



Google or not to Google (this is the question)

Oltre Google c'è di più

La ricerca bibliografica in ambito matematico

Trieste, 22 marzo 2018

Marco Chiandoni



DuckDuckGo



Menù del giorno

Antipasti

Esercizi su citazioni bibliografiche, ripasso incontro precedente

Primi

Motori di ricerca, pianeta Google, Bing, DuckDuck

Secondi

Banche dati citazionali a pagamento: Mathscinet, Scopus, Web of Science

TRAINING





- 1 Bland, S. R.: The two dimensional oscillating airfoil in a wind tunnel. *SIAM J. Appl. Math.* 18 (1970), 830-848.
- 2 Fromme, J. A.; Golberg, M. A.: Integral equations for flows in wind tunnels. *J. Integral Equations* 1 (1979), 249-273.
- 3 Fromme, J. A.; Golberg, M. A.: On the L2 convergence collocation for the generalized airfoil equation. *J. Math. Analysis Appl.* 71 (1979), 271-286.
- 4 Garrick, I. E.: Conformal mapping in aerodynamics, with emphasis on the method of successive conjugates. In: *Construction and Application of Conformal Maps*. Nat. Bur. Standards, Appl. Math. Ser. 18 (1952), 137-147.
- 5 Hackbusch, W.: *Integralgleichungen, Theorie und Numerik*. Teubner, Stuttgart 1989.
- 6 Hammerlin, G.: Zur numerischen Integration periodischer Funktionen. *ZAMM* 39 (1959), 80-82.
- 7 Hornberg, A.: *Eine Integralgleichungsmethode für die potentialtheoretische Profilumströmung in einem ebenen Kanal*. Karlsruhe 1988.
- 8 Kral, J.: *Integral operators in potential theory*. Lecture Notes Math. 823; Springer, Berlin 1980.
- 9 Kress, R.: *Linear integral equations*. Appl. Math. Sci. 82; Springer, Berlin 1989.
- 10 Martensen, E.; v. Sengbusch, K.: Über die Randkomponenten ebener harmonischer Vektorfelder. *Arch. Rat. Mech. Analysis* 5 (1960), 46-75.
- 11 Martensen, E.: *Potentialtheorie*. Teubner, Stuttgart 1968.
- 12 Martensen, E.: *Analysis IV*. Spektrum Akademischer Verlag, Berlin 1995.
- 13 Prandtl, L.: *Tragflugeltheorie*. In: *Mitt. Nachr. kaiserl. Ges. Wiss., Math.-Phys. Kl.*; Göttingen 1918, pp. 451-477.
- 14 Hornberg, A.; Ritter, S.: *An Integral Equation Method for the Flow in an Infinite Tunnel* 741
- 15 Walter, W.: *Einführung in die Potentialtheorie*. Bibliographisches Institut, Mannheim 1971.
- 16 Weissinger, J.: *Theorie des Tragflügels bei stationärer Bewegung in reibungslosen inkompressiblen Medien*. In: *Flugge, S. (ed.): Handbuch der Physik, Vol. VIII/2, Stromungsmechanik II*. Springer, Berlin 1963, 385-437.

Addresses: Dr. Alexander Hornberg, Fachhochschule Esslingen, Standort Goppingen, Robert-Bosch-Strae 1, D-73037 Goppingen, Germany; Dr. Stefan Ritter, Universität Karlsruhe (TH), Mathematisches Institut II, Englerstrae 2, D-76128 Karlsruhe, Germany



Google Bing DuckDuckGo

Cosa sono i motori di ricerca

Software che ricerca nel web i termini forniti dall'utente.

Sono strumenti “for profit”

La ricerca è effettuata nei db proprietari.

Ogni motore di ricerca costruisce elenchi di pagine web attraverso i propri “spider”: questi programmi non fanno altro che passare da una pagina all'altra attraverso i link. Più link portano ad un sito, più questo è visibile.

Gli spider visitano continuamente il web (Es.: sito di un quotidiano)



Il business

Profilazione dell'utente sulla base di:

- indirizzo IP origine della ricerca
- localizzazione tramite gps (cellulare)
- termini di ricerca inseriti
- preferenze di locali, luoghi...

Ne derivano pubblicità mirate, sui siti web consultati, mail promozionali ...

