



Print version

Research Metrics

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Introduction to research metrics (h-index, Impact Factor, etc)

Introduction

An integral part of the duties of researchers in scientific and research institutions is not only to publish their research results but to report the results for the purpose of evaluating their research. The evaluation process uses mathematical and statistical methods to gain a quantitative evaluation of research results. These methods process data provided by authors about their publications and the citations of their works in the Journal Citation Reports (JCR) and Scopus databases.

In the JCR database, the impact factor and the Article Influence Score (AIS) are the key metrics used by the Research, Development and Innovation Council for their bibliometric analysis since 2017.

Both databases count the Hirsch index, also called the h-index, to evaluate the quality of a given author's publication activity.

Journal Citation Reports	Subject of metrics	Scopus	Subject of metrics
Impact factor	Journal	CiteScore	Journal
Article Influence Score	Article	SNIP	Journal
H-index	Author	SJR	Journal
		h-index	Author

Table 1 An overview of metrics and subjects of their analysis in JCR and Scopus

Impact factor – definition

The impact factor is one of the tools for quantitative evaluation of research results. This factor measures the average number of citations of articles published in a given journal during the previous two years by journals indexed in the JCR database (Fig. 1).

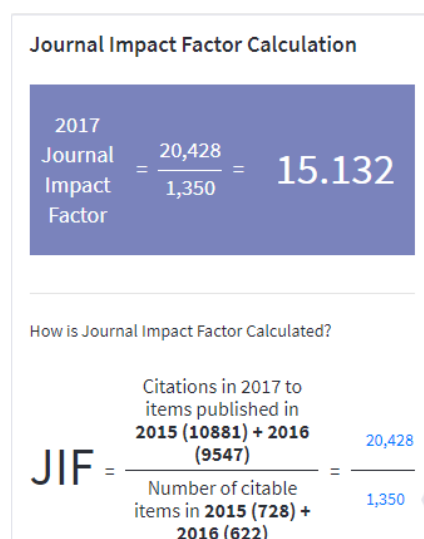


Fig. 1 Impact factor of the journal Blood in 2017 (source: Journal Citation Reports, 2019)

Limitations and Biases of the Impact Factor

- While the impact factor is a time-tested indicator evaluating the quality of journals, it is completely unsuitable for assessing the quality of individual articles or researchers themselves.
- Journals from different fields cannot be compared based on their values of impact factor, because every field has different publication conventions and citation potential.
- The language of the publications may also influence the value of the impact factor. A journal publishing in another language than English is commonly less cited despite the fact that it may be a periodical of high quality.
- The type of documents the journal commonly publishes, e.g. reviews, research articles or case reports, is another variable that affects the value of the impact factor.
- The type of access to full texts also affects the impact factor. Open-access journals have a larger citation potential, because their articles reach a readership more quickly and without any barriers, whether financial or technical.
- A two-year period for calculating the impact factor may be too short, because to prepare publications citing the respective article may take longer in some fields. For that reason a five-year impact factor was added to help the user gain a more precise picture about the journal's citation rate.
- The value of the impact factor is very often influenced by a small number of highly-cited papers in a journal where the majority of articles does not reach the value of the impact factor calculated (see Figures 2 and 3).

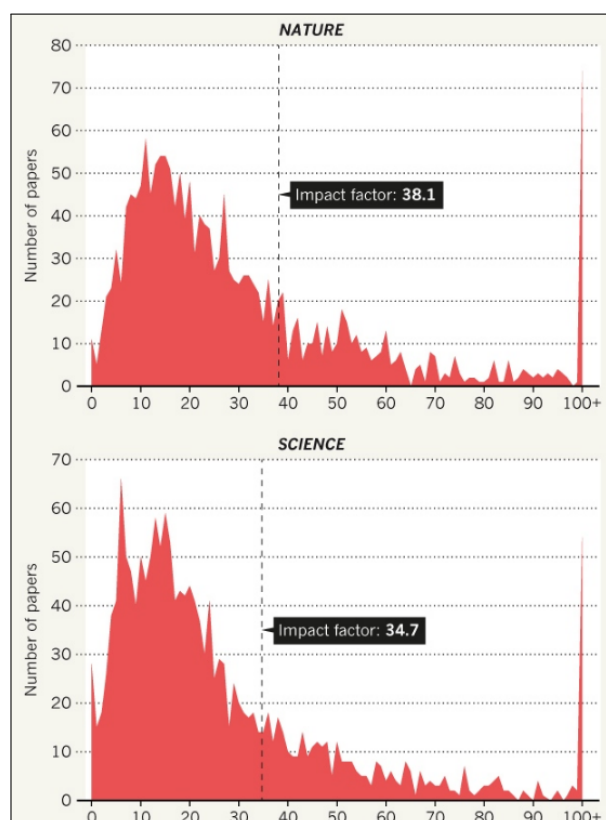


Fig. 2 Distribution of citations with regard to the impact factor value of the journals Nature and Science (source: Callaway, 2016)

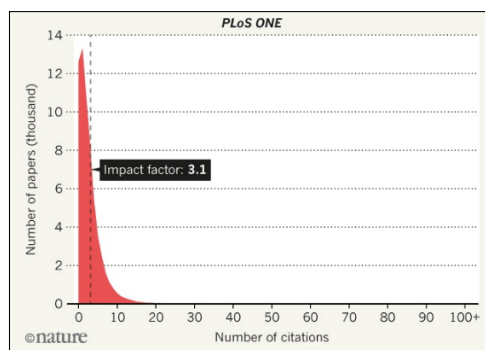


Fig. 3 Distribution of citations with regard to the impact factor value of the journal PLoS (source: Callaway, 2016)

Article Influence Score (AIS)

AIS is a metric which is subject to a bibliometric analysis performed by the Research Development and Innovation Council (RVVI). Compared to impact factor, AIS is a more sophisticated metric, because it calculates the value of the average influence of every article in a journal for a five-year period (roughly similar to five-year impact factor). A score greater than 1 indicates that each article in a specific journal has an above-average influence, while a score smaller than 1 means that articles in a journal have below-average influence. AIS values may be found in the JCR database.

SCImago Journal Rank (SJR)

SJR is a sophisticated metric whose main principle is similar to Google Page Rank (a number assigned by Google to every URL that expresses the credibility and importance of the given website). SJR takes into consideration the importance of citations (i.e. not all citations are equally important). The main principle for calculating SJR is an algorithm that measures how many times the journal was cited by other journals and what importance these individual citations have. The importance of citations is derived from the prestige of the journal from which the citations come. The aim of SJR is to facilitate a relevant comparison of journals' quality from different fields. In the bibliometric analysis carried out by the Research Development and Innovation Council, this metric is a key tool for evaluating research organisations in the Czech Republic.

CiteScore

CiteScore is a metric calculated similar to the impact factor, with the difference that the number of articles and their citations are taken from the previous three years and not two as in the case of the impact factor.

