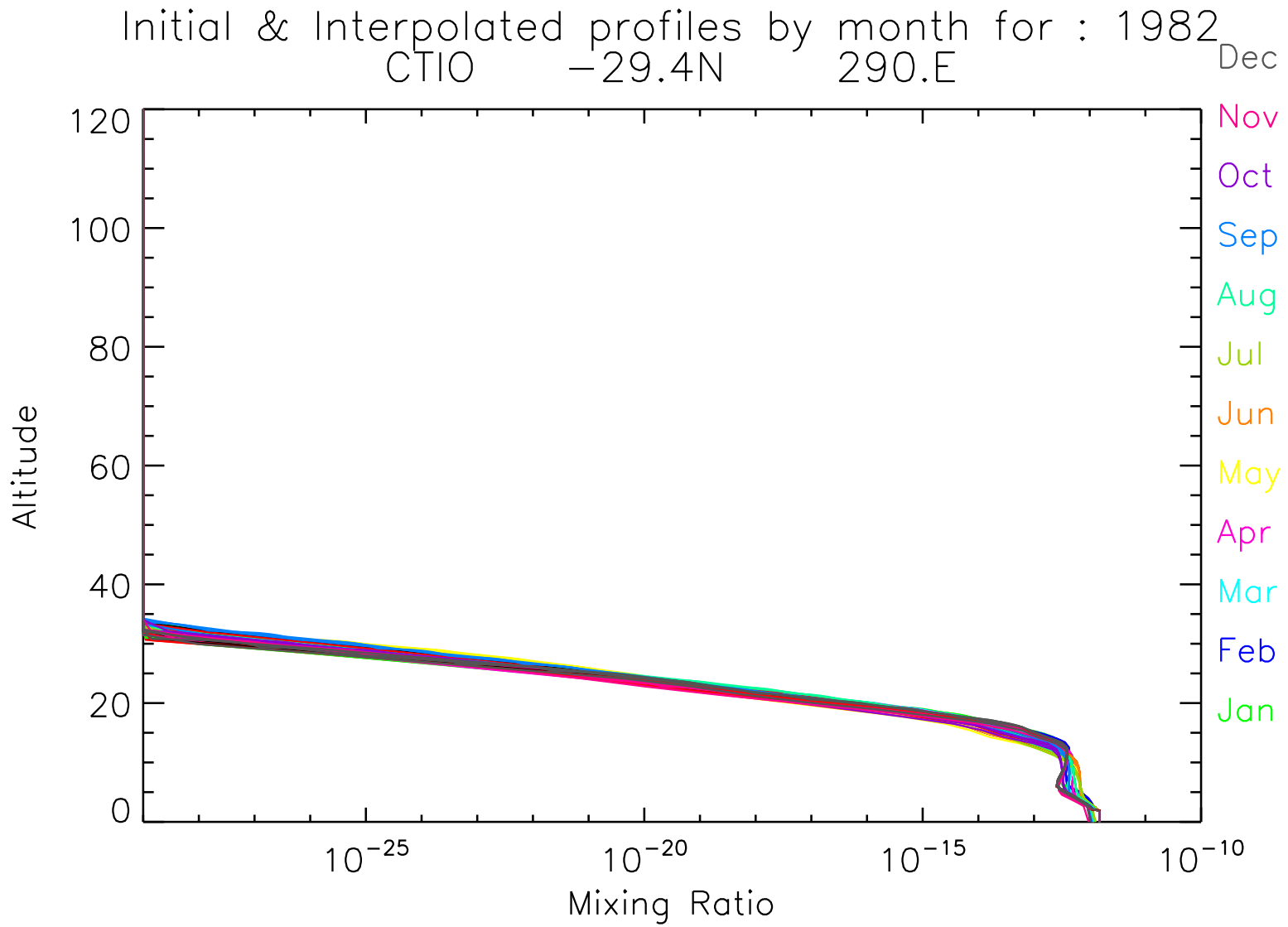
Mixing Ratio


Initial & Interpolated profiles by month for : 1982
CTIO −29.4N 290.E
Dec
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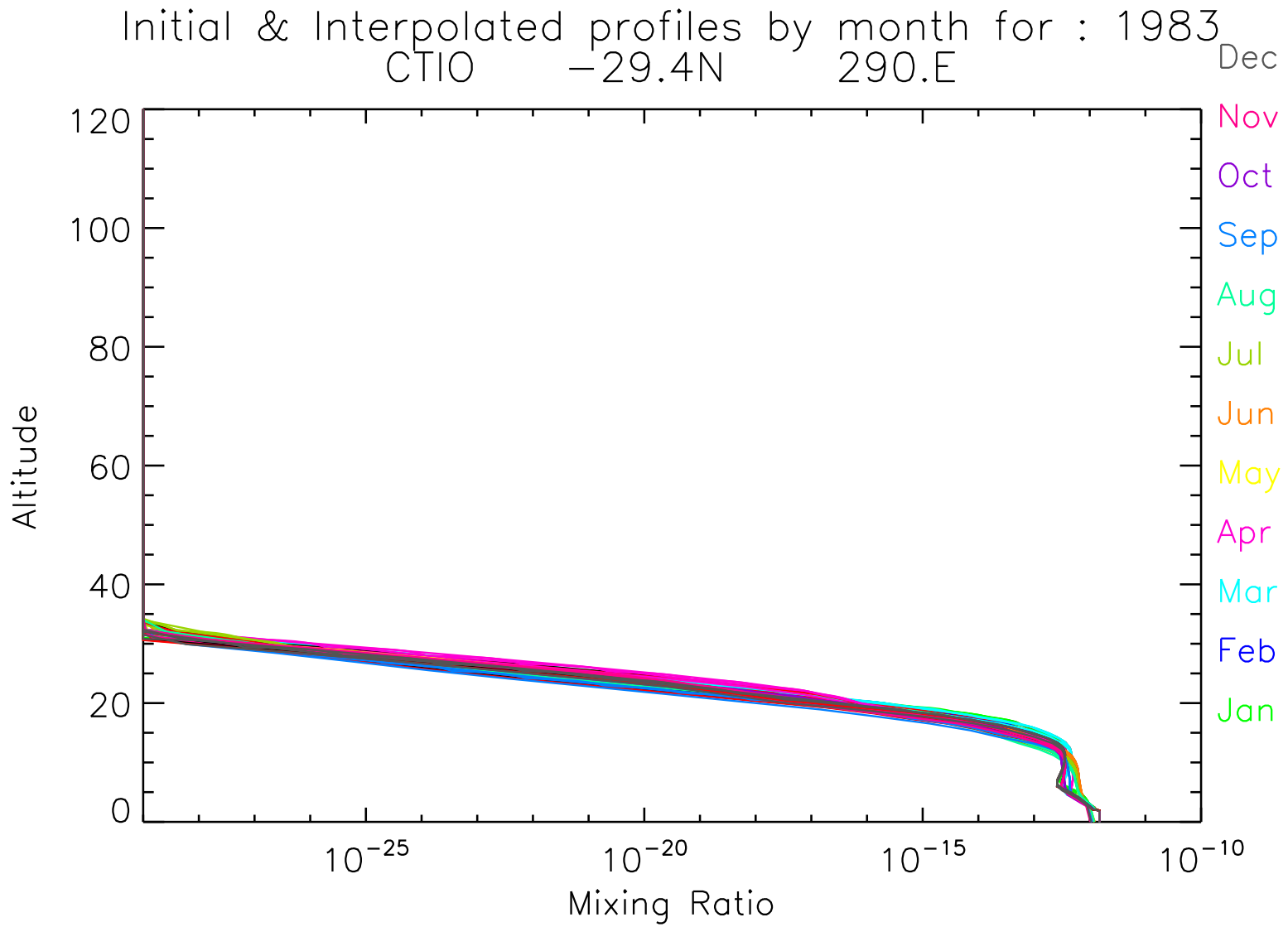
Mixing Ratio


Initial & Interpolated profiles by month for : 1983
CTIO −29.4N 290.E
Dec
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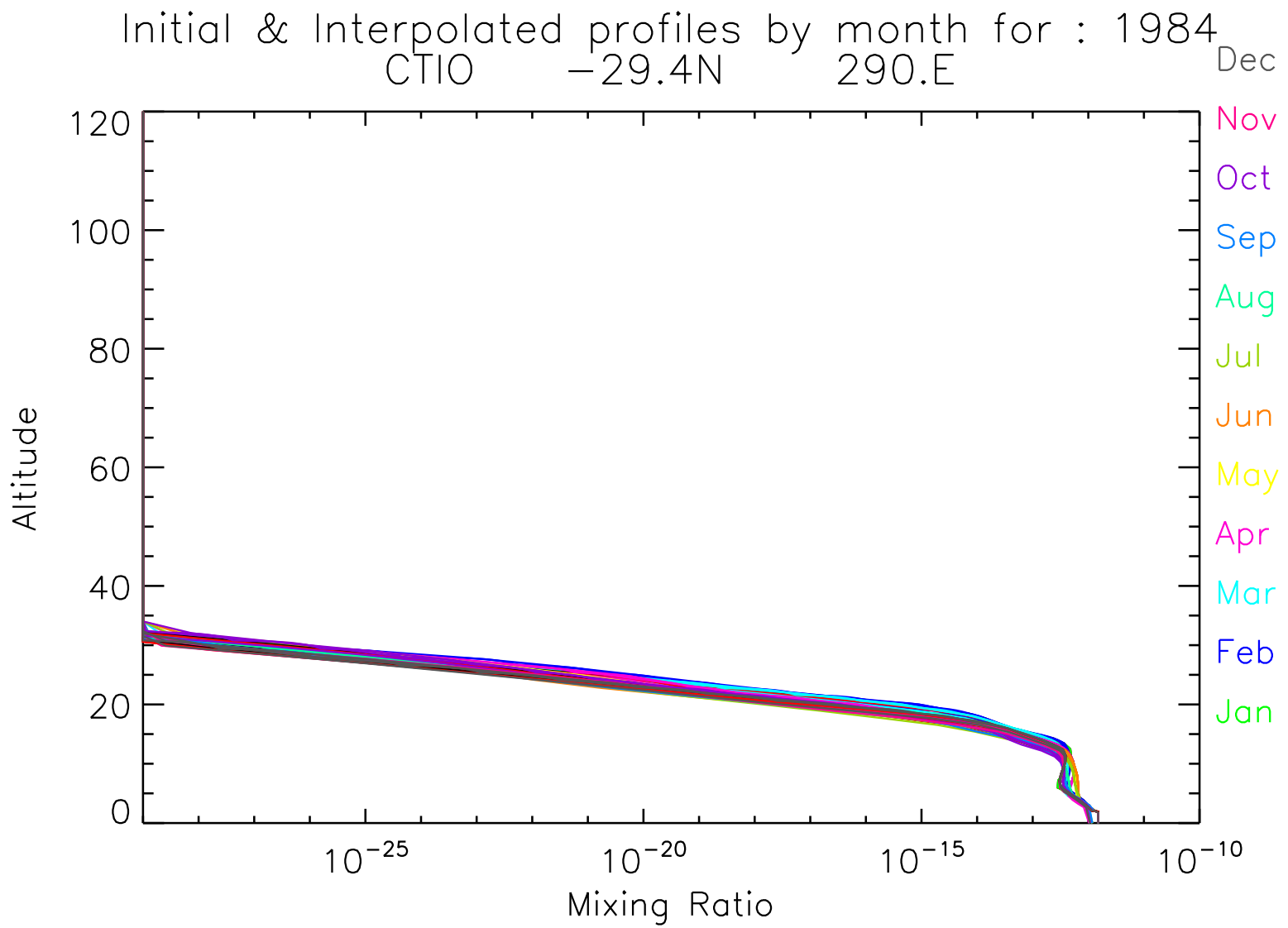
Mixing Ratio


Initial & Interpolated profiles by month for : 1984
CTIO −29.4N 290.E
Dec
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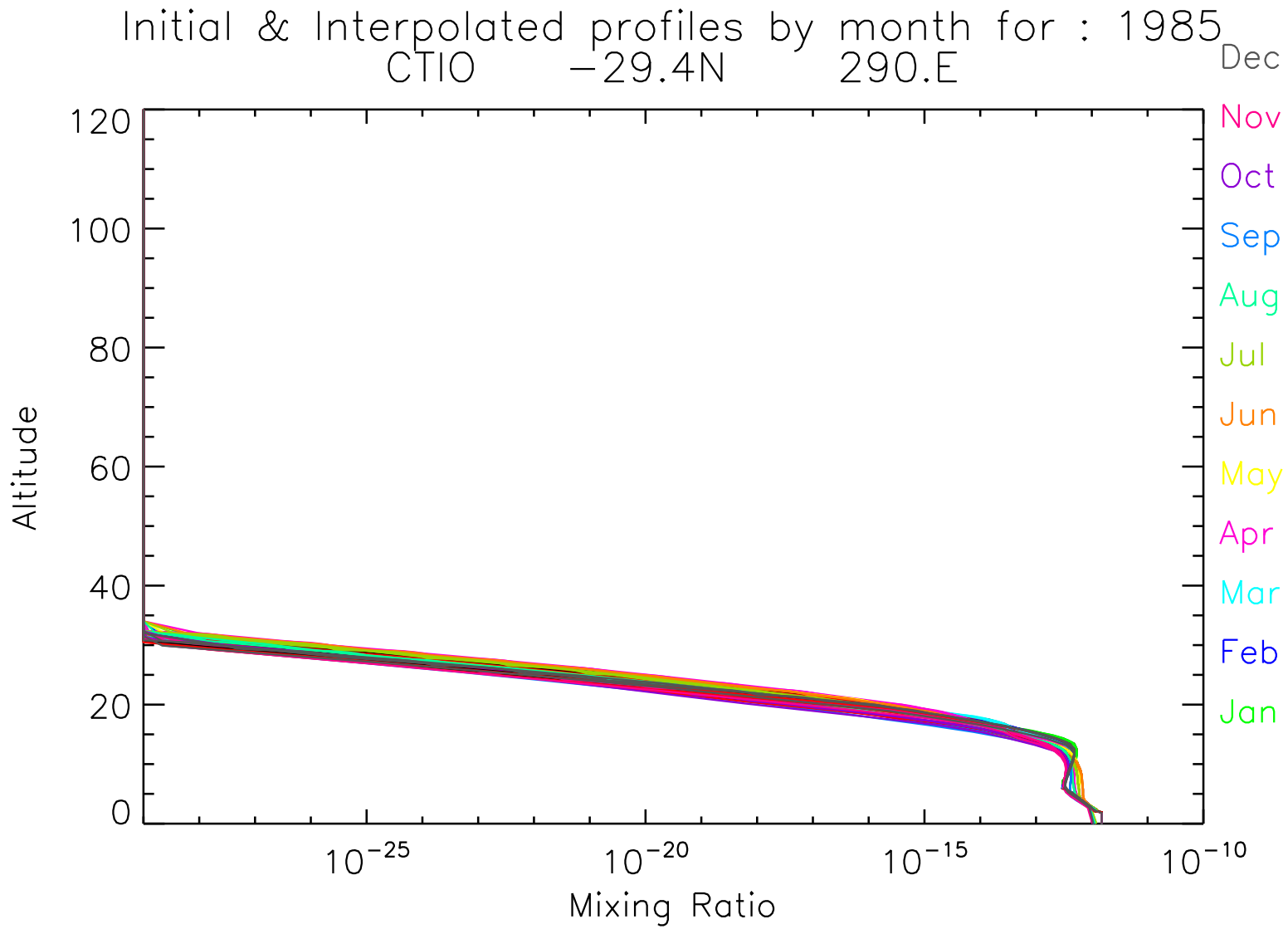
Mixing Ratio


Initial & Interpolated profiles by month for : 1985
CTIO −29.4N 290.E
Dec
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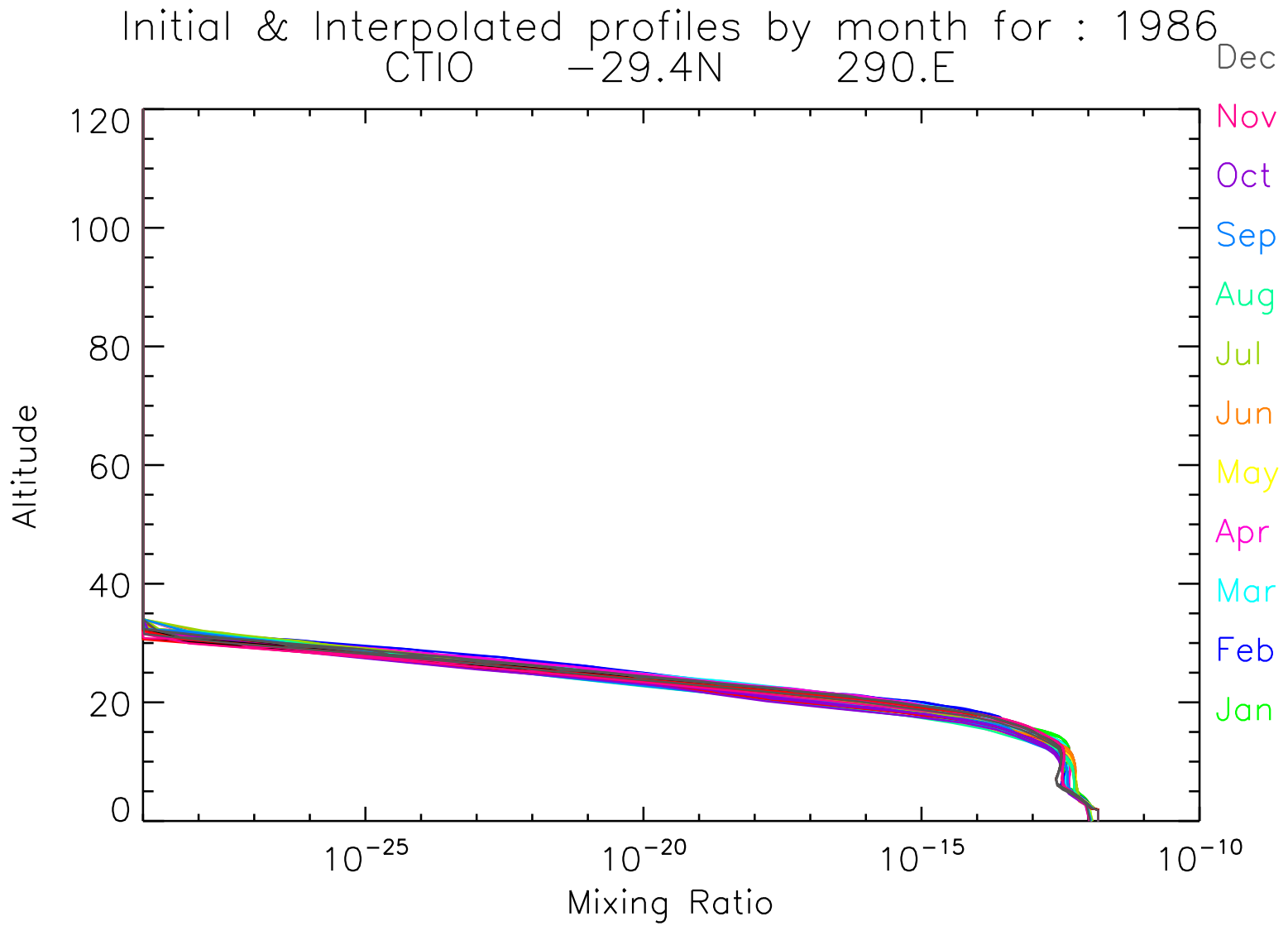
Mixing Ratio


