Citation databases

Questions:

• How do you know if a piece of scholarly research is “influential”?

• Have you identified influential or key research for your topic?

• Have you identified key authors?

• Have you identified highly ranked journals?

The following slides and Research Impact Guide will help you
Using citation databases

• One indicator of influential research is the number of citations an article receives. This is important for identifying key papers and authors and to track research ideas over time.

• Citation databases such as Scopus, Web of Science and Google Scholar provide this information and include additional information about the author’s number of documents, citations and h-index.

• In Scopus and Web of Science, you can sort your results by the number of citations received.

• Google Scholar results cannot be sorted, but a link to the citations is provided below each record.

• When searching for a particular article in Web of Science, more accurate data can be obtained via a Cited Reference Search.
What is cited reference searching?

• Cited reference searching is a way of locating additional articles relevant to your topic without relying on keyword searching.

• This method of searching allows you to take a key article on your topic, perhaps an article given to you by your supervisor, and see if any other researchers have used that article and included it in their bibliography.

• *Web of Science* enables you to retrieve information by the usual means, e.g., author, subject term, journal title, but also by bibliographies or reference lists included within articles.

• Because the cited reference search option retrieves instances of a specified key article in the bibliographies of all subsequent articles in the database, it provides the ability to search forward in time. With other databases, the process of finding an important article and checking the references cited at the end takes you further back in time. This difference is one of the factors that make cited reference searching such an important research tool.
What is cited reference searching? cont.

Cited reference searching allows you to:

• Discover who has cited a key article since it was published.
• Check the number of times an article has been cited.
• Follow the development or methodology of an idea.
• Uncover related work in your field.
• Analyse the impact of key publications.
• Track the research of colleagues or competitors.
• Discover who is citing your research and how it is being used to support current research.
• Find relevant articles on topics or subjects that are difficult to express with a few keywords.

*Web of Science* was the first database to provide cited reference searching. *Scopus*, *SciFinder* and *Google Scholar* now also provide this option.

Any full text databases may allow for cited reference searching - check for a 'References' option in the search fields drop down box of the database – but keep in mind that if the full text database is limited to a particular publisher, eg. *ScienceDirect, IEEE, Wiley* etc, the search will only pick up cited references within a limited group of journals.
Tracking research ideas over time

Rosberg (2006)
Observation of surface gap solitons....

Author cited references
- Chen 2005
- Kivshar 2003
- Kivshar 1997
- Makris 2005

Citing references
- Linzon 2007
- Longhi 2009
- Pinto 2010
- Huang 2011
Video tutorials that will assist you to search in Scopus:
http://help.scopus.com/Content/tutorials/sc_menu.html
Web of Science

Library homepage>Databases A-Z>Popular Databases>Web of Science

Tip:

Video tutorials that will assist you to search in Web of Science:
http://wokinfo.com/training_support/training/web-of-knowledge/
Google Scholar

- Remember to log in to Google Scholar from the Library homepage to link to full-text.
- Citations are listed under each record, but cannot be sorted. You can also link to Web of Science citations.

User profiles for arnan mitchell

Arnan Mitchell
Professor, RMIT University, Melbourne, Australia
Verified email at rmit.edu.au
Cited by 3687

A shear gradient–dependent platelet aggregation mechanism drives thrombus formation
.... E Westoll, FJ Tovar-Lopez, E Tolouei, A Mitchell... - Nature medicine, 2009 - nature.com
Abstract Platelet aggregation at sites of vascular injury is essential for hemostasis and arterial thrombosis. It has long been assumed that platelet aggregation and thrombus growth are initiated by soluble agonists generated at sites of vascular injury. By using high- ...
Cited by 330 Related articles All 16 versions Web of Science: 235

Nanostructured tungsten oxide–properties, synthesis, and applications
.... JZ Qiu, MS Strano, PB Kaner, A Mitchell... - Advanced Functional ..., 2011 - Wiley Online Library
Abstract Metal oxides are the key ingredients for the development of many advanced functional materials and smart devices. Nanostructuring has emerged as one of the best tools to unlock their full potential. Tungsten oxides (WOx) are unique materials that have ...
Cited by 277 Related articles All 5 versions Web of Science: 221

