Measuring Your Research Impact

Julia Barrett, UCD Library

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October 2011
Overview

• Bibliometrics defined

• Why is bibliometric analysis important?

• Key datasets
  – ISI Citation Index
  – Scopus
  – Google Scholar

• The metrics
  – Citations per publication
  – Personal impact: what is my H-Index?
  – Journal impact: where should I publish? Journal ranking tools

• CV examples

• Issues

• More information and assistance
There are many definitions of the term “Bibliometrics” for example:

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“the application of statistical and mathematical methods to books and other media of communication” (Pritchard, 1969)
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“the branch of library science concerned with the application of mathematical and statistical analysis to bibliography; the statistical analysis of books, articles, or other publications.” (Oxford English Dictionary Online)
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“the statistical analysis of bibliographic data, mainly in the scientific and technical literatures. It measures the amount of scientific activity in a subject category, journal, country or other area of interest”. (Henry Small, Thomson Reuters)
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When we talk about ‘Bibliometrics’ we refer to the ‘quantitative’ measures used to assess research output i.e. publication and citation data analysis.

**Citations** are generally considered to be a useful indication of a paper’s **impact and value** to the wider **scientific** research community.
Bibliometrics Defined

In terms of research performance, ‘quantitative’ (bibliometric) measurements are used to complement ‘qualitative’ measures such as peer-review. Publication and citation data can be used alongside other forms of measurement and assessment of research activity for example:

- Peer-review
- Funding received
- Awards granted
- Patents

The benefits of using bibliometric data to help assess research performance are:

- It is seen as a fair and ‘objective’ method (rather than relying solely on qualitative measures such as peer-review)
- It is considered cost effective (data is easily produced)
- It is transparent and easy to understand

*It is important to understand what quantitative research analysis offers evaluators and decision makers – and what it cannot possibly deliver. For these techniques and tools can never be a substitute for human judgement.*

(Pendlebury, 2008)
Why is Bibliometric Analysis Important?

- It is increasingly used to measure quality within universities
- It is used by national and international university rankings tables
- It is used in tenure review processes and job/promotion applications
- It is used in assessing grant applications. Where appropriate, grant applicants will be required to provide detailed information relating to their publishing output. This could include: evidence of publishing in top journals; an author’s h-index and citations’ counts, where relevant.
Formalizing the Safety of Java, the Java Virtual Machine, and Java Card

PIETER H. HARTEL  
*University of Twente*

AND

LUC MOREAU  
*University of Southampton*

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| *Formalizing the safety of Java/PH Hartel*  
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Key Datasets

- ISI Web of Knowledge/Web of Science
- Scopus
- Google Scholar/Publish or Perish
ISI Web of Knowledge

- **Web of Science**
  - Science Citation Index Expanded (1945-present)
  - Social Sciences Citation Index (1956-present)
  - Arts & Humanities Citation Index (1975-present)
- **Derwent Innovations Index**
  - Patent information from *Derwent World Patent Index*® as well as patent citation information from *Patents Citation Index*®.
  - Chemical Section (1963-present)
  - Electrical and Electronic Section (1963-present)
  - Engineering Section (1963-present)
- **BIOSIS Previews (1980-present)**
  - Life sciences and biomedical research covering pre-clinical and experimental research, methods and instrumentation, animal studies, and more.
- **MEDLINE (1950-present)**
  - The U.S. National Library of Medicine® (NLM®) premier life sciences database.

**Journal Citation Reports®**
- Journal performance metrics/Journal Impact Factor

**Citation Indexes**
- **Web of Science**
  - **Biosis Citation Index**
    - Content is from *Biosis Previews*
  - **Chinese Science Citation Index**
    - Content is from the Chinese Academy of Sciences

**Article citation counts include cites from all three sources**
- Links to view citing articles are dependent on subscription access
- Web of Science only
ISI Web of Science

- ~ 10,000 journals
- Only a few conference proceedings, books & open access journals (*Book Citation Index* is a new product launched this week)
- Emphasis on natural sciences and life sciences
- English language US/UK bias
- Weak at distinguishing between authors

Earliest citations - 1955
Scopus

• ~17,000 titles

• Greater geographical spread than ISI – 60% is outside U.S.

