Faculty of Engineering & Environment: finding information in a UK academic institution

Fiona Nichols
August 2017
University Library
What we will be doing today

Explore LibGuides@Southampton to:-

- Find key research material
- Identify relevant Electronic Resources
- Search effectively
- Keeping up to date
- Track down the full text and manage references
Exploring LibGuides@Southampton
Look at the library website
http://library.soton.ac.uk/
Google

Google Scholar

Databases

Other search engines
Google

Subject databases

Specialist search engines

blogs
videos
wikis
news items
magazine articles
websites
patents
eprints
standards
reports
textbooks
academic journal articles
conference papers
magazine articles
eprints
standards
Internet Searching

- Google, etc.
  - Useful for finding free content
  - No quality controls, need to evaluate
  - Scientific versions (Google Scholar) more focused on research material
  - Search Compendex, etc., as well to avoid missing out on important articles

But there are other useful resources …
Gateways

- Web Gateways
  - See subject guide (Websites)
  - Specialist search engines
  - E.g. AERADE, iCrank, Naval Technology, iCrank; ELDIS; Inst of Acoustics, CFD Online
  - Links to professional organisations
Demonstration

Log on to Sussed, select the Library tab and then LibGuides.

Follow the steps being demonstrated.
## Using other resources

### Resources
- Learned societies (IMechE, ICE etc)
- Publishers
- E-print repositories

### Things to consider
- coverage
- quality of search interface
- availability of full text
- ‘authority’ of the resource
Resources: Technical Information

- Patents

- Standards
  - British Standards Online (BS / some ISO, IEC, etc.)
  - IEEEXplore

- Engineering Sciences Data Unit (ESDU)
  - Engineering methods / data
Databases & Indexes e.g. Compendex, Scopus, Inspec, Web of Science and Medline

- Mostly articles from quality journals (some books, conferences)
  - Well indexed enabling you to search in detail
  - Abstracts (summary of the article)
  - References (Many try to link to the full text)
  - Peer reviewed publications

- We won’t have every journal they index
  - Our Inter-Library-Loans service can probably get a copy
Other sources for journal articles

- DelphiS
  - Searches Web of Science Core Collection, Scopus, WebCat and many of our full text collections
  - Search conference proceedings poorly
  - Fairly good for a ‘quick and easy search’
Also remember other sources

- Books – including research monographs
  - Search Webcat for our holdings
  - Also other catalogues e.g. COPAC

- Theses
  - Search Webcat for our PhD theses
  - Proquest Dissertations & Theses: UK & Ireland

- Data (Statistical, Financial etc.)
Basic Demo
Finding the full text

http://www.flickr.com/photos/thefirebottle/122895549/
Routes to full text

- Database full text links
- Sometimes links to journals we don’t buy
- Full Text Finder (from database or library web pages)
  - doesn’t have all print journals
- If the above do not exist or don’t work always ...
Flow-induced vibration of an elastically mounted airfoil under the influence of the wake of a circular cylinder


Full Text Finder Results

- View this article at Science Direct... 01/01/1995 - present
- View this article at Science Direct... 01/01/1995 - present
Routes to full text (cont.)

- Search WebCat
  - Journal articles by the journal title (use full title not abbreviations)
  - Conference papers by the conference title
  - Reports: try author and title (may need to search by organisation name)

- There may be an automatic link
Exceptions

- Items not on Webcat
  - Patents and Standards
  - Organisations eprint servers

- Items not in UoS Libraries
  - Inter Library Loan (ILL)
Copyright Law and Your Use of E-Journals

Users of electronic journals are reminded that copyright regulations apply to material in electronic formats in the same way as they apply to printed material. Users are bound by law to observe copyright regulations.

We have had cases where systematic downloading of whole issues of some journals has been reported. Such downloading is not permitted. One publisher has already suspended access temporarily to their titles as a result of this abuse.

As with copying of printed material, whilst you may read any article that you wish to online, you should only download or print one paper from any issue of a journal. Under copyright rules each downloaded or printed item may be used only for research or private study.

In some circumstances, further copying may be permitted under the publishers' licence or through other agreements such as the CLA (Copyright Licensing Agency) licence, but this will vary between different titles.

Please contact the library (ext. 22180, email: libenqs@soton.ac.uk) for further information or if you have any questions.
Access to Resources
Access - on campus

- Generally no passwords are needed
  - A few need your Institutional (email) username & password
  - A handful have special usernames/passwords

- If you have problems
  - For journals check our access on WebCat
  - For other resources use links on the library website
Access – off campus

- For many resources Institutional Login is an option
- SVE will give you the same access as on campus
- Some journals etc. do not work off campus without SVE
Search Strategy
Searching – the basics

- Start simple – with a few keywords

- Look at the results – do you need:
  - More relevance (more specific search)
  - More results (broaden search)
  - More manageable numbers – restrict in some other way (e.g. by date)

- Aim for about 50-150 results
Searching techniques

- Identify keywords and concepts

http://www.flickr.com/photos/dexter_mixwith/102314068/sizes/o/in/pool-76097337@N00/
Before ....