Initial & Interpolated profiles by month for : 1986
CTIO −29.4N 290.E
Dec
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Altitude
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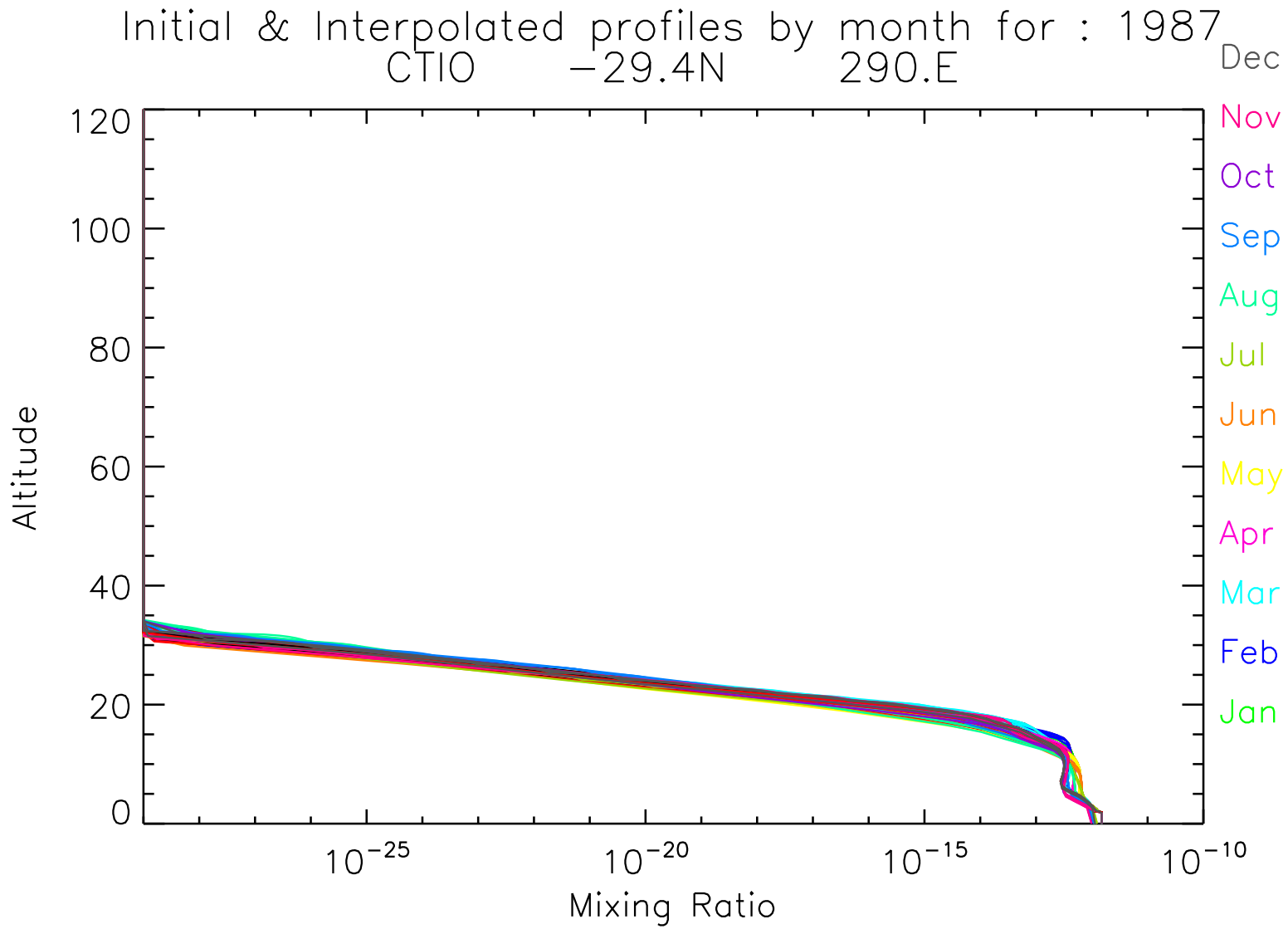
Mixing Ratio


Initial & Interpolated profiles by month for : 1987
CTIO −29.4N 290.E
Dec
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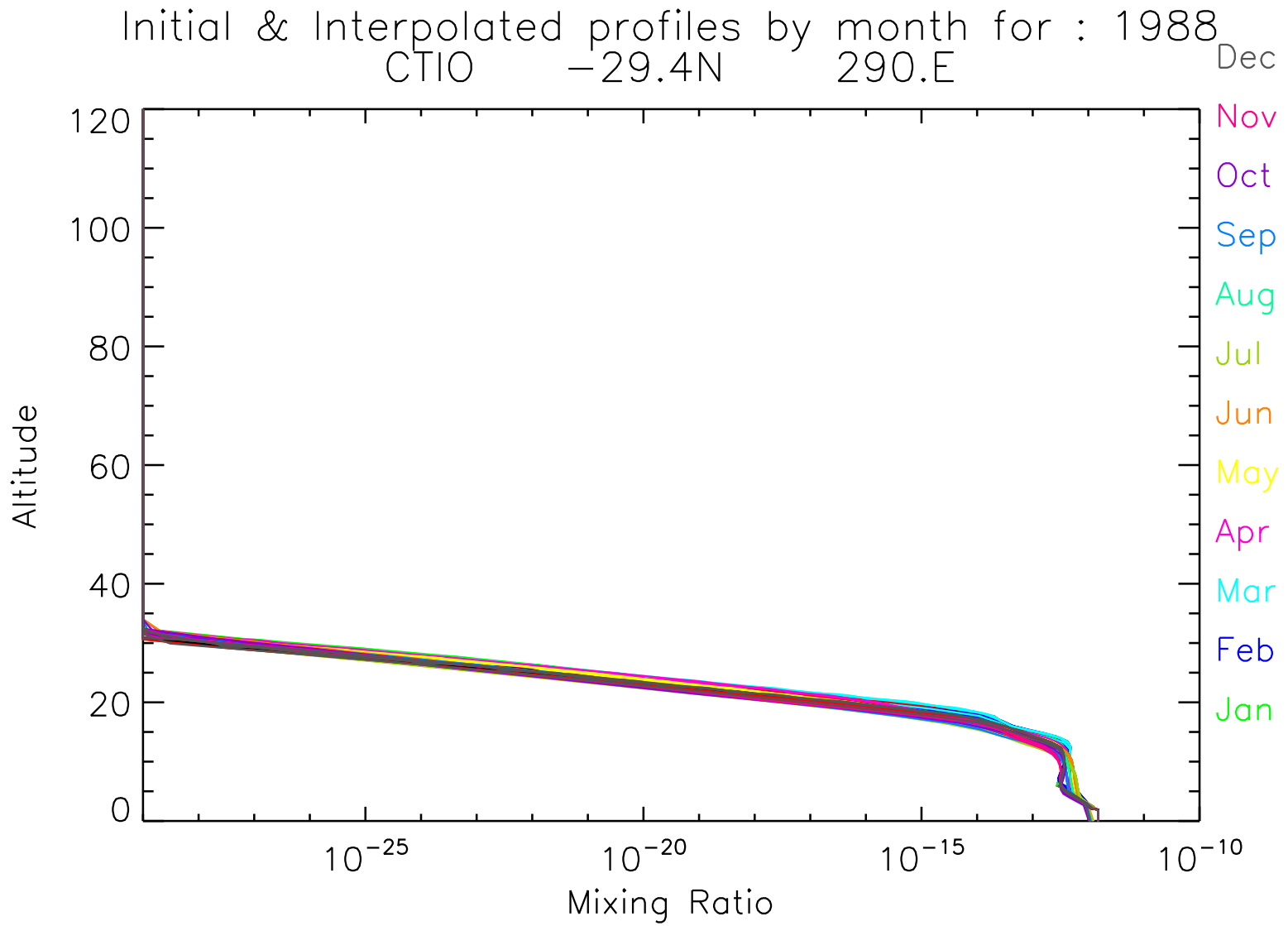
Mixing Ratio


Initial & Interpolated profiles by month for : 1988
CTIO −29.4N 290.E
Dec
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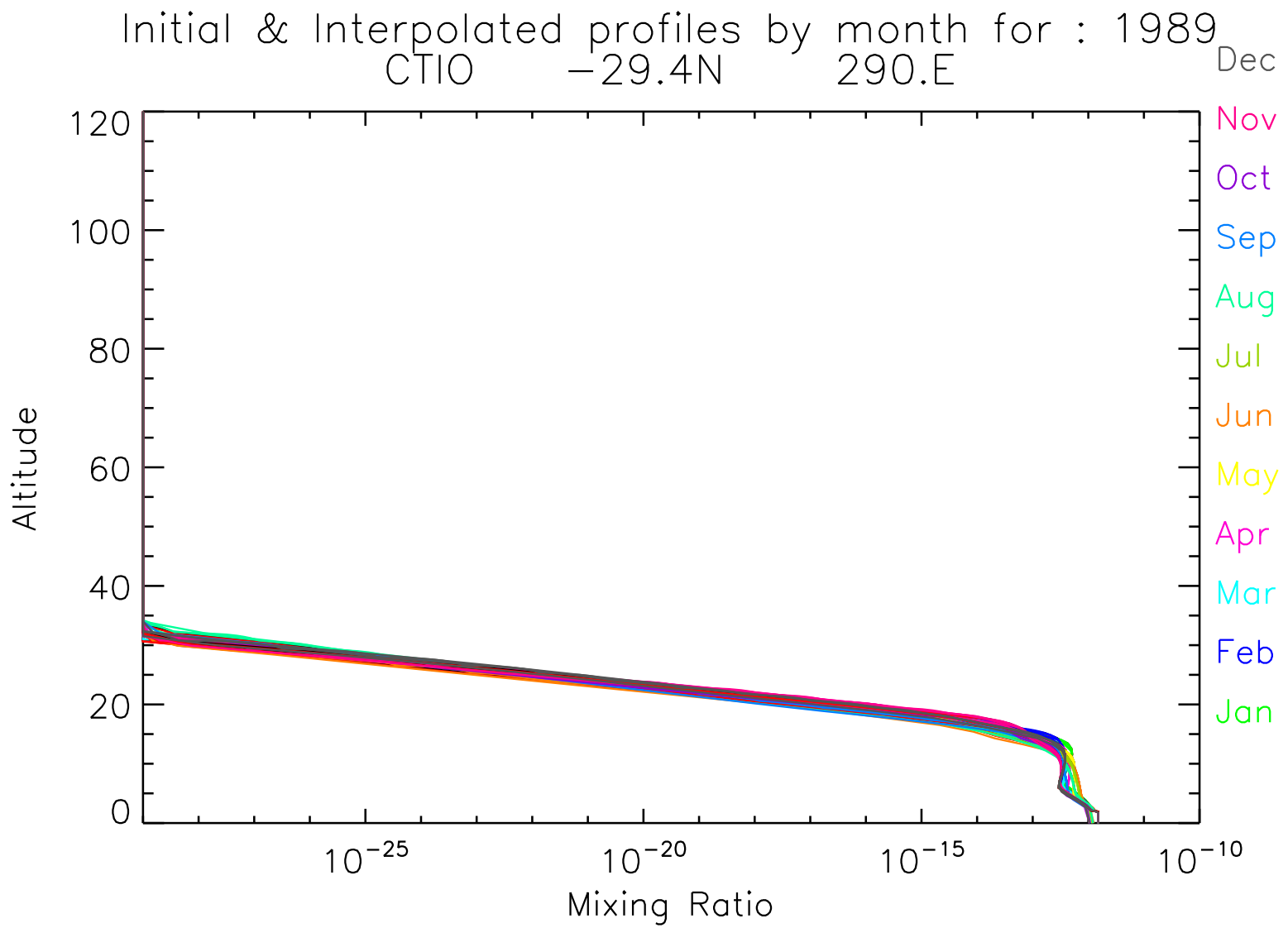
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1989
CTIO −29.4N 290.E
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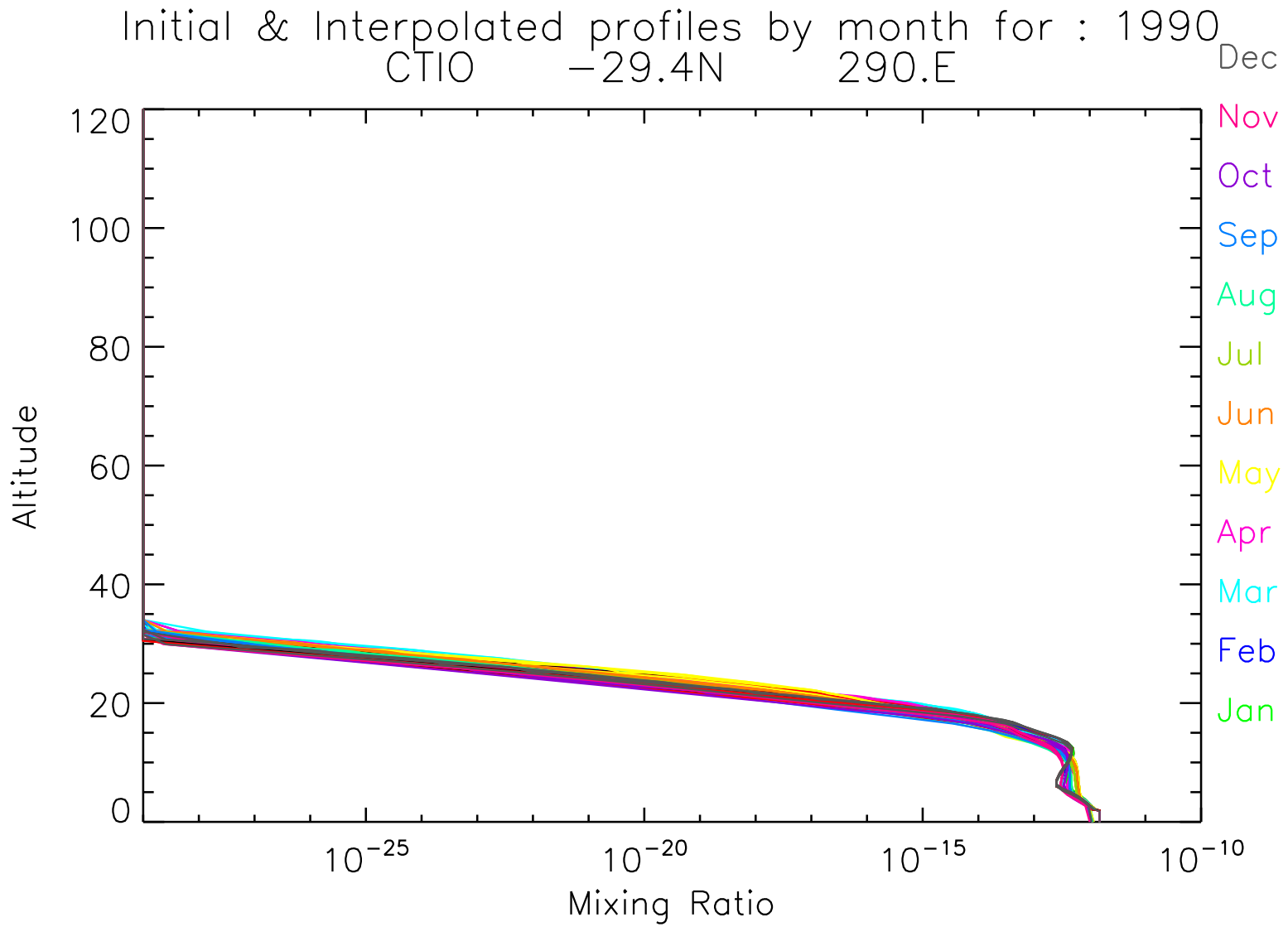
Mixing Ratio


Initial & Interpolated profiles by month for : 1990
CTIO −29.4N 290.E
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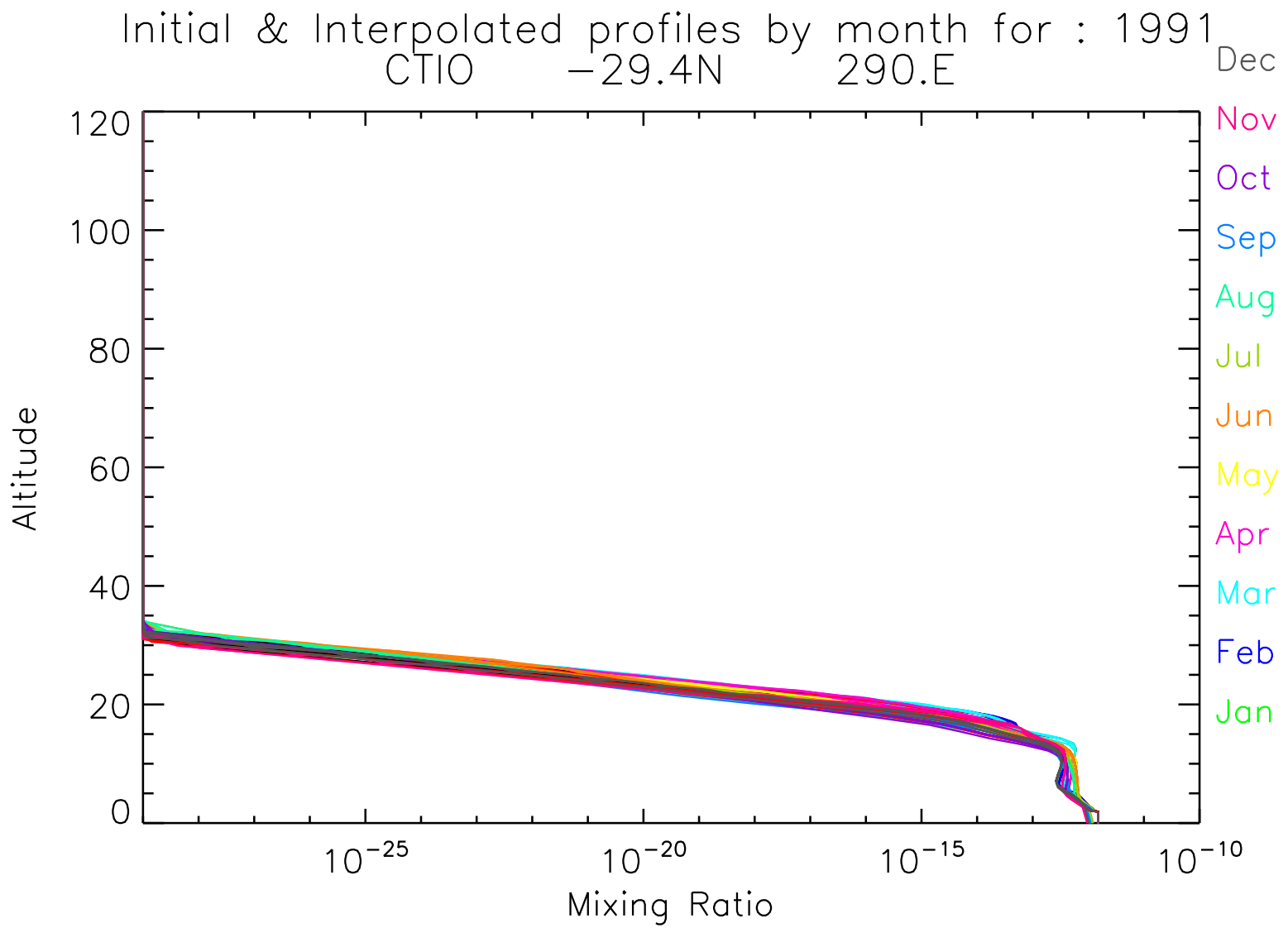
Mixing Ratio


Initial & Interpolated profiles by month for : 1991
CTIO −29.4N 290.E
Dec
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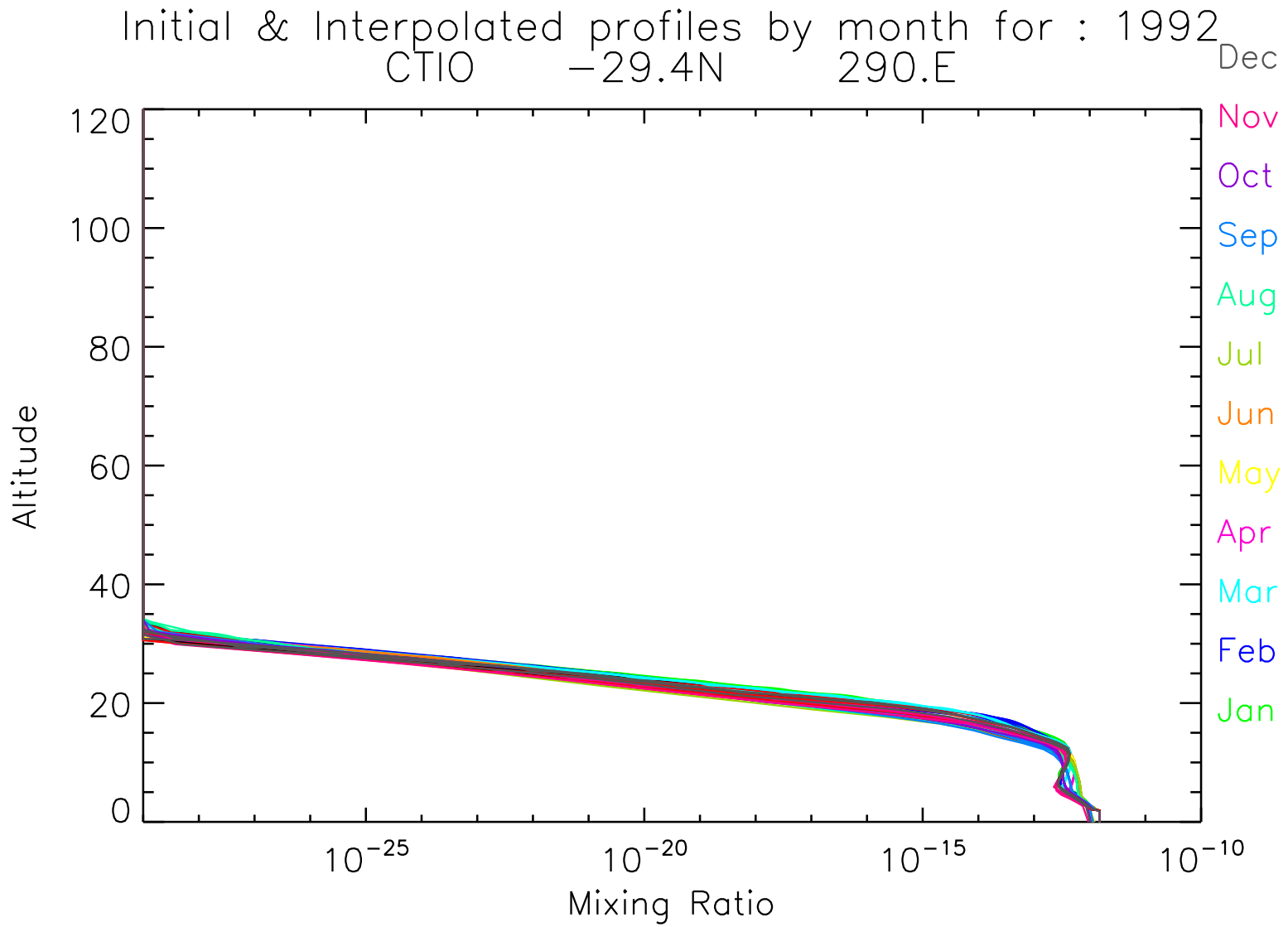
Mixing Ratio


