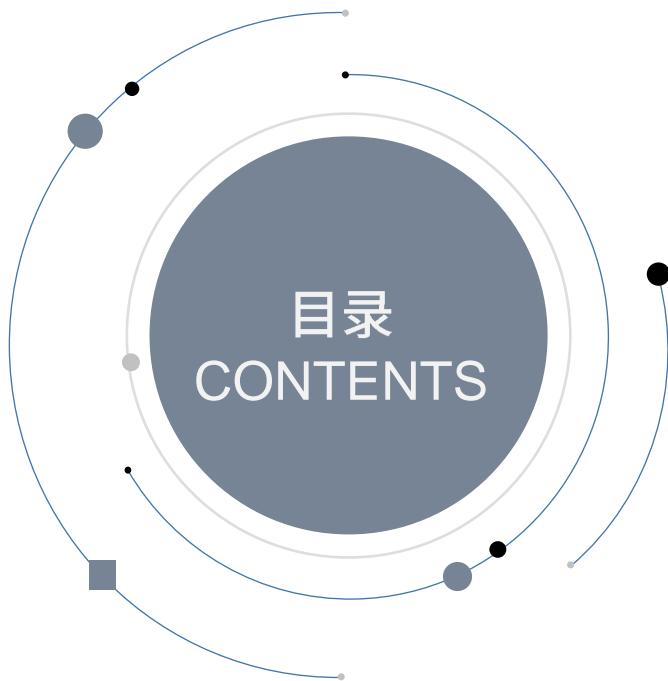




2nd





- Part 01  掌握浮标数据获取方法
- Part 02  掌握数据基本变量含义，  
特殊数据含义
- Part 03  简单筛选、整合数据（使数据结构与  
Dan的基本一致）
- Part 04  适当调整代码，由GMM模型绘  
出图像

# 确定浮标数据获取方法

网址: ht

« 返回 | 回复 | 回复全部 | 转发 | 删 除 | 彻底删除 | 举报 | 拒收 | 标记为... | 移动到... |

**Coriolis Subsetting #a97fd563-25b8-4765-9748-a2c9c0e0b7b3 : Download Ready** ☆

发件人: noreply <noreply@ifremer.fr> 

时 间: 2021年3月23日 (星期二) 下午8 : 56

收件人: 孟神王 <2379533384@qq.com>

 邮件可翻译为中文 [立即翻译](#)

Your data file is available at

[https://data-subsetting.ifremer.fr/DataSelection\\_a97fd563-25b8-4765-9748-a2c9c0e0b7b3.tar.gz](https://data-subsetting.ifremer.fr/DataSelection_a97fd563-25b8-4765-9748-a2c9c0e0b7b3.tar.gz)

Keep in mind that the link to your file will expire after 7 days

Best regards,  
Coriolis data management team.



下载方

1、访问网

2、选择数

3、提供邮

4、等待 (



# 简单筛选、整合数据

## 代码

## 1、过滤

## 2、保

### 3、深

#### 4、经纬度数据堆栈、转置、另外保存

3	4	5	6	7	8	9	10	11
6.41E+00	8.41E+00	1.04E+01	1.24E+01	1.44E+01	1.64E+01	1.84E+01	2.06E+01	2.23E+01
3.2500	3.2400	3.2400	3.1300	2.9600	2.9300	2.9100	2.8500	2.7200
2.7500	2.7300	2.7300	2.7500	2.7500	2.7500	2.7000	2.6800	2.6700
2.8200	2.8200	2.8200	2.8200	2.8200	2.8200	2.8200	2.8200	2.8200
2.7300	2.7300	2.7300	2.7300	2.7300	2.7300	2.7300	2.7300	2.7400
2.8700	2.8700	2.8700	2.8700	2.8600	2.8600	2.8700	2.8700	2.8700
2.2100	2.2100	2.2100	2.2100	2.2100	2.2100	2.2100	2.2100	2.2100
1.2600	1.2600	1.2600	1.2600	1.2600	1.2600	1.2600	1.2600	1.2600
1.1300	1.1300	1.1300	1.1300	1.1300	1.1300	1.1400	1.1300	1.1300
0.6330	0.6330	0.6340	0.6350	0.6340	0.6310	0.6280	0.6280	0.6270
0.5190	0.5180	0.5190	0.5190	0.5200	0.5250	0.5260	0.5250	0.5250
0.2890	0.2890	0.2890	0.2880	0.2880	0.2860	0.2860	0.2860	0.2860
0.0620	0.0610	0.0630	0.0660	0.0660	0.0650	0.0650	0.0640	0.0640

