

环境问题及解决方案

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汇总了一些同学数据处理时遇到的环境问题及解决方案--2024.3.9

trackpy中计算MSD的函数， emsd()无法使用

问题:emsd()函数不可用,出现报错

`TypeError: sum() got an unexpected keyword argument 'level'`

```
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TypeError                                 Traceback (most recent call last)
Cell In[1], line 3
      2 from IPython.display import Image
      3 from IPython.core.interactiveshell import InteractiveShell
----> 4 from trackpy import *
File ~/anaconda3/envs/trackpy/lib/python3.10/site-packages/trackpy/trackpy.py:282, in emsd(track, mpp, fps, max_lagtime, detail, pos_columns)
    280 return results.set_index('lag')['msd']
    281 # correctly compute the effective number of independent measurements
--> 282 results['CI'] = msdCI(w['sum'], level=1)
    283 return results
File ~/anaconda3/envs/trackpy/lib/python3.10/site-packages/pandas/core/series.py:8552, in Series.sum(self, axis, skipna, numeric_only, min_count, **kwargs)
    8510 @doc(make_doc('sum', ndim=1))
    8511 def sum(
    8512     self,
    8513     *,
    8514     **kwargs,
    8515 ):
--> 8516     return NDFrame.sum(self, axis, skipna, numeric_only, min_count, **kwargs)
File ~/anaconda3/envs/trackpy/lib/python3.10/site-packages/pandas/core/nframe.py:12583, in NDFrame.sum(self, axis, skipna, numeric_only, min_count, **kwargs)
   12585 def sum(
   12586     self,
   12587     *,
   12588     **kwargs,
   12589 ):
   12590     if diff:
   12591         bad_arg = next(iter(diff))
--> 12592         raise TypeError(f"{fname}() got an unexpected keyword argument '{bad_arg}'")
TypeError: sum() got an unexpected keyword argument 'level'
Output is truncated. View on a scrollable element or open in a text editor. Adjust cell output settings...
```

原因:目前由于pandas更新2.0版本后，由于`df.sum(level=1)`的写法被`df.groupby(level=1).sum()`替代，若环境中的pandas版本在2.0之后，将导致trackpy中计算MSD的函数`emsd()`不可用

```
In [ ]: ! pip show pandas #目前版本为2.2.1
```

Name: pandas
Version: 2.2.1
Summary: Powerful data structures for data analysis, time series, and statistics
Home-page: <https://pandas.pydata.org>
Author:
Author-email: The Pandas Development Team <pandas-dev@python.org>
License: BSD 3-Clause License

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Location: c:\users\yyc\anaconda3\envs\py39\lib\site-packages
Requires: numpy, python-dateutil, pytz, tzdata
Required-by: trackpy

解决方案:1.将pandas版本回滚至2.0以前

在命令提示符中然后输入: pip install pandas==版本号。如: pip install pandas==1.4.4

```
In [ ]: #! pip install pandas==1.4.4 #安装指定版本
```


安装pandas报错

原因：这是因为缺少部分pandas依赖的C语言环境，如果你的电脑上没有安装过visual studio就有可能遇到以上问题，可以通过以下方法解决

解决方案:打开清华源网站，并下载minicoda:

<https://mirrors.tuna.tsinghua.edu.cn/>



HOME

镜像列表

按 / 搜索

Name	Last Update
AOSP ?	2024-03-09 13:32 syncing
Adoptium ?	2024-03-08 06:16
CPAN ?	2024-03-09 13:04
CRAN ?	2024-03-09 15:42
CTAN ?	2024-03-09 14:45
CocoaPods ?	2024-03-09 16:05
FreeCAD ?	2024-03-09 05:19
GRID	2024-03-09 15:51
KaOS	2024-03-09 14:23
NetBSD ?	2024-03-09 09:28 failed
OpenBSD ?	2024-03-09 15:01
OpenMediaVault ?	2024-03-09 14:16
VSCodium ?	2024-03-09 05:19
adobe-fonts	2024-03-09 11:16
alpine ?	2024-03-09 10:14
anaconda ?	2024-03-09 04:54
anthon ?	2024-03-09 16:04
aosp-monthly	2024-03-09 13:23
apache	2024-03-09 14:05
rockylinux	2024-03-09 15:42

step 1



HOME EVENTS BLOG RSS PODCAST MIRRORS

Index of /anaconda/

Last Update: 2024-03-09 04:54

File Name ↓	File Size ↓	Date ↓
Parent directory/	-	-
archive/	-	2024-02-27 09:35
cloud/	-	2022-04-26 22:02
miniconda/	-	2024-03-03 12:34
pkgs/	-	2019-08-24 02:18
failed_packages.txt	297 B	2017-11-27 01:37