• Better inclusion of non-journal material, e.g. conference papers, open access journals, book series

• Contains useful tools for author disambiguation

• Limited coverage, 1995 onwards
Google Scholar

- Google Scholar was launched in November 2004 to retrieve scholarly data on the web.
- It searches publisher websites, repositories, university websites, book platforms, technical reports and patent sites and other sources for scholarly information.
- Relatively unstructured – may contain duplicate entries (e.g. pre-prints, post-prints); also “minor” works such as undergraduate theses.
- Information about the content/timescale of the index is not public and update frequency is not known but there appears to be some time-lag with updating.
Publish or Perish

- Publish or Perish (PoP) is a piece of software which is free to download from the web at [http://www.harzing.com/pop.htm](http://www.harzing.com/pop.htm). It works with Google Scholar data to generate metrics for authors, journals and articles. The software was developed by Anne-Wil Harzing, Professor in International Management at the University of Melbourne.

- On its own Google Scholar provides for individual citation counts from its corpus and all the citing publications can be viewed. However, no other metrics are provided and amalgamation of results is not possible (e.g. for duplicate entries consisting of different versions of the same article title such as pre-print and published version).

- With PoP, however, this is possible, and a wide variety of metrics are provided, calculated from the underlying Google Scholar dataset.

- PoP results can be copied into Windows applications like Excel or saved as text files for further analysis.
In this short video, Professor Dermot Diamond, Principal Investigator, National Centre for Sensor Research, Dublin City University, talks about the value and use of bibliometrics in the context of evaluating an individual’s research impact.
The Metrics

- Total number of publications
- Total number of citations per publication
- Personal impact: what is my h-index?
- Journal impact: where should I publish?
Coronavirus main proteinase (3CL(pro)) structure: Basis for design of anti-SARS drugs

Author(s): Arndt, K (4and, K), Ziebuhr, J (Ziebuhr, J), Wadhwani, P (Wadhwani, P); Mesters, JR (Mesters, JR); Hilgenfeld, R (Hilgenfeld, R)

Source: SCIENCE Volume: 300 Issue: 5626 Pages: 1753-1767 DOI: 10.1126/science.1085658 Published: JUN 13 2003

Abstract: A novel coronavirus has been identified as the causative agent of severe acute respiratory syndrome (SARS). The viral main proteinase (M-pro, also called 3CL(pro)), which controls the activities of the coronavirus replication complex, is an attractive target for therapy. We determined crystal structures for human coronavirus (strain 229E) M-pro and for an inhibitor complex of porcine coronavirus (transmissible gastroenteritis virus (TGEV)) M-pro, and we constructed a homology model for SARS coronavirus (SARS-CoV) M-pro. The structures reveal a remarkable degree of conservation of the substrate-binding sites, which is further supported by recombinant SARS-CoV M-pro-mediated cleavage of a TGEV M-pro substrate. Molecular modeling suggests that available minovirus 3C(pro) inhibitors may be modified to make them useful for treating SARS.

Document Type: Article

Language: English

KeyWords Plus: VIRUS-ENCODED PROTEINASES; 229E 3C-LIKE PROTEINASE; PROTEASES

Reprint Address: Hilgenfeld, R (reprint author), Univ Lubeck, Inst Biochem, Ratzeburger Allee 160, D-23538 Lubeck, Germany

Addresses: 1. Univ Lubeck, Inst Biochem, D-23538 Lubeck, Germany

Times Cited: 388

This article has been cited 388 times in Web of Knowledge.


Tabares, Paula. Anti-protease and Immunomodulatory Activities of Bacteria Associated with Caribbean Sponges. MARINE BIOTECHNOLOGY, OCT 2011.