B	C	D	E	F	
.36E+01	3.36E+01	3.36E+01	3.36E+01	3.36E+01	3.3
#####	#####	#####	#####	#####	##
.37E+01	3.37E+01	3.37E+01	3.37E+01	3.37E+01	3.3
#####	#####	#####	#####	#####	##
27E+01	2.27E+01	2.27E+01	2.27E+01	2.37E+01	3.3
10	11	-80.6000	-65.0000	-64.7000	#####
06E+01	2.23E+01	2	-80.8000	-64.6000	3.37E+01
2.8500	2.7200	-	-80.6000	-64.4000	#####
2.6800	2.6700	-	-79.5000	-64.8000	3.37E+01
2.8200	2.8200	-	-78.6000	-65.0000	3.3
2.7300	2.7400	-	-77.8000	-64.2000	#####
2.8700	2.8700	-	-76.6000	-63.6000	
2.2100	2.2100	-	-74.1000	-63.3000	
1.2600	1.2600	-	-71.9000	-62.6000	0.0000 0.0000 0.0000 0.0000
1.1300	1.1300	-	-69.6000	-62.7000	0.0800 -0.0200 0.1800 0.0800
0.6280	0.6270	-	-68.3000	-62.3000	0.0800 -0.0200 -0.0200 -0.0200
0.5250	0.5250	-	-67.4000	-62.2000	-0.2200 -0.3200 -0.3200 -0.3200
0.2860	0.2860	-	-66.1000	-61.1000	-0.0700 -0.1700 -0.1700 -0.1700
0.0640	0.0640	-	-64.5000	-60.6000	0.0700 -0.0300 -0.0300 -0.0300
-0.2500	-0.2500	-	-63.1000	-60.3000	0.0200 -0.0800 -0.0800 -0.0800
-0.3700	-0.0700	-0.0700	-0.0700	-0.0700	-0.0100 -0.2100 -0.2100 -0.2100
-0.2700	-0.0700	0.0300	-0.0700	0.3300 -0.4700	-0.0700 -0.1700 -0.1700 -0.1700
-0.0500	-0.0500	-0.0500	-0.0500	-0.0500 -0.0500	-0.0500 -0.0500 -0.0500 -0.0500
-0.3200	-0.1200	-0.1200	-0.1200	-0.1200 -0.1200	-0.0200 -0.1200 -0.1200 -0.1200
-0.2500	-0.2500	-0.2500	-0.2500	-0.2500 -0.2500	-0.1500 -0.2500 -0.2500 -0.2500
-0.1000	-0.1000	-0.1000	-0.1000	-0.1000 -0.1000	0.1000 0.1000 0.0000 0.0000
-0.0500	0.0500	0.0500	-0.1500	-0.0500 -0.1500	-0.0500 -0.0500 -0.0500 -0.0500

