

12/10

睿寬報告

<https://forms.gle/Noct2hJ3H5tDVQ8Z8>

Neural Network galaxy images

Neural_network_Galaxy_images_in_class_2024.ipynb

CNN galaxy images

<https://colab.research.google.com/drive/1rQRvnOyRP-7ImMXycf2tbaY7-iwEV4Db?usp=sharing>

12/3

婷凱報告

<https://forms.gle/p5jUjZ3YRiXmfM6z9>

Neural Network example

[Neural network in class to device.ipynb](#)

Neural Network galaxy images

Neural_network_Galaxy_images_in_class_2024.ipynb

11/26

筱嬪報告

<https://forms.gle/E2Zk7yzAhXtuubF26>

Random forest example

https://github.com/astro-blue/Data-analysis-in-astronomy-2024/blob/main/Week_10/Logistic_regression_and_SVM_and_Decision_tree_Forest_in_class.ipynb

11/19

謝承安報告

<https://forms.gle/3GLFZUm2vFXEgafJ8>

Random forest example

https://github.com/astro-blue/Data-analysis-in-astronomy-2024/blob/main/Week_10/Logistic_regression_and_SVM_and_Decision_tree_Forest_in_class.ipynb

明天(星期二 11/19)來參加 MCMC tutorial 10:20 am by Dr. Yi-Kuan Chiang

MCMC code

請先安裝

emcee <https://emcee.readthedocs.io/en/stable/>

corner <https://corner.readthedocs.io/en/latest/>

如果有使用pip 可直接安裝

並請下載

https://www.dropbox.com/scl/fi/dvneloietpvsrq284w19m/fit_a_straight_line_to_data.ipynb?rlkey=xqfguiwdxnth1cgs2lh7ktx97&dl=0

The above tutorial is developed by Dr. Yi-Kuan Chiang

Slides

<https://www.dropbox.com/scl/fo/n7in5gr2qz6npqy693jzz/APex7FlbRvNaEfbXqm6miqq?rlkey=er1rqzixigxbff1ufs22jefk&dl=0>

11/12

蔡銘哲報告

<https://forms.gle/4uYHwzh2my3AMVFk9>

Logistic regression exercise

https://github.com/astro-blue/Data-analysis-in-astronomy-2024/blob/main/Week_10/Logistic_regression_and_SVM_and_Decision_tree_Forest_in_class.ipynb

https://www.dropbox.com/scl/fi/fl44vdietkl5d67v106bj/Logistic_regression_and_SVM_and_Decision_tree_Forest_in_class.ipynb?rlkey=dm080efwotc1q0zmacyqnntiq&dl=0

Week 10 slides

<https://www.dropbox.com/scl/fo/srm6g5yq9db603s94r82a/ANWIDJiQN9FLZq6NfXo5uHo?rlkey=ec4s4m4pwxnvg63lg934mljik&dl=0>

11/5

白哲瑋報告

<https://forms.gle/pGgGjaNWf2oBnbSc7>

PCA exercise

https://github.com/astro-blue/Data-analysis-in-astronomy-2024/blob/main/Week_8/Dimension_reduction_in_class.ipynb

https://www.dropbox.com/scl/fi/rmmgc8n3ha9jqc5hj5ly6/Dimension_reduction_in_class.ipynb?rlkey=iujpn2csnn7e78tbuye2jcnte&dl=0

10/29

婷凱

<https://forms.gle/VTZFDgJ6dmmNjR6A8>

Regression exercise

https://github.com/astro-blue/Data-analysis-in-astronomy-2024/blob/main/Week_6/Regression_in_class_exercise.ipynb

https://www.dropbox.com/scl/fi/grigyehq48udqoqa6qp7p/Regression_in_class_exercise.ipynb?rlkey=2vh52dijtdcn4jsrdgo2vx90a&dl=0

K-means example

https://github.com/astro-blue/Data-analysis-in-astronomy-2024/blob/main/Week_8/K-means%20clustering.ipynb