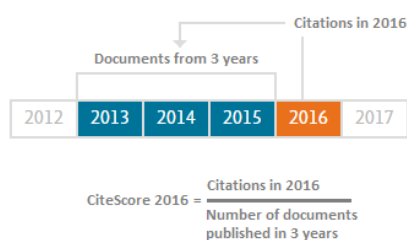


Fig. 4 Calculating CiteScore for a journal for the year 2016 (source: Elsevier, 2019)

Source Normalized Impact per Paper (SNIP)

SNIP is a citation metric designed by the late Henk F. Moed from the Centre for Science and Technology Studies (CTWS) in Leiden in the Netherlands. It expresses the ratio of an average citation of an article in a given journal to the citation potential of the field (the probability that a document will be cited in the given field). The SNIP metric helps authors determine which journals in their field are of high quality. It may also serve a key indicator when deciding where to publish.

SNIP is calculated with a simple formula:

$$\text{SNIP} = \frac{\text{IPP}(\text{journal's impact per publication})}{\text{DCP}(\text{Database Citation Potential})}$$

The IPP is a value computed in a similar way like impact factor, but IPP works with data from the last three years (not just two as in the case of impact factor).

$$\text{IPP}_{2016} = \frac{\text{number of citations in 2016 to articles between 2013-2015 in journal XY}}{\text{number of all articles published between 2013-2015 in journal XY}}$$

The result of IPP provides information on how many times every article published in the XY journal in the years 2013–2015 was cited in 2016.

DCP is an abbreviation for the citation potential of a journal in its respective field. The value of DCP is calculated as the ratio of the citation potential of a journal in the database to the median value of a journal in the same field. Obtaining these details is very demanding, and it must be carried out with the help of computer technology.

$$\text{DCP}_{2016} = \frac{\text{citation potential of journal XY in database}}{\text{median value of journal XY in its field in database}}$$

The median of the journal's field is the median value of citation potential in the respective field.

H-index

The Hirsch index (h-index) was designed by the physicist Jorge E. Hirsch from the University of California. This indicator focuses primarily on the publication activity of individual authors but can also be calculated for a journal. The value of the h-index for a single author can differ in different databases due to differences in their content.

H-index indicates how many articles received a higher number of citations than their order number (publications are in a descending order according to the number of citations they received). H-index equals the order number of the article which received the same or a higher number of citations than its order number in the list – see Fig. 5.

Document title	Authors	Year	Source	Cited by
Evaluation of e-learning course, Information Literacy, for medical students	Kratochvíl, J.	2013	Electronic Library 31(1), pp. 55-69	10
Efficiency of e-learning in an information literacy course for medical students at the Masaryk University	Kratochvíl, J.	2014	Electronic Library 32(3), pp. 322-340	7
Comparison of the Accuracy of Bibliographical References Generated for Medical Citation Styles by EndNote, Mendeley, RefWorks and Zotero	Kratochvíl, J.	2017	Journal of Academic Librarianship 43(1), pp. 57-66	4
Predatory journals: How their publishers operate and how to avoid them [Předtřorské časopisy: Praktiky jejich vydavatelů a jak se jim bránit]	Kratochvíl, J., Plich, L.	2017	Vnitřní Lekarství 63(1), pp. 5-13	1
Compliance with ethical rules for scientific publishing in biomedical open access journals indexed in journal citation reports [Dodržování etických pravidel ve vědeckém publikování v biomedicínských open access časopisech indexovaných v journal citation reports]	Kratochvíl, J., Plich, L., Koritřáková, E.	2019	Vnitřní Lekarství 65(5), pp. 338-347	0

Fig. 5 A sample of computing the h-index with the result of h-index = 8

Reference list

1. Callaway E. Beat it, impact factor! Publishing elite turns against controversial metric. *Nature*. 2016;535(7611):210-211. doi:10.1038/nature.2016.20224. Accessed April 16, 2019.
2. Colledge L, de Moya-Anegón F, Guerrero-Bote V, López-Illescas C, El Aisati M, Moed H. SJR and SNIP: two new journal metrics in Elsevier's Scopus. *Serials: The Journal for the Serials Community*. 2010;23(3):215-221. doi:10.1629/23215. Accessed February 6, 2019.href
3. Grzybowski A. Impact factor - benefits and limitations. *Acta Ophthalmologica*. 2015;93(3):201-202. doi:10.1111/aos.12579. Accessed March 3, 2019.href
4. Kreiner G. The Slavery of the h-index—Measuring the Unmeasurable. *Frontiers in Human Neuroscience*. 2016;10. doi:10.3389/fnhum.2016.00556. Accessed March 20, 2019
5. Kurmis AP. Understanding the limitations of the journal impact factor. *J Bone Joint Surg Am*. 2003;85-A(12):2449-2454. Accessed March 20, 2019.
6. Schreiber M. An empirical investigation of theg-index for 26 physicists in comparison with theh-index, theA-index, and theR-index. *Journal of the American Society for Information Science and Technology*. 2008;59(9):1513-1522. doi:10.1002/asi.20856. Accessed April 11, 2019.
7. Tregoning J. How will you judge me if not by impact factor? *Nature*. 2018;558(7710):345-345. doi:10.1038/d41586-018-05467-5. Accessed April 11, 2019.
8. Van Noorden R. Controversial impact factor gets a heavyweight rival. *Nature*. 2016;540(7633):325-326. doi:10.1038/nature.2016.21131. Accessed March 19, 2019.
9. Vanclay JK. Bias in the journal impact factor. *Scientometrics*. 2009;78(1):3-12. doi:10.1007/s11192-008-1778-4. Accessed February 12, 2019.
10. Description of Scimago Journal Rank Indicator. [object Object]. Published 2007. Accessed March 17, 2019.
11. Clarivate Analytics. The Clarivate Analytics Impact Factor. [object Object]. Accessed February 27, 2019
12. CWTS Journal Indicators - Methodology. <http://www.journalindicators.com/methodology>. Accessed February 6, 2019.
13. How are CiteScore metrics used in Scopus? - Scopus: Access and use Support Center. https://service.elsevier.com/app/answers/detail/a_id/14880/supporthub/scopus/. Accessed March 18, 2019.
14. InCites Help. Journal Impact Factor. <http://help.incites.clarivate.com/inCites2Live/indicatorsGroup/aboutHandbook/usingCitationIndicatorsWisely/jif.html>. Accessed March 3, 2019.
15. InCites Journal Citation Reports Help. Article Influence Score. <http://help.incites.clarivate.com/incitesLiveJCR/glossaryAZgroup/g4/7790-TRS.html>. Accessed April 3, 2019.
16. SNIP. Elsevier. <https://journalinsights.elsevier.com/journals/0301-0104/snip>. Accessed April 16, 2019.