深 度

无效值

深 度

无效值

深 度

无效值

深 度

无效值

盐 度 1

无效值

盐 度 2

无效值

盐 度 3

无效值

盐 度 4

无效值

# 简单筛选、整合数据

原因：解决不了不同维度、类型的数组拼

1 2 3 4 5 6 7 8 9 10 11

1	2	3	4	5	6	7	8	9	10	11	
1	x	y	6.41E+00	8.41E+00	1.04E+01	1.24E+01	1.44E+01	1.64E+01	1.84E+01	2.06E+01	2.23E+01
2	-80.6000	-65.0000	3.2500	3.2400	3.2400	3.1300	2.9600	2.9300	2.9100	2.8500	2.7
3	-80.6000	-64.7000	2.7500	2.7300	2.7300	2.7500	2.7500	2.7000	2.6800	2.6	
4	-80.8000	-64.6000	2.8200	2.8200	2.8200	2.8200	2.8200	2.8200	2.8200	2.8	
5	-80.6000	-64.4000	2.7300	2.7300	2.7300	2.7300	2.7300	2.7300	2.7300	2.7	
6	-79.5000	-64.8000	2.8700	2.8700	2.8700	2.8700	2.8600	2.8600	2.8700	2.8	
7	-78.6000	-65.0000	2.2100	2.2100	2.2100	2.2100	2.2100	2.2100	2.2100	2.2	
8	-77.8000	-64.2000	1.2600	1.2600	1.2600	1.2600	1.2600	1.2600	1.2600	1.2	
9	-76.6000	-63.6000	1.1300	1.1300	1.1300	1.1300	1.1300	1.1400	1.1300	1.1	
10	-74.1000	-63.3000	0.6330	0.6330	0.6340	0.6350	0.6340	0.6310	0.6280	0.6280	0.6
11	-71.9000	-62.6000	0.5190	0.5180	0.5190	0.5190	0.5200	0.5250	0.5260	0.5250	0.5
12	-69.6000	-62.7000	0.2890	0.2890	0.2890	0.2880	0.2880	0.2860	0.2860	0.2860	0.2
13	-68.3000	-62.3000	0.0620	0.0610	0.0630	0.0660	0.0660	0.0650	0.0650	0.0640	0.0
14	-67.4000	-62.2000	0.0720	0.0720	0.072	0.0720	0.0720	0.0730	0.0730	0.0730	0.0
15	-66.1000	-61.1000	-0.1210	-0.1200	-0.1180	-0.1130	-0.1130	-0.1130	-0.1130	-0.1130	-0.1
16	-64.5000	-60.6000	-0.2370	-0.2370	-0.2360	-0.2380	-0.2360	-0.2360	-0.2290	-0.2270	-0.1
17	-63.1000	-60.3000	-0.7440	-0.7420	-0.7420	-0.7470	-0.7660	-0.7620	-0.7340	-0.7310	-0.7
18	-61.9000	-60.5000	-0.8350	-0.8340	-0.8340	-0.8370	-0.8360	-0.8370	-0.8350	-0.8340	-0.8
19	-59.9000	-60.2000	-1.4100	-1.4100	-1.4100	-1.4100	-1.4100	-1.4100	-1.4100	-1.4100	-1.4
20	-58.7000	-60.3000	-1.4600	-1.4600	-1.4600	-1.4600	-1.4600	-1.4600	-1.4600	-1.4600	-1.4
21	-58.3000	-60.5000	-1.1400	-1.1500	-1.1500	-1.1500	-1.1400	-1.1400	-1.1400	-1.1400	-1.1
22	-57.5000	-61.2000	-1.0900	-1.0900	-1.0900	-1.0800	-1.0800	-1.0800	-1.0800	-1.0800	-1.0