Initial & Interpolated profiles by month for : 1992
CTIO −29.4N 290.E
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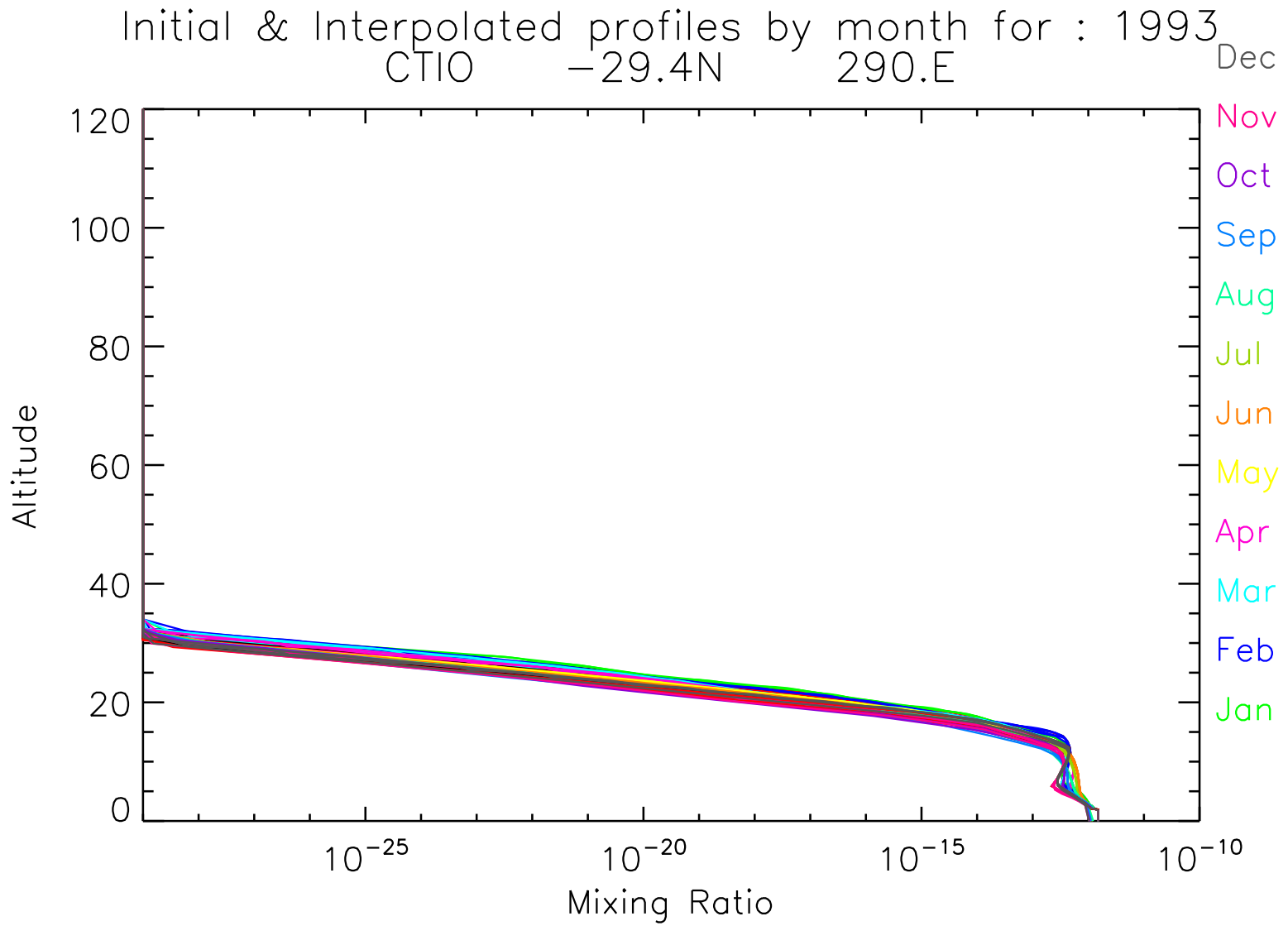
Mixing Ratio


Initial & Interpolated profiles by month for : 1993
CTIO −29.4N 290.E
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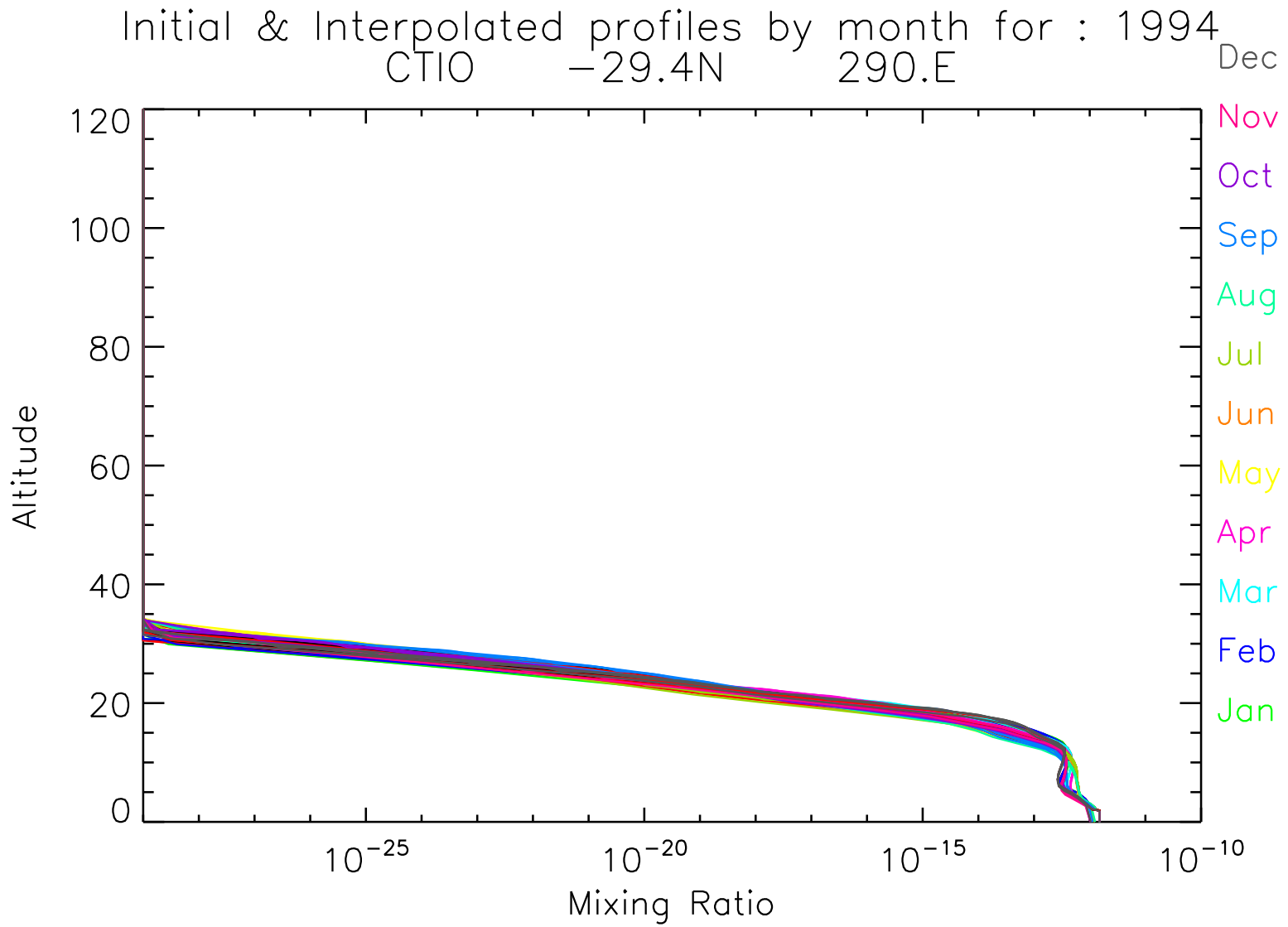
Mixing Ratio


Initial & Interpolated profiles by month for : 1994
CTIO −29.4N 290.E
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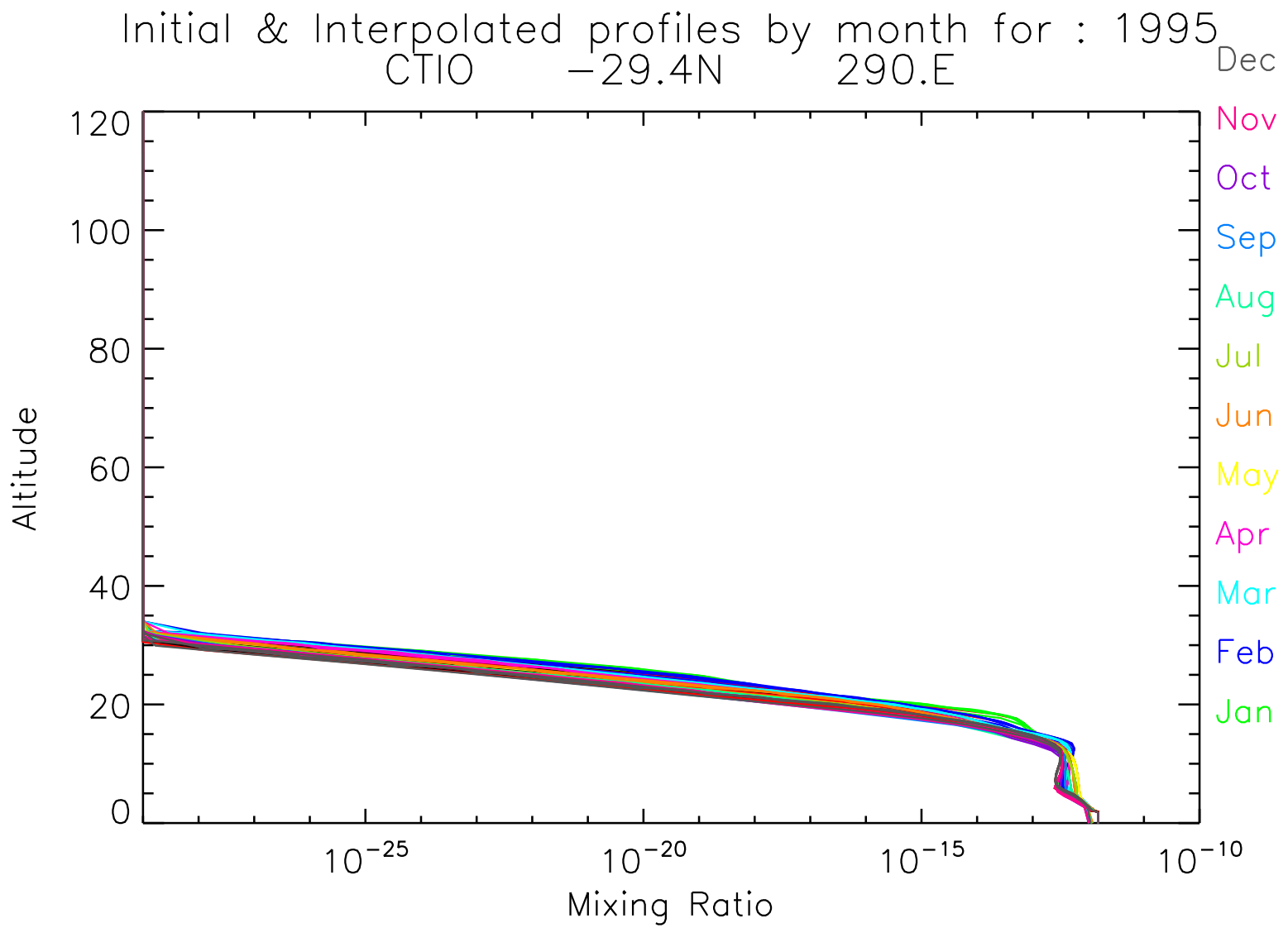
Mixing Ratio


Initial & Interpolated profiles by month for : 1995
CTIO −29.4N 290.E
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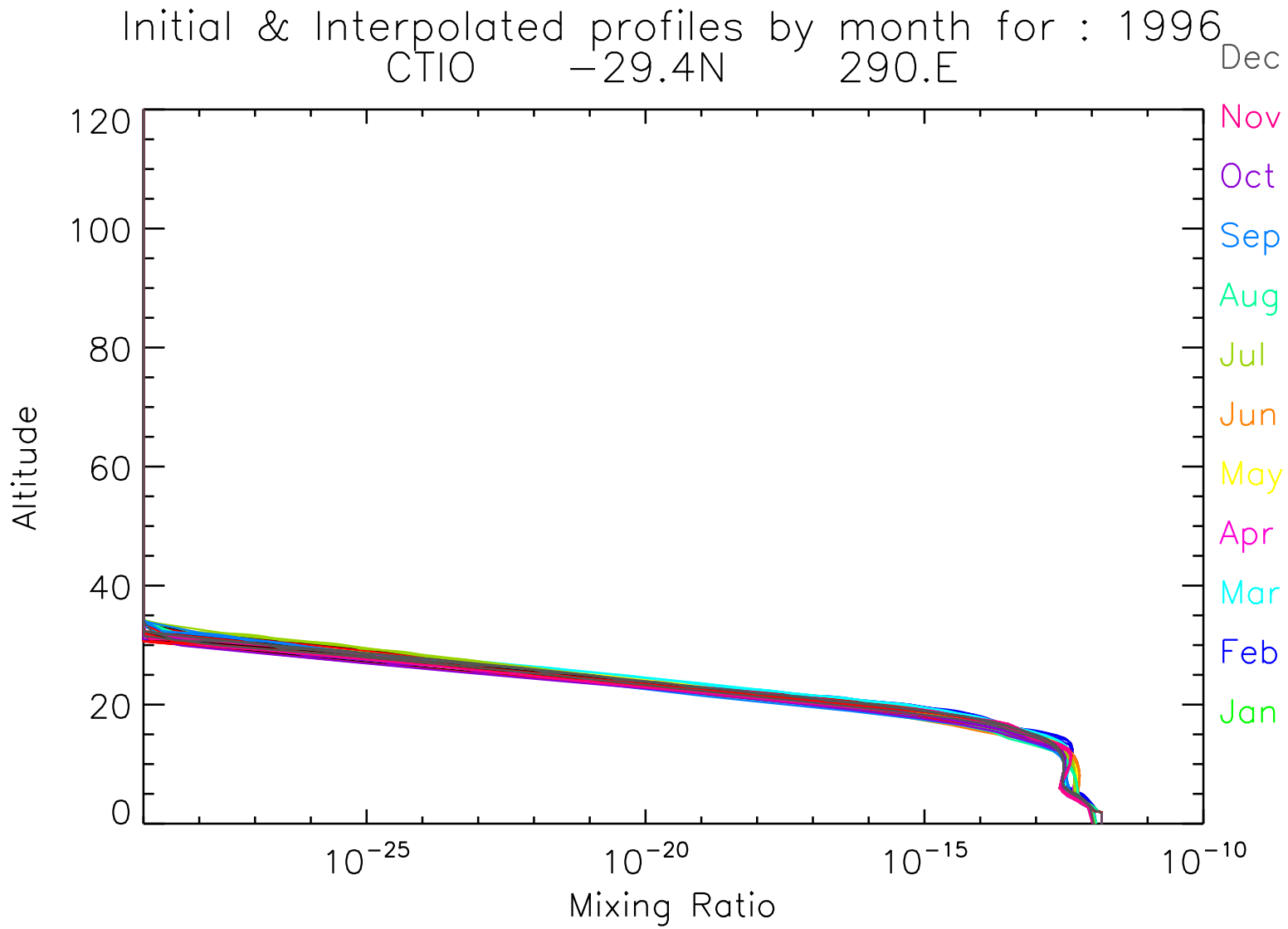
Mixing Ratio


Initial & Interpolated profiles by month for : 1996
CTIO −29.4N 290.E
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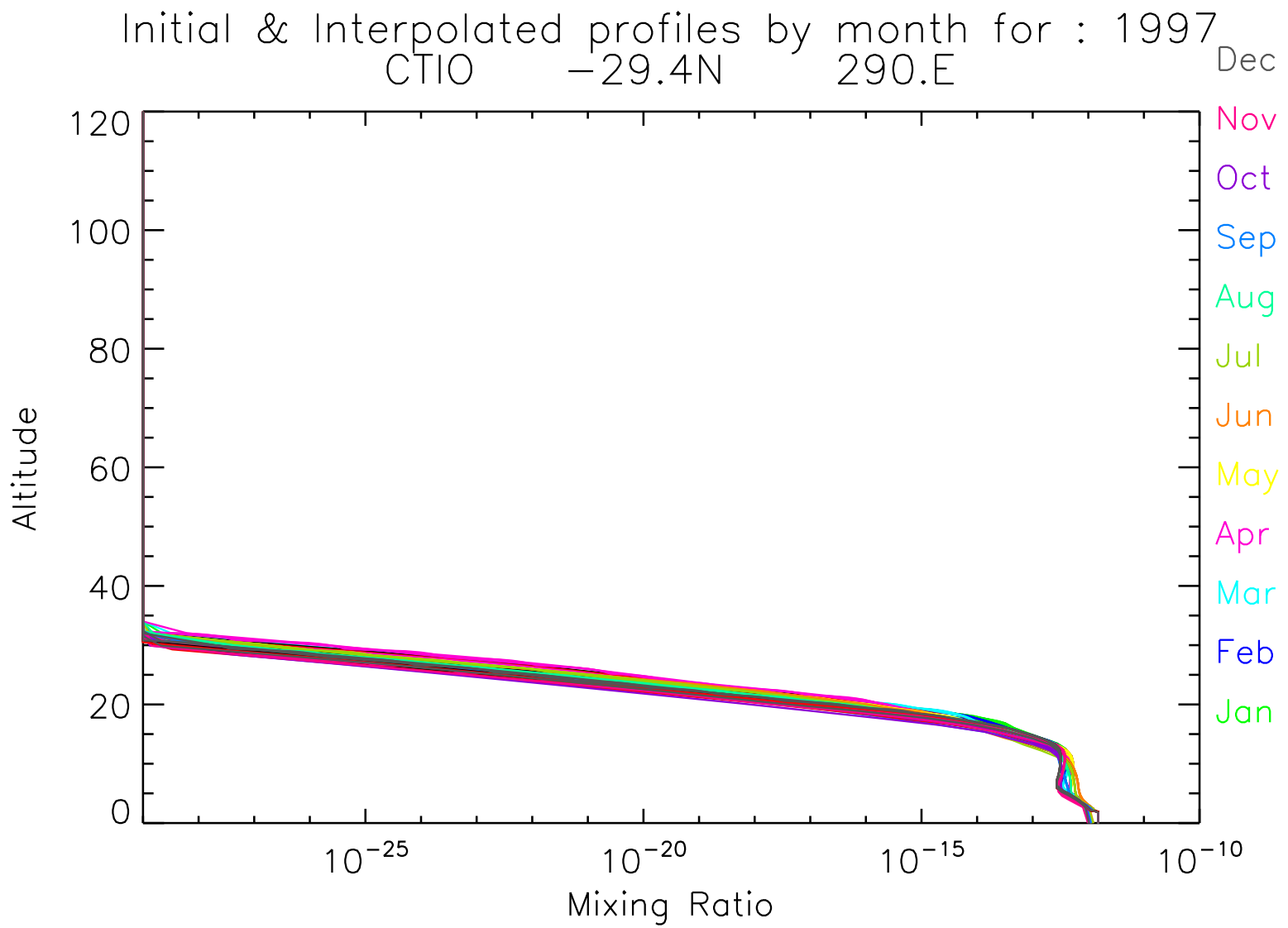
Mixing Ratio


