

# MPAGS Astrophysical Techniques Assignment

## 5. Data Mining

Please email your assignment to Joe ([J.D.Lyman@warwick.ac.uk](mailto:J.D.Lyman@warwick.ac.uk)). Answers can be documents, code, or hand-written notes or scans.

There is no formal mark associated with the assignment, as the aim is that you engage with the topic – it will just be noted if you make an attempt.

### EITHER

Perform an the example exercise from the notebook accompanying the course:

- Navigate to [https://github.com/Lyalpha/MPAGS\\_Data\\_Mining](https://github.com/Lyalpha/MPAGS_Data_Mining) and click the “launch binder” badge to run the notebook on a remote server.
  - Alternatively, you may clone and install the repo locally if you wish, although this requires you install the correct packages (listed in `requirements.txt`)
- Choose *one* of the example exercises (there are 4 in total, two in cross-matching and two in machine learning) and complete them however you wish.
  - They can be completed inside the notebook, or, alternatively, the CSV files inside `data/` at the main repo can be used to download the source data for easy loading into a program of choice.

### OR

The data mining assignment can be open ended if you wish:

- You may use the example exercises in the notebook for inspiration to perform your own investigation.
- You can design and perform a data mining task of similar complexity/length using tools of your own choice.
  - This could be related to your PhD project, for example.