Finding impact factors for journals

1

The screenshot shows the Web of Science homepage. A yellow callout box points to the 'Products' menu, which is open, highlighting 'Journal Citation Reports™'. Below the menu is a search bar with the text 'Search in: Web of Science Core Collection'. The search bar has tabs for 'DOCUMENTS', 'CITED REFERENCES', and 'STRUCTURE'. The search input field contains 'Example: liver disease india singh'. There are buttons for '+ Add row', '+ Add date range', 'Advanced Search', 'Clear', and 'Search'. The footer includes 'Academy of Sciences of the Czech Republic' and 'Clarivate'.

By clicking on Products > **Journal Citation Reports (JCR)**, you can easily access the citation registers from the Web of Science.

2

The screenshot shows the Journal Citation Reports interface. A yellow callout box explains the search process: 'To learn the value of the impact factor, enter the title or ISSN of the journal into the search engine or use the **Browse journals** and **Browse categories** tabs in the header. After you create an account in the JCR (**Register**), you can save the records found and work with them in Custom Reports.' Another yellow callout box points to the search result for 'lancet oncology', stating: 'As you type in the title or ISSN of the journal, the title will appear as a link to show the impact factor and other journal information.' The search result shows 'JOURNAL NAME LANCET ONCOLOGY' and 'ISSN/ISSN 1470-2045 / 1474-5488'. Below the search bar are icons for 'Browse journals', 'Browse categories', and 'Browse publishers'. The footer includes 'Clarivate' and a help icon.

To learn the value of the impact factor, enter the title or ISSN of the journal into the search engine or use the **Browse journals** and **Browse categories** tabs in the header. After you create an account in the JCR (**Register**), you can save the records found and work with them in Custom Reports.

As you type in the title or ISSN of the journal, the title will appear as a link to show the impact factor and other journal information.

3

The journal record includes publisher information, discipline, language and periodicity. You can change the impact factor year above the journal title.

Journal information

EDITION
Science Citation Index Expanded (SCIE)

CATEGORY
ONCOLOGY - SCIE

LANGUAGES
English

REGION
ENGLAND

1ST ELECTRONIC JCR YEAR
2003

Publisher information

PUBLISHER
ELSEVIER SCIENCE INC

ADDRESS
STE 800, 230 PARK AVE, NEW YORK, NY 10169

PUBLICATION FREQUENCY
12 issues/year

4

Journal Impact Factor

The Journal Impact Factor (JIF) is a journal-level metric calculated influence citation rates, such as the volume of publication and citation informed peer review. In the case of academic evaluation for tenur more

Beneath the record, you can see the current impact factor (on the left) and the impact factor without self-citations (on the right). If you click on **View calculation** underneath these two numbers, you can review the formula used to calculate the impact factor value. On the right, you can see a list of the publications whose citations were used to calculate the impact factor.

2020 JOURNAL IMPACT FACTOR
41.316
[View calculation](#)

JOURNAL IMPACT FACTOR
40.837
[View calculation](#)

Journal Impact Factor Trend 2020

Year	Journal Impact Factor	JIF Percentile in Category
2016	~35.0	~65%
2017	~38.0	~70%
2018	~37.0	~68%
2019	~36.0	~65%
2020	41.316	~75%

Citable items (326) **Citing Sources (1,816)**

TITLE	CITATION COUNT
Pembrolizumab in patients with advanced hepatocellular carcinoma previously treated with sorafenib (KEYNOTE-224): a non-randomised,	313
Nivolumab plus ipilimumab or nivolumab alone versus ipilimumab alone in advanced melanoma (CheckMate 067): 4-year outcomes of a	272
Long-term safety and activity of axicabtagene ciloleucel in refractory	263
large B-cell lymphoma (ZUMA-1): a single-arm, multicentre, phase 1-2	~260
Ramucirumab after sorafenib in patients with advanced hepatocellular carcinoma and increased alpha-fetoprotein	232
Tumour-infiltrating lymphocytes and prognosis in different subtypes of breast cancer: a pooled analysis of 3771 patients treated with	218
Atezolizumab in combination with carboplatin plus nab-paclitaxel chemotherapy compared with chemotherapy alone as first-line	169
Combination nivolumab and ipilimumab or nivolumab alone in	155
2 study	146

The chart presented under the impact factor shows the trend in recent years. Click on **View all years** to see the selected journal's impact factor over all the years with available data.

5

Journal Citation Indicator (JCI) Export

7.95

The Journal Citation Indicator (JCI) is the average Category Normalized Citation Impact (CNCI) of citable items (articles & reviews) published by a journal over a recent three year period. The average JCI in a category is 1. Journals with a JCI of 1.5 have 50% more citation impact than the average in that category. It may be used alongside other metrics to help you evaluate journals. [Learn more](#)

JCR Years	JCI Value
2016	~7.5
2017	~7.5
2018	~7.5
2019	~7.5
2020	7.95

Total Citations Export

72,804

The total number of times that a journal has been cited by all journals included in the database in the JCR year. Citations to journals listed in JCR are compiled annually from the JCR years combined database, regardless of which JCR edition lists the journal.

JCR Years	Total Citations
2016	~36,402
2017	~36,402
2018	~36,402
2019	~36,402
2020	72,804

The journal page includes other citation metrics besides the impact factor. The **Journal Citation Indicator (JCI)** is a metric introduced in 2021, which represents the average citation impact of original research articles and review articles over the past three years. The average value is 1, so the value of 7.95 calculated for this journal shows that its articles are cited 7.95 times more frequently than articles published by other journals in the same discipline.

The **Total Citations** section shows the total number of times that a journal has been cited by all journals included in the JCR in the given year.

6

Citation distribution

The Citation Distribution shows the frequency with which items published in the year or two years prior were cited in the JCR data year. It has similar functionality as the JIF Trend graph, including hover-over data descriptions for each data point, and an interactive legend which filters Articles, Reviews, or Non-Citable (other) items to the JIF numerator. [Learn more](#)

ARTICLE CITATION MEDIAN
30

REVIEW CITATION MEDIAN
10

UNLINKED CITATIONS
266

TIMES CITED

ARTICLES: 0

REVIEWS: 3

OTHER: 565

The **Citation Distribution** section shows the journal citations data according to the type of publication (article, review etc.).

7

Rank by Journal Citation Indicator (JCI) Export

Journals within a category are sorted in descending order by Journal Citation Indicator (JCI) resulting in the Category Ranking below. A separate rank is shown for each category in which the journal is listed in JCR. Data for the most recent year is presented at the top of the list, with other years shown in reverse chronological order. [Learn more](#)

CATEGORY: **ONCOLOGY**
2/310

JCR YEAR	JCI RANK	JCI QUANTILE	JCI PERCENTILE
2020	2/310	Q1	99.52
2019	2/308	Q1	99.51
2018	2/302	Q1	99.50
2017	2/290	Q1	99.48

This section is a variation of the one above using **Journal Citation Indicator** values.

8

Citation network

The next section shows the median age of publications in the journal that were cited in the given year (**Cited Half-life**) and the median age of publications cited by the journal in the given year (**Citing Half-life**).