Initial & Interpolated profiles by month for : 1997
CTIO −29.4N 290.E
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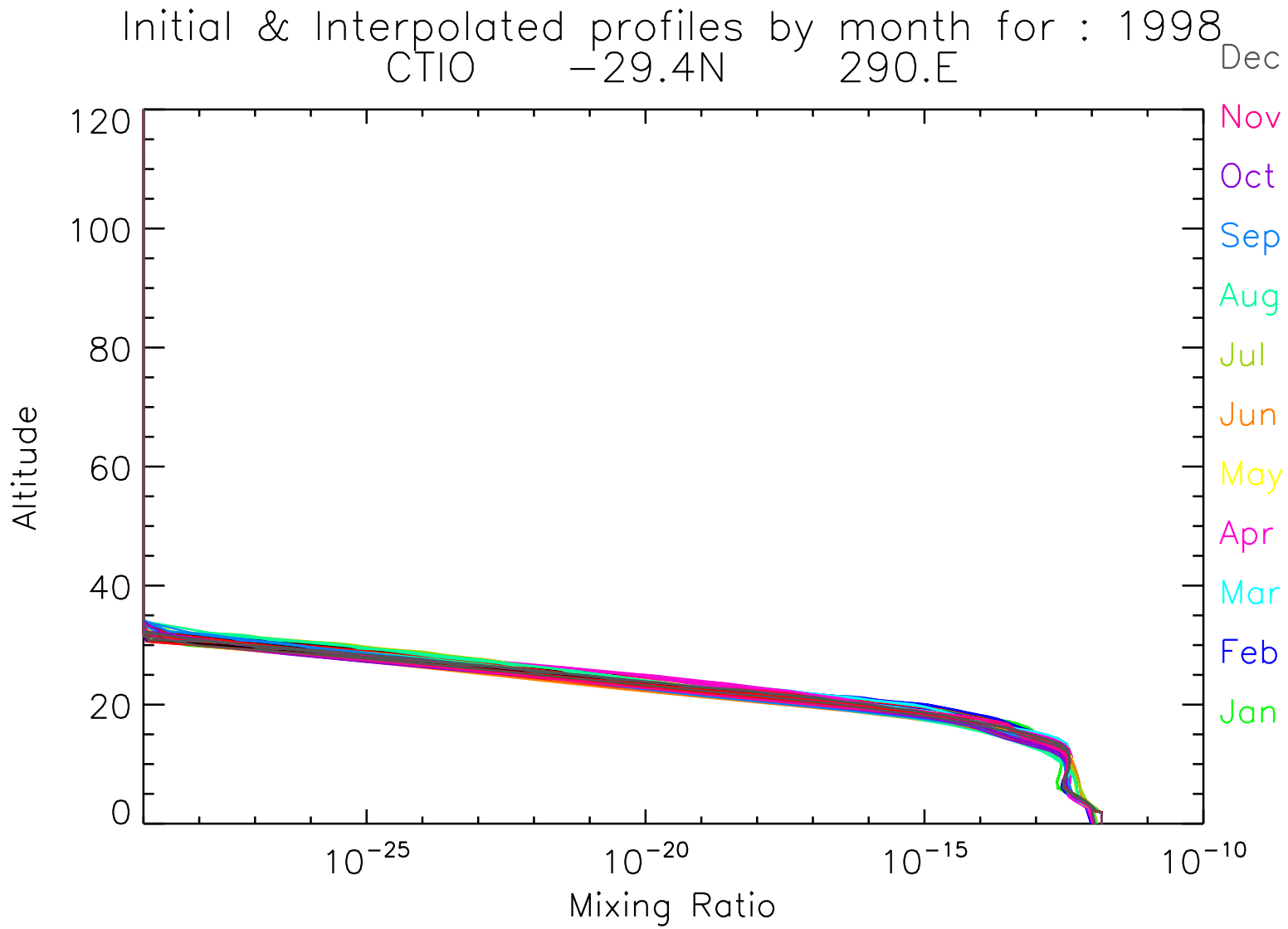
Mixing Ratio


Initial & Interpolated profiles by month for : 1998
CTIO −29.4N 290.E
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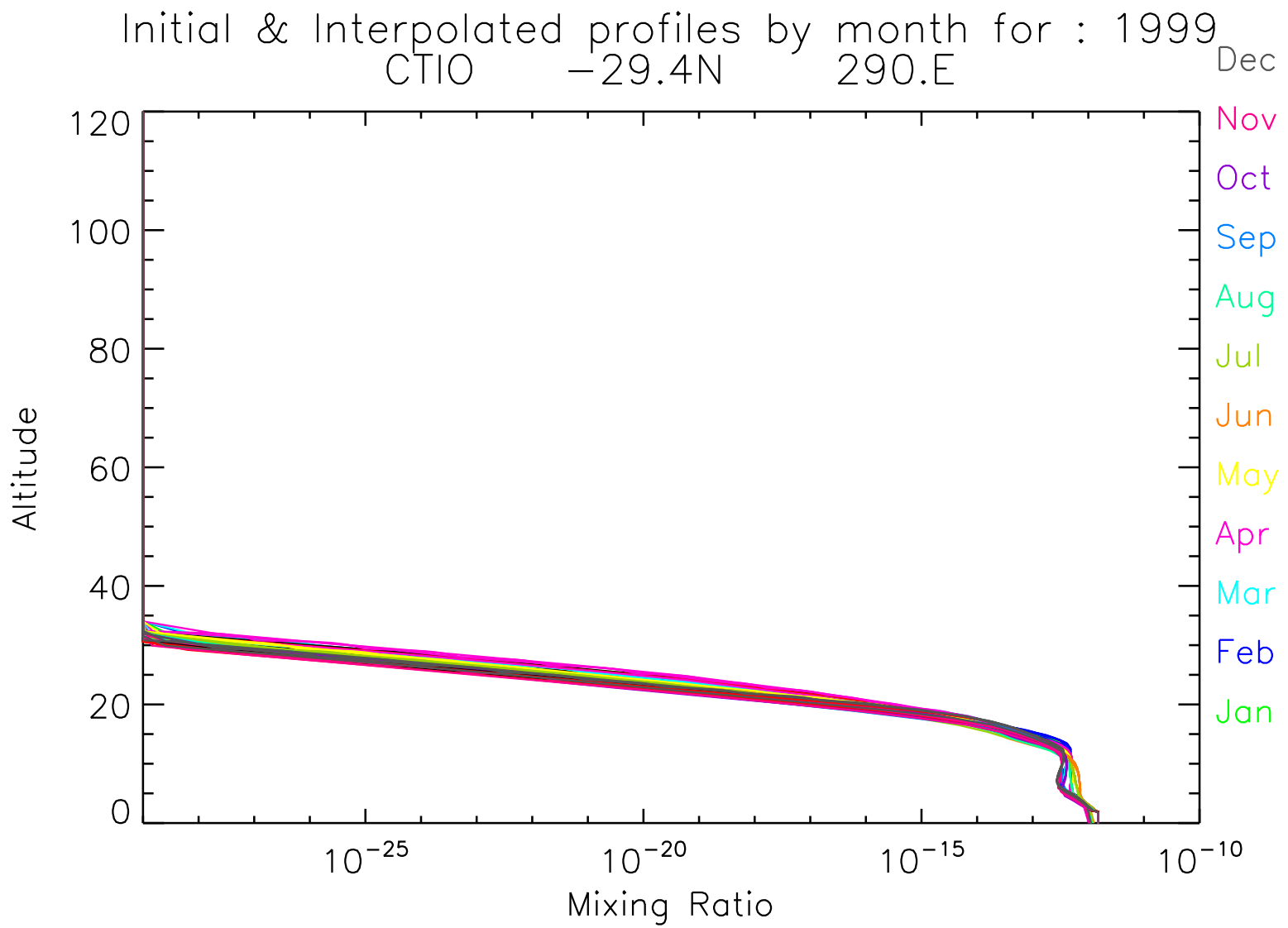
Mixing Ratio


Initial & Interpolated profiles by month for : 1999
CTIO −29.4N 290.E
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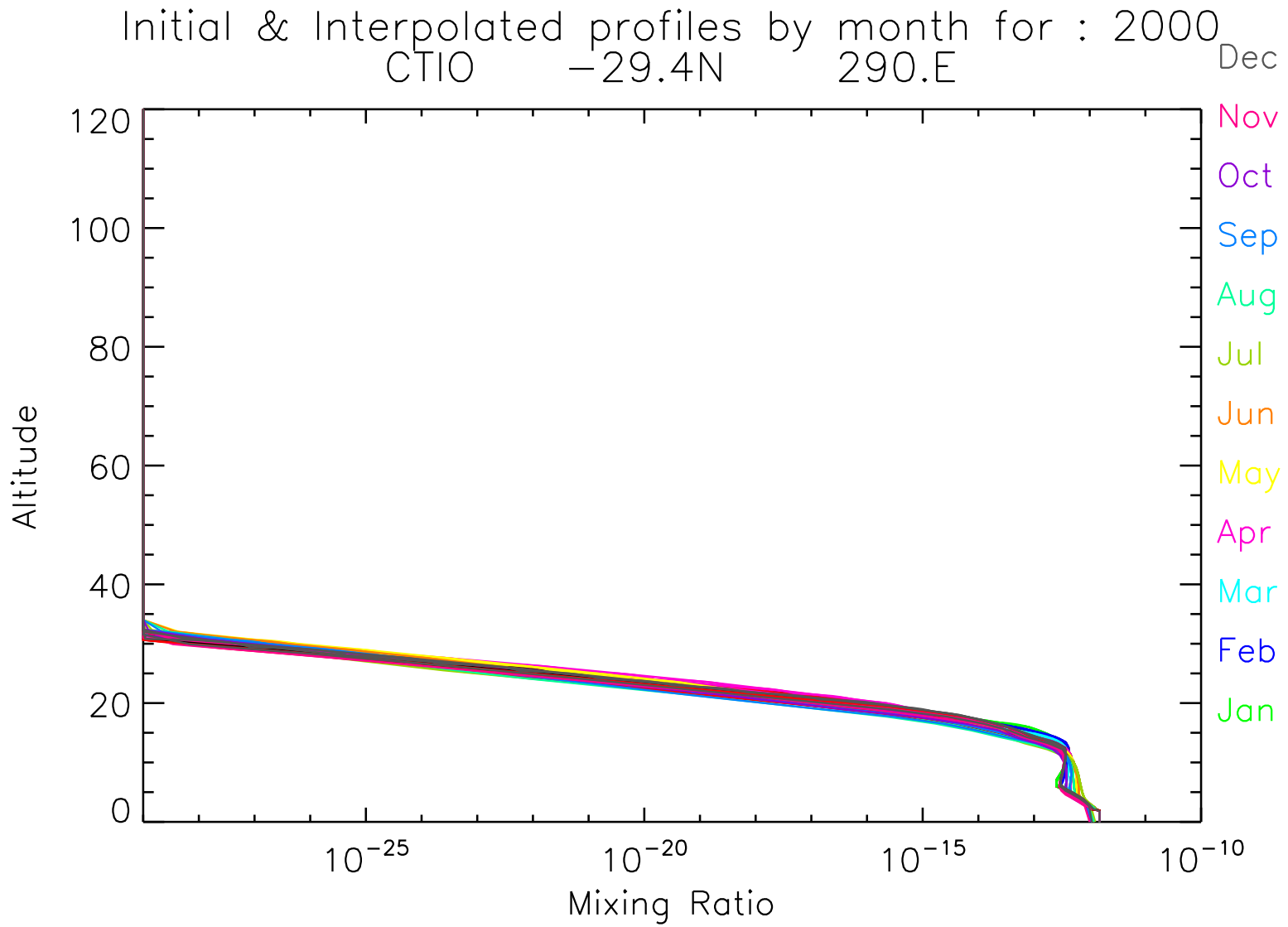
Mixing Ratio


Initial & Interpolated profiles by month for : 2000
CTIO −29.4N 290.E
Dec
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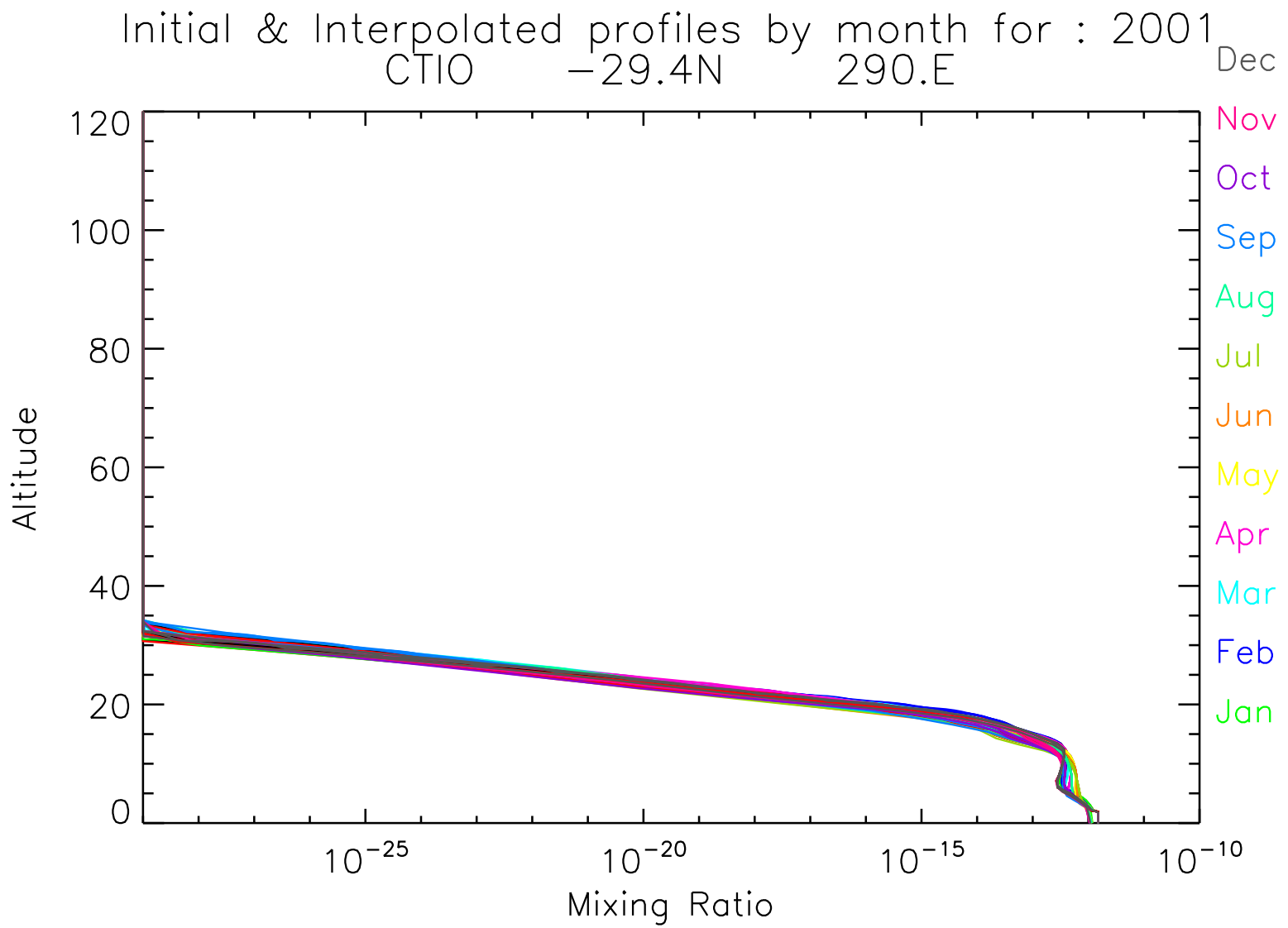
Mixing Ratio