Observation of surface gap solitons in semi-infinite waveguide arrays
CR Rosberg, DN Neshev, W Krolikowski, A Mitchell... - Physical review ..., 2006 - APS
Abstract We report on the observation of surface gap solitons found to exist at the interface between uniform and periodic dielectric media with defocusing nonlinearity. We demonstrate strong self-trapping at the edge of a LiNbO3 waveguide array and the ...
Cited by 206 Related articles All 22 versions Web of Science: 155

[HTML] from nature.com
FindIt@RMIT

[PDF] from arxiv.org
FindIt@RMIT
Author Impact

- The $h$-index is designed to measure the impact and productivity of a researcher. It identifies the highest number of papers from an individual's publication list to have the same or a higher number of citations. If a researcher has a $h$-index of 5 then they have at least 5 publications with 5 or more citations.

- Both Scopus and Web of Science as well as Google Scholar include $h$-index information. A researcher's $h$-index is likely to vary, depending on the database used to calculate it.

- The $g$-index is more sensitive to a researcher's highly cited papers, identifying the top $g$ articles that have received at least $g^2$ citations.

- The $m$-index takes into account years since first publication and is more relevant to an earlier career researcher than the $h$-index.
Finding an $h$-index in Scopus

Do an author search or link from a highly cited article
Finding an $h$-index in Web of Science

Do an author search or link from a highly cited article

Fatigue behavior of carbon fiber reinforced polymer-strengthened reinforced concrete bridge girders

By: Aidoo, J (Aidoo, J); Harries, KA (Harries, KA); Petrou, MF (Petrou, MF)

Create Citation Report
Finding an $h$-index in Google Scholar

Fatigue behavior of carbon fiber reinforced polymer-strengthened reinforced concrete bridge girders

J Aidoo, KA Harries, MF Petrou - Journal of Composites for ..., 2004 - ascelibrary.org

This study examines the effects of one-dimensional fiber-reinforced polymer (FRP) composite rehabilitation systems on the flexural fatigue performance of reinforced concrete bridge girders. Eight 508 mm deep and 5.6 m long reinforced concrete T-beams, with and ...

Cited by 93  Related articles  All 5 versions  Web of Science: 43  Cite  Save

Kent Harries
Associate Professor of Structural Engineering and Mechanics
Non-traditional materials in CE, Bridge Engineering, Applications of FRP materials
Verified email at pitt.edu

<table>
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<tr>
<th>Citation indices</th>
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<tr>
<td>110-index</td>
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</table>
Journal Impact Factors and rankings

- The impact factor of a journal can indicate where influential research is published.

- RMIT uses the following tools to assess Journal impact and rankings:
  
  SJR - SCImago Journal & Country Rank
  Scopus Journal Analyzer
  Google Scholar Metrics
  Eigenfactor.org

- Impact factors vary widely across disciplines, so you can reliably compare journals within the one discipline only. You cannot compare journals between disciplines, nor one discipline with another.
Journal Impact Factors and rankings

**SJR - SCImago Journal & Country Rank**
Provides journal and country scientific indicators developed from the information contained in the Scopus database.

**Scopus Journal Analyzer**
Allows you to select up to 10 journals in a specific field. The results are uploaded into graphs, making it easy to see how journals are performing relative to each other.

**Google Scholar Metrics**
Provides a browsable list of the top 100 journals indexed in Google Scholar, with titles ordered by their five-year h-index and h-median metrics. Lists of top 20 journal titles are also available for both broad and specific subject areas.

**Eigenfactor.org**
The Eigenfactor™ Score uses citation data to assess the relative influence of journals. Journals with many citations from influential journals are rated as influential themselves. The Article Influence™ Score determines the average influence of a journal's articles over the first five years after publication.
Finding a Journal Impact Factor - Using Scopus Journal Analyzer

Library homepage>Databases A-Z>Popular Databases>Scopus>Compare journals

Then

Keyword: aci structural journal

1 sources found

<table>
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<th>Journal</th>
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<td>ACI Structural Journal</td>
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Finding a Journal Impact Factor - Using Scimago

http://www.scimagojr.com/index.php
Google Scholar Metrics

Top publications - Civil Engineering

<table>
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<tbody>
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<td>1. Cement and Concrete Research</td>
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<td>2. Construction and Building Materials</td>
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<td>66</td>
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<tr>
<td>3. Automation In Construction</td>
<td>49</td>
<td>62</td>
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