3、将经纬度数据插入温深文件中

1	2	3	4	5	6	7	8	9	10
51.582	-45.755	5.681237	5.683842	5.603836	5.518481	5.438179	5.358996	5.299932	5.243
92.548	-43.222	10.326	10.326	10.326	10.3261	10.32857	10.33101	10.33151	10.3
89.601	-56.223	2.383455	2.381051	2.383966	2.386997	2.388578	2.390099	2.391089	2.3
115.978	-45.906	9.729325	9.714897	9.688203	9.658428	9.637267	9.616872	9.60691	9.5986
64.942	-50.344	5.158442	5.158958	5.159	5.159	5.15945	5.15994	5.160888	5.1618
104.434	-48.222	6.121639	6.117903	6.116922	6.116182	6.119242	6.118639	6.084459	6.0490
109.464	-53.397	4.161	4.161	4.128027	4.092172	4.080428	4.070239	4.065925	4.0624
135.982	-56.949	4.149	4.14902	4.149525	4.149912	4.148427	4.146244	4.126935	4.1039
65.243	-39.195	15.9235	15.87834	15.83444	15.788	15.73346	15.68882	15.67265	15.6
37.498	-31.673	25.49371	25.46634	25.30113	25.14573	25.10439	25.06305	23.94603	22.82
-17.872	-32.198	17.43998	17.44799	17.456	17.46799	17.47998	17.43208	17.38407	16.864
-13.538	-34.83	15.31201	15.314	15.316	15.316	15.316	15.32	15.324	15.3
33.034	-31.141	24.43171	24.41835	24.39964	24.38032	24.37844	24.37893	24.36916	24.357
47.036	-32.233	18.30202	18.29842	18.01325	17.72808	17.72355	17.7191	17.71001	17
33.852	-33.115	21.62103	21.18134	20.9143	20.63301	20.33496	19.84189	19.10043	18.598
48.88	-32.12	21.49239	21.48344	21.4045	21.31219	21.21949	21.12666	20.98166	20.823
57.803	-34.628	18.317	18.31726	18.31873	18.31851	18.3078	18.29831	18.29442	18.264
65.987	-37.664	18.37441	18.23766	17.86317	17.50194	17.16908	16.92598	16.85804	16.788
70.443	-34.437	15.00231	14.92881	14.60953	14.33369	14.28773	14.22608	14.09267	13.963
64.824	-36.13	14.504	14.504	14.504	14.50416	14.50467	14.50465	14.50368	14.502

# 适当调整代码，绘出图像

●更改读取数据的文件名。

```
# df = pd.read_csv('Argo_T_profiles_smaller.csv')
df = pd.read_csv('深度-温度综合表.csv') # read
```

●更改计算平均值时所参考的深度参数

```
# calculate sea surface temperatures (SSTs)
T15_means = df_means["6.41E+00"] values
# sort mean temperature at 15 dbar from coldest to warmest
```

●调整横纵轴范围，使图像展示更多细节

```
# custom grid and axes
plt.ylim([0, 2000])
ax = plt.gca()
ax.invert_yaxis()
plt.xlim([-3, 5])
ax.grid(True)
```