Cited Half-life

5.3 years

The Cited Half-Life is the median age of the items in this journal that were cited in the JCR year. Half of a journal's cited items were published more recently than the cited half-life.

TOTAL NUMBER OF CITES

72,804

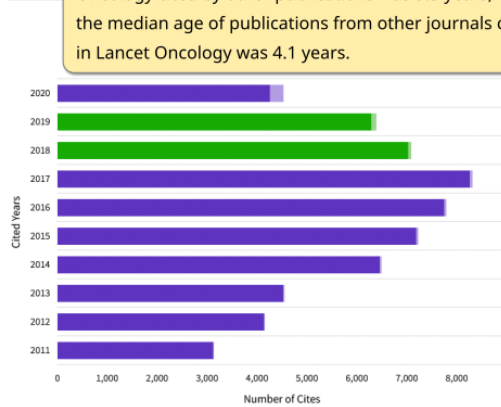
NON SELF-CITATIONS

72,141

SELF-CITATIONS

663

Cited Half-life Data



In this example, the median age of publications in Lancet Oncology cited by other publications was 5.3 years, while the median age of publications from other journals cited in Lancet Oncology was 4.1 years.

- Non-self citations: citations to the journal from the items in other sources
- Citations to items in the journal from items in the same journal
- Citations used to calculate the Impact Factor

Citing Half-life

4.1 years

The Citing Half-Life is the median age of items in other publications cited by this journal in the JCR year.

TOTAL NUMBER OF CITES

7,901

NON SELF-CITATIONS

7,238

SELF-CITATIONS

Citing Half-life Data

CITED YEAR	# OF CITES FROM 2020	CUMULATIVE %	# OF CITING SOURCES
All years	72,804 citations	100.00%	4,310 sources
2020	4,526 citations	6.22%	959 sources
2019	6,385 citations	14.99%	1,271 sources
2018	7,084 citations	24.72%	1,317 sources
2017	8,310 citations	36.13%	1,504 sources
2016	7,786 citations	46.82%	1,467 sources
2015	7,223 citations	56.74%	1,496 sources
2014	6,489 citations	65.65%	1,496 sources
2013	4,544 citations	71.89%	1,265 sources
2012	4,152 citations	77.59%	1,278 sources
2011	3,127 citations	81.89%	1,141 sources
Older	13,178 citations		

9

Content metrics

Source data

This tile shows the breakdown of document types published by the journal. Citable Items are Articles and Reviews. For the purposes of calculating JIF, a JCR year considers the publications of that journal in the two prior years. [Learn more](#)

159 total citable items

	ARTICLES	REVIEWS	COMBINED(C)	OTHER DOCUMENT TYPES(D)	PERCENTAGE
NUMBER IN JCR YEAR 2020 (A)	125	34	159	386	29%
NUMBER OF REFERENCES (B)	3,886	2,399	6,285	1,616	80%
RATIO (B/A)	31.1	70.6	39.5	4.2	

Source data gives an overview of the types of publications in the journal, including the number of citations (references) included in these publications.

Average JIF Percentile

The Average Journal Impact Factor Percentile takes the sum of the JIF Percentile rank for each category under consideration, then calculates the average of those values. [Learn more](#)

ALL CATEGORIES AVERAGE	98.14
EDITION	Science Citation Index Expanded
ONCOLOGY	98.14

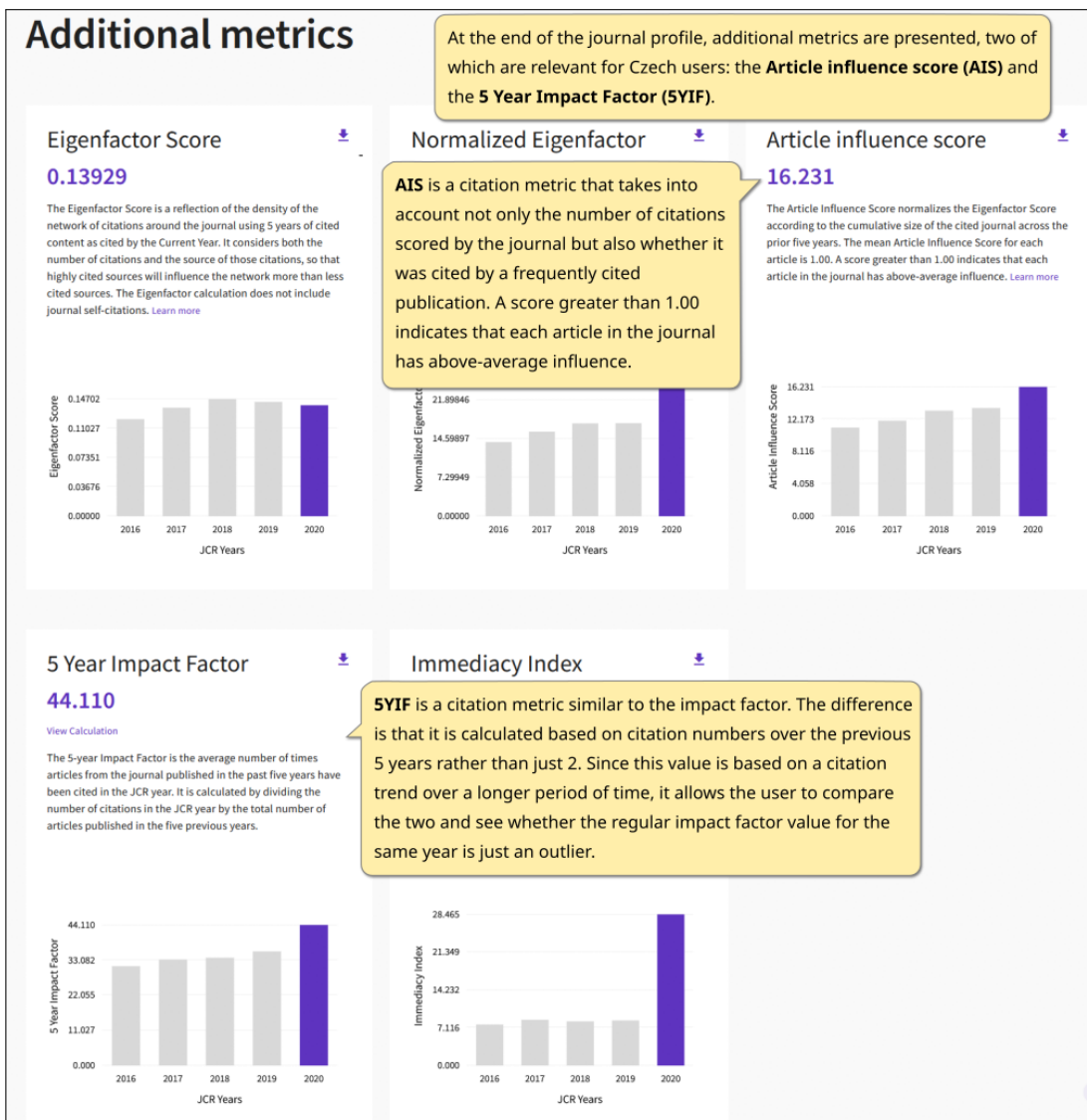
The **Average JIF Percentile (AJIFP)** calculates the average percentile of the journal's impact factor in all the disciplines that it is included in the JCR. The higher the value on a scale of 1 to 100%, the higher the impact factor among the journals in the relevant discipline.