[view all 388 citing articles]
Coronavirus main proteinase (3CL(pro)) structure: Basis for design of anti-SARS drugs

Title: Coronavirus main proteinase (3CL(pro)) structure: Basis for design of anti-SARS drugs
Author(s): Anand K; Ziebuhr J; Wadhwani P; et al.
Source: SCIENCE Volume: 300 Issue: 5626 Pages: 1763-1767 DOI: 10.1126/science.1085658 Published: JUN 13 2003

This article has been cited by articles indexed in the databases listed below.

- 388 in All Databases
  - 349 in Web of Science
  - 290 in BIOSIS Citation Index
  - 33 in Chinese Science Citation Database

Refine Results
Search within results for
Search

1. Title: (1)H, (13)C and (15)N resonance assignments of SARS-CoV main protease N-terminal domain
Author(s): Zhang Shengnan; Zhong Nan; Ren Xiaobai; et al.
Source: BIOMOLECULAR NMR ASSIGNMENTS Volume: 5 Issue: 2 Pages: 143-145 DOI: 10.1007/s12104-010-0192-9
Times Cited: 0 (from All Databases)

[View abstract]
**Web of Science: Cited Reference Search – Journal Article**

**Step 1:** Enter information about the cited work. Fields are combined with the Boolean AND operator.

*Note: Entering the volume, issue, or page in combination with other fields may reduce the number of cited reference variants found.*

- **anand k**
  - *Example: O'Brien C* OR *OBrian C*
- **science**
  - *Example: J Comp* Appl* Math* (journal abbreviation list)
- **1943 or 1943-1945**

Add Another Field >>

- **Search**
- **Clear**

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Refine Results
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Web of Science Categories
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- BIOLOGY (65)
- CHEMISTRY MEDICINAL (62)
- PHARMACOLOGY PHARMACY (42)
- BIOPHYSICS (30)

Document Types
- ARTICLE (270)
- REVIEW (65)
- EDITORIAL MATERIAL (9)
- PROCEEDINGS PAPER (9)

Sort by: Publication Date -- newest to oldest

1. Title: (1)H, (13)C and (15)N resonance assignments of SARS-CoV main protease N-terminal domain
   Authors: Zhang Shengnan, Zhong Nan, Ren Xiaobai, et al.
   Source: BIOMOLECULAR NMR ASSIGNMENTS Volume: 5 Issue: 2 Pages: 143-145 DOI: 10.1007/s12104-010-09287-9 Published: OCT 2011
   findit @ UCD Library

2. Title: Anti-protease and Immunomodulatory Activities of Bacteria Associated with Caribbean Sponges
   Authors: Tabaros Paula, Pimentel-Eliardo Sheila M., Schirmelast Tanja, et al.
   Source: MARINE BIO TECHNOLOGY Volume: 13 Issue: 5 Pages: 883-892 DOI: 10.1007/s10126-010-9349-0 Published: OCT 2011
   findit @ UCD Library

3. Title: A conserved RNA pseudoknot in a putative molecular switch domain of the 3' untranslated region of coronaviruses is only marginally stable
   Authors: Stammier Suzanne N., Cao Song, Chen Shi-Jie, et al.
   findit @ UCD Library
Cited Reference Search – Journal Articles
Best Practice

- Cited Author field:
  - Search for name variants by using truncation e.g. Anand k*
  - Search with and without apostrophes e.g. O’Connell m* OR oconnell m*
  - Search name order variants for non-English names e.g. Liu h* OR hong l*
  - For multiple authors use 1st named author – this will find potential variants of the cited article

- Cited Work field:
  - use the abbreviated form from the journal abbreviation list and also include potential variants of the journal title e.g. Brit* Med* J* OR BMJ*
Web of Science: Cited Reference Search - Book

Cited Reference Search (Find the articles that cite a person's work)

Step 1: Enter information about the cited work. Fields are combined with the Boolean AND operator.

* Note: Entering the volume, issue, or page in combination with other fields may reduce the number of cited reference variants found.