# 浏览浮标数据

2个高质量浮标：数据数量多、种类多、质量好

4个质量一般浮标：只有温盐深数据、采样稀少、质量好

2个作废浮标：有效数据少

1	2	3	4	5	6	7	8	9	10	11	12	13	14
0.0000	6.0000	11.0000	10.0000	17.0000	14.0000	16.0000	18.0000	20.0000	21.0000	24.0000	24.0000	25.0000	3
-1.2150	-1.2180	-1.2210	-1.2440	-1.2520	-1.2530	-1.2480	-1.2520	-1.2960	-1.3250	-1.3170	-1.2000	-	
1.3730	1.3750	1.3750	1.3770	1.3790	1.3810	1.3790	1.3790	1.2900	1.3040	1.2190	1.3480	1.2560	-
0.0390	-0.9430	-0.9420	-0.9420	-0.9430	-0.9430	-0.9440	-0.9440	-0.9440	-0.9300	-0.9445	-0.9460	-0.9470	-1.0800
0.7130	-0.7130	-0.7130	-0.7130	-0.7130	-0.7120	-0.7120	-0.7120	-0.7130	-0.7320	-0.7330	-0.7340	-0.7410	-
0.9610	-0.9610	-0.9610	-0.9610	-0.9610	-0.9610	-0.9610	-0.9610	-0.9610	-0.9610	-0.9610	-0.9610	-0.9610	-0.9710
0.7090	-0.7080	-0.7100	-0.7120	-0.7180	-0.7260	-0.7300	-0.7310	-0.7360	-0.7420	-0.7300	-0.7320	-0.7360	-
1.0670	-1.0590	-1.0570	-1.0590	-1.0470	-1.0480	-1.0390	-1.0290	-1.0200	-1.0180	-1.0160	-1.0390	-1.0270	-
1.4240	-1.4270	-1.4260	-1.4240	-1.4240	-1.4230	-1.4230	-1.4240	-1.4230	-1.4230	-1.4230	-1.4230	-1.4230	-
1.4270	-1.4270	-1.4240	-1.4230	-1.4220	-1.4210	-1.4230	-1.4110	-1.4110	-1.4100	-1.4100	-1.4100	-1.4100	-1.4160
1.7290	-1.7260	-1.7170	-1.7160	-1.7160	-1.7170	-1.7170	-1.7170	-1.7150	-1.7130	-1.7120	-1.7120	-1.7120	-1.7120
3.0490	-3.0480	-3.0470	-3.0470	-3.0470	-3.0470	-3.0470	-3.0470	-3.0470	-3.0470	-3.0470	-3.0470	-3.0470	-3.0470
1.0600	-1.0620	-1.0610	-1.0610	-1.0610	-1.0610	-1.0610	-1.0610	-1.0610	-1.0610	-1.0610	-1.0600	-1.0600	-1.0600
1.8490	-1.8480	-1.8480	-1.8480	-1.8480	-1.8480	-1.8480	-1.8480	-1.8480	-1.8480	-1.8480	-1.8470	-1.8470	-1.8470
2.0090	-1.9940	-1.9850	-1.9840	-1.9840	-1.9840	-1.9840	-1.9840	-1.9840	-1.9840	-1.9840	-1.9840	-1.9840	-1.9840
1.8680	-1.8680	-1.8660	-1.8670	-1.8670	-1.8660	-1.8660	-1.8660	-1.8660	-1.8660	-1.8660	-1.8660	-1.8660	-1.8660
3.9570	-3.9570	-3.8770	-3.8770	-3.8770	-3.8770	-3.8770	-3.8770	-3.8770	-3.8770	-3.8770	-3.8770	-3.8770	-3.8680
1.0610	-1.9420	-1.8620	-1.8620	-1.8620	-1.8620	-1.8620	-1.8620	-1.8620	-1.8620	-1.8620	-1.8550	-1.8550	-1.8550
1.0510	-1.9990	-1.8500	-1.8900	-1.8900	-1.8900	-1.8900	-1.8900	-1.8900	-1.8900	-1.8900	-1.8900	-1.8900	-1.8900
1.1640	-1.9330	-1.8530	-1.8540	-1.8530	-1.8530	-1.8530	-1.8530	-1.8530	-1.8530	-1.8530	-1.8530	-1.8530	-1.8530

1	2	3	4	5	6	7	8	9	10	11	12	13	14
24.1000	26.0000	28.0000	30.1000	32.0000	34.0000	36.0000	38.0000	40.0000	42.0000	44.0000	46.0000	48.0000	50.0000
1.1180	1.1140	1.1130	1.1080	1.1080	1.1070	1.1050	1.1030	1.1020	1.1000	1.0980	1.0930	1.0870	1.0840
3	4	5	6	7	8	9	10	11	12	13	14		
5	6	7	8	9	10	11	12	13	14				