Initial & Interpolated profiles by month for : 2001
CTIO −29.4N 290.E
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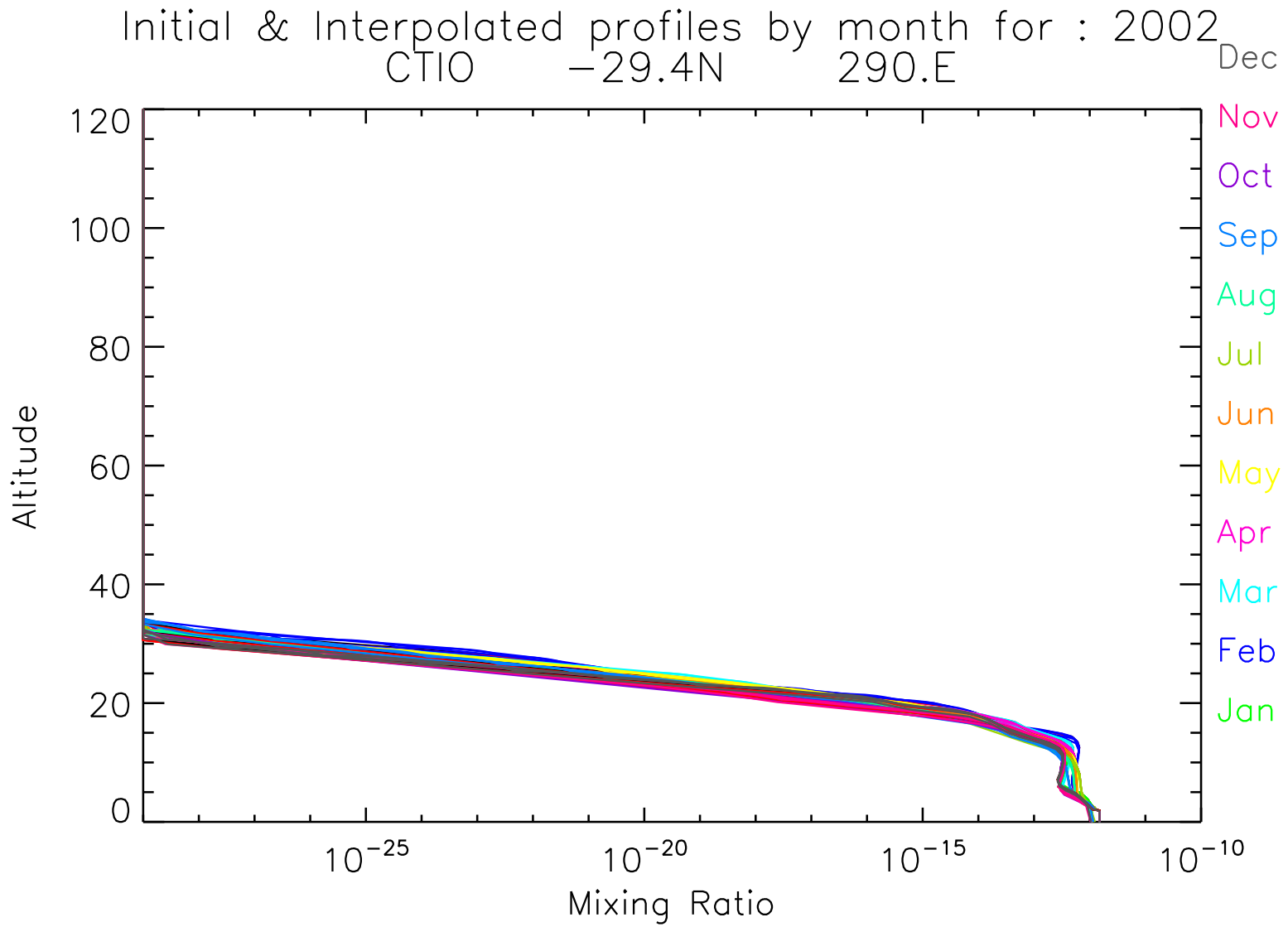
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2002
CTIO −29.4N 290.E
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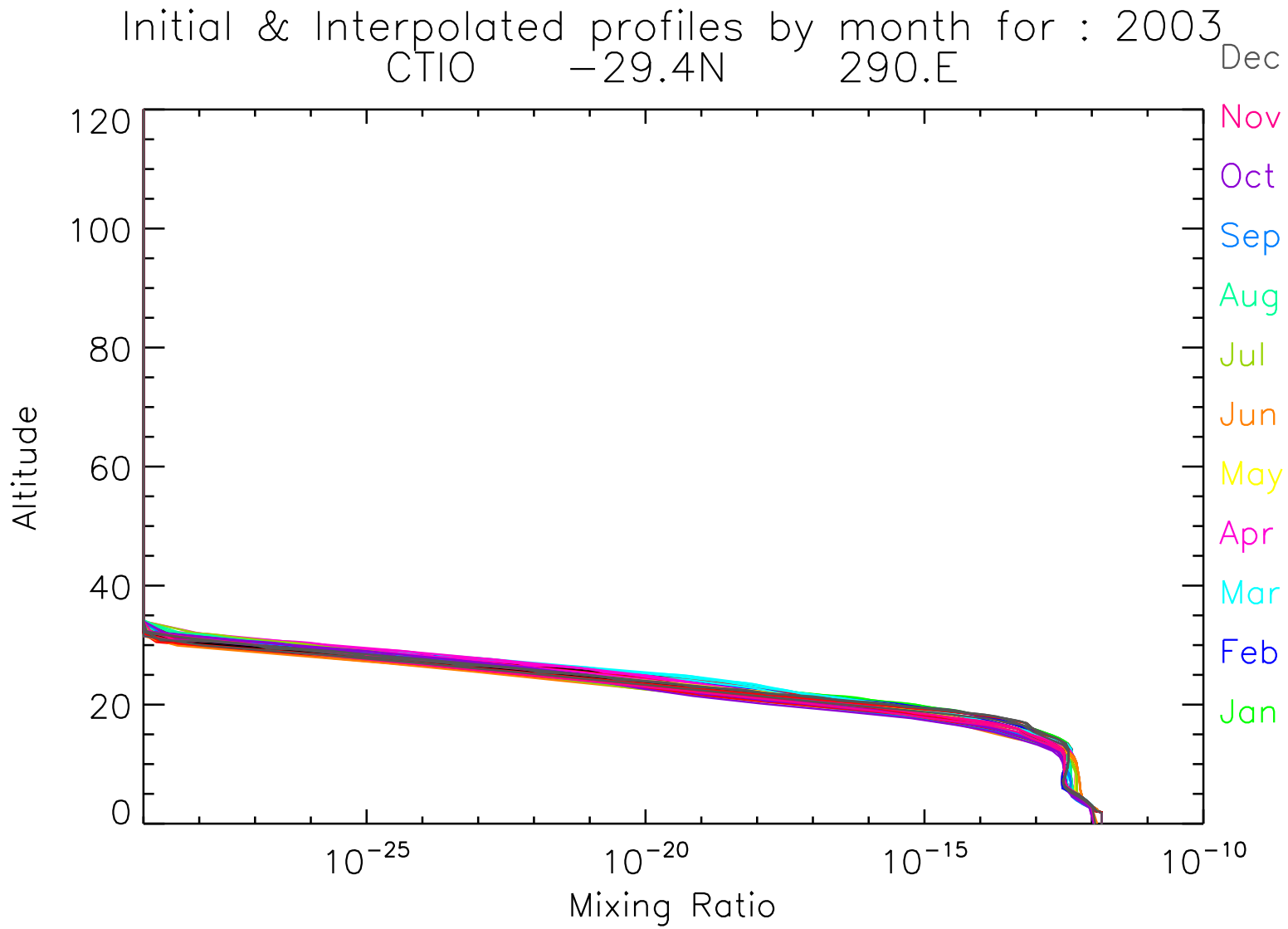
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2003
CTIO −29.4N 290.E
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Altitude
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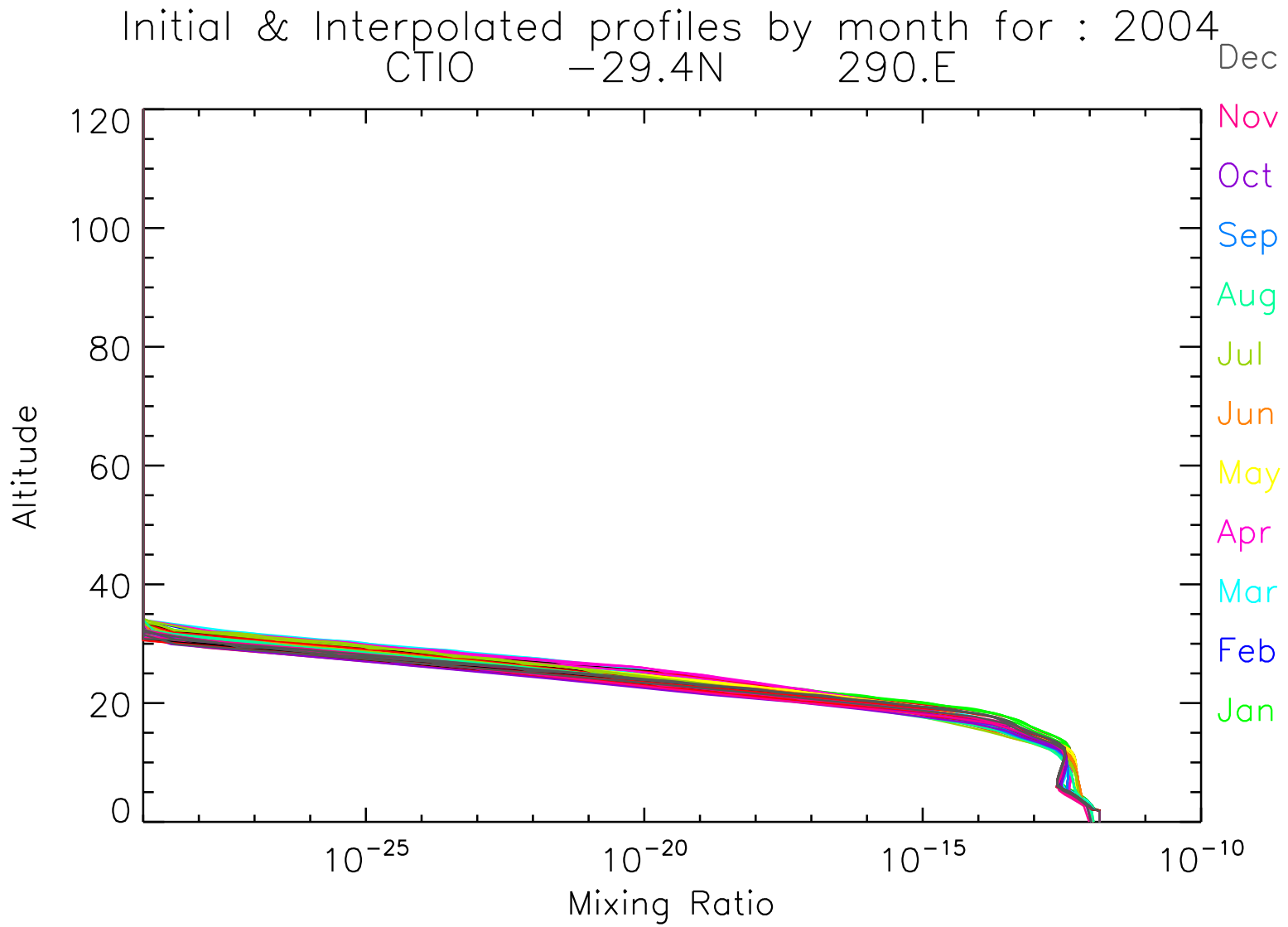
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2004
CTIO −29.4N 290.E
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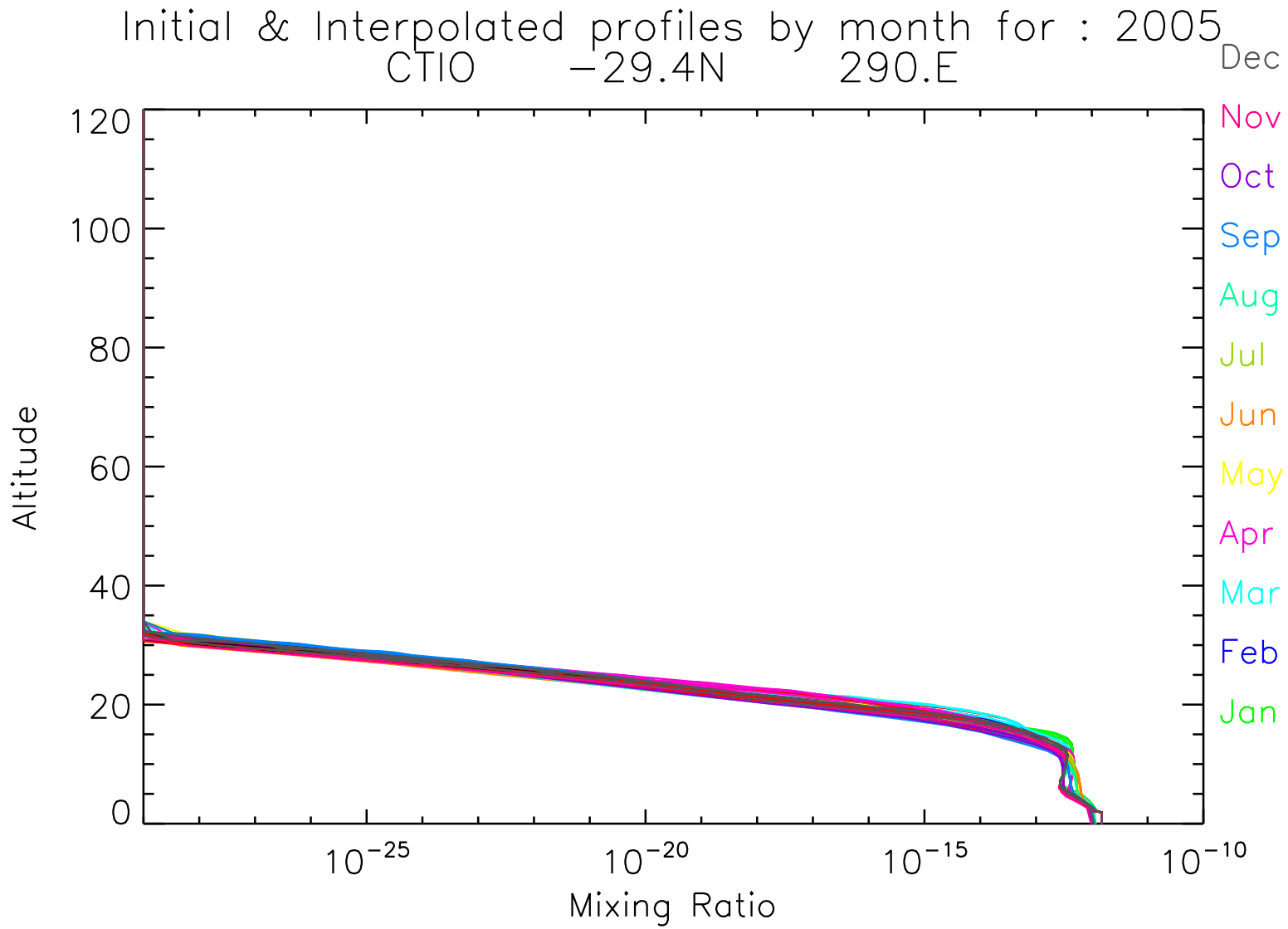
Mixing Ratio


Initial & Interpolated profiles by month for : 2005
CTIO −29.4N 290.E
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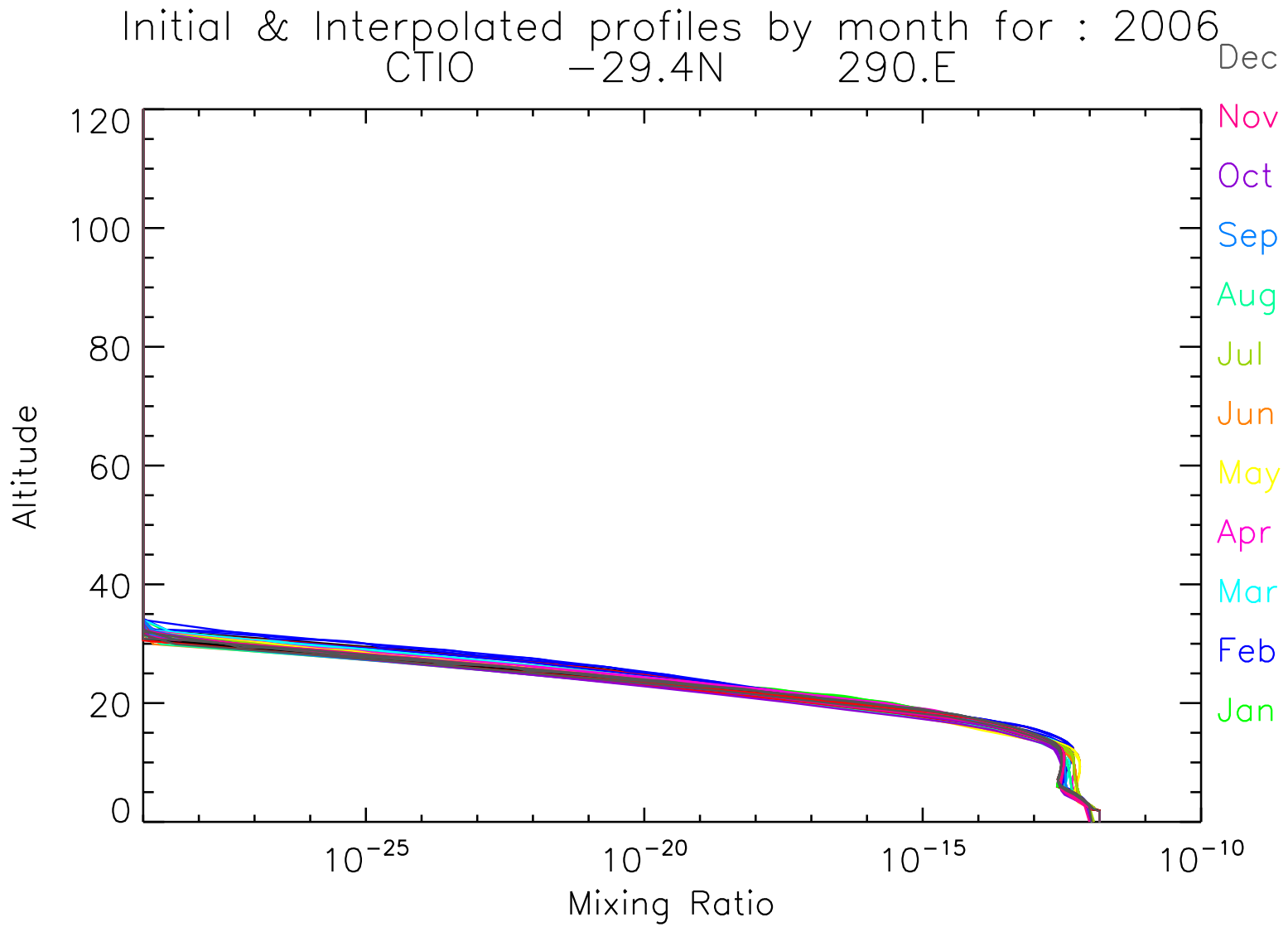
Mixing Ratio


Initial & Interpolated profiles by month for : 2006
CTIO −29.4N 290.E
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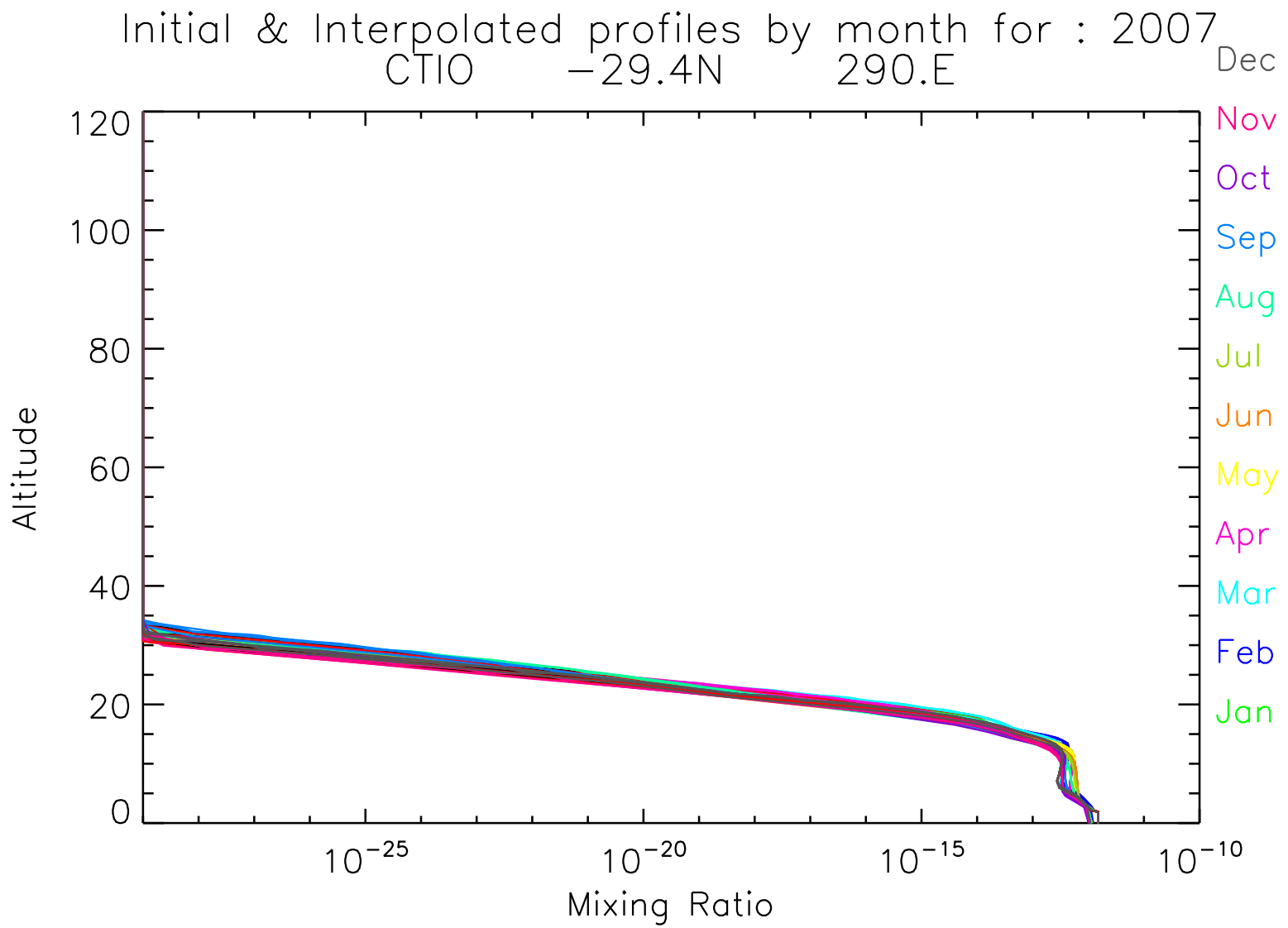
Mixing Ratio


Initial & Interpolated profiles by month for : 2007
CTIO −29.4N 290.E
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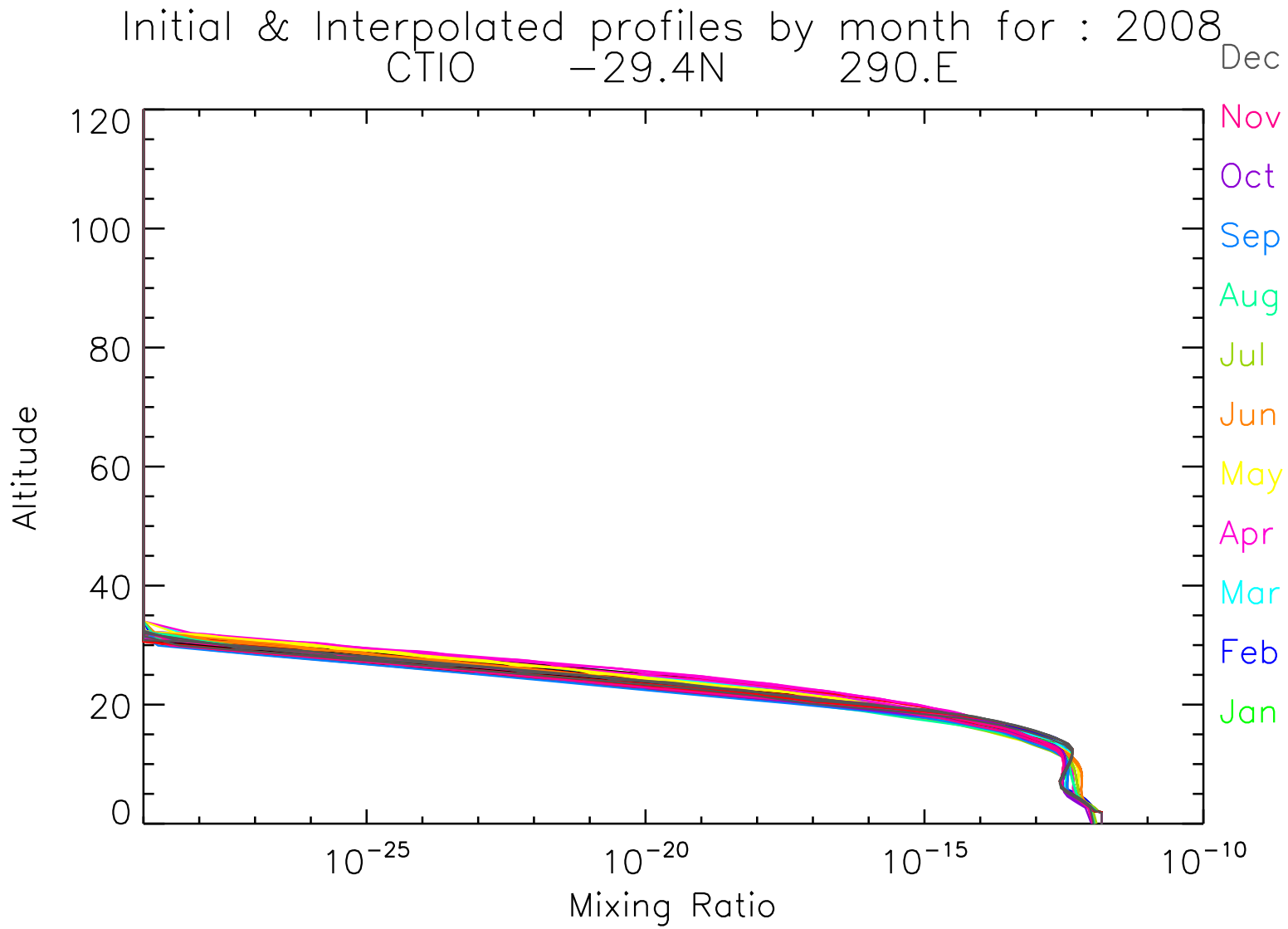
Mixing Ratio