- Types of fuel cells used in electric cars
- Numerical computation of lift and drag forces in a hydrofoil sailboat
Searching techniques

- Boolean logic
- Truncation and wildcards
- Phrase searching

AND, OR, NOT
Symbols vary e.g. electron*
Enclose in quotes “black body radiation”
Example search

In Compendex.
Fuel cells for use in electric cars search planner
Search Strategy

- Identify the concepts of your query
  - Fuel cell, electric, cars

- List alternative phrases and keywords
  - Fuel cells > batteries
  - Electric > hybrid
  - Cars > automobile
Break down topic into its main concepts

e.g.

- Fuel cells AND electric AND cars

- Hydrofoil and lift and drag
Think about synonyms

- fuel cells
- batteries
- hybrid
- electric
- automobile
- cat
Think about synonyms

- Aerofoil
- Hydrofoil
- Sailboat
- Boat
- Panel method
Think about truncation

batter* (battery or batteries)
Truncation

- Replaces any number of characters.
  - Sometimes works in the middle of a word.
  - Normally * symbol, $ in webcat

- Aero* will find:
  - Aeroplane
  - Aeroplanes
  - Aerospace
Wildcards

- **Replace a single character.**
  - Often can also represent zero characters.
    - Normally ? Symbol, $ in Web of Science

- **Engine? will find both Engine and Engines but not engineering**

- **Colo?r will find both Colour and Color**
Example searches – using and/or

- Types of fuel cells used in electric cars
  - 17 results

- “Fuel cells” and electric and cars
  - 81 results

- (“Fuel cells” or batteries) and (hybrid or electric) and (cars or automobile)
  - 675 results

[done in Web of Science July 2013]
Phrase Searching

- If you need an exact phrase use quotation marks (" ")
  - e.g. “Solar Cells”
  - This makes the search more specific (finds less articles)
  - Truncation and stemming don’t always work in quotes

- In WebCat – use single quotes (’ ‘)
Refining your search

- New search strategy with revised concepts and keywords
- Narrow your initial search using the ‘Refine’ options on the search screen
Building a reference

- **Do you have all the necessary information?**
  - Names of authors
  - Title of work
  - Title of journal/proceedings
  - Volume/issue number (if it’s a journal article)
  - Page range
  - Year of publication

- **What sort of thing are you referencing?**
  - Different rules for books, journal articles, etc
Reference style

http://library.soton.ac.uk/citing-and-referencing/software

- Harvard – for examples see: http://library.soton.ac.uk/citing-and-referencing/harvard

- IEEE -for examples see: http://library.soton.ac.uk/citing-and-referencing/ieee

- Whichever you choose be consistent!
Mark, Export, Record

- Many databases have a ‘marked record’ facility or similar

- Useful articles get added to a marked/selected records area
  - Then you can print out or e-mail to yourself a list of these articles
  - Or you can export to bibliographic software like EndNote or Mendeley
Choose 'EndNote (RIS..)'
General Guidance

Referencing your work correctly is essential. If you acknowledge the work of others you are taking steps to avoid plagiarising someone else’s work. You are also allowing the reader to trace your line of research.

Two key styles are used in Engineering

- Harvard - a generic term for any style which contains author-date references. Note there are variations in approach, both in guidance from other institutions, and to some extent within the University
- IEEE - a numbered style from the IEEE with - more consistency in approach, although the IEEE Computer Society has its own guidance which is similar but differs in some respects

Check with your tutor about what style to use and any specific guidelines. Once you know which system you are using it is important that you are consistent.

Referencing guides from the library

- 📖 Guide to Harvard Referencing
  Hartley Library Guide to Harvard Referencing. (This guide was adopted by the Southampton Business School in October 2013.)
- 📖 An example of Harvard Referencing
  produced using the ‘Harvard_SotonUNI2014’ Endnote style
- 📖 Harvard Citation of Official Publications
- 📖 An example of IEEE referencing
  produced using the ‘IEEE’ Endnote style

Useful Referencing links

- 📖 Cite Them Right
  Cite Them Right is an essential referencing resource. This site will help you to reference just about any source, and understand how to avoid plagiarism.

Reference Management Software

If you’re working with lots of articles you may find software that manages your references (e.g. EndNote) helpful.