For example, *Cell* has a JIF percentile of 99.49% in biochemistry and molecular biology and 98.72% in cell biology, so its average JIF percentile is 99.10%, since $(99.49\% + 98.72\%)/2 = 99.10\%$.

10



11



12

Journal Citation Reports

Browse journals

There are other ways to look up journals and groups of journals besides searching for a title. The **Browse journals** tab includes a list of all the journals indexed in the JCR that can be filtered down as required.

Click on **Filter** to see the menu of filtering options. For example, the Categories option allows you to limit the list of journals to the selected category.

Indicators: Default Customize

JIF Quartile	2020 JCI	% of OA Gold
Q1	77.64	100.00 %
Q1	7.01	1.40 %
Q1	26.14	0.00 %
Q1	10.86	0.88 %
Q1	20.05	22.81 %
Q1	7.72	4.38 %
Q1	4.06	1.91 %
Q1	8.15	0.32 %

13

Filter

Journals (26,696)

Categories (254)

Publishers (8,113)

Country / region (118)

Citation Indexes

JCR Year

Open Access

JIF Quartile

JIF Range

JCI Range

JIF Percentile

Search categories (Web of Science)

Search

Acoustics

Agricultural Economics & Policy

Agricultural Engineering

Agriculture, Dairy & Animal Science

Agriculture, Multidisciplinary

Agromony

Allergy

Anatomy & Morphology

Andrology

Anesthesiology

Anthropology

Literary Theory & Criticism

Literature

Literature, African, Australian, Canadian

Literature, American

Literature, British Isles

Literature, German, Dutch, Scandinavian

Literature, Romance

Literature, Slavic

Logic

Management

JCR Year

Select the JCR Year for which you would like data to be displayed.

Year: 2020

When selecting a filter, always make sure to select the required year as well.

Once you have selected all filters, click on **Apply**. Click on **Reset** before your next search; otherwise, the system will apply the selections used in your previous search.

Indicators: Default Customize

JIF Quartile	2020 JCI	% of OA Gold
Q1	94.444	1.40 %
Q1	91.253	0.00 %
Q1	84.694	0.88 %
Q1	20.05	22.81 %
Q1	7.72	4.38 %
Q1	66.308	1.91 %
Q1	60.858	0.32 %
Q1	60.716	0.68 %
Q1	60.633	3.95 %
Q1	60.622	13.71 %
	14.38	51.43 %
	11.49	1.31 %
	21.16	88.24 %

14

Journal Citation Reports | Browse journals | Browse categories | Browse publishers

31 journals

You can change the order of the results by clicking on the individual column headers. You can also decide to remove a filter selected in the previous step.

Click on **Customize** to add more data to the results, such as the **5 Year Impact Factor** or the journal's quartile according to the **Article Influence Score**.

Indicators: Default | Customize

ANESTHESIOLOGY | JCR Year: 2018

Journal name	ISSN	eISSN	Category	Total Citations	2018 JIF	JIF Quartile	2018 JCI	% of OA Gold
<input type="checkbox"/> ANESTHESIOLOGY	0003-3022	1528-1175	ANESTHESIOLOGY - SCIE	28,995	6.424	Q1	2.85	0.19 %
<input type="checkbox"/> BRITISH JOURNAL OF ANAESTHESIA	0007-0912	1471-6771	ANESTHESIOLOGY - SCIE	21,180	6.199	Q1	2.33	5.93 %
<input type="checkbox"/> PAIN	0304-3959	1872-6623	ANESTHESIOLOGY - SCIE	38,312	6.029	Q1	1.90	0.74 %
<input type="checkbox"/> ANAESTHESIA	0003-2409	1365-2044	ANESTHESIOLOGY - SCIE	10,389	5.879	Q1	2.07	4.76 %
<input type="checkbox"/> REGIONAL ANESTHESIA AND PAIN MEDICINE	1098-7339	1532-8651	ANESTHESIOLOGY - SCIE	4,948	5.113	Q1	1.96	0.34 %
<input type="checkbox"/> EUROPEAN JOURNAL OF ANAESTHESIOLOGY	0265-0215	1365-2346	ANESTHESIOLOGY - SCIE	4,150	4.140	Q1	1.56	0.00 %
<input type="checkbox"/> JOURNAL OF CLINICAL ANESTHESIA	0952-8180	1873-4529	ANESTHESIOLOGY - SCIE	4,401	3.542	Q1	0.98	2.30 %

15

Filter

- Journals (26,696)
- Categories (254)
- Publishers (8,113)
- Country / region (118)
- Citation Indexes
- JCR Year
- Open Access
- JIF Quartile
- JIF Range
- JCI Range
- JIF Percentile

JCR Year

Select the JCR Year for which you would like data to be displayed.

Year: 2020

When selecting a filter, always make sure to select the required year as well.

Once you have selected all filters, click on **Apply**. Click on **Reset** before your next search; otherwise, the system will apply the selections used in your previous search.

Reset | Apply

Journal name	ISSN	eISSN	Category	Total Citations	2020 JIF	JIF Quartile	2020 JCI	% of OA Gold
<input type="checkbox"/>				477	94.444	Q1	7.01	1.40 %
<input type="checkbox"/>				3,376	91.253	Q1	26.14	0.00 %
<input type="checkbox"/>				993	84.694	Q1	10.86	0.88 %
<input type="checkbox"/>				23		Q1	20.05	22.81 %
<input type="checkbox"/>				75		Q1	7.72	4.38 %
<input type="checkbox"/>				887	66.308	Q1	4.06	1.91 %
<input type="checkbox"/>				166	60.858	Q1	8.15	0.32 %
<input type="checkbox"/>				391	60.716	Q1	7.64	0.68 %
<input type="checkbox"/>				314	60.633	Q1	5.03	3.95 %
<input type="checkbox"/>				417	60.622	Q1	3.56	13.71 %
<input type="checkbox"/>							14.38	51.43 %
<input type="checkbox"/>							11.49	1.31 %
<input type="checkbox"/>							21.16	88.24 %

16

Journal Citation Reports | Browse journals | Browse categories | Browse publishers

31 journals

You can change the order of the results by clicking on the individual column headers. You can also decide to remove a filter selected in the previous step.

Click on **Customize** to add more data to the results, such as the **5 Year Impact Factor** or the journal's quartile according to the **Article Influence Score**.