Initial & Interpolated profiles by month for : 2008
CTIO −29.4N 290.E
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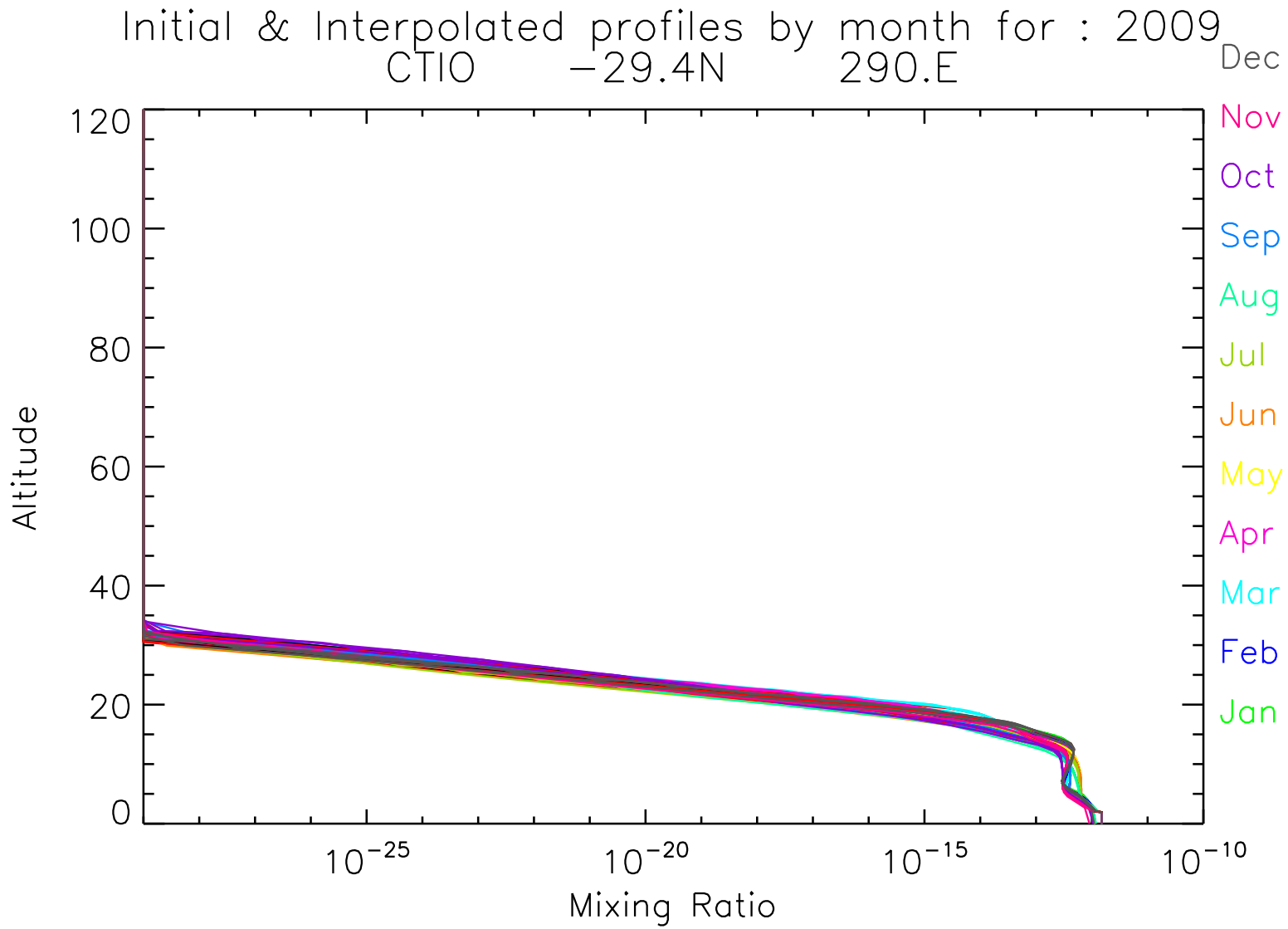
Mixing Ratio


Initial & Interpolated profiles by month for : 2009
CTIO −29.4N 290.E
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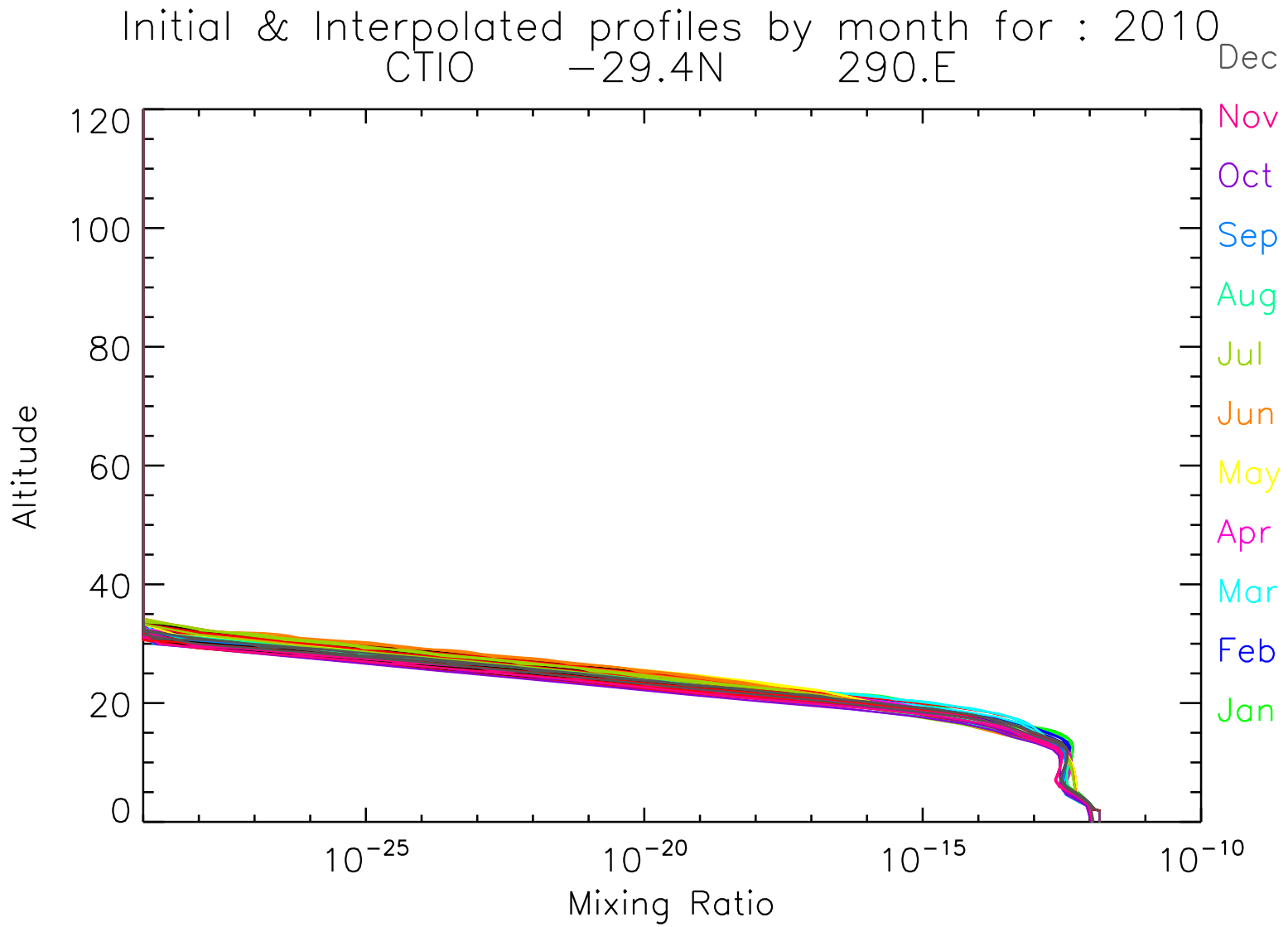
Mixing Ratio


Initial & Interpolated profiles by month for : 2010
CTIO −29.4N 290.E
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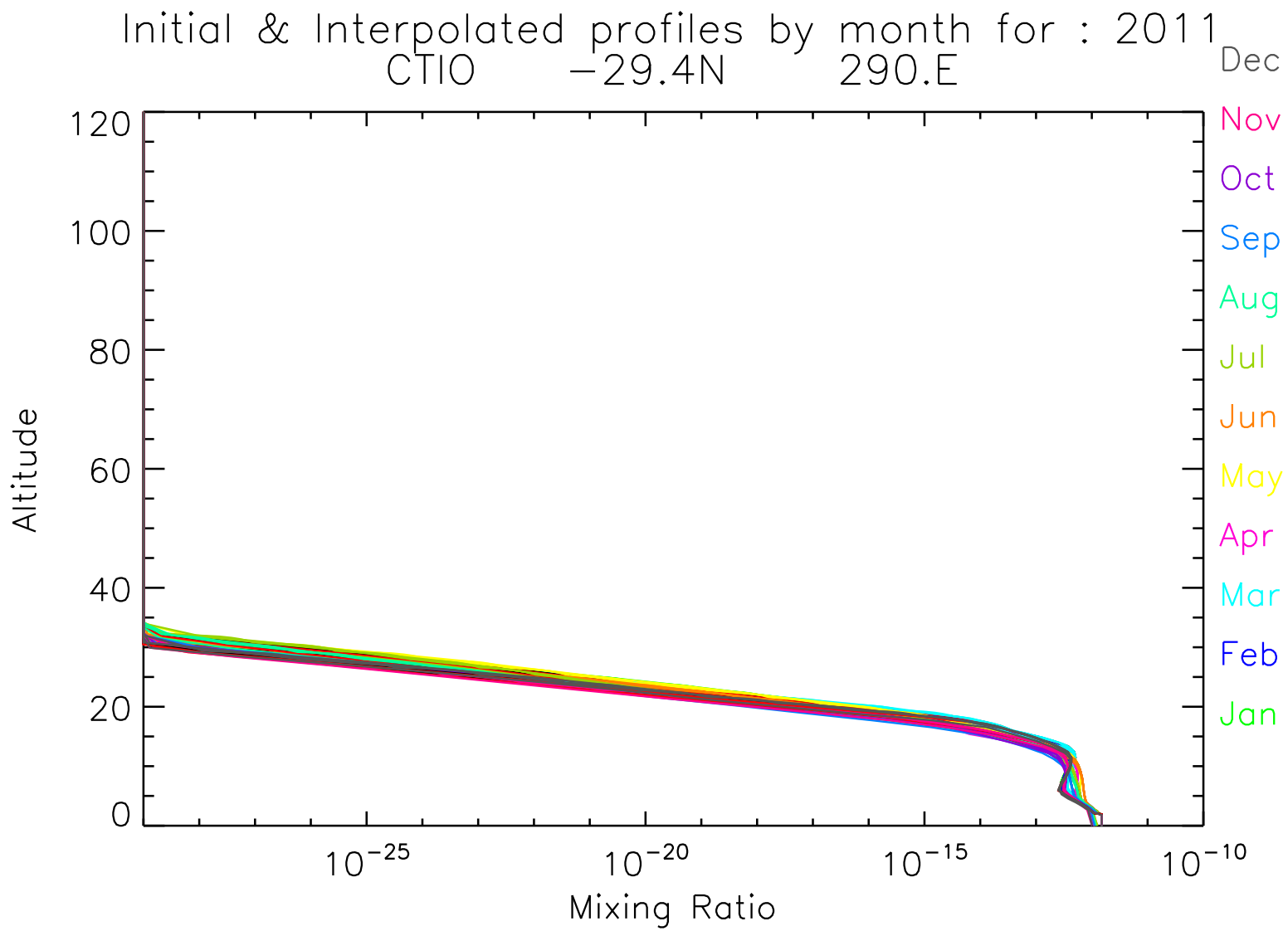
Mixing Ratio


Initial & Interpolated profiles by month for : 2011
CTIO −29.4N 290.E
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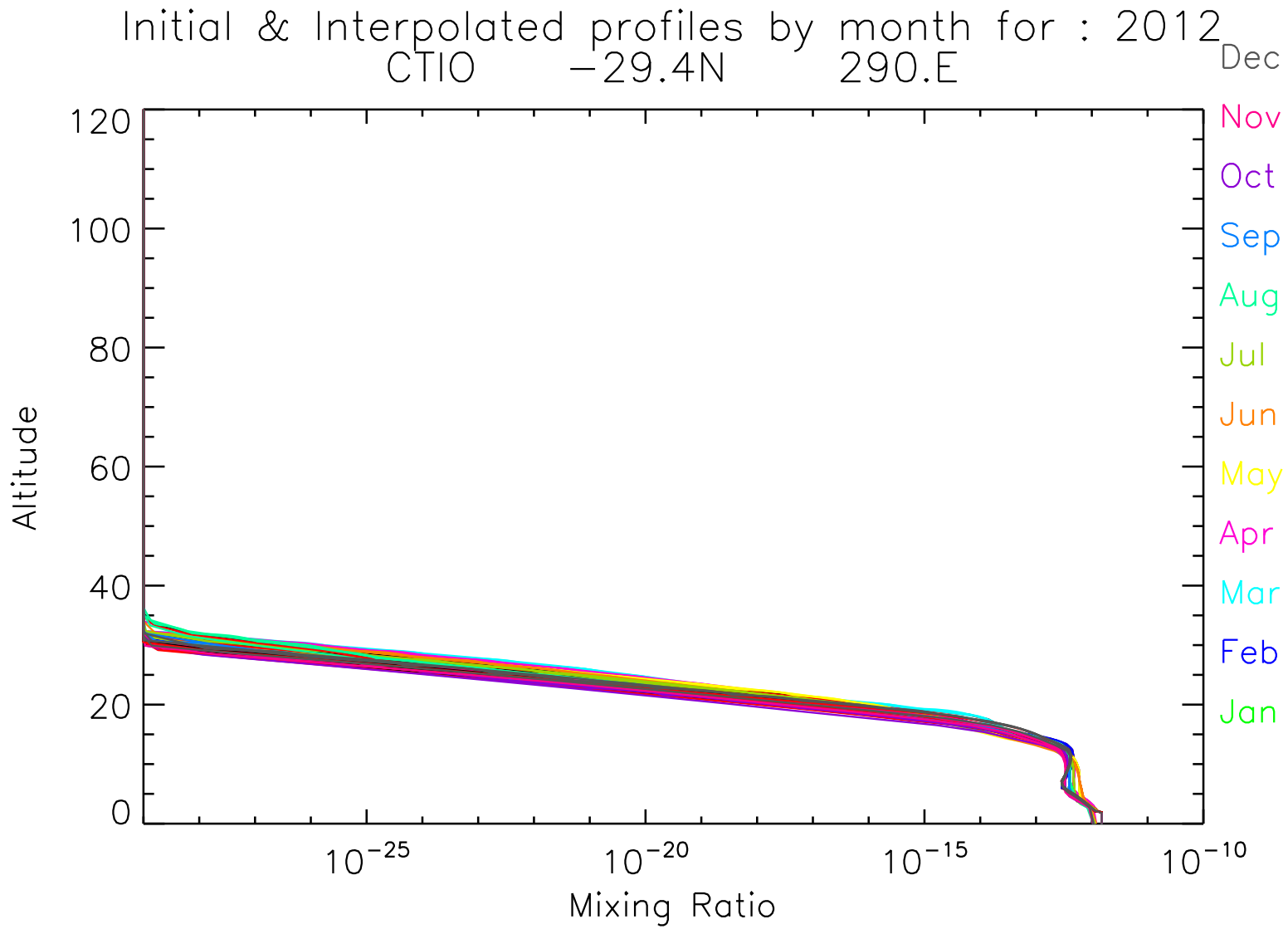
Mixing Ratio


