

REUTERS/Kevin Coombs

# **Journal Citation Reports**

Amy Braden Customer Education Product Specialist



## Introduction

- JCR distills citation trend data for over 10,000 journals from more than 25 million cited references indexed every year
- Science Edition and Social Science Edition released annually (summer)
- No Arts and Humanities edition
- All journals in JCR appear in Web of Science



## Uses of the JCR

What do librarians, researchers, and publishers do with the JCR?

- Discover highest-impact journals
- Develop and manage journal collections
- Compare a custom selection of journals
- Find related journals
- Identify review journals
- View citation information for subject categories



### **JCR Metrics**

- Impact Factor
- Five year Impact Factor
- Impact factor controlled for self citations
- Immediacy Index
- Rank in Category
- Cited/Citing Half-Life
- Eigenfactor™ Metrics
  - Eigenfactor™ Score
  - Article Influence http://eigenfactor.org/



# Using the JCR Wisely

- Indicates factors that affect JCR data
- Highlights conditions that may affect journals' ranking and impact factor

#### Journal Citation Reports

#### Using Journal Citation Reports Wisely

You should not depend solely on citation data in your journal evaluations. Citation data are not meant to replace informed peer review. Careful attention should be paid to the many conditions that can influence citation rates such as language, journal history and format, publication schedule, and subject specialty.

The number of articles given for journals listed in JCR include primarily original research and review articles. Editorials, letters, news items, and meeting abstracts are usually not included in article counts because they are not generally cited. Journals published in non-English languages or using non-Roman alphabets may be less accessible to researchers worldwide, which can influence their citation patterns. This should be taken into account in any comparative journal citation analysis.

You should also consider the following four conditions, which may affect journal's ranking and Impact Factor.



## **Notices File**

- Link from the JCR home screen
- Provides updates on data or interface changes
- Click button from home page, or visit:
  - http://admin-apps.webofknowledge.com/JCR/static\_html/notices/notices.htm

NOTICES



## **Impact Factor**

### Journal Impact Factor ①

Cites in 2012 to items published in: 2011 = 642 Number of items published in: 2011 = 139

2010 = 624 2010 = 154 Sum: 1266 Sum: 293

Calculation: Cites to recent items 1266 = 4.321

Number of recent items 1200 = 4.321

### Thomson Reuters calculates the impact factor by:

dividing the number of citations in 2012 to articles published in previous two years (2010-2011) by the total number of articles published in the previous two years (2010-2011).



## Five-Year Impact Factor

### 5-Year Journal Impact Factor 🛈

Calculation: Cites to recent items 3258 = 4.022

Number of recent items 810

Calculated similarly to the traditional Impact Factor: the number of citations in 2012 to articles published in previous five years (2007-2011) by the total number of articles published in the previous two years (2007-2011).



## **Journal Self-Cites**

#### Journal Self Cites 10

The tables show the contribution of the journal's self cites to its impact factor. This information is also represented in the cited journal graph.

Total Cites	6602
Cites to Years Used in Impact Factor Calculation	1133
Impact Factor	5.395

Self Cites	326 (4% of 6602)				
Self Cites to Years Used in Impact Factor Calculation	47 (4% of	1133)			
Impact Factor without Self Cites	5.171				

This table provides the ability to easily compare selfcitation rates among journals. The Impact Factor (2year) is recalculated to exclude self-cites. The selfcitation percentage is also included.



# Immediacy Index

### 5-Year Journal Impact Factor U

Cites in {2012} to items published in: 2011 =642 Number of ita

2009 = 528

2007 = 653

Sum: 3258

810

Calculation: Cites to recent items

Number of recent items

Calculated by dividing the number of citations to articles published in a year (2012) by the total number of articles published in that year (2012).

810

2010 = 6242010 2009 2008 2008 = 8112007 Sum!