Indicators: Default | Customize

ANESTHESIOLOGY | JCR Year: 2018

Journal name	ISSN	eISSN	Category	Total Citations	2018 JIF	JIF Quartile	2018 JCI	% of OA Gold
<input type="checkbox"/> ANESTHESIOLOGY	0003-3022	1528-1175	ANESTHESIOLOGY - SCIE	28,995	6.424	Q1	2.85	0.19 %
<input type="checkbox"/> BRITISH JOURNAL OF ANAESTHESIA	0007-0912	1471-6771	ANESTHESIOLOGY - SCIE	21,180	6.199	Q1	2.33	5.93 %
<input type="checkbox"/> PAIN	0304-3959	1872-6623	ANESTHESIOLOGY - SCIE	38,312	6.029	Q1	1.90	0.74 %
<input type="checkbox"/> ANAESTHESIA	0003-2409	1365-2044	ANESTHESIOLOGY - SCIE	10,389	5.879	Q1	2.07	4.76 %
<input type="checkbox"/> REGIONAL ANESTHESIA AND PAIN MEDICINE	1098-7339	1532-8651	ANESTHESIOLOGY - SCIE	4,948	5.113	Q1	1.96	0.34 %
<input type="checkbox"/> EUROPEAN JOURNAL OF ANAESTHESIOLOGY	0265-0215	1365-2346	ANESTHESIOLOGY - SCIE	4,150	4.140	Q1	1.56	0.00 %
<input type="checkbox"/> JOURNAL OF CLINICAL ANESTHESIA	0952-8180	1873-4529	ANESTHESIOLOGY - SCIE	4,401	3.542	Q1	0.98	2.30 %

17

Filter

- Journals (26,696)
- Categories (254)
- Publishers (8,113)
- Country / region (118)
- Citation Indexes
- JCR Year
- Open Access
- JIF Quartile
- JIF Range
- JCI Range
- JIF Percentile

JCR Year
Select the JCR Year for which you would like data to be displayed.
Year: 2020

When selecting a filter, always make sure to select the required year as well.

Once you have selected all filters, click on **Apply**.
Click on **Reset** before your next search; otherwise, the system will apply the selections used in your previous search.

Reset | Apply

Journal name	ISSN	eISSN	Category	Total Citations	2020 JIF	JIF Quartile	2020 JCI	% of OA Gold
<input type="checkbox"/>				477	94.444	Q1	7.01	1.40 %
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Journal Citation Reports | Browse journals | Browse categories | Browse publishers

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<input type="checkbox"/> JOURNAL OF CLINICAL ANESTHESIA	0952-8180	1873-4529	ANESTHESIOLOGY - SCIE	4,401	3.542	Q1	0.98	2.30 %

Filter 2

13 ?

19

Journal Citation Reports | Browse journals | Browse categories | Browse publishers

31 journals

You can change the order of the results by clicking on the individual column headers. You can also decide to remove a filter selected in the previous step.

Click on **Customize** to add more data to the results, such as the **5 Year Impact Factor** or the journal's quartile according to the **Article Influence Score**.

Indicators: Default | Customize

ANESTHESIOLOGY | JCR Year: 2018

Journal name	ISSN	eISSN	Category	Total Citations	2018 JIF	JIF Quartile	2018 JCI	% of OA Gold
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Filter 2

13 ?

Evaluation of Journals in Scopus

1

The screenshot shows the Scopus homepage with a search bar and navigation links. A yellow callout box points to the 'Sources' link in the top navigation bar.

To look for journal citation rates and citation metrics in Scopus, select Sources.

2

The screenshot shows the Scopus Sources page with a list of journals and filter options. A yellow callout box points to the 'Find sources' button and the search filters.

Journals can be searched for by title, ISSN, publisher or field.

You can narrow down your search by selecting the minimum number of citations or documents, by the journal's quartile and by source type.

Source title	CiteScore	Highest percentile	Citations 2017-20	Documents 2017-20	% Cited
1 Ca-A Cancer Journal for Clinicians Find full text for MU(opens in a new window)	463.2	99% 1/340 Oncology	50 948	110	92
2 Nature Reviews Materials Find full text for MU(opens in a new window)	115.7	99%	21 170	183	98
3 Nature Reviews Chemistry Find full text for MU(opens in a new window)	92.9	99% 1/398 General Chemistry	21 027	211	88
4 Nature Reviews Materials Find full text for MU(opens in a new window)	92.9	99% 1/398 General Chemistry	90 053	929	96
5 The Lancet Find full text for MU(opens in a new window)	91.5	99% 1/793 General Medicine	147 190	1 609	78
6 Reviews of Modern Physics Find full text for MU(opens in a new window)	86.5	99% 1/233 General Physics and Astronomy	12 976	150	92
7 New England Journal of Medicine Find full text for MU(opens in a new window)	80.6	99% 2/793 General Medicine	191 265	2 374	83
8 Nature Reviews Cancer Find full text for MU(opens in a new window)	78.3	99% 1/207 Cancer Research	18 800	240	82

3

Sources

Title Enter title

Title: New England Journal Of Medicine x

Improved CiteScore
We have updated the CiteScore methodology to ensure a more robust, stable and comprehensive metric which provides an indication of research impact, earlier. The updated methodology will be applied to the calculation of CiteScore, as well as retroactively for all previous CiteScore years (i.e. 2018, 2017, 2016...). The previous CiteScore values have been removed and are no longer available. [View CiteScore methodology >](#)

You can sort the results by any of the headers including the **CiteScore** metric.

Depending on the purpose of your search – e.g., if you are looking for the metrics for the year the publication was published – you need to select a year. At the time this guide was written, the database went back to 2011.

Download Scopus Source List Learn more about Scopus Source List

View metrics for year: 2020

Source title	CiteScore	Highest percentile	Citations 2017-20	Documents 2017-20	% Cited
1 New England Journal of Medicine Find full text for MU(opens in a new window)	80.6	99%	191 265	2 374	83

Display options: Display only Open Access Journals

Counts for 4-year timeframe: No minimum selected

Minimum citations:

Minimum documents:

CiteScore: highest quartile

4

Sources

Title Enter title

Title: New England Journal Of Medicine x

Improved CiteScore
We have updated the CiteScore methodology to ensure a more robust, stable and comprehensive metric which provides an indication of research impact, earlier. The updated methodology will be applied to the calculation of CiteScore, as well as retroactively for all previous CiteScore years (i.e. 2018, 2017, 2016...). The previous CiteScore values have been removed and are no longer available. [View CiteScore methodology >](#)

Filter refine list:

Display options: Display only Open Access Journals

Counts for 4-year timeframe: No minimum selected

Minimum citations:

Minimum documents:

1 result

Source title	Documents 2017-20	% Cited	SNIP	SJR	Publisher
1 New England Journal of Medicine Find full text for MU(opens in a new window)	2 374	83	14.809	19.889	Massachusetts Medical Society

Click on the arrow on the right to see the remaining SNIP and SJR metrics including publisher information.