<https://goo.gl/images/763sWY>

Ad ogni modo il web “visibile” è circa il 4% del totale... (Dark e deep web 96%)



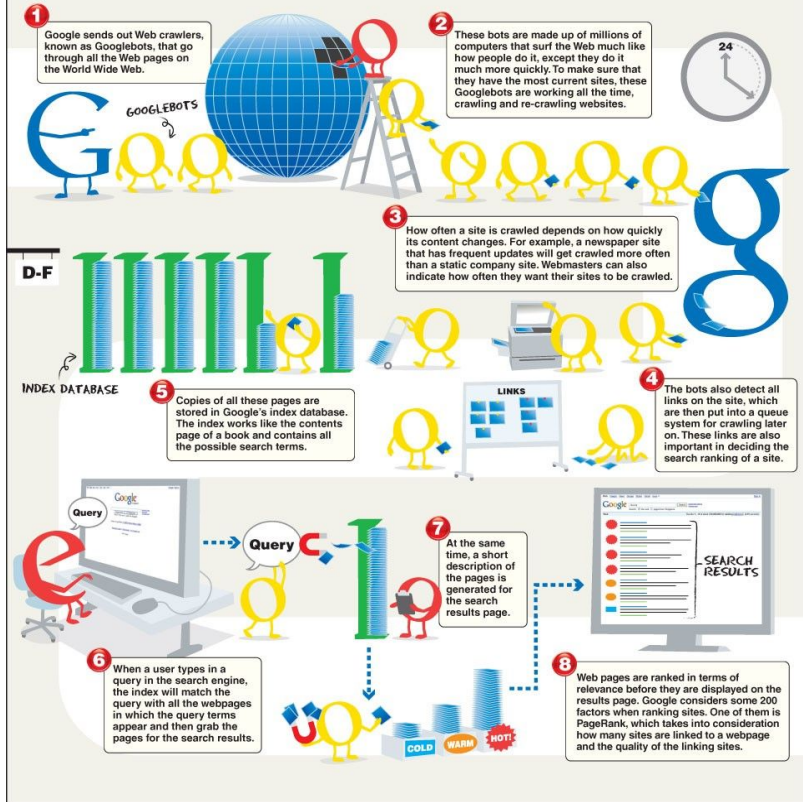
Fitness tracking app Strava gives away location of secret US army bases

<https://www.theguardian.com/world/2018/jan/28/fitness-tracking-app-gives-away-location-of-secret-us-army-bases>



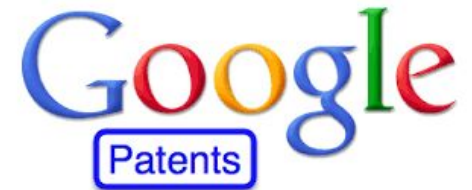
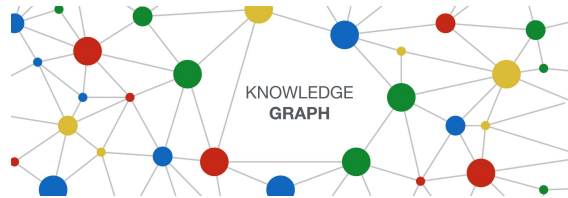
HOW GOOGLE SEARCH WORKS

Have you ever wondered what happens when you type in a query in Google's search field?
Tham Yuen-C and Quek Hong Shin go behind the scenes of the search engine





Pianeta Google





Ricerche mirate in Google

- utile modificare impostazioni di ricerca, cambiando la lingua di ricerca
- interessante cambiare il numero di risultati visualizzabile in prima battuta
- dissertation “group theory” site:edu filetype:pdf
- Number theory site:http://arxiv.org filetype:pdf

Filtri predeterminati: immagini, strumenti per tipo, per anno ecc.

Altri criteri: “-” per escludere una parola es.: cane -gatto e differenza con cane gatto

<https://support.google.com/websearch/?hl=en#topic=3036132>



Google image search

Posso filtrare le immagini per tipo, dimensione, data, diritti di utilizzo,



Google books

Raffinamento per tipo di documento, libro o rivista

Tipo di visualizzazione:

1. anteprima limitata (©)
2. visualizzazione completa (© scaduto, ovvero dopo 70 anni dalla morte dell'autore/autrice)

Ricerca per data, autore, isbn, issn, editore ...



Google scholar - alerts

Ricerca di articoli e brevetti e giurisprudenza

Ricerca avanzata

Alert

Contenuto: “Google Scholar includes journal and conference papers, theses and dissertations, academic books, pre-prints, abstracts, technical reports and other scholarly literature from all broad areas of research. You'll find works from a wide variety of academic publishers, professional societies and university repositories, as well as scholarly articles available anywhere across the web. Google Scholar also includes court opinions and patents.”