step 2



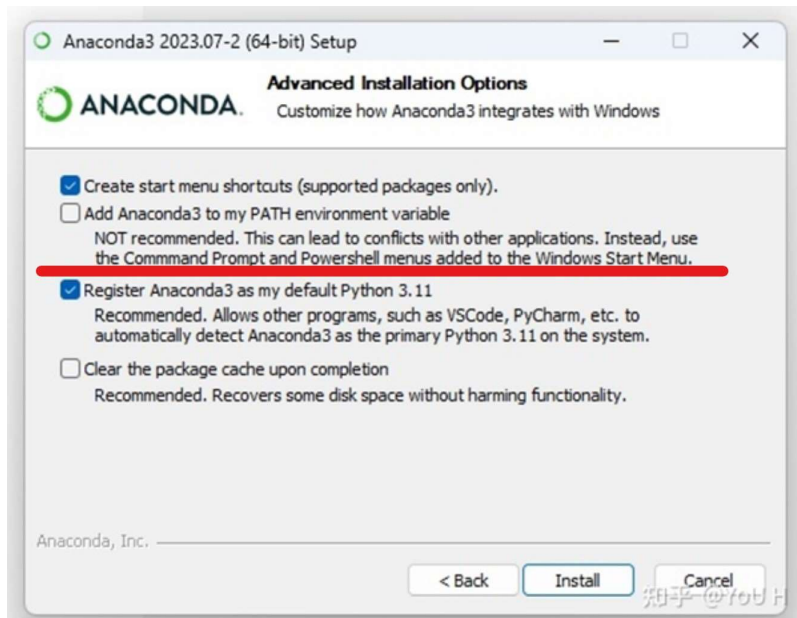
HOME EVENTS BLOG RSS PODCAST MIRRORS

Index of /anaconda/miniconda/

Last Update: 2024-03-09 04:54

File Name ↓	File Size ↓	Date ↓
Parent directory/	-	-
Miniconda3-py39_24.1.2-0-Windows-x86_64.exe	77.3 MiB	2024-02-28 03:41
Miniconda3-py39_24.1.2-0-MacOSX-x86_64.sh	101.3 MiB	2024-02-28 03:41
Miniconda3-py39_24.1.2-0-MacOSX-arm64.sh	97.9 MiB	2024-02-28 03:41
Miniconda3-py39_24.1.2-0-MacOSX-x86_64.pkg	100.6 MiB	2024-02-28 03:41
Miniconda3-py39_24.1.2-0-Linux-x86_64.sh	126.2 MiB	2024-02-28 03:41
Miniconda3-py39_24.1.2-0-MacOSX-arm64.pkg	97.1 MiB	2024-02-28 03:41
Miniconda3-py39_24.1.2-0-Linux-s390x.sh	122.8 MiB	2024-02-28 03:41
Miniconda3-py312_24.1.2-0-Windows-x86_64.exe	78.1 MiB	2024-02-28 03:41
Miniconda3-py39_24.1.2-0-Linux-aarch64.sh	120.4 MiB	2024-02-28 03:41
Miniconda3-py312_24.1.2-0-MacOSX-x86_64.sh	103.9 MiB	2024-02-28 03:41
Miniconda3-py312_24.1.2-0-MacOSX-x86_64.pkg	103.2 MiB	2024-02-28 03:41
Miniconda3-py312_24.1.2-0-MacOSX-arm64.sh	102.9 MiB	2024-02-28 03:41

step 3 选择合适版本安装



安装时切记勾选Add Anaconda3 to my PATH environment variable, 将其路径添加至环境变量

step4 打开Anaconda3 Prompt,输入conda install -c conda-forge pandas==1.4.4, 安装pandas

```
Anaconda Prompt (anaconda3) - "C:\Users\yxc\anaconda3\condabin\conda.bat" activate py39
(py39) C:\Users\yxc>conda install -c conda-forge pandas==1.4.4
```

step5 在jupyter lab中切换至Anaconda 的python环境

安装时切记勾选Add Anaconda3 to my PATH environment variable,将其路径添加至环境变量

step4 打开Anaconda3 Prompt,输入conda install -c conda-forge pandas==1.4.4, 安装pandas

```
(base) C:\Users\yxc>conda install -c conda-forge pandas==1.4.4
```

1 step5 在jupyter lab中切换至Anaconda 的python环境