Finding information and papers

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October 2011

Here are some places where you can find information on computers and astronomy. Web pages are linked from the web page associated with this course, `http://www-xray.ast.cam.ac.uk/~jss/lecture/computing/`

1 Astronomical resources

1. ADS (Astrophysics Data System) - look up papers. `http://adsabs.harvard.edu/abstract_service.html`
2. arXiv.org - preprint database. Suggest you subscribe to the email service or browse regularly if you are a postgraduate (unless you want to rely on your supervisor). `http://uk.arxiv.org/archive/astro-ph`
3. NED - extragalactic database, lots of information about extragalactic objects and references to papers. `http://nedwww.ipac.caltech.edu/`
4. Simbad - astronomical database. `http://cdsweb.u-strasbg.fr/Simbad.html`
5. Level 5 - extragalactic knowledgebase. `http://nedwww.ipac.caltech.edu/level5/`
6. NASA Skyview - see the sky at any wavelength `http://skyview.gsfc.nasa.gov/`
7. Ned Wright's Javascript Cosmology Calculator - work out distances in a variety of cosmologies `http://www.astro.ucla.edu/~wright/CosmoCalc.html`

2 Computing resources (or RTFM)

1. These documents
2. IoA users' guide `http://www.ast.cam.ac.uk/local/user_guide/`
3. IoA support wiki `http://www.ast.cam.ac.uk/local/computing/wiki/index.php/Main_Page`
4. Your officemates
5. Man pages. Type `man command`. Use `apropos word | more` to search for commands with `word` in their title.
6. Google (or your other favourite search engine) `http://www.google.co.uk/`

7. Other people in the department
8. Helpdesk. email `helpdesk@ast.cam.ac.uk` or use web interface (`http://rt3.ast.cam.ac.uk/rt3/SelfService`)
9. Starlink cookbooks, `http://star-www.rl.ac.uk/Documentation/index.htm`

3 Using the Astrophysics Data System (ADS)

Hints on using ADS to read papers

1. Use one author per line in the author box. The format is "Surname, I.N." or just "Surname".
2. Click on the "And" button above the author box to ensure you are getting papers with all rather than any of the authors.
3. Use the caret (^) symbol in front of the author name to say that is the first author on the paper, e.g. "^Bloggs, F."
4. Use the MM YY boxes to specify a date range. Leave them blank to do the obvious thing.
5. You can enter object names to search for papers referring to that astronomical object
6. The sorting options at the bottom of the page are useful (sort by name, date, citations...)
7. The "All refereed articles" option is useful to only get refereed articles.
8. Some formatting options (including custom) can be used to create data to paste into webpage / LaTeX document.
9. The BibTeX formatting option is useful to paste in a BibTeX file (you can do this individually after clicking on an abstract)
10. In acroread you can specify the printer to print to using -dprintername in the print dialog box, or using a default printer.

The letters after the paper in a listing do different things when clicked on:

1. **A** — bring up **a**bstract.
2. **E** — bring up an **e**lectronic version of the paper (a webpage, quite often difficult to read compared to PDF).
3. **F** — bring up PD**F** (typically from publisher's website, so doesn't work if you don't have a subscription).
4. **G** — scanned-in articles (usually older)
5. **X** — preprint from ar**X**iv.org – useful if you don't have a subscription to the journal.
6. **R** — bring up a list of **r**eferences in the article.
7. **C** — list papers which **c**ite this article.

8. **U** — also read these papers suggestions.
9. **D** — online **d**ata associated whith the article.
10. **S** — **S**imbad astronomical objects the paper mentions.
11. **N** — **N**ED astronomical objects the paper mentions.
12. **M** — **M**ultimedia presentation (rare!)

4 Organising papers

There are various electronic online social bookmarking systems you can use to track the papers you are interested in. These include

1. citeulike - `http://www.citeulike.org/`
2. connotea - `http://www.connotea.org/`
3. bibsonomy - `http://www.bibsonomy.org/`
4. mendeley - `http://www.mendeley.com/`
5. delicious - not science specific - `http://www.delicious.com/`
6. facebook(!), LinkedIn, digg, reddit...

There are handy buttons you can click on an arXiv.org abstract for bookmarking an interesting paper.

I also suggest keeping useful papers in a BibTeX database to help keep track (see the LaTeX notes).