Aggiornamento: “We normally add new papers several times a week. However, updates to existing records take 6-9 months to a year or longer, because in order to update our records, we need to first recrawl them from the source website. For many larger websites, the speed at which we can update their records is limited by the crawl rate that they allow.”



Microsoft Academic

MA is a semantic search engine, not a keyword-based one.

Traditional search engines rely mostly on keyword matching. Usually, they match the keywords you type in the search field with words found in the indexed content. The accuracy of the search results depends on the quality of the keywords you type, which puts the responsibility of a successful search on the user.

MA is different because it employs natural language processing to understand and remember the knowledge conveyed in each document. MA then applies a technique known as semantic inference to recognize the user's intent and to proactively deliver results relevant to the user's intention.

As a result, MA can process complex queries and can provide rich and knowledgeable answers.

(<https://academic.microsoft.com/#/faq> - Ultima visita 14 febbraio 2018 - ore 13.05)



Significato delle icone in MA

What do the icons in query suggestions mean?

When an icon appears in the query suggestions, this means MA has identified the words you typed as an entity. Entities are main concepts around which we organize the entire data.

MA operates around 7 main types of entities, each marked by an icon as explained below:

Affiliation – Author affiliation is the institution the author was affiliated with at the time of publishing the paper

Author – Individual author of a publication

Conference series – Name of academic conference

Field of study – Research area, as identified by publisher keywords and MA algorithms

Journal – Name of scholarly journal

Title – Publication title

Year – Year of publication

[MathSciNet](#)[®] is an electronic publication

100,000 new items are added each year, most of them classified according to the [Mathematics Subject Classification](#)

Authors are uniquely identified (by their MR Author ID)

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80,000 reviews are added to the database each year

MathSciNet[®] contains almost 3 million items and over 1.7 million direct links to original articles

Bibliographic data from retrodigitized articles dates back to the early 1800s

Reference lists are collected and matched internally from approximately 550 journals

TRAINING



[MR3365794](#) [Choi, Woocheol](#) L_2 and H_p boundedness of strongly singular operators and oscillating operators on Heisenberg groups. [Forum Math.](#) **27** (2015), no. 4, 2177–2216. (Reviewer: Xuehua Chen) [42B20](#)

[MR1578269](#) Stern, M.; Remarque sur les intégrales Eulériennes. (French) [J. Reine Angew. Math.](#) **21** (1840), 377–379.

Cerco nel soggetto “Paraconsistent logics” un articolo pubblicato da Carnielli Walter nel 1988. Di questo autore:

- voglio sapere quando e dove ha presentato la sua tesi di dottorato
- il titolo della dissertazione
- quanti “discendenti” ha
- quando è nato il relatore di Carnielli Walter (puoi utilizzare il knowledge graph di Google)
- qual è l’author -id del relatore e quanti lavori trovo in Mathscinet



Scopus[®]

Aggiornato quotidianamente

Indicizza tutti metadati così come forniti dagli editori

Banca dati scelta per la valutazione della ricerca e a fini di valutazione da parte di

Times Higher Education (THE)

QS World University Rankings

MacLean's

US News

World Report



Selezione delle fonti

[...] Scopus Content Selection and Advisory Board (CSAB), an international group of scientists, researchers and librarians who represent the major scientific disciplines

The CSAB is comprised of 17 Subject Chairs, each representing a specific subject field. The Board works with the Scopus team to understand how Scopus is used, what content is relevant for users and what enhancements should be made [...]



Cosa trovo in Scopus

[...] Serial publications that have an ISSN (International Standard Serial Number) such as journals, book series and some conference series

Non-serial publications that have an ISBN (International Standard Book Number) like one-off book publications or one-off conferences. [...]