Click on title of the journal to see detailed journal information. You can also compare the journal with other journals.

5

Scopus Search Lists Sources Scival Create account Sign in

Source details

New England Journal of Medicine

Scopus coverage years: from 1945 to Present

Publisher: Massachusetts Medical Society

ISSN: 0028-4793 E-ISSN: 1533-4406

Subject area: [Medicine: General Medicine](#)

Source type: Journal

[Source Homepage](#) [Find full text for MU\(opens in a new window\)](#)

Feedback > [Compare sources >](#)

To compare journals, click on **Compare sources**.

SJR 2020: 19.889

SNIP 2020: 14.809

CiteScore CiteScore rank & trend Scopus content coverage

Improved CiteScore methodology
CiteScore 2020 counts the citations received in 2017-2020 to articles, reviews, conference papers, book chapters and data papers published in 2017-2020, and divides this by the number of publications published in 2017-2020. [Learn more >](#)

CiteScore 2020: 80.6 = 191 265 Citations 2017 - 2020

CiteScoreTracker 2021: 109.9 = 260 160 Citations to date

6

Search by title, publisher, ISSN, and/or subject area

Source title

Enter title *
JAMA

E.g., Cell, cancer

limit to
All subject areas

Search

You can search for journals by title, ISSN or publisher and you can narrow down your search by selecting the field in the **All subject areas** drop-down menu.

You can select a citation metric for your search to see its current value ...

12 Search results

CiteScore

Source ↑ CiteScore ↓

... in the search results.

<input checked="" type="checkbox"/>	JAMA - Journal of the American Medical Association	24.8
<input type="checkbox"/>	JAMA Cardiology	22.6

7

Search by title, publisher, ISSN, and/or subject area

Source title

Enter title *
JAMA

E.g., Cell, cancer

limit to
All subject areas

Search

When you select a journal in the search results, ...

CiteScore publication by year

New England Journal of Medicine
CiteScore for 2018 is 73.1

... the database will automatically generate a graph. Hover the mouse pointer over a point on the graph to see the value of the selected citation metric. In this example, the graph shows the comparison of the *New England Journal of Medicine* and *JAMA*.

SJR by year

SNIP by year

Citations by year

You can also see graphs showing other metrics and data under the main graph. Click on them to view them above as the main graph. In this way, you can view the CiteScore, SJR and SNIP metrics as well as the overall publication and citation count, the percentage of review articles and the percentage of articles with no citations.

8

Scopus

Search Lists Sources Scival

Create account Sign in

Compare sources

Return to previous page

Begin comparing sources
To start your comparison, search for sources and select which ones you want to compare.

Select up to 10 sources to compare

Selected sources: JAMA - Journal of the American Medical Association New England Journal of Medicine

Remove all selections

Chart Table

You can compare up to ten journals at a time.

Click on **Table** to see the data presented as a table.

How to find h-index in Web of Science

To determine an author's h-index, you need to know which articles they wrote. The steps in this process are therefore shown using one of the authors of this study material.

1

While you can use the citations of all the documents in the Web of Science to determine someone's h-index, the search is usually limited to the Web of Science Core Collection (WoS), which is normally available to any science and research institution in the Czech Republic.

To calculate the h-index using the WoS, you need to create a list of the author's articles and perform a citation analysis. Select **Author** to the left of the search field and enter the author's surname and the initial of their first name followed by an asterisk. This is because the WoS sometimes only contains the first name initial rather than the full first name.

2

While the search has yielded over 500 publication records, some of these could be authors with the same surname and the initial of the first name (Jan, Jaroslav etc.). If you are absolutely certain about the author's institutional affiliation, you can narrow the list down using the **Affiliation** filter. Regardless, you will need to manually go through all the records and save the relevant ones to a **Marked List** to determine the correct h-index value.

... and click on **Add to Marked List** to save the record to a temporary **Marked List** file.

In this example, the first article by the author we are looking for turned up sixth in the results. Let's select the checkbox ...

3

Web of Science™ Search **Marked List** History Alerts Sign In Register

When all the relevant search results have been saved, go to **Marked List** ...

... and then **Documents**.

type	count
Documents	5
Chem Structures: Reactions	0
Chem Structures: Compounds	0

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4

Web of Science™ Search **Marked List** History Alerts Sign In Register

Marked List

You will see the whole Marked List. To perform a citation analysis of the items on the list, click on **Citation Report**.

5 results in Web of Science Core Collection Analyze Results Citation Report

Refine results Search within list for...

Marked List results Web of Science Core Collection 5

Quick Filters Open Access 4

Publication Years 2021 1, 2020 1, 2017 1, 2014 1, 2013 1

0/5 Remove Export Sort by: Relevance 1 of 1

1 Citation rules through the eyes of biomedical journal editors Kratochvíl, J.; Bohamová, Z.; Štrobilová, M. Apr 2022 | Nov 2021 (Early Access) | LEARNED PUBLISHING 35 (2), pp.185-117 35 References

2 Evaluation of untrustworthy journals: Transition from formal criteria to a complex view Kratochvíl, J.; Pích, J.; Keritásková, E. Jul 2020 | LEARNED PUBLISHING 33 (3), pp.308-322 109 References

5



6

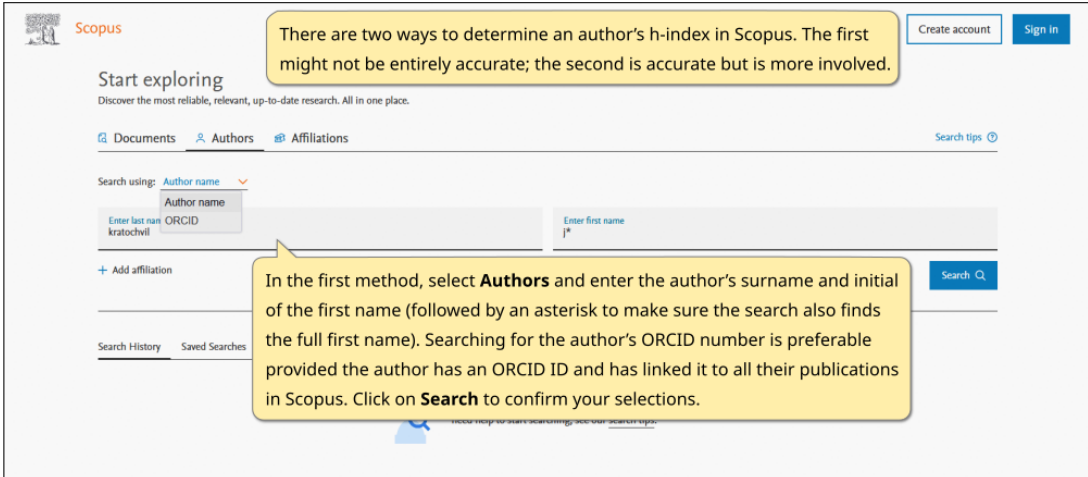
The bottom section of the report lists all the author's publications based on their citations. To check that the h-index of 4 is correct: the fourth article has been cited at least four times, while the fifth article has been cited less than five times.