Initial & Interpolated profiles by month for : 2012
CTIO −29.4N 290.E
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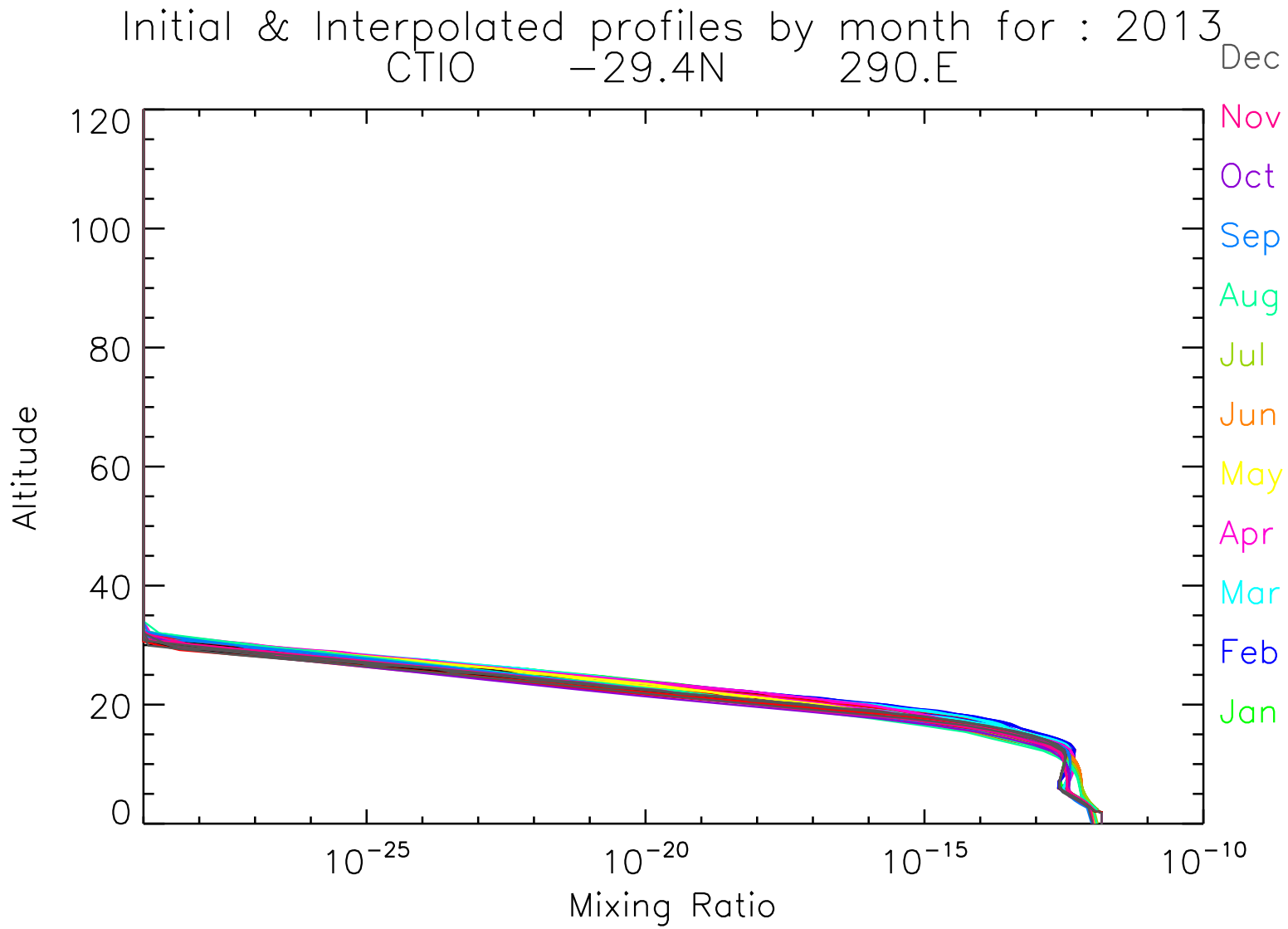
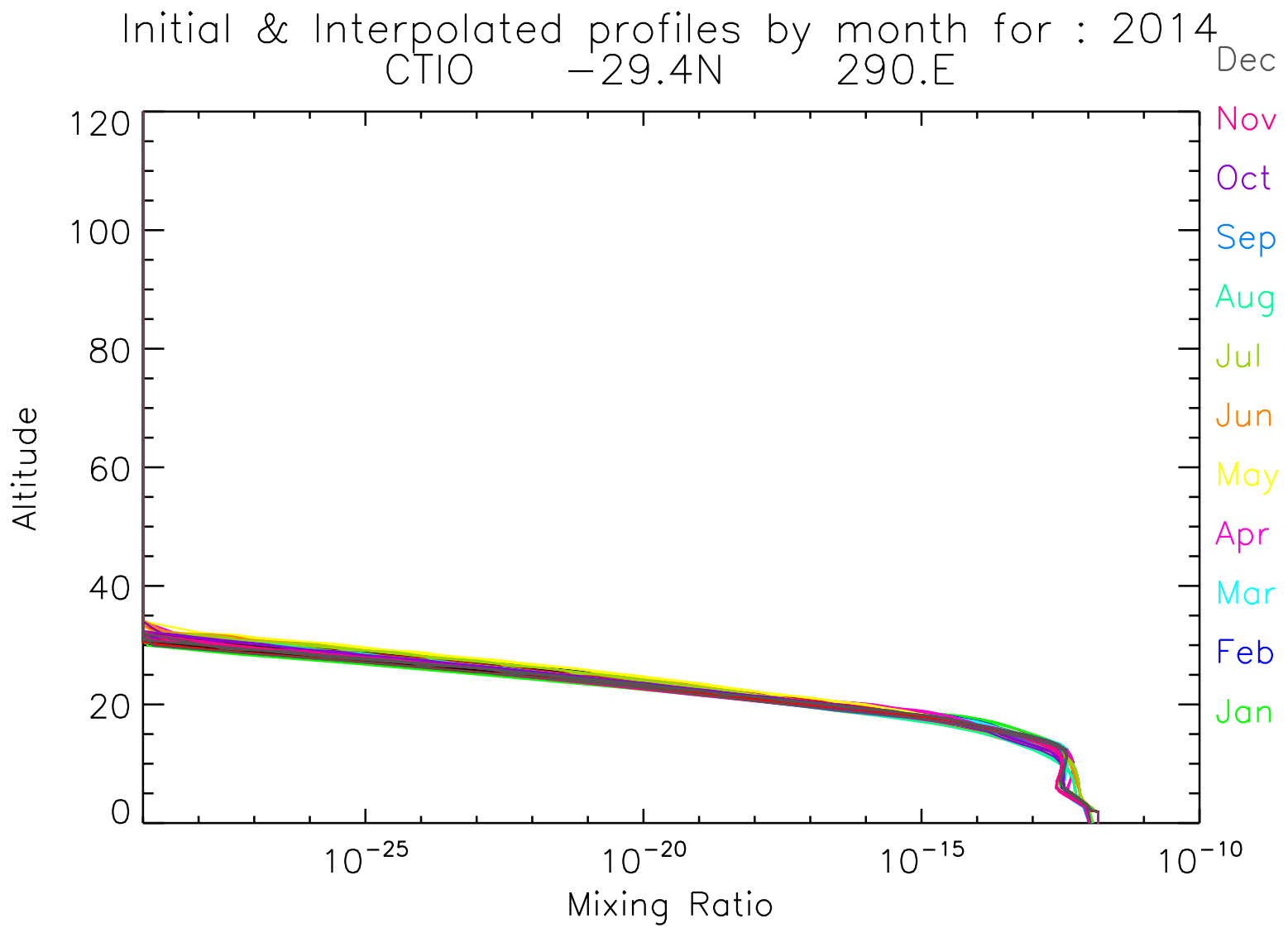
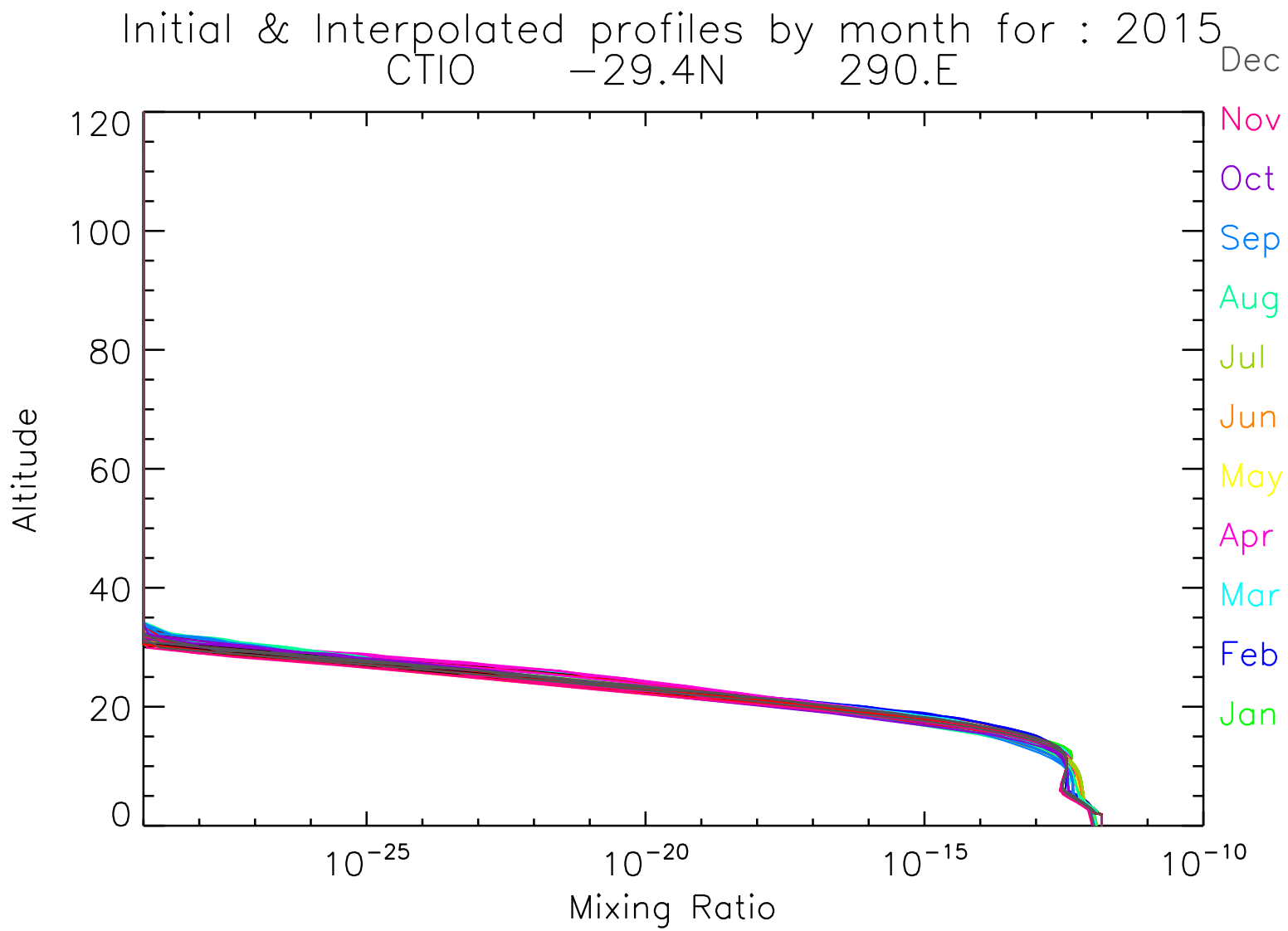
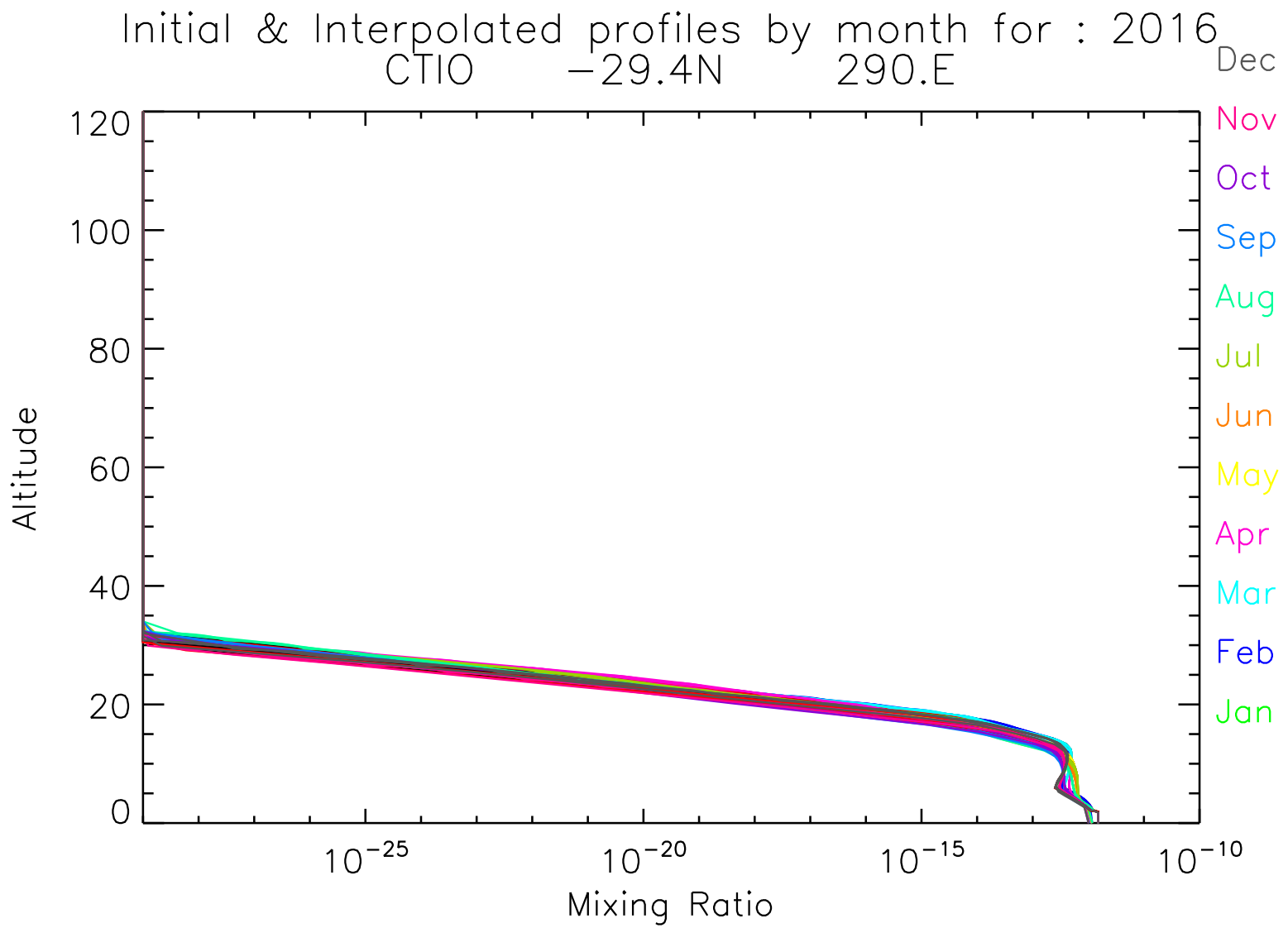
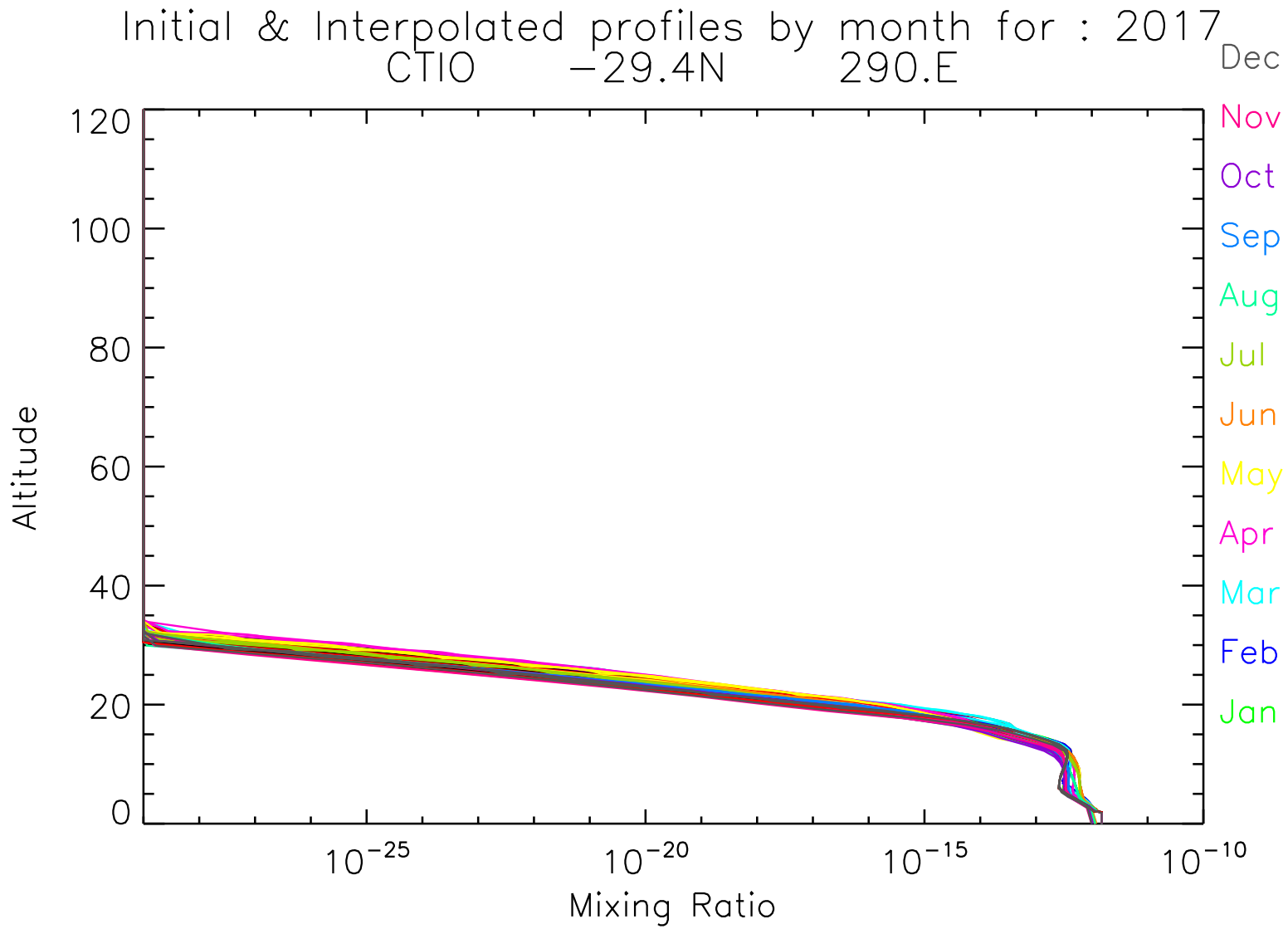
10^{-10}
Mixing Ratio

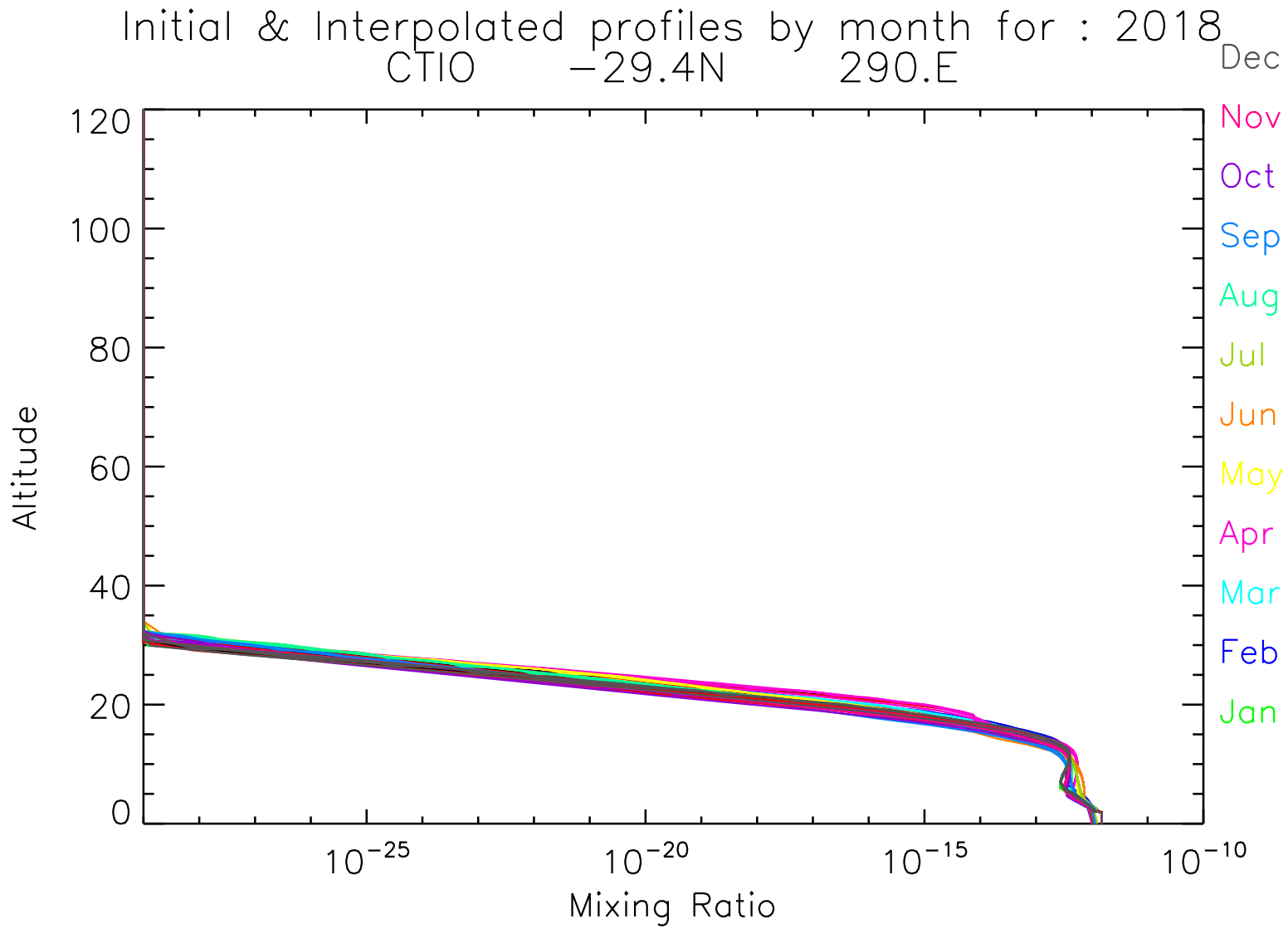

Initial & Interpolated profiles by month for : 2013
CTIO −29.4N 290.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

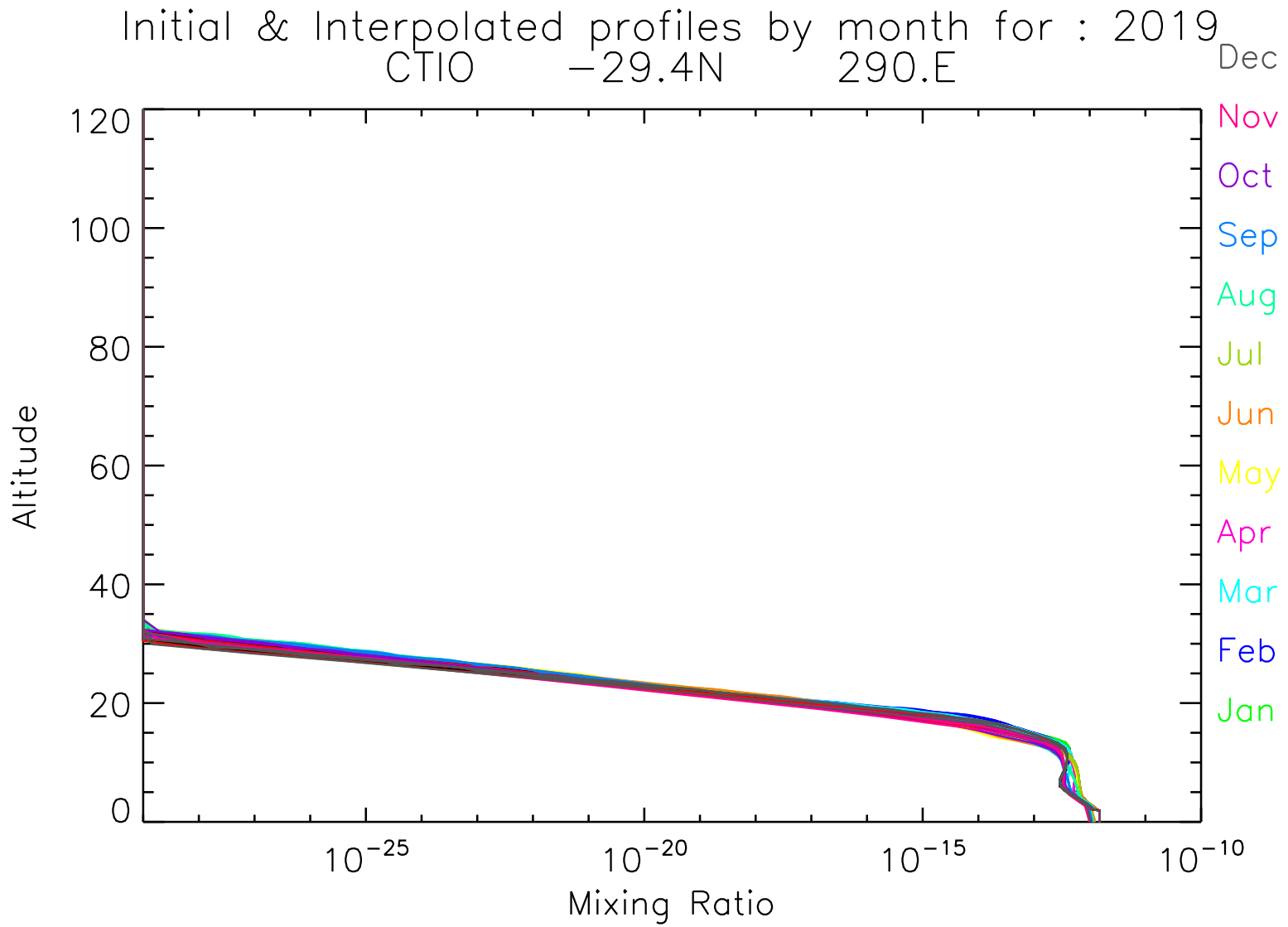

Initial & Interpolated profiles by month for : 2014
CTIO −29.4N 290.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