<https://www.dropbox.com/scl/fi/04jlkfu4mhwy7bavm38x9/K-means-clustering.ipynb?rlkey=7lukymi9m7f9sbpm8tpzaxwls&dl=0>

PCA exercise

https://github.com/astro-blue/Data-analysis-in-astronomy-2024/blob/main/Week_8/Dimension_reduction_in_class.ipynb

https://www.dropbox.com/scl/fi/rmmgc8n3ha9jqc5hj5ly6/Dimension_reduction_in_class.ipynb?rlkey=iujpn2csnn7e78tbuye2jcnte&dl=0

Slides

<https://www.dropbox.com/scl/fo/tx042s6rdxuvxn9m7pwf1/APPWoSFVfJJyXoUvddmp0cw?rlkey=0eucrse1iemdd090eh2sidw1e&dl=0>

10/22

報告順序

1. 9:10 - 9:25 承安 <https://forms.gle/LUiPC11Y7iPYrP7x5>
2. 9:25 - 9:40 雨恩 <https://forms.gle/XyVjPxzwJpi8ah5x5>
3. 9:40 - 9:55 筱嬭 <https://forms.gle/mw6saH7XTmCiHeV97>
4. 9:55 - 10:10 睿寬 <https://forms.gle/HSeu4vxjWMvCWQhi8>
5. 10:25 - 10:40 銘哲 <https://forms.gle/gKspcDwHEsfiazoQ8>
6. 10:40 - 10:55 柏仁 <https://forms.gle/1wokpvnzCprvLq4WA>
7. 10:55 - 11:10 哲緯 <https://forms.gle/XmneNGHSNvFTToQK88>

11:20 -> Regression

Regression exercise

https://github.com/astro-blue/Data-analysis-in-astronomy-2024/blob/main/Week_6/Regression_in_class_exercise.ipynb

https://www.dropbox.com/scl/fi/grjgyehq48udqoqa6qp7p/Regression_in_class_exercise.ipynb?rlkey=2vh52djtdcn4jsrdgo2vx90a&dl=0

10/15

柏仁報告回饋

<https://forms.gle/c3Hr8VZkVLDrhufm9>

Cross-correlation exercise

https://github.com/astro-blue/Data-analysis-in-astronomy-2024/blob/main/Week_5/Cross-correlation_exercise_in_class_exercise.ipynb

https://www.dropbox.com/scl/fi/60u97bwmpd5oz59f6si29/Cross-correlation_exercise_in_class_exercise.ipynb?rlkey=fc32i3d6mrmuqmelwspgqbns2&dl=0

Regression exercise

https://github.com/astro-blue/Data-analysis-in-astronomy-2024/blob/main/Week_6/Regression_in_class_exercise.ipynb

https://www.dropbox.com/scl/fi/grjgyehq48udqoqa6qp7p/Regression_in_class_exercise.ipynb?rlkey=2vh52djtdcn4jsrdgo2vx90a&dl=0

10/8

雨恩報告回饋

<https://forms.gle/gkcCfKzSUnHBdi6W9>

Correlation coefficient exercise

https://github.com/astro-blue/Data-analysis-in-astronomy-2024/blob/main/Week_4/Exploring_correlation_coefficients_in_class_exercise.ipynb

https://www.dropbox.com/scl/fi/cph9yldv9g4ofujca16cw/Exploring_correlation_coefficients_in_class_exercise.ipynb?rlkey=4o9vbmdu3sawu3t8j0b01ft1&dl=0

Data:

https://www.dropbox.com/scl/fo/pttx8d621rc25oyxvps6b/AGKr-5ML-AiMKhuQRh_a_QA?rlkey=rfzzcq000b0nlm8sd7zb7urv3&dl=0

Slides https://www.dropbox.com/s/4rtse2gy94yjbes/DA_week5.pdf?dl=0

10/1

Exercise 1:

https://github.com/astro-blue/Data-analysis-in-astronomy-2024/tree/main/Week_3

Code:

https://www.dropbox.com/scl/fi/gqtykyte1zs24m7d01i9u/Basic_statistics_in_class_exercise.ipynb?rlkey=0rorw71mmez8lyi72np4jaony&dl=0