- Citing and Referencing

Referencing Sources From DelphiS

You can use the Cite button in DelphiS to format an item in a number of referencing formats.

If you are doing your references manually this can save you time, though minor changes may be needed to meet your discipline’s requirements.

You can also use the Export button to export your references directly to your reference management software (EndNote etc.).
Advanced features
WOS: Citation search

- Citation links are useful
  - to track further related research
  - also for articles found in Compendex etc.

- Citation searching is also possible
  - Find out what an Author has written and who has cited each paper

- Scopus has a similar feature
Web of Science has a useful citation linking feature.

Click here to see all citing articles.

Gravitational-wave inspiral of compact binary systems to 7/2 post-Newtonian order

By: Blanchet, L (Blanchet, L); Faye, G (Faye, G); Iyer, BR (Iyer, BR); Joguet, B (Joguet, B)

PHYSICAL REVIEW D
Volume: 65 Issue: 6
Article Number: 061501
DOI: 10.1103/PhysRevD.65.061501
Published: MAR 15 2002
View Journal Information

Abstract
The inspiral of compact binaries, driven by gravitational radiation reaction, is investigated through 7/2 post-Newtonian (3.5PN) order beyond the quadrupole radiation. We outline the derivation of the 3.5PN-accurate binary's center-of-mass energy and omitted gravitational flux. The analysis consistently includes the relativistic effects in the binary's equations of motion and multiple moments, as well as the contributions of tails, and tails of tails, in the wave zone. However, the result is not fully determined because of some physical incompleteness, present at the 3PN order, of the model of point particle and the associated Hadamard-type self-field regularization. The orbital phase, whose prior knowledge is crucial for searching and analyzing the inspiral signal, is computed from the standard energy balance argument.

Keywords
SCHWARZSCHILD BLACK HOLE; POINT-MASS SYSTEMS; CIRCULAR ORBIT; RADIATION REACTION; 2-BODY SYSTEMS; 2ND-POST-NEWTONIAN ORDER; NONSPINNING BODIES; COALESCING BINARY; ENERGY-LOSS; PARTICLE

Author Information
Reprint Address: Blanchet, L (reprint author)

Addresses:
[2] Raman Res Inst, Bangalore 560080, Karnataka, India
[3] Inst Astrophys, F-75014 Paris, France

Author Identifiers:
These articles both cite the ‘parent’ article
Controlled Terms

- Terms added to a record by Indexers
- Taken from a fixed list (thesaurus)
- Using these can help
  - Making search results more relevant and specific
  - Suggest alternative terms to search
You can do a keyword search and then just pick out relevant controlled terms.

By clicking on a term you can run a search on it.
You can also use the term in your search
You can refine by controlled terms using the sidebar and ‘Limit to’ / ‘Exclude’.
Do one concept at a time ...
Searching the controlled terms produces 313 results instead of 730 from the keyword search. These should be all very relevant to both topics.
Saved Searches (Web of Science, etc.)

- Search history
- Saving searches
- Alerts
- NB You will need to register for these services
### Search History: Web of Science™ Core Collection

<table>
<thead>
<tr>
<th>Set</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>#2</td>
<td>669</td>
</tr>
<tr>
<td>#1</td>
<td>2,945</td>
</tr>
</tbody>
</table>

#### #2 669
- **TOPIC**: (computational fluid dynamics) AND **TOPIC**: (airfoil or aerofoil)
- **Indexing**: SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, GCR-EXPANDED, IC
- **Timespan**: All years

#### #1 2,945
- **TOPIC**: "black hole" gravitational wave
- **Indexing**: SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, GCR-EXPANDED, IC
- **Timespan**: All years

- **Save History / Create Alert**
- **Open Saved History**
WoS and other databases allow you to set up a profile.
You can save your history or set up an email alert …
Getting more help

- Email us: libenqs@soton.ac.uk
- Ask at library help desks
- Web Chat: live chat
- Fiona Nichols
Sources of further help
Research Engagement

Open Access
Bibliometrics
Systematic Reviews
Research data management
Institutional repository
Theses
Reference Management
ORCID IDs

The Library Research Engagement Team
Library Research Engagement Team

Offers advice, guidance and training on...

- Open Access
- Institutional Repository
- Research Data Management
- Research IDs: DOIs, ORCiD, ISBN
- Bibliometrics: measuring research impact
- Systematic Reviews
- Theses
- Reference Management

http://library.soton.ac.uk/research
Endnote – online training

http://library.soton.ac.uk/endnote/training

About Endnote and alternatives:

http://library.soton.ac.uk/citing-and-referencing/software
Credits