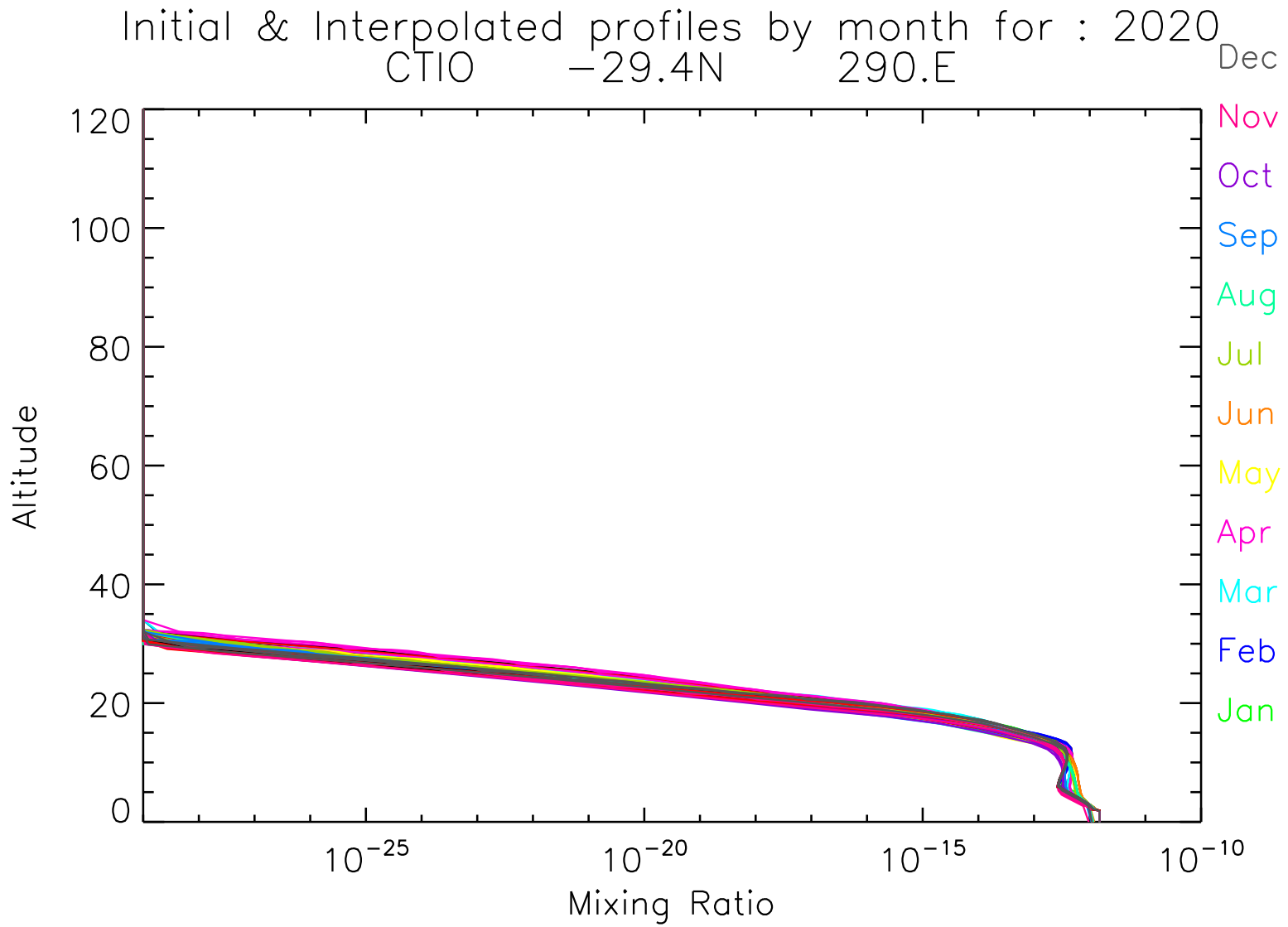

Initial & Interpolated profiles by month for : 2015
CTIO −29.4N 290.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

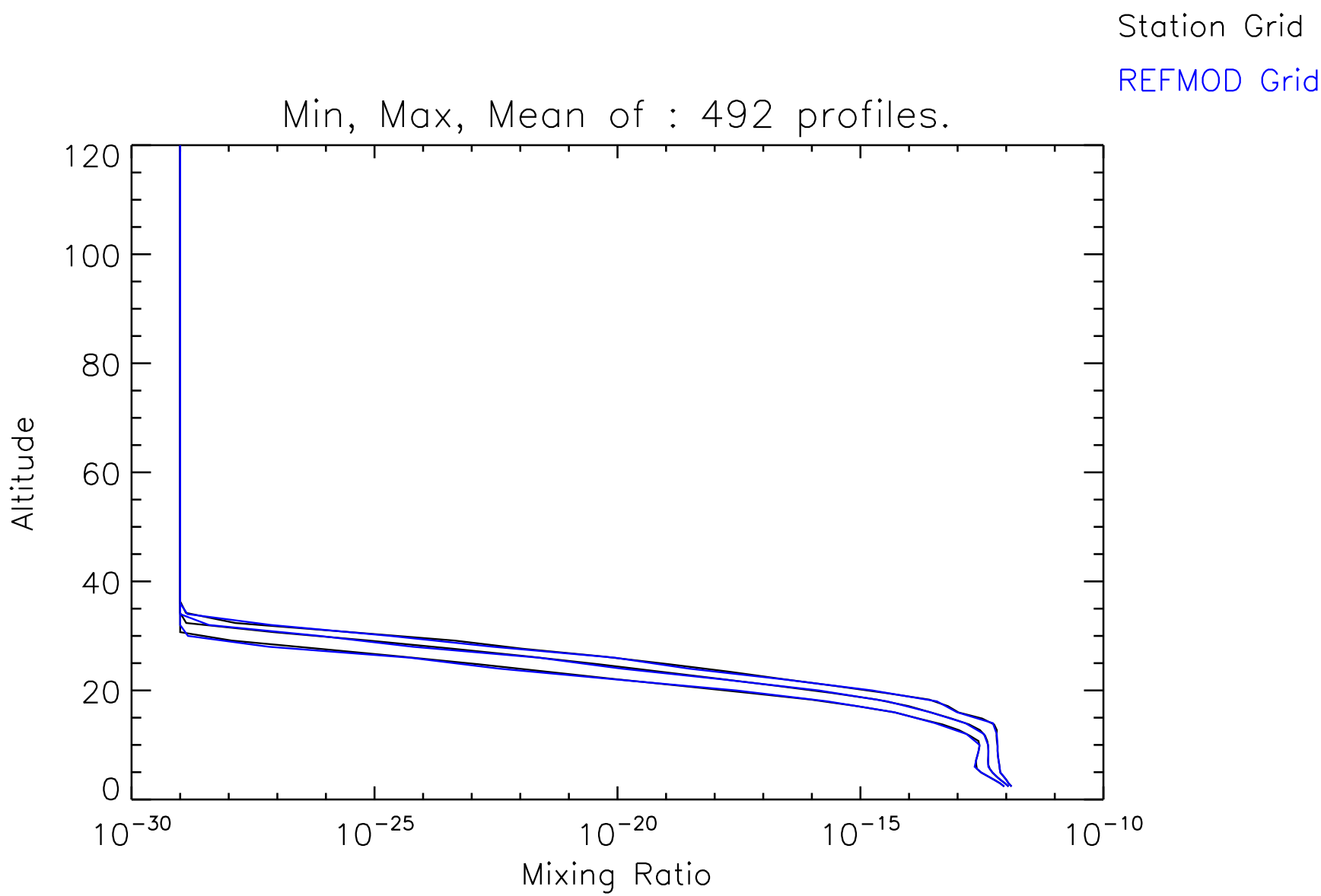

Initial & Interpolated profiles by month for : 2016
CTIO −29.4N 290.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

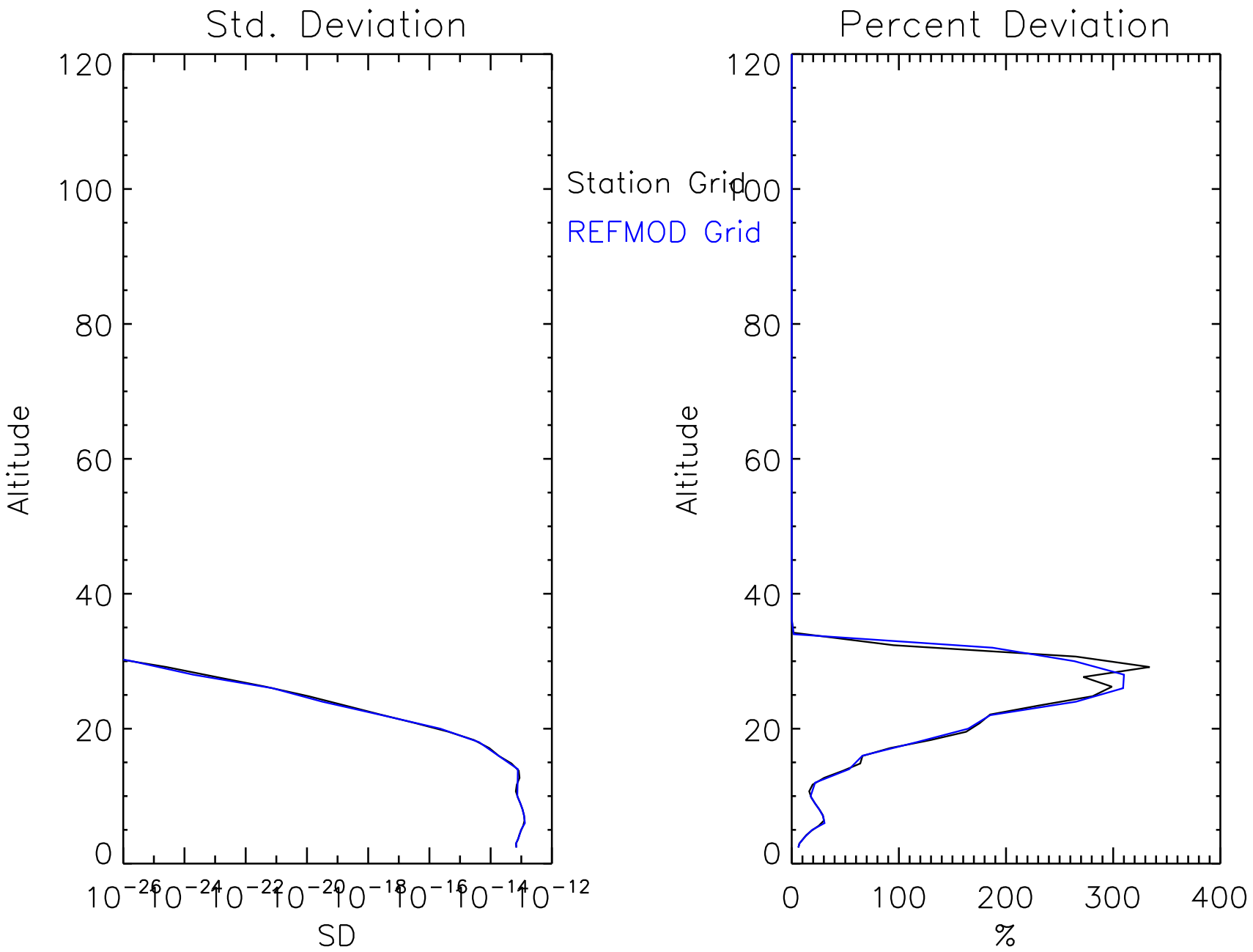

Initial & Interpolated profiles by month for : 2017
CTIO −29.4N 290.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

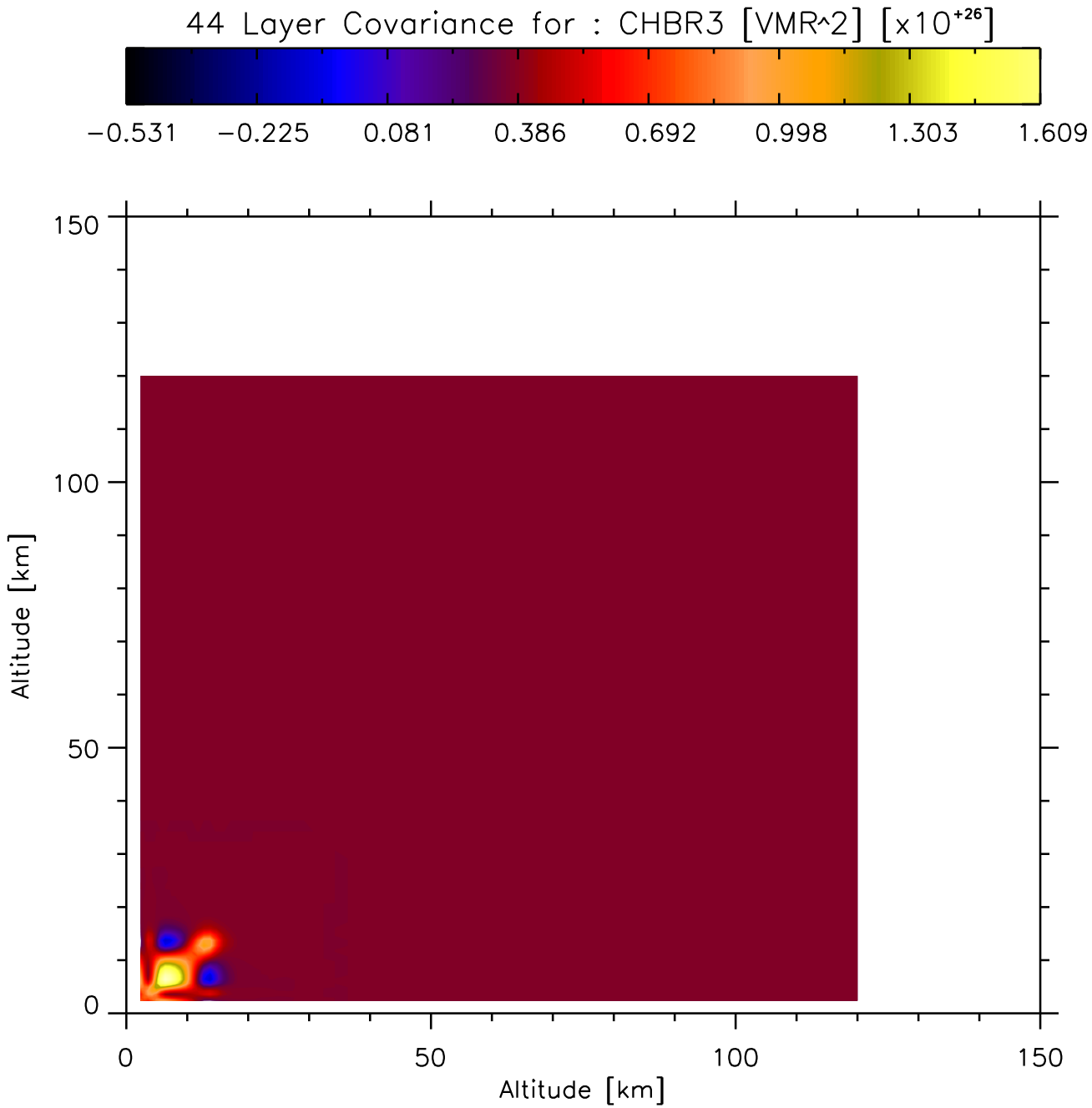

Initial & Interpolated profiles by month for : 2018
CTIO −29.4N 290.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2019
CTIO −29.4N 290.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}
10^{-10}
Mixing Ratio

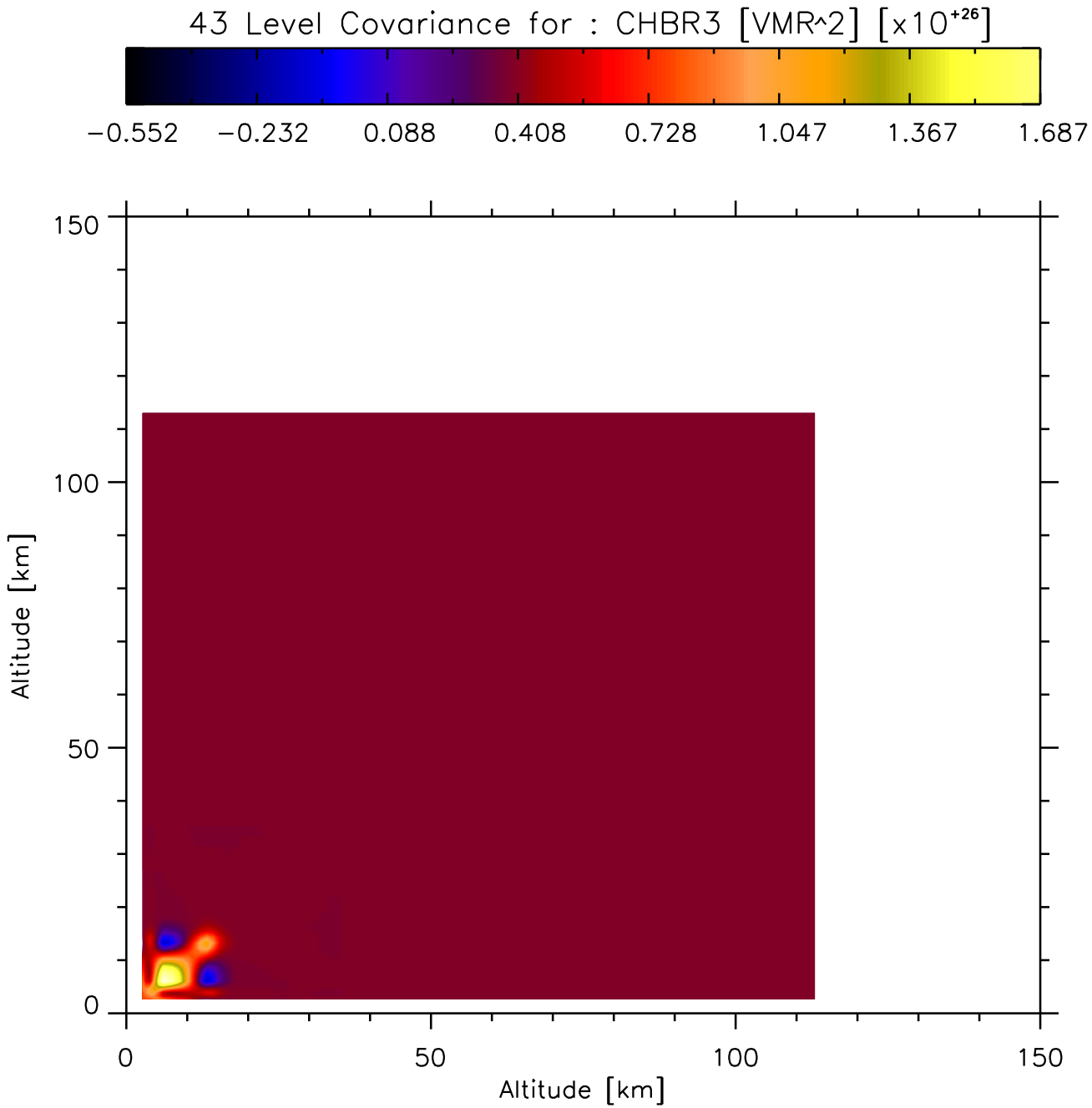

Initial & Interpolated profiles by month for : 2020
CTIO −29.4N 290.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Station Grid
REFMOD Grid
Min, Max, Mean of : 492 profiles.
120
100
80
60
40
20
0
Altitude
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^{-26} 10^{-24} 10^{-22} 10^{-20} 10^{-18} 10^{-16} 10^{-14} 10^{-12}
SD
0
100
200
300
400
%


44 Layer Covariance for : CHBR3 [VMR^2] [x10^+26]
−0.531
−0.225
0.081
0.386
0.692
0.998
1.303
1.609
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]

44 Layer Covariance for : CHBR3 [VMR^2] [x10^26]
Y Altitude
X Altitude
0
50
100
150
0
50
100
150
0.0
0.5
1.0
1.5
2.0


43 Level Covariance for : CHBR3 [VMR^2] [x10^+26]
−0.552
−0.232
0.088
0.408
0.728
1.047
1.367
1.687
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]

43 Level Covariance for : CHBR3 [VMR^2] [x10^-26]
Y Altitude
X Altitude
0
20
40
60
80
100
120
140
160
180
200
0
50
100
150
0.0
0.5
1.0
1.5
2.0