	Citations		Average per year	Total
	2021	2022		
	9	0	4.75	38
1 Efficiency of e-learning in an information literacy course for medical students at the Masaryk University Kratochvíl, J. 2014 ELECTRONIC LIBRARY 32 (3), pp.322-340	2	2	1.33	12
2 Evaluation of e-learning course, Information Literacy, for medical students Kratochvíl, J. 2013 ELECTRONIC LIBRARY 31 (1), pp.55-69	2	1	1.2	12
3 Comparison of the Accuracy of Bibliographical References Generated for Medical Citation Styles by EndNote, Mendeley, RefWorks and Zotero Kratochvíl, J. 2017 JOURNAL OF ACADEMIC LIBRARIANSHIP 43 (1), pp.57-66	2	2	1.67	10
4 Evaluation of untrustworthy journals: Transition from formal criteria to a complex view Kratochvíl, J., Pích, L., Kořalková, E. 2020 LEARNED PUBLISHING 33 (3), pp.309-322	0	0	1.33	4
5 Citation rules through the eyes of biomedical journal editors Kratochvíl, J., Abrahamová, I., Štokalová, B. 2022 Nov 2021 (Early Access) LEARNED PUBLISHING 35 (2), pp.305-317	0	0	0	0

The process of finding an author's h-index in the Web of Science requires a manual search of records and the creation of a Marked List, which makes it quite involved and lengthy. We recommend creating a **Publons ID** to make it easier. This is a platform that allows authors to save records of their publications from the Web of Science, including the citations, in their profile. The platform is linked to the Web of Science, so the citations are automatically updated. This gives an instant overview of authors' articles' citations in the Web of Science including their current h-index. For more details about Publons, please refer to the separate study material Registering publications on the internet.

How to find h-index in Scopus

1



Scopus

Start exploring
Discover the most reliable, relevant, up-to-date research. All in one place.

Documents Authors Affiliations Search tips

Search using: Author name

Enter last name ORCID kratochvil Enter first name j*

+ Add affiliation Search

Search History Saved Searches

There are two ways to determine an author's h-index in Scopus. The first might not be entirely accurate; the second is accurate but is more involved.

In the first method, select **Authors** and enter the author's surname and initial of the first name (followed by an asterisk to make sure the search also finds the full first name). Searching for the author's ORCID number is preferable provided the author has an ORCID ID and has linked it to all their publications in Scopus. Click on **Search** to confirm your selections.

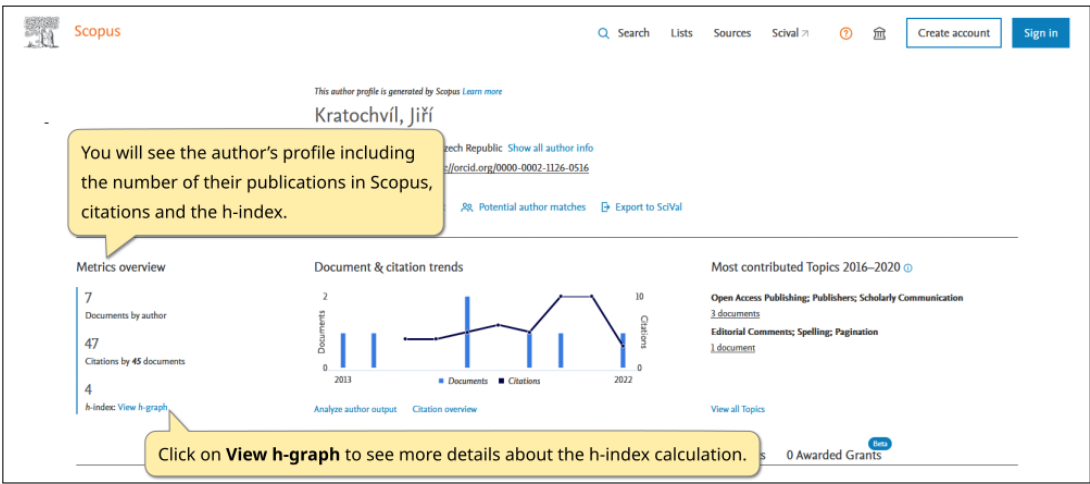
2



The search returns a list of the names of the authors including their affiliations. Find the author you are looking for and click on their name.

<input type="checkbox"/>	17	Kratochvíl, Jiří Kratochvíl, J. Kratochvíl, J.	8	3	Brno University of Technology	Brno	Czech Republic	View last title
<input type="checkbox"/>	18	Kratochvíl, Jiří Kratochvíl, Jiří Kratochvíl, Jiří	7	4	Masarykova Univerzita	Brno	Czech Republic	View last title
<input type="checkbox"/>	19	Kratochvíl, Jan Kratochvíl, J. Kratochvíl, Jan	6	4	Charles University	Prague Praha	Czech Republic	View last title

3



Scopus

Search Lists Sources Scival Create account Sign in

This author profile is generated by Scopus [Learn more](#)

Kratochvíl, Jiří

Czech Republic [Show all author info](#)
<https://orcid.org/0000-0002-1126-0516>

[Potential author matches](#) [Export to ScVal](#)

Metrics overview

- 7 Documents by author
- 47 Citations by 45 documents
- 4 h-index: [View h-graph](#)

Document & citation trends

Analyze author output Citation overview

Most contributed Topics 2016–2020

- Open Access Publishing; Publishers; Scholarly Communication: 3 documents
- Editorial Comments; Spelling; Pagination: 1 document

0 Awarded Grants

You will see the author's profile including the number of their publications in Scopus, citations and the h-index.

Click on **View h-graph** to see more details about the h-index calculation.

4

The detailed overview includes a list of analysed publications as well as a visual chart of the h-index calculation. You can update the calculation by changing the years of publication.

Documents	Citations	Title
1	16	Evaluation of e-learn...
2	12	Comparison of the Ac...
3	10	Efficiency of e-learnin...
4	4	Evaluation of untrust...
5	3	Predatory journals: H...
6	2	Compliance with ethi...

This author's *h*-index: 4

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

This method of finding the h-index metric is accurate provided that the author is actively using their ORCID identifier and has linked it to all their publications in Scopus (please see the steps in the separate document Registering publications on the internet). We highly recommend using the ORCID identifier, which simplifies the search for an author's publications, particularly in the case of any name changes.

5

The second method is similar to determining the h-index in the Web of Science. Search for the author's name and save the relevant results to a temporary file. Click on **Documents** and select **Search within Authors**. Then enter the author's surname and first name (or rather the initial of the first name with a wildcard).

6

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This author's *h*-index: 4

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

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