Fonte: <https://www.elsevier.com/solutions/scopus/content>

(ultima verifica 6/2/2018 ore 12.11)



Analisi quantitativa record presenti in Scopus

più di 69 milioni di articoli (item), il più antico risale al 1788

1,4 miliardi di citazioni bibliografiche a partire dal 1970

22800 riviste

150 mila libri

5 mila editori

12 mila autori*



Journal selection criteria

[...] To be considered for review, all journal titles should meet all of these minimum criteria:

Peer-reviewed* content and have a publicly available description of the peer review process

*Peer - reviewed : a process by which something proposed (as for research or publication) is evaluated by a group of experts in the appropriate field

(Fonte: <https://www.merriam-webster.com/> ultima visita 7/2/2018 11:37)

Be published on a regular basis and have an International Standard Serial Number (ISSN) as registered with the ISSN International Centre

Have relevant and readable content by an international audience, meaning: have references in Roman script and have English language abstracts and titles

Have a publicly available publication ethics and publication malpractice statement

ScienceDirect

Elsevier's leading platform of peer-reviewed scholarly literature.

Coverage

ScienceDirect hosts over 3,800 journals and more than 37,000 books—over 14 million peer-reviewed publications (and growing) from Elsevier, our imprints and our society partners.

(<https://www.elsevier.com/solutions/sciencedirect> ultima visita 7 febbraio 2018 ore 11.59)



A secondary document is a document that has been extracted from a Scopus document reference list but is not available directly in the Scopus database since it is not indexed by Scopus.

DataSearch = Sharing and using research data can increase in the impact, validity, reproducibility, efficiency, and transparency of scientific research.

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Analyze search results

Show all abstracts Sort on: Cited by (highest)

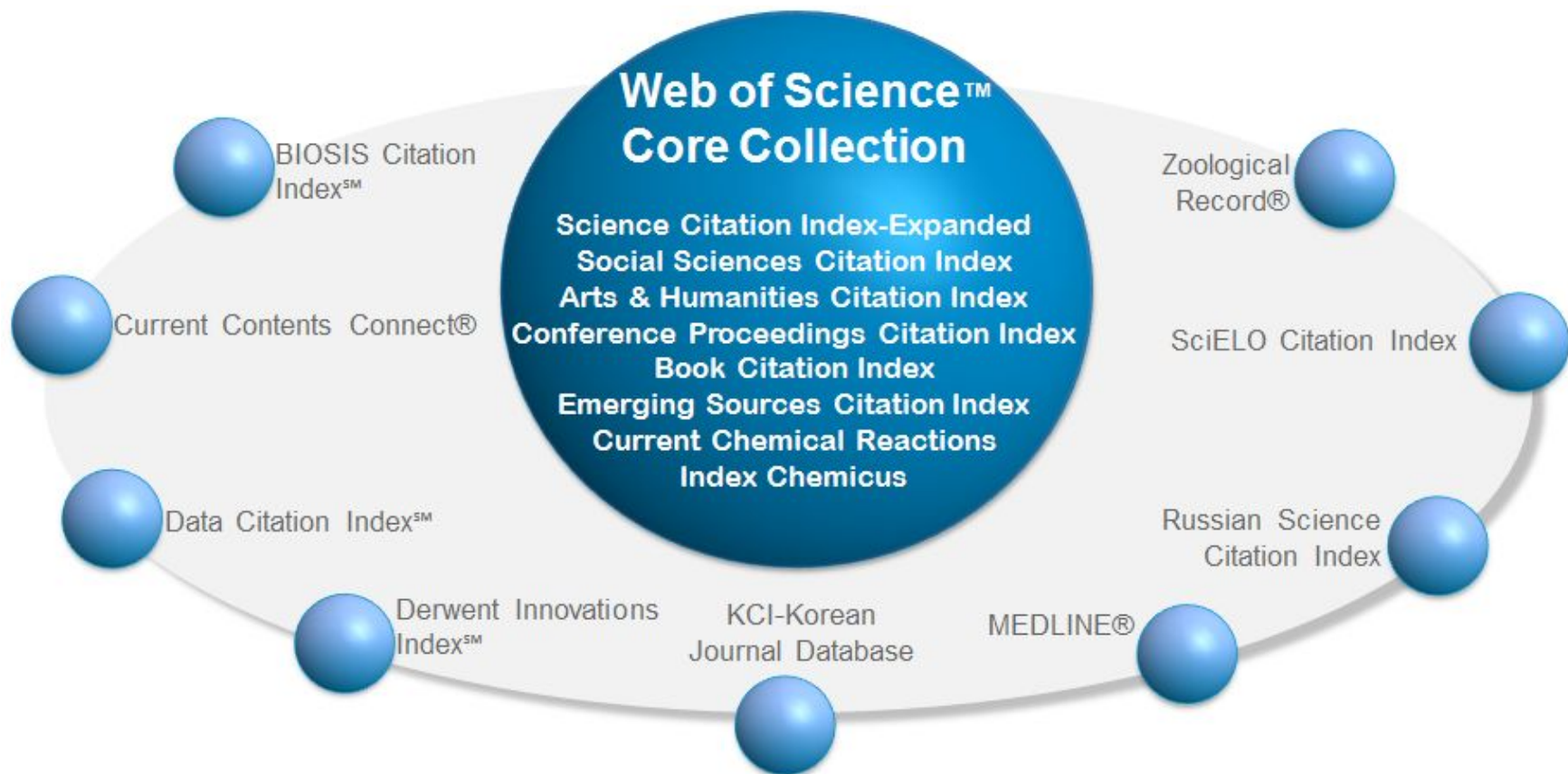
All [Export](#) [Download](#) [View citation overview](#) [View cited by](#) [Add to List](#) [...](#)