Exercise 2:

https://github.com/astro-blue/Data-analysis-in-astronomy-2024/blob/main/Week_4/Exploring_correlation_coefficients_in_class_exercise.ipynb

https://www.dropbox.com/scl/fi/cph9yldv9g4ofujca16cw/Exploring_correlation_coefficients_in_class_exercise.ipynb?rlkey=4o9vbmdud3sawu3t8j0b01ft1&dl=0

Data:

https://www.dropbox.com/scl/fo/pttx8d621rc25oyxvps6b/AGKr-5ML-AiMKhuQRh_a_QA?rlkey=rfzzcq000b0nlm8sd7zb7urv3&dl=0

9/23

Exercise: https://github.com/astro-blue/Data-analysis-in-astronomy-2024/tree/main/Week_3

Code:

https://www.dropbox.com/scl/fi/gqtykyte1zs24m7d01i9u/Basic_statistics_in_class_exercise.ipynb?rlkey=0rorw71mmez8lyi72np4jaony&dl=0

Data:

https://www.dropbox.com/scl/fi/v6yb3hpz47553x35ipbin/SDSS_QSO_spectra_short.fits?rlkey=gphp0kzgv45mbiwvkdp9ovk0n&dl=0

9/10

Legacy Survey imaging

<https://www.legacysurvey.org/viewer>

SDSS DR16 QSO catalog

https://www.dropbox.com/scl/fi/risptvbt99bek883qhi07/DR16Q_v4.fits?rlkey=1nhi88u1i8uyy0mrisbf7fhvl&dl=0

https://www.sdss4.org/dr17/algorithms/qso_catalog/

Yymao <https://yymao.github.io/decals-image-list-tool/>

SDSS image server

<http://skyserver.sdss.org/dr16/en/tools/chart/navi.aspx>

SDSS DR17

<https://www.sdss.org/dr17/>

QuasarNet <https://arxiv.org/pdf/1808.09955>

Exercise * PLEASE Copy and Paste figures of high-z quasar spectra in**

https://docs.google.com/document/d/1P4Gm1skfc_52yD7FcO_y4Nb6Dur6H0bW50_hoVPhyiE/edit?usp=sharing

Presentation tip:

 Tips of giving an effective presentation

9/3

Python basic

Code

Github <https://github.com/astro-blue/Data-analysis-in-astronomy-2024>

Dropbox

<https://www.dropbox.com/scl/fo/m3laepywhctthj7dej0n8/AJGNhj3ouPv1Nde1G8CV9UA?rlkey=j8488bymhlk4ic8rzdctk9ewa&dl=0>

Background 調査

<https://forms.gle/v9q9q7uPMnGiwVCU9>

Week 2 投影片

<https://www.dropbox.com/scl/fo/cngvr5i5wc4vpz6eoi6mo/APcQsnoWdMwoPMECIJD9qmY?rlkey=00ng5n3684v97t2vtrgsfnd47&dl=0>

Week 1 投影片

https://www.dropbox.com/scl/fi/is7wb945p4smc3cw55n32/DA_Astro_Week_1.pdf?rlkey=1k66jm4l64l67vu4uj5x66ssv&dl=0

HW1 (deadline 9/23 11:59 pm)

https://github.com/astro-blue/Data-analysis-in-astronomy-2024/blob/main/Week_2/Homework1.ipynb

https://www.dropbox.com/scl/fi/oyb7ppl56msyxukvjcnzx/QSO_z.ipynb?rlkey=lv66a8zxjze9n5ast5nx29m1m&dl=0

Project 分組 (before 9/17)

<https://forms.gle/DHdfcNtqfe3E73Wp9>

To do list:

論文/計畫 口頭報告 (before 9/10)

<https://docs.google.com/spreadsheets/d/1odvJ9rH3OtMWOVoS2kjGHrX3MEsFozwIR4QYRIuv2bk/edit?usp=sharing>

Literature search AI assisted tool

<https://huggingface.co/spaces/kiyer/pathfinder>