Example: O'Brian C* OR OBrian C*

Example: J Comp* Appl* Math* (journal abbreviation list)

Example: 1943 or 1943-1945

Add Another Field >>

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   Author(s): Agudelo-Vera Claudia M.; Meis Adriaan R.; Keesman Karel J.; et al.
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2. Title: Legitimating Inequality: Fooling Most of the People All of the Time
   Author(s): Wisman Jon D.; Smith James F.
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   findit @UCD Library

3. Title: Beyond economic and value wars: Mythic images of future cities
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   Times Cited: 0 (from Web of Science)
   findit @UCD Library
Cited Reference Search – Books
Best Practice

• Cited Author field:
  – Search for name variants by using truncation e.g. Diamond j*
  – Search with and without apostrophes e.g. O’Connell m* OR oconnell m*
  – Search name order variants for non-English names e.g. Liu h* OR hong l*

• Cited Work field:
  – Exclude any leading articles e.g. The, A
  – Enter the first significant word, truncating it e.g. collapse*
    • This will ensure that additional words of the title will be picked up, including variations in the way in which the work may have been cited
  – Leave the Cited Year(s) blank, since authors may have cited a particular edition
More information on using Scopus is available from the MyRI website: www.ndlr.ie/myri, including this worksheet:

Citation Counts on POP: Summary

• “Uncheck” any items that do not apply

• Merge items if you think that one or more separate items really refer to a single article or book
  – Identify which is your “master” record (the one with the largest number of citations)
  – Drag any “strays” to that one and drop them in
  – Un-merge by right-clicking on the item and choosing **Split Citations** from the pop-up menu
  – In the **Results** pane the number of papers will decrease and the number of citations will increase

• Double click on your master record to link into the citations on Google Scholar
Tracking Citations: Example

- A Centre Manager wants to track citations of published research articles for a particular funded project, each quarter for the duration of the award.
  - Select **Multi-Query Center**; this will let you save, manage and re-run queries.
  - Set up a folder and then highlight this – search results will automatically populate this folder.
  - Click on **New Query** icon; search for individual articles in **Query Properties** box.
• Every 3 months re-run search by block-highlighting, then right-click and select **Lookup**.
- Copy statistics into Excel:

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Personal Impact: What is my H-Index?

- The h-index has become the most popular metric for assessing the output of individuals since it was developed by Hirsch in 2005. The h-index of an individual is the number of their papers that have been cited at least \( h \) times e.g. a researcher has a h-index of 25 if 25 of their papers have been cited at least 25 times on that particular dataset.
The Tools

- ISI Web of Science
- Scopus
- Google Scholar plus Publish or Perish
Web of Science

- In WOS type in surname and truncated initial in order to pick up all variations of the first name; limit by the dates of publication history:
Refine Your Results

• Institutions
  – Include any variations in name e.g. Univ Coll Dublin; Natl Univ Ireland Univ Coll Dublin, etc.
  – Include all previous Institutions in which author has been published

• Authors
  – Include any variations in name by which author is published

• Web of Science Categories
  – Include/exclude relevant/irrelevant subject categories
Web of Science™

Citation Report

This report reflects citations to source items indexed within Web of Science. Perform a Cited Reference Search to include citations to items not indexed within Web of Science.

Results found: 8

- Sum of the Times Cited: 34
- Sum of Times Cited without self-citations: 33
- Citing Articles: 33

Average Citations per Item: 4.25

h-index: 3

Results: 8

Title: ESC/Java2: Uniting ESC/Java and JML - Progress and issues in building and using ESC/Java2, including a case study involving the use of the tool to verify portions of an Internet voting tally system

Author(s): Ooh DR, Kiniry JR


Scopus

- Choose the **Author Search** tab and type in author’s surname and first name/initial. Click search.

- A list appears with different variations of your name and different combinations of name and affiliation or subject area.

- **Refine** your results if necessary

- To double-check for details click on the Author Link
Citation overview

Citations received since 1996

Author: Kiniry, Joseph R.