	Document title	Authors	Year	Source	Cited by
<input type="checkbox"/> 1	SWISS-MODEL and the Swiss-PdbViewer: An environment for comparative protein modeling	Guex, N., Peitsch, M.C.	1997	Electrophoresis 18(15), pp. 2714-2723	7969

[View abstract](#) [Full Text Finder](#) [View at Publisher](#) [Related documents](#)

<input type="checkbox"/> 2	Induced pluripotent stem cell lines derived from human somatic cells	Yu, J., Vodyanik, M.A., Smutz-Otto, K. ()	2007	Science	6063
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There are currently 12,795 journals fully indexed in the Web of Science™ Core Collection, covering 251 subject categories that span the life sciences, physical sciences, health sciences, social sciences, arts, and humanities.

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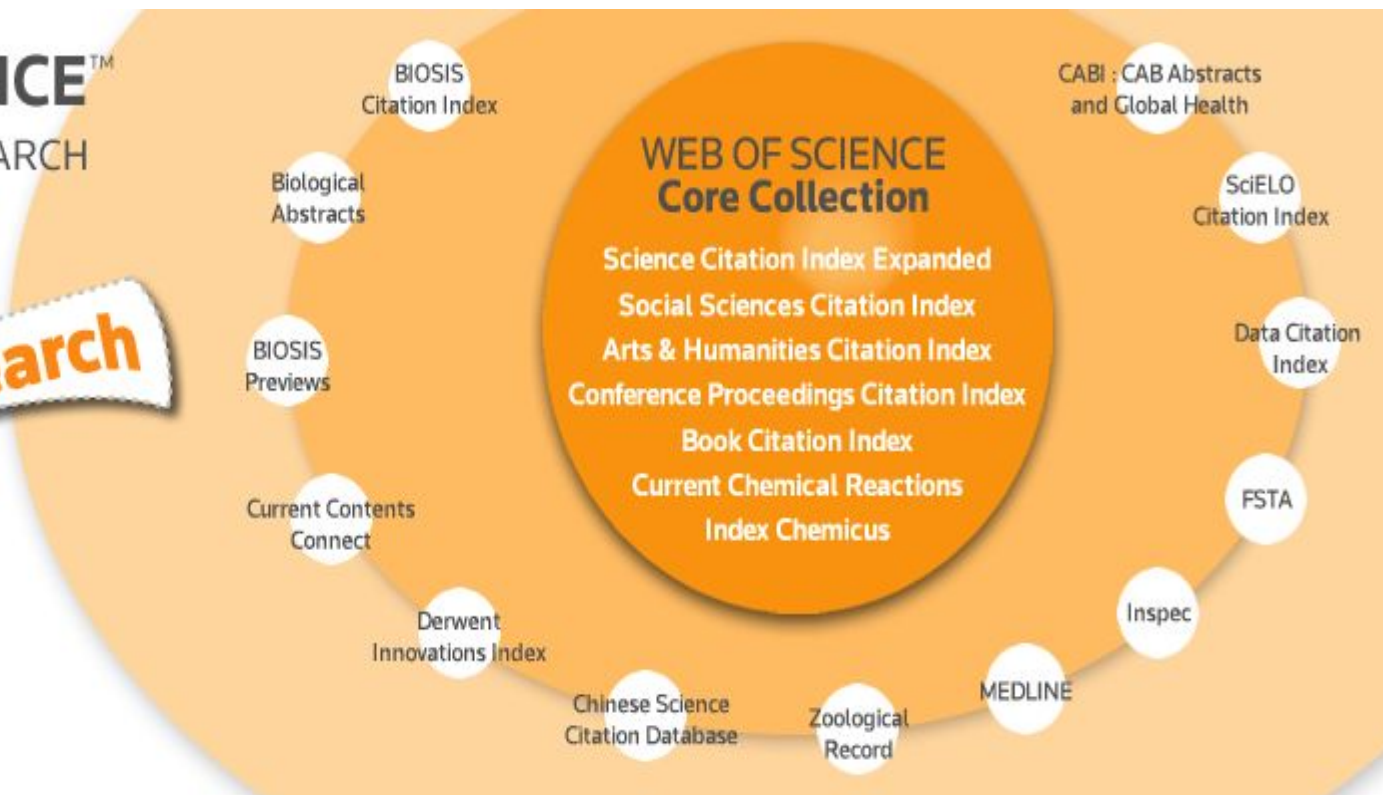