Tells you how often articles published in a journal are cited during their year of publication

3258 **=4.022** 

This can be an indication of how "hot" a journal is



### Cited Half Life

#### Journal Cited Half-Life 1

The cited half-life for the journal is the median age of its items cited in the current Cited Half-Life: 6.7 years

Half of the citations received in 2008 were to articles published in 2002/2003 or later

Breakdown of the citations to the journal by the cumulative parcent of 2008 cites to items published in the following years:

Cited Year	2008	2007	2006	2005	2004	F	2003	2002	2	001	2000	1999	1998-all
# Cites from 2008	141	559	574	786	4.80	0	367	670		477	473	566	1559
Cumulative %	2.14	10.60	19.30	31.20	37.7		43.27	53.42	6	0.65	67.81	76.39	100

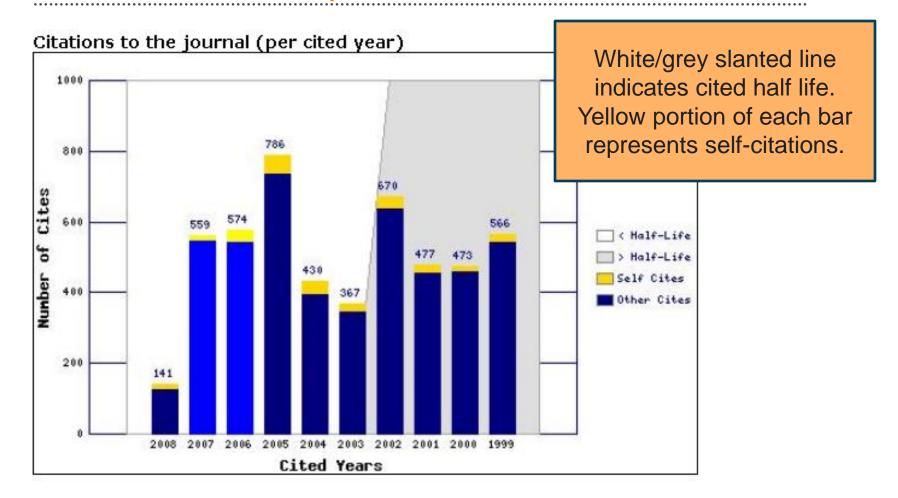
#### Cited Half-Life Calculations:

The cited half-life calculation finds the number of publication years from the current JCR year that account for 50% of citations (

- Median age of the articles published in this journal that were cited in 2008



# Cited Journal Graph





# Citing Half Life

### Journal Citing Half-Life

The citing half-life for the journal is the median age of the items the journ half-life.

Citing Half-Life: 7.4 years

Over half of the articles *cited by* the selected journal were published in 2001/2002 or later.

Breakdown of the citations from the journal by the cumulative percent of 2898 cites to items published in the following years:

Cited Year	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998-all
# Cites from 2008	25	160	521	631	618	595	532	530	439	440	2120
Cumulative %	0.38	2.80	10.68	20.22	29.57	38.58	46.63	54.64	61.28	67.94	100

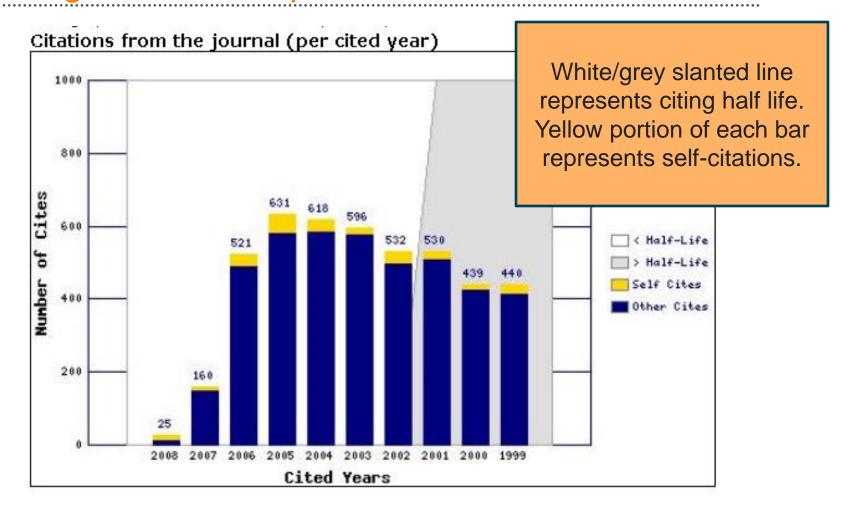
#### Citing Half-Life Calculations:

The citing half-life calculation finds the number of publication years from the current JCR year that account for 50% of citations calculation.