Overview options

Exclude from citation overview:
- Self citations of selected author
- Self citations of all authors

Sort documents
- Year descending

Date range
- 2009 to 2011

Update overview

27 Cited Documents

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Author h index

h index = 7

Of the 27 documents considered for the h index, 7 have been cited at least 7 times.

Note: The h index considers Scopus documents published after 1995.

About h-Graph
# Author Impact Analysis

## Author Impact Analysis - Perform a Citation Analysis for One or More Authors

**Author's Name:** "NP Brady OR "N Brady OR "nuala brady"

**Results:**
- **Papers:** 764
- **Citations:** 16988
- **Year of Publication:** Min: 1995, Max: 2023

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</table>
• Use any variations under which author is published, separated by **OR**
  – Enclose within “” in order to keep initials/first name with surname

• Restrict search to relevant subject areas – these are the same as those used by Google Scholar
  – Use with care – Google’s subject classification is not always accurate

• Manually go through the list to uncheck any articles not by your author (sort by author). If you have a large number use the **Exclude these names** box:
Sort results by Author in order to ascertain Authors’ names that can be used in the Exclude these names box:
• Sort by Publication or Publisher to exclude further irrelevant results
  – It may be quicker to use **Uncheck All** and then select relevant items

• Manually go through the list to merge duplicate items (sort by title)
  – Number of publications will reduce but citation count will aggregate
  – Unmerge by right-clicking on the item and choosing **Split Citations** from the popup menu

• Save results into Excel by clicking on the **Copy >** button
Merged items

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Double click on item to bring up the list of items in Google Scholar that cite this one...
• H-index = 15 i.e. 15 publications have been cited at least 15 times

• H-Index “flattens” the impact of highly cited papers in an otherwise modest published body of work
  • a researcher who has published 5 papers which have each been cited 5 times will have an H-Index of 5
  • a researcher who has published 2 papers which have each been cited over 50 times will still only have an H-Index of 2

G-index = 43, a substantial increase. This gives more weight to highly cited articles

• More information is available on Harzing’s webpage:
  www.harzing.com/pophelp/metrics.htm
Journal Impact: Where Should I Publish?

- Evaluate the scholarly worth of a journal

- Rank journals within a discipline

- Help you decide where to publish your article for maximum impact

- Evaluation for promotion / tenure / grants, or in some countries, even government funding of an institution

- May be used as an evaluation source by librarians during journal cancellations or new purchases
The Tools

- ISI Journal Citation Reports (JCR)
- Emerging journal ranking tools
- Additional ways of choosing a journal
ISI Journal Citation Reports (JCR)

• Journal Citation Reports (JCR) forms part of the subscription-based ISI suite of products known as Web of Knowledge which also includes Web of Science.

• JCR is the original journal ranking tool, first developed in the 1950s, and it is the current market leader for journal rankings.

• JCR includes ~10,000 journal titles

• JCR allows you to search for individual journals or to compare groups of journals by subject category.
• JCR provides a range of metrics for each journal:

  – Count of citations

  – Impact over 2 and 5 years

  – Immediacy index which measures how soon articles are cited in a journal – the number of citations that year to articles published the same year

  – Half-life which measures whether citing continues over time for a journal’s content
JCR’s Key Metric: Journal Impact Factor (JIF)

- The journal impact factor is the average number of citations received in a year by articles published in a journal in the previous 2 years. e.g. a journal’s JIF for the year 2009:

\[
\frac{\text{Year 2010 citations to 2009+2008 articles}}{\text{Total no. of articles published in 2009+2008}} = \text{JIF}
\]
Journal Search by Title

ISI Web of Knowledge™

Journal Citation Reports®

Select a JCR edition and year:
- JCR Science Edition 2010
- JCR Social Sciences Edition 2010

Select an option:
- View a group of journals by Subject Category
- Search for a specific journal
- View all journals

Submit
Journal Citation Reports®

Journal Search

1) Search by:

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2) Type search term:

Enter words from journal title or ISSN (view list of full journal titles)

Search Examples:

- Full Journal Title: Enter JOURNAL OF CELLULAR PHYSIOLOGY or JOURNAL OF CELL* (more examples)
- Abbreviated Journal Title: Enter J CELL PHYSIOL or J CELL* (more examples)
- Title Word: Enter CELLULAR or CELL* (more examples)
- ISSN: Enter 0021-9541 or other ISSN (more examples)
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**Journal Information**

- **Full Journal Title:** PATTERN RECOGNITION
- **ISO Abbrev. Title:** Pattern Recognit.
- **JCR Abbrev. Title:** PATTERN RECOGN
- **ISSN:** 0031-3203
- **Issues/Year:** 12
- **Language:** ENGLISH
- **Journal Country/Territory:** ENGLAND
- **Publisher:** ELSEVIER SCI LTD
- **Publisher Address:** THE BOULEVARD, LANGFORD LANE, KIDLINGTONG, OXFORD OX5 1GB, OXON, ENGLAND
- **Subject Categories:** COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE

**Journal Rank in Categories:**

- **VIEW JOURNAL SUMMARY LIST**
- **VIEW CATEGORY DATA**
- **ENGINEERING, ELECTRICAL & ELECTRONIC**
- **SCOPE NOTE**

**Additional Information:**

- **Eigenfactor:** 0.0963
- **Article Influence Score:** 0.984

**Related Journals:**

- **CITED JOURNAL DATA**
- **CITING JOURNAL DATA**
- **IMPACT FACTOR TREND**
- **RELATED JOURNALS**

**Go To URL:**

- "VIEW JOURNAL SUMMARY LIST"
For **2010**, the journal **PATTERN RECOGNITION** has an Impact Factor of **2.682**.

This table shows the ranking of this journal in its subject categories based on Impact Factor.

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<td>18</td>
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Journal Ranking by Subject Category
Subject Category Selection

1) Select one or more categories from the list.
   (How to select more than one)
   - HISTORY OF SOCIAL SCIENCES
   - HOSPITALITY, LEISURE, SPORT & TOURISM
   - INDUSTRIAL RELATIONS & LABOR
   - INFORMATION SCIENCE & LIBRARY SCIENCE
   - INTERNATIONAL RELATIONS
   - LAW
   - LINGUISTICS
   - MANAGEMENT
   - NURSING

2) Select to view Journal data or aggregate Category data.
   - View Journal Data - sort by: Journal Title
   - View Category Data - sort by: Category Title

SUBMIT
### Journal Summary List

#### Subject Categories
- CRIMINOLOGY & PENOLOGY
- LAW

#### Sorted by:
- Impact Factor

#### Journals 1 - 20 (of 172)

*Ranking is based on your journal and sort selections.*

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<td>Total Cites: 772, Impact Factor: 3.562, 5-Year Impact Factor: 2.629, immediacy Index: 0.000, Articles: 9, Cited Half-life: &gt;10.0</td>
<td>Eigenfactor Score: 0.00164, Article Influence Score: 1.0</td>
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<td>☐</td>
<td>5</td>
<td>VA LAW REV</td>
<td>0042-6601</td>
<td>Total Cites: 2035, Impact Factor: 3.554, 5-Year Impact Factor: 3.295, immediacy Index: 0.500, Articles: 32, Cited Half-life: &gt;10.0</td>
<td>Eigenfactor Score: 0.00591, Article Influence Score: 1.0</td>
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<td>☐</td>
<td>6</td>
<td>U PENN LAW REV</td>
<td>0041-9907</td>
<td>Total Cites: 1900, Impact Factor: 3.465, 5-Year Impact Factor: 2.668, immediacy Index: 1.875, Articles: 40, Cited Half-life: &gt;10.0</td>
<td>Eigenfactor Score: 0.00489, Article Influence Score: 1.0</td>
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<td>☐</td>
<td>7</td>
<td>MICH LAW REV</td>
<td>0026-2234</td>
<td>Total Cites: 2176, Impact Factor: 3.278, 5-Year Impact Factor: 2.704, immediacy Index: 1.233, Articles: 30, Cited Half-life: &gt;10.0</td>
<td>Eigenfactor Score: 0.00558, Article Influence Score: 1.0</td>
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</tbody>
</table>
Emerging Journal Ranking Tools

3.3 Emerging Journal Ranking Tools

Introduction

Each journal ranking tool uses different metrics and also has different journal coverage.