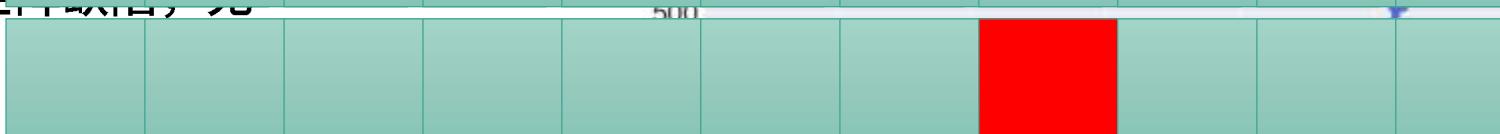
1	2	3	4	5	6	7	8	9	10	11	12
11.2090	11.1980	11.1980	11.1700	11.1870	11.1580	11.0580	11.0180	11.0010	10.7480	-2147483647.0000	-2147483647.0000
12.2590	12.2650	12.2690	12.2490	12.2540	12.2490	12.2470	12.2170	12.1140	11.8140	-2147483647.0000	-2147483647.0000
11.7700	11.7690	11.7700	11.7690	11.7690	11.7710	11.7710	11.7690	11.7710	11.7630	-2147483647.0000	-2147483647.0000
11.5230	11.5230	11.5230	11.5230	11.5230	11.5250	11.5250	11.5250	11.5250	11.5230	-2147483647.0000	-2147483647.0000
11.6900	11.6900	11.6880	11.7050	11.7060	11.7060	11.6930	11.6960	11.6960	11.7010	-2147483647.0000	-2147483647.0000
11.5280	11.5470	11.5560	11.5630	11.5660	11.5660	11.5680	11.5680	11.5700	11.5710	-2147483647.0000	-2147483647.0000
12.1700	12.1900	12.1880	12.0370	11.9220	11.9010	11.8720	11.8560	11.8490	11.8000	-2147483647.0000	-2147483647.0000
12.4970	12.4750	12.4780	12.4560	12.4560	12.4560	12.4560	12.4560	12.4560	12.4560	-2147483647.0000	-2147483647.0000
12.0520	12.8460	12.8460	12.8770	12.8880	12.8780	12.8770	12.8770	12.8740	12.8460	-2147483647.0000	-2147483647.0000
12.2660	12.2720	12.2620	12.2940	12.2960	12.2960	12.2960	12.2970	12.2990	12.2990	-2147483647.0000	-2147483647.0000
11.6990	11.6990	11.7040	11.7140	11.7140	11.7120	11.7120	11.7110	11.7110	11.7110	-2147483647.0000	-2147483647.0000
11.4170	11.4480	11.4080	13.4480	11.4520	11.4520	11.4510	11.4540	11.4540	11.4600	-2147483647.0000	-2147483647.0000
11.2710	11.2570	11.2310	11.2810	11.2790	11.2790	11.2830	11.2790	11.2790	11.2790	-2147483647.0000	-2147483647.0000
11.1150	11.1760	11.1800	11.1800	11.1710	11.1710	11.1740	11.1780	11.1780	11.1760	-2147483647.0000	-2147483647.0000
10.0240	10.8580	10.8570	10.8640	10.8650	10.8650	10.8660	10.8670	10.8670	10.8650	-2147483647.0000	-2147483647.0000
10.6030	10.6030	10.6450	10.6580	10.6570	10.6660	10.6660	10.6670	10.6670	10.6690	-2147483647.0000	-2147483647.0000
10.0830	10.0870	10.0940	10.0980	10.0960	10.1010	10.1010	10.1010	10.1010	10.1100	-2147483647.0000	-2147483647.0000
9.7120	9.6890	9.6930	9.7280	9.7300	9.7280	9.7320	9.7300	9.7300	9.7330	-2147483647.0000	-2147483647.0000
9.5830	9.6110	9.6010	9.6100	9.6060	9.6060	9.6070	9.6050	9.6030	9.6050	-2147483647.0000	-2147483647.0000
9.5310	9.5300	9.5280	9.5320	9.5320	9.5320	9.5320	9.5320	9.5320	9.5350	-2147483647.0000	-2147483647.0000
9.4390	9.4430	9.4460	9.4500	9.4510	9.4520	9.4510	9.4520	9.4520	9.4530	-2147483647.0000	-2147483647.0000
9.3290	9.3270	9.2750	9.3640	9.3660	9.3660	9.3650	9.3650	9.3670	9.3760	-2147483647.0000	-2147483647.0000
9.2400	9.2490	9.2460	9.2520	9.2500	9.2520	9.2520	9.2520	9.2530	9.2550	-2147483647.0000	-2147483647.0000