- Median age of articles cited by the selected journal in its article references



# Citing Journal Graph





## Source Data

Review articles are often more highly cited than original research article: consider a journal's source data by document type.

### Journal Source Data

	(			
	Articles	Reviews'	Combined	Other items
Number in JCR year 2012 (A)	117	25	142	8
Number of references (B)	4824	2042	6866	66.00
Ratio (B/A)	41.2	81.7	48.4	8.2

Tallies the number of original research and review articles published in the current year (2012)

Also tallies the number of references published by the selected journal in the current year

Other Items = document types not included in the number of citable items published by this journal (e.g. letters, news items, editorials, etc)



# Eigenfactor<sup>™</sup> Metrics: Eigenfactor<sup>™</sup> and Article Influence<sup>™</sup>

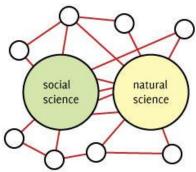
- Complement Impact Factor and other JCR metrics by providing a broader perspective on journal influence through specific measures now widely accepted by the scholarly community.
- Metrics developed through The Eigenfactor Project<sup>™</sup>, a non-commercial academic research project sponsored by the Bergstrom lab in the Department of Biology at the University of Washington.
   www.eigenfactor.org

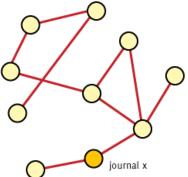
		Abbreviated Journal Title	ISSN			JCF		Eigenfactor <sup>TM</sup> Metrics <sup>®</sup>			
Mark	Mark Rank				Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half- life		Article Influence <sup>TM</sup> Score
	1	EARTH PLANET SC LETT	0012- 821X	26488	3.873	4.445	0.563	503	8.3	0.12507	2.422
П	2	GEOCHIM COSMOCHIM AC	0016- 7037	32873	3.665	4.419	0.719	395	>10.0	0.08079	1.939
	3	CHEM GEOL	0009- 2541	12562	3.231	4.146	0.500	254	8.5	0.04291	1.768
	4	GEOPHYS J INT	0956- 540X	10960	2.112	2.370	0.438	402	9.5	0.04057	1.179
	5	GEOCHEM GEOPHY GEOSY	1525- 2027	2926	2.354	2.933	0.401	172	4.1	0.03249	1.744



## Eigenfactor™ Score

- Defined as the percentage of the total weighted citations that a journal receives from all source journals within the JCR.
- Algorithm uses the structure of the entire network to evaluate the importance of each journal, cutting across all disciplines. Self-citations are excluded.
- Calculations take into consideration a 5-year span of citation activity utilizing data from the *Journal Citation Reports*.
- Journals are considered to be influential if they are cited often by other <u>influential</u> journals.
- Corresponds to a model of research in which readers follow chains of citations as they move from journal to journal.







## Article Influence™ Score

- Measures the average influence of individual articles appearing in the same journal.
- Calculated by dividing a journal's Eigenfactor Score by the number of articles in the journal.
- More similar to the Impact Factor than Eigenfactor Score.
- Like Eigenfactor Score, Article Influence Score:
  - Uses the structure of the entire citation network to evaluate the importance of each journal, based on *JCR* data.
  - Does not consider self-citations
- The mean Article Influence Score is 1.00.



## Journal Rank in Category

### Journal Ranking

For 2008, the journal HUMAN BRAIN MAPPING has an Impact Factor of 5.395.