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Impact Factor - Journal citation reports

Impact factor

The **impact factor (IF)** or **journal impact factor (JIF)** of an academic journal is a measure reflecting the yearly average number of citations to recent articles published in that journal. It is frequently used as a proxy for the relative importance of a journal within its field; journals with higher impact factors are often deemed to be more important than those with lower ones. The impact factor was devised by Eugene Garfield, the founder of the Institute for Scientific Information. Impact factors are calculated yearly starting from 1975 for journals listed in the Journal Citation Reports.

(fonte: https://en.wikipedia.org/wiki/Impact_factor - Ultima visita 14 febbraio 2018 ore 12.01)

2017 IF della rivista xy

numero citazioni ricevute nel 2015 e 2016 / numero articoli pubblicati nello stesso periodo

Es.: numero citazione = 74 / numero articoli pubblicati 140

IF = 0,52



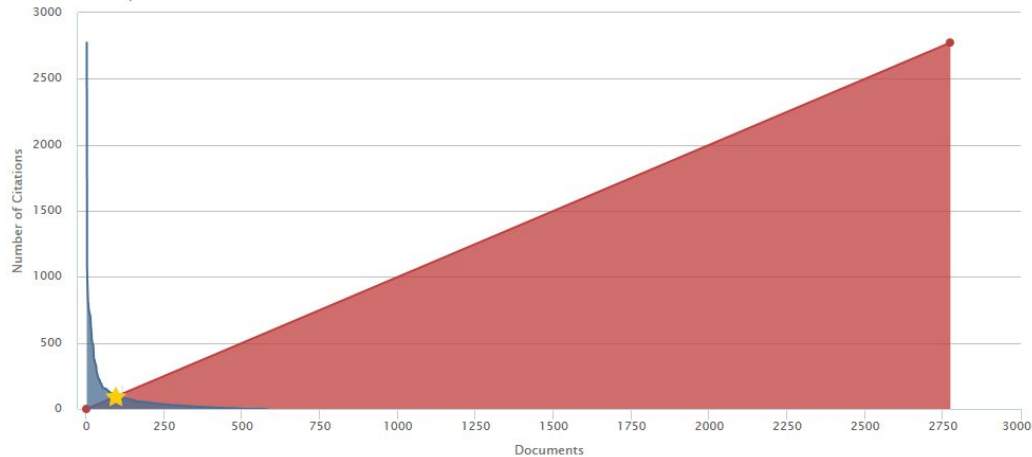
H-index

The h -graph is one way of displaying and comparing the productivity and impact of published work of scholars. The h -index is the method used which was developed by J. E. Hirsch.

The h -index is based on the highest number of papers included that have had at least the same number of citations.

This author's h -index is 97

The h -index is based upon the number of documents and number of citations.



Note: Scopus is in progress of updating pre-1996 cited references going back to 1970. The h -index might increase over time.



Usage – A way to signal if anyone is reading the articles or otherwise using the research. Usage is the number one statistic researchers want to know after citations.



Mentions – Measurement of activities such as news articles or blog posts about research. Mentions is a way to tell that people are truly engaging with the research.



Social media -This category includes the tweets, Facebook likes, etc. that reference the research. Social Media can help measure “buzz” and attention. Social media can also be a good measure of how well a particular piece of research has been promoted.



Citations – This is a category that contains both traditional citation indexes such as Scopus, as well as citations that help indicate societal impact such as Clinical or Policy Citations.



Captures – Indicates that someone wants to come back to the work. Captures can be an leading indicator of future citations.

PlumX Metrics