# Tips

--能否利用缺陷数据

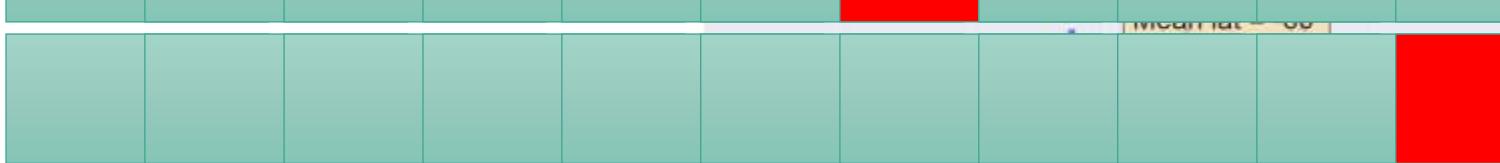
- 删除

**ERROR**: 产生短  
法调用函数。



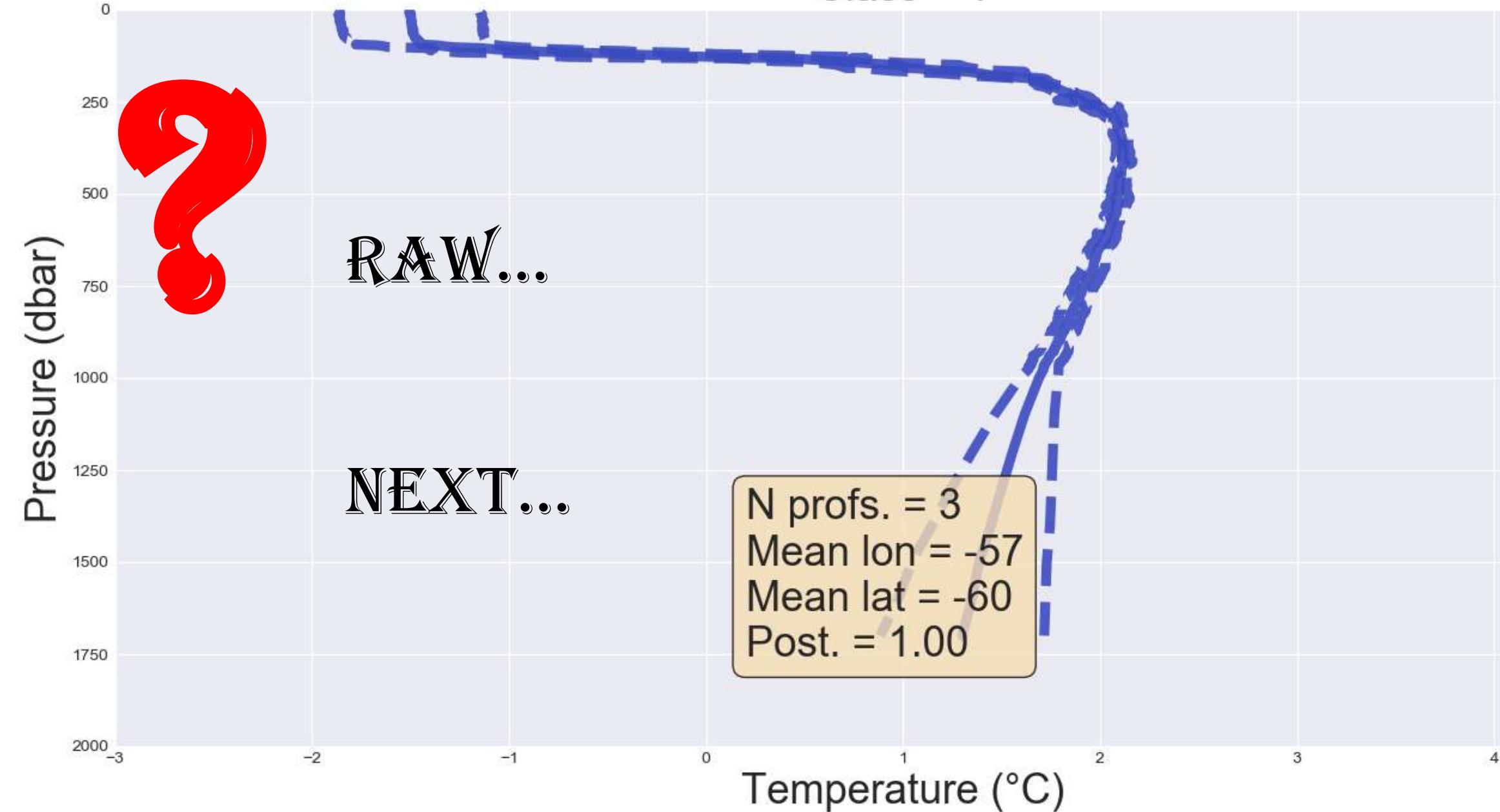
- 填充值:

会影响函数模型



4 5

Class = 1



C continue...