Click on the left hand tabs for a summary of the main differences for each tool.

The information contained in each tab is divided under the following headings:

- About
- Key metrics
- Distinctive features
- More information
Additional Ways of Choosing a Journal: Use the functionality of Web of Science

- Broad search term e.g. “virology”
- Use Refine results options e.g. by **Web of Science Category**; by **Document Type**; by **Publication Years range**
- Sort results by **Times Cited** to identify items most heavily cited
- Click on **Analyze Results**
- **Rank records** by various fields e.g. **Source Title** (for journal), **Authors**
- Cross-check top journals with their impact factor in JCR
## Product Decision Chart – What do you want to do?

A summary of some products available to you and key bibliometric uses of each – subscription services are in **green**, those in **pink** are **FREE**

<table>
<thead>
<tr>
<th>What do you want to do?</th>
<th>Web of Science</th>
<th>SCOPUS</th>
<th>CWTS/SCOPUS Journal Indicators websites</th>
<th>Google Scholar with Publish or Perish</th>
<th>Journal Citation Reports</th>
<th>Eigen factor</th>
<th>Scimago</th>
<th>Essential Science Indicators</th>
<th>Researcher ID</th>
<th>InCites</th>
<th>Science Watch</th>
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<td>Article analysis</td>
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<td>Author analysis</td>
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<td>Journal analysis</td>
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<td>Journal Ranking</td>
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<td>Institution Ranking</td>
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<td>Country Ranking</td>
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<td>Citing pattern analysis in field</td>
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<td>See top people, places, trends</td>
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<td>Acquire a single perpetual ID</td>
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</tbody>
</table>
CV Examples

IMPACT OF PAPERS

Citation Count: 1519 (May 2010, Web of Science, JC Culham and J Culham)
h-index: 17 (17 papers with > 17 citations)

Highlighted work:
  Gallivan et al. (2009), Journal of Neuroscience
  Gallivan received a CIHR Brain Star Award for this work
  Steeves et al. (2005), Neuropsychologia
  “Must Read” on Faculty of 1000, http://www.facultyof1000.com/article/16125741

HIGHLIGHTS:

• h-index: 40, g-index: 84 (April 2010)
• IEEE Fellow (2010)
• Repeatedly ranked among the five best researchers worldwide in computer systems engineering by the Journal of Systems and Software (Elsevier) and Communications of the ACM
• Former Canada Research Chair (Tier I)
• Substantial track record in setting up and managing research projects with industry.
Publications

Summary: Since 2004 I have published 21 peer-reviewed journal articles (18 as first/corresponding author) and 3 book chapters. I have an h-index of 6 as calculated using Web of Science or 7 as calculated using Google Scholar. The following lists ISI Impact Factors and citations according to Google Scholar.

Peer-Reviewed Journal Articles (published or accepted for publication):

Mesoudi, A. (in press). How cultural evolutionary theory can inform social psychology, and vice versa. Psychological Review. [Impact Factor 11.77]

[Impact Factor 4.50; 102 citations]

- Journal title: *Evolution* Impact factor = 4.50 (JCR)
- No. of citations per article = 102 (in Google Scholar)
Issues

In this short video, Prof John Walsh from the School of Geological Sciences at University College Dublin discusses some of the limitations that they have encountered in using Bibliometrics in their field.
Issues

• Outputs
  – Key data sources for many disciplines not included
  • Monographs, conference papers, etc.