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

Category Name	Total Journals in Category	Journal Rank in Category	_
NEUROIMAGING	12	2	Q1
NEUROSCIENCES	219	30	Q1
RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING	90	4	Q1

The rank in category table displays each category assigned to the journal and the journal's rank in each based on Impact Factor.

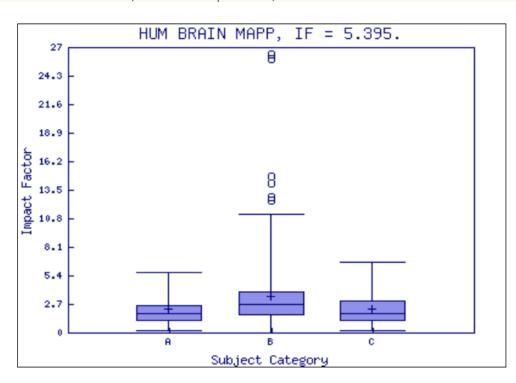


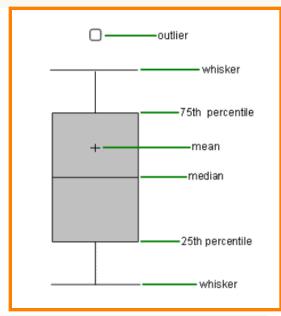
# Journal Rank in Category – Box Plot

#### Category Box Plot 1

For 2008, the journal HUMAN BRAIN MAPPING has an Impact Factor of 5.395.

This is a box plot of the subject category or categories to which the journal has been assigned. It provides information about the distribution of journals based on Impact Factor values. It shows median, 25th and 75th percentiles, and the extreme values of the distribution.



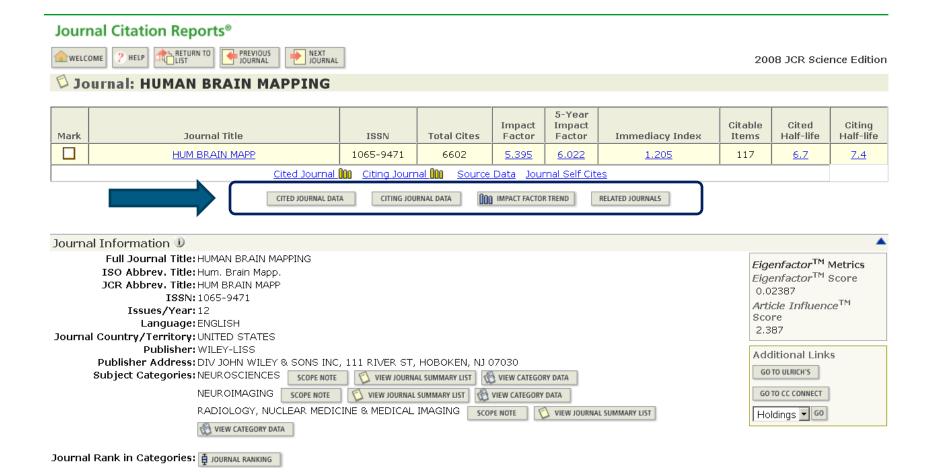


#### Key

- A NEUROIMAGING
- B NEUROSCIENCES
- C RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING

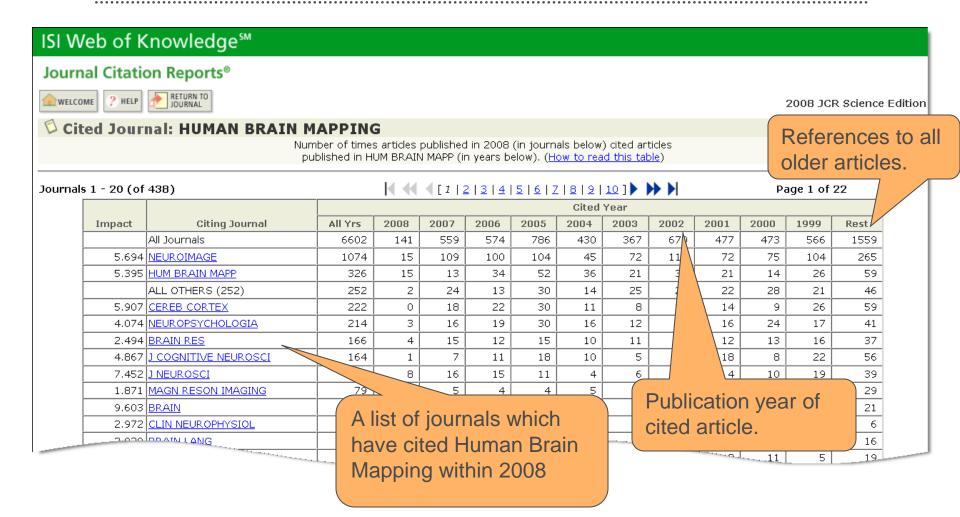


## More data from the Full Record





## Cited Journal Data





# Citing Journal Data



#### Journal Citation Reports®







4.867 J COGNITIVE NEUROSCI

2.972 CLIN NEUROPHYSIOL

4.074 NEUROPSYCHOLOGIA
3.648 J NEUROPHYSIOL

1 AAA NEURARERORT

2008 JCR Science Edition

### Citing Journal: HUMAN BRAIN MAPPING

Number of times articles published in journals below (in years below) were cited in HUM BRAIN MAPP in 2008. (How to read this table)

#### Journals 1 - 20 (of 349)

### [1|2|3|4|5|6|7|8|9|10] **>>> >|**

Page 1 of 18

•			1 1 1 1	1 - 1 -	_ , _ , _ ,	. – . – . –			7 71				
			Cited Year										
Impact	Cited Journal	All Yrs	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	Rest
	All Journals	6612	25	160	521	631	618	596	532	53	0 439	440	2120
5.694	NEUROIMAGE	948	5	37	149	133	141	116	115	5	8 50	56	88
	ALL OTHERS (563)	563	1	11	33	39	38	33	38		<b>Q</b> 24	31	277
5.395	HUM BRAIN MAPP	326	15	13	34	52	36	21	35		14	26	59
9.380	P NATL ACAD SCI USA	228	0	7	17	34	17	26	13		14	8	65
9.603	BRAIN	191	0	2	4	13	7	19	22		14	17	81
7.452	J NEUROSCI	189	0	1	23	25	20	23	16		2	7	52
3.449	MAGN RESON MED	171	0	0	1	9	11	8	_				
5.907	CEREB CORTEX	168	0	13	14	22	12	20		The	public	cation	vear

127

116

112

106

106

A list of journals that Human Brain Mapping has cited in 2008. 24

16

The publication year of the articles being cited

8	13	10	5	43	
12	13	13	9	32	
	· · · · · · · · · · · · · · · · · · ·	4	6	50	



## Impact Factor Trend Graph

#### Journal Citation Reports®



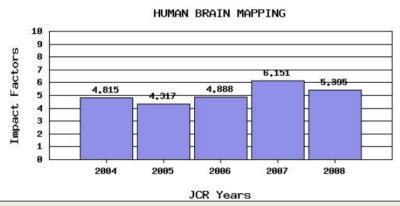




2008 JCR Science Edition

#### 🕽 Impact Factor Trend Graph: HUMAN BRAIN MAPPING

Click on the "Return to Journal" button to view the full journal information.



#### \*Impact Factor -- see below for calculations

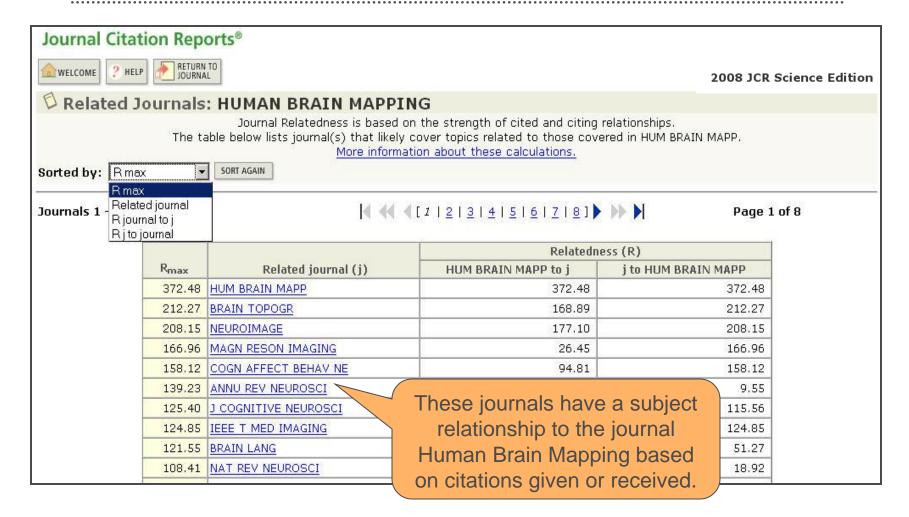
The journal impact factor is a measure of the frequency with which the "average article" in a journal has been cited in a particular year. The impact factor will help you evaluate a journal's relative importance, especially when you compare it to others in the same field. For more bibliometric data and information on this and other journal titles click on the "Return to Journal" button.

NOTE: Title changes and coverage changes may result in no impact factor for one or more years in the above graph.

- Indicates Impact Factor over a period of five years
- Entry point into JCR from Web of Science



### **Related Journals**





## Relatedness: Journal Level

Considers bi-directional citation pairs:

Journal *i* cites Journal *j*AND

Journal *j* cites Journal *i* 

• The specific relatedness calculation we are using was developed by Garfield and Pudovkin (2002). "Algorithmic procedure for finding semantically related journals." JASIST 53: 1113-1119.



# **Category Level Data**

## **Median Impact Factor**

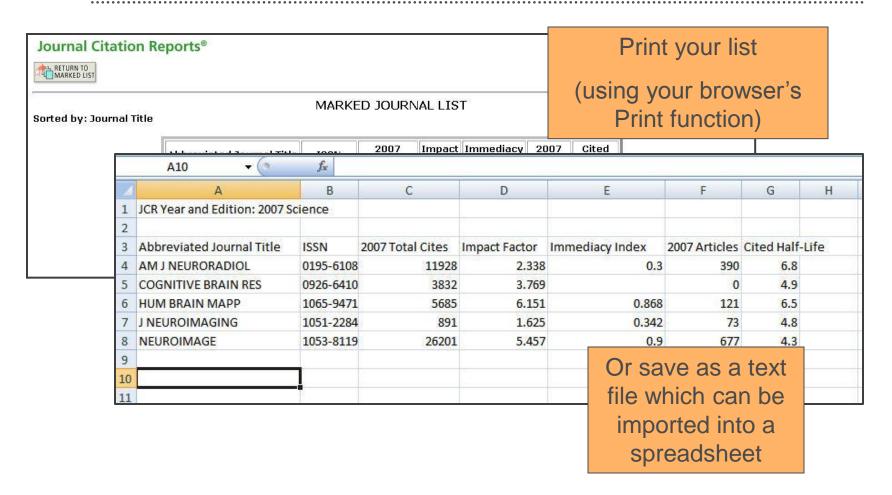
- The Impact Factor mid-point for journals in the category.
- 50% of journals rank above, 50% rank below.

## **Aggregate Impact Factor**

- Citation rate of the "average" article in a subject category
- Use as benchmarking tool to compare a journal to its overall subject category.



## Marked List Output Options





## Want more information?

- Master Journal List
  - http://science.thomsonreuters.com/mjl/
- Essays on citation analysis
  - http://thomsonreuters.com/products\_services/science/free/essays/
- Training Opportunities
  - http://wokinfo.com/training\_support/training/
- Find us on <u>Facebook!</u>