“…We publish in books & monographs and in peer-reviewed journals. However, we have a range of real requirements that include official reporting to state agencies and authorities; public archaeology and communication in regional and local journals and in interdisciplinary publication across several journals, that most bibliometrics are incapable of measuring”

UCD Academic
Issues

- **Disciplines**
  - Therefore some disciplines poorly served
    - Humanities, applied technologies/engineering, computer science...

- **Geographical spread**
  - U.S. orientation in ISI
  - Ireland poorly included: 19/17,000 in Scopus; 22/10,000 in ISI
  - LOTE poorly included even in GS

- **Measuring value**
  - High no. of citations doesn’t necessarily mean high value
  - How do we capture value for outputs that are not picked up by the standard tools?

- **Measuring use**
  - Use hinges on publication and citation counts
  - How can other use (e.g. downloads) be measured in a way that feeds into value?
Issues

• Manipulation
  – Self-citation
  – Multiple authorship: citing each other
  – Splitting outputs into many articles
  – Editorial policies
    • Journals may publish a larger % of review articles which are generally cited more than research reports
    • Journal editors may suggest to authors that they should refer to papers published previously in that journal

• Standardisation
  – Lack of name authority
    • Institutions
    • Personal
Not everything that counts can be counted, and not everything that can be counted counts

"Not everything that counts can be counted, and not everything that can be counted counts." - From a sign hanging in Albert Einstein’s office at Princeton.
What You Can Do

• Use a precise name and stick to it e.g. John J. Walsh, not John Walsh and/or J. Walsh
  – Names with diacritics e.g. Grunewald/Gruenewald and Raedler/Radler
  – Names with punctuation e.g. O’Reilly = O Reilly or Oreilly

• Send corrections to ISI and Scopus:
  – http://science.thomsonreuters.com/techsupport/datachange/
  – http://www.scopusfeedback.com/

• Actively manage your lists of publications

• Use all ways to increase exposure to your publications, e.g.:
  UCD’s Institutional Repository http://irservier.ucd.ie/dspace/
UCD’s Institutional Repository…
Increase Your Visibility

**Why should I deposit my research in an Open Access institutional repository?**

Research indicates that making your research open access can significantly increase your chances of being cited.

Your research becomes universally accessible on the Internet and searchable through Google.

More than 300 publishers already allow you to deposit the peer-reviewed final draft of your publications into the institutional repository.

Many major funding organisations require that funded research be made available through open access. See our mandates page for more details.
UCD’s Institutional Repository.... Increase Your Visibility

- **Research Online@UCD**, UCD's Open Access Institutional Repository, is a Library service that allows you to put your research online.

- **Download** and **View** statistics at individual, collection and School level.

- Putting your research online can greatly increase your citation rate.
Top 5 papers downloaded, May 2010 – Sept. 2011 (current total)

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<th>Title</th>
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<tr>
<td>523.0</td>
<td>Infrastructure management information system framework requirements for disasters</td>
</tr>
<tr>
<td>472.0</td>
<td>The use of vehicle acceleration measurements to estimate road roughness</td>
</tr>
<tr>
<td>403.0</td>
<td>Biochemical attack on concrete in wastewater applications: a state of the art review</td>
</tr>
<tr>
<td>353.0</td>
<td>Micro vs. macro models for predicting building damage underground movements</td>
</tr>
<tr>
<td>311.0</td>
<td>Predicted tunnel-induced settlement and damage to Finslers church with respect to freefield and constructed side considerations</td>
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The highest downloaded item:

<table>
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<tr>
<th>Origin</th>
<th>Downloads</th>
<th>Perc.(%)</th>
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<tbody>
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<td>Ireland</td>
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<tr>
<td>Philippines</td>
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</table>

Infrastructure management information system framework requirements for disasters

http://hdl.handle.net/10197/2377
More Information and Assistance

- www.ndlr.ie/myri
  - Online tutorial
  - Worksheets
  - Videos
  - Posters

- Julia Barrett,
  - UCD Library,
    julia.barrett@